
APPENDIX S
IMPLEMENTATION, MONITORING
AND EVALUATION

Introduction

This appendix provides an overview of the Colorado River Valley Field Office monitoring and evaluation protocols.

Relationship of Implementation and Monitoring to Adaptive Management

Adaptive management is a structured, iterative process for continuously improving implementation practices based on achieving goals and objectives established in the resource management plan (RMP). Adaptive management is not possible without effective monitoring and evaluation because monitoring data show whether progress is being made toward achieving RMP objectives. If not, implementation practices are adjusted and improved.

Since accrued monitoring data is used to improve future implementation actions, monitoring is continuous and never completed. The cyclic process includes four phases: planning/designing, implementation, monitoring, and evaluation.

Planning

The RMP is a set of decisions that establish management direction for BLM land and federal mineral estate within an administrative area of a Field Office. The Proposed RMP/Final EIS is approved once the Record of Decision is signed.

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

RMP Maintenance. During the life of the RMP, the BLM expects that new information gathered from field inventories and assessments, other agency studies, and other sources will update geographic information system data and best management practices. To the extent that this new information or actions address issues covered in the plan, the BLM will integrate the data through plan maintenance. BLM regulations in 43 CFR 1610.5-4 provide that RMP decisions and supporting actions can be maintained to reflect minor changes in data. Maintenance is limited to further refining, documenting, or clarifying a previously approved decision incorporated in the plan. Maintenance must not expand the scope of resource uses or restrictions or change the terms, conditions, and decisions of the approved RMP.

Plan Implementation

Implementation of the RMP begins once the Record of Decision for the proposed RMP is signed. Decisions made through the RMP planning process are implemented over the life of the plan. Some of the decisions are immediate and go into effect with the Record of Decision. These decisions include resource-specific management prescriptions and lands available for disposal through exchange. Certain decisions would be implemented after site-specific environmental review or NEPA process is completed, such as development of recreation sites, vegetation management treatments, or approval of an application for permit to drill a natural gas well. In addition, specific programs have requirements that must be taken to make certain decisions effective. An example of a land use plan decision that requires an additional action for implementation would be a recommendation to withdraw lands from entry under the mining laws. Formal action requiring Secretarial-

level review and decision making would follow if the BLM planning process results in a withdrawal recommendation and the applicable regulations in 43 CFR 2300 are followed.

Any future proposals or management actions will be reviewed against the RMP to determine if the proposal is in conformance with the RMP. While the Final EIS for the CRVFO RMP provides the compliance with NEPA for the broad-scale decisions that are made in the Record of Decision, it does not replace the requirement to comply with NEPA for most implementation actions.

Implementation and Effectiveness Monitoring

Land-use plan decision monitoring is a continuous process occurring over the life of the RMP. The aim is to maintain a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions on: (1) whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring); (2) whether RMP allowable use and management action decisions and the resultant implementation-level actions are effective in achieving program specific objectives or desired outcomes (effectiveness monitoring); and (3) calculating the cost of delivering a service or product (efficiency monitoring by program elements). Conclusions are then used to make recommendations on whether to continue current management or determine what changes need to be made to implementation practices to better achieve RMP decisions.

Indicators, methods, locations, units of measures, frequency, and action triggers can be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues. Table 1 displays examples of implementation monitoring by program anticipated to be performed by the CRVFO. Based on staffing and funding levels, monitoring is annually prioritized consistent with the goals and objectives of the RMP. BLM may work in cooperation with local, state, and other federal agencies or use data collected by other agencies and sources when appropriate and available.

Table 1 - Implementation Monitoring in the Colorado River Valley Field Office

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
I. Resources						
Air						
Monitor air quality and climatic conditions (program element 1010-MI)	Mechanized rain gauge	Sweetwater, CO. Future sites will be field office wide.	Inches of precipitation	Continuous recording of precipitation. Data is compiled monthly.	Climatic trends and drought conditions.	Directs grazing related changes due to drought conditions.
<p>Conduct reviews of air quality monitoring data and BLM approved activities which could impact air quality.</p> <p>Cooperate with federal, state and local environmental agencies to implement a comprehensive ambient air quality monitoring network. The trigger for action is approaching or an exceedances of the National or Colorado Ambient Air Quality Standards (NAAQS or CAAQS).</p>						
Water						
Monitor water resources (program element 1010-MU)	Physically collected through direct field measurements	Field office wide	Numerous water quality parameters – field collected or laboratory analyzed	As needed in conjunction with LHA follow-up work or site specific project needs.	Changes in water quality or impairments.	
Monitor stream /riparian habitat (program element 1010-MO)	Physically collected through direct field measurement	Field office wide	Miles of stream monitored for physical stream habitat and riparian vegetation parameters.	As needed in conjunction with LHA follow-up work or site specific project needs.	Changes in physical stream habitat condition and riparian functionality.	
<p>Surface and ground water monitoring related to natural gas development – Conduct baseline and post-project surface water quality monitoring in sensitive streams such as drinking water sources or habitat for endangered species.</p> <p>Conduct baseline and post-project groundwater quality monitoring for drinking water wells within ¼ mile of a well bore or in areas determined to be sensitive or at risk of contamination.</p> <p>Cooperate with COGCC in the protection of water resources including water sampling and monitoring protocols for ground and surface water sampling and public water system protection.</p>						
Vegetation						
Trend	BLM approved monitoring methods (Daubenmire, Line-intercept, etc)	Areawide – key areas	Representative sample	Every 6 to10 years	Vegetation change from the baseline or moving away from desired ecological status	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Vegetation Change	Photo plots/points	Areawide - key areas	Representative sample of vegetation type	Every 3 to 10 years	Used in conjunction with other methods to detect both desirable and undesirable changes occurring to vegetation as a result of land uses	
Vegetation Treatments (MQ, MX)	BLM approved monitoring methods (Daubenmire, Line-intercept, Nested Frequency, Photo plots, etc)	All Vegetation Treatments	Species composition, shrub canopy cover, or other applicable measure	Annually for 3-5 years post-treatment.	Vegetation objectives not being met (e.g. increase in noxious weeds, shrub regeneration below desired levels)	If vegetation objectives are not being met, adaptive management will be used to design future vegetation treatments
Precipitation	Weather stations	Upper Colorado River site and others to be determined to provide representative sample of local precipitation patterns	Inches and timing of precipitation	Monthly and annually	Insufficient precipitation for meeting desired vegetation conditions	
Significant Plant Communities	Site visits or remote sensing	At mapped significant plant communities throughout Field Office	Evidence of surface disturbance; evidence of invasive species	Every 2-4 years	Detection of noxious weeds; loss of species or habitat due to surface disturbance.	
Noxious Weed Inventory (BS)	Site visits or remote sensing	Priority areas as described in Chapter 2, Table 2-2	Acres and species of noxious weeds	Continuously	Detection of Colorado Weed List A species and spreading or establishment of List B or C weed species in new areas	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Evaluate Weed Treatments (MK)	Treatment Area Visits – Ocular assessment	Field Office-wide	Acres	Annually	Treatment effectiveness, Follow-up Needs	
Wetland/riparian Condition (BU, BV, MN, MO)	Proper functioning condition (PFC)	Areawide	Stream miles rated PFC, FAR or NF	At permit renewal or as concerns arise with periodic site visits	Ratings below FAR with upward trend	
Riparian Area Condition (MO)	Multiple indicator monitoring (MIM)	Priority stream reaches	Indicators applicable to riparian area being monitored	Frequency depends on site-specific objectives	Change in greenline composition, percent streambank alteration, or other trigger depending on site-specific objectives	
Fisheries and Other Aquatic Wildlife						
Monitor Stream Habitat (Program Element 1120-MO)	Physically collected through direct field measurement.	Field Office-wide	Miles of stream monitored to determine and document habitat condition for stream and river aquatic species given management decisions in place and to determine if objectives are being met.	Some is done each year but frequency by stream varies depending on site specific actions or projects.	Aquatic habitat conditions for desired biological communities not meeting Colorado Land Health Standards, or below potential.	
Species Populations (Program Element 1120-MR)	Physically collected through direct field measurement (BLM or other agency data).	Field Office-wide	Populations monitored to determine if population trends are stable, declining or increasing.	This type of monitoring is done yearly in select locations but varies in frequency by stream depending on site specific actions or projects.	Populations are declining or are below determined carrying capacity	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
BMP and other mitigation or minimization measures monitoring effectiveness	Visual inspection of project sites through field verification.	Field Office-wide	Mitigation or minimization measures to determine effectiveness.	Yearly on a case-by-case basis	Mitigation or minimization measures are not working as intended	Use Adaptive Management by identifying other BMP's to use should initial efforts be found ineffective.
Terrestrial Wildlife						
Terrestrial Habitat (Program Element 1110-MQ)	Physically collected through direct field measurement.	Field Office-wide	Acres monitored to determine if terrestrial habitat treatments have been implemented and implementation objectives are being met.	Yearly	Terrestrial habitat conditions for desired biological communities not meeting Colorado Land Health Standards.	
Species Populations (Program Element 1110-MR)	Physically collected through direct field measurement (BLM or other agency data).	Field Office-wide	Populations monitored to determine if population trends are stable, declining or increasing.	Yearly	Populations are declining	
Special Status Species - Fish and Other Aquatic Wildlife						
Monitor Stream Habitat (Program Element 1120-MO)	Physically collected through direct field measurement.	Field Office-wide	Miles of stream monitored to determine and document habitat condition for stream and river aquatic species given management decisions in place and to determine if objectives are being met.	Some is done each year but frequency by stream varies depending on site specific actions or projects.	Aquatic habitat conditions for desired biological communities not meeting Colorado Land Health Standards, or below potential.	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Species Populations (Program Element 1120-MR)	Physically collected through direct field measurement (BLM or other agency data).	Field Office-wide	Populations monitored to determine if population trends are stable, declining or increasing.	This type of monitoring is done yearly in select locations but varies in frequency by stream depending on site specific actions or projects.	Populations are declining or are below determined carrying capacity	
BMP and other mitigation or minimization measures monitoring effectiveness	Visual inspection of project sites through field verification.	Field Office-wide	Mitigation or minimization measures to determine effectiveness.	Yearly on a case-by-case basis	Mitigation or minimization measures are not working as intended	Use Adaptive Management by identifying other BMP's to use should initial efforts be found ineffective.
Special Status Species - Plants						
Monitor Terrestrial Habitat (MQ)	Ocular assessment of species' habitat parameters	Special Status plant habitats	Acres monitored meeting desired condition	Annually for priority species and habitats; every 3-5 years for other special status species	Presence/ increase in noxious weeds or other invasive species; evidence of human or livestock-caused physical disturbance to habitat; decline in vigor of plant community	
Monitor Species Populations – Colorado hookless cactus (MR)	Physically collected measurements on permanently marked individuals	All known locations for Colorado hookless cactus	Multiple: # live/dead individuals (evidence of recruitment or mortality); plant dimensions; phenology; form (age class)	Annually (as funding allows)	Long-term declining trend in populations accompanied by loss or degradation of habitat	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Monitor Species Populations – Parachute penstemon (MR)	Statistically valid sample of quadrats within macroplot	Anvil Points population (Roan Plateau Planning Area)	Number of live stems; phenology	Annually	Long-term declining trend in populations accompanied by loss or degradation of habitat	
Monitor Species Populations – DeBeque phacelia (MR)	Actual count of number of individuals	Known sites within CRVFO	Number of individuals	Annually in years when germination is evident	Long-term declining trend in populations accompanied by loss or degradation of habitat	
Monitor Species Populations – Ute ladies'-tresses (MR)	Actual count of individuals	Known sites within CRVFO	Number of individuals	Annually	Long-term declining trend in populations accompanied by loss or degradation of habitat	
Monitor Species Populations – BLM sensitive species (MR)	Statistically valid sample of quadrats within macroplot	Representative sample of populations	Number of individuals; phenology	Every 1-5 years	Long-term declining trend in populations accompanied by loss or degradation of habitat	
Special Status Species - Terrestrial Wildlife						
Terrestrial Habitat (Program Element 1150-MQ)	Physically collected through direct field measurement.	Field Office-wide	Acres monitored to determine if terrestrial habitat treatments have been implemented and implementation objectives are being met.	Yearly	Terrestrial habitat conditions for desired biological communities not meeting Colorado Land Health Standards.	
Species Populations (Program Element 1150-MR)	Physically collected through direct field measurement (BLM or other agency data).	Field Office-wide	Populations monitored to determine if population trends are stable, declining or increasing.	Yearly	Populations are declining	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Cultural Resources						
Monitor Non-Sec 106 Cultural Properties (Program Element 1050-MY)	Visually examined through an on-the-ground visit	Previously recorded significant sites within the CRVFO	Number of individual cultural properties visited	Prioritize sensitive sites and monitor periodically every 1-5 years based on perceived threats/impacts	When site conditions change based on previously documented conditions or perceived threats/impacts	
Paleontology						
Significant paleontological resources	Inspection or remote sensing	Field Office-wide	Change over time	Prioritize areas and monitor higher priority areas every 1-3 years and lower priority areas every 2-4 years	When change is causing undue or unnecessary degradation of the site or area	
Monitor Paleontological Localities (Program Element 1050-MY)	Visually examined through an on-the-ground visit	Previously recorded paleontological localities within the CRVFO	Number of individual paleontological localities visited	Prioritize sensitive localities and monitor periodically every 1-5 years based on perceived threats/impacts	When site conditions change based on previously documented conditions or perceived threats/impacts	This program element will be used along with a four-digit "PALE" project code to denote paleontological localities monitored
Visual						
Intrusions	Remote sensing or site visit	Class I and II areas	Impacts of an individual intrusion	Ongoing	Intrusion that exceeds the definition of the classification	
Wildland Fire Management						
Fuel Loading	Visual or fixed photo plot	Field Office-wide	Tons/acre	Set number of years post treatment (Usually year 1, 3, 5 and 10)	Follow up or maintenance treatment to reduce hazard of wildfire	
Fire Danger Indices	Use of system of remote automated weather stations(RAWS)	Rifle, Storm King, Crown, Gypsum, Hangman	Temperature Relative humidity Precipitation Wind	Daily	Fire	These are used to derive fire danger indices such as energy release component and Burning Index. Part of

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
						the fire danger operating plan.
Live Fuels Moisture	Clip, Weigh, Dry in oven	Field Office-wide	% live fuel moisture	Twice a month from Oct through October	Fire danger	Use for making fire management decision such as fire restrictions and requests for severity resources
Lands with Wilderness Characteristics						
Resource Condition	Site visit or remote sensing	Lands with wilderness characteristics area	Amount of degradation or loss of resources	Every 1-5 years	Undue or unnecessary degradation or loss of resources as a result of human or natural causes	Degradation usually occurs through motorized or mechanized use off of designated routes or through litter and dumping in the area.
Cave and Karst Resources						
Resource Condition	Monitoring Reports associated with permit; site visits or remote sensing	Cave or karst area	Damage to cave formations, trash, disturbances seen off trail, amount of degradation or loss of resources	LaSunder Cave monitored every permitted trip (at least once per year if trips occur that year); other cave and karst resources monitored as resources allow.	Undue or unnecessary degradation or loss of resources as a result of human or natural causes, or not meeting LaSunder Cave Management Plan goals and objectives.	
Bat Monitoring	Site visits or remote sensing	Cave or karst area	Populations monitored to determine if population trends are stable, declining or increasing; and what kind of bat use is occurring in the area.	As resources allow with cooperation with Colorado Parks and Wildlife. Goal is to monitor each known cave every 5 years.	Populations are declining or evidence of White Nose Syndrome occurs within a cave or karst area.	

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II. Resource Uses						
Forestry						
Conduct periodic regeneration surveys to monitor for adequacy of regeneration of all reproduction-method-treatment areas. If adequate regeneration is not present or anticipated within 15 years, then artificially regenerate the area.						
Conduct periodic stand examinations and forest inventories to monitor forest stand conditions. Thinning or other timber stand improvement projects may be monitored by periodic re-measurement of permanently marked plots that compare treated plots with untreated control plots. If inadequate stand health is indicated through monitoring or objectives are not being met, then other silvicultural prescriptions will be considered.						
Livestock Grazing						
Monitor Grazing Allotments (Program Element ML)	Various- See Glenwood Springs Resource Monitoring plan, March 2003 (as updated).	Field Office-wide	Grazing allotment	Various-between 1-10 years depending on allotment categorization.	Permit terms and conditions or allotment management plan (AMP) objectives.	
Evaluate Rangeland Health (MJ)	Interdisciplinary evaluation of existing data.	Field Office-wide	Grazing allotment	Various-between 1-10 years depending on allotment categorization.	Land health standards	
Inspect Grazing Allotments for Compliance (NA)	Allotment visits	Field Office-wide	Grazing authorization	Various-between 1-10 years depending on allotment categorization.	Non-compliance	
Evaluate Weed Treatments (MK)	Treatment Area Visits	Field Office-wide	Acres	Annually	Treatment effectiveness, Follow-up needs	
Complete Ecological Site Inventory (BQ)	Inventory and Monitoring Technical Reference 1734-7	Field Office-wide	Acres	As needed	Permit terms and conditions or Allotment Management Plan (AMP) objectives.	
Recreation and Visitor Services						
Undesignated Areas	On-site monitoring	Field Office-wide	Acres	Ongoing	Visitor use, visitor health and safety, use and user conflicts, and resource conditions	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
ERMA	Customer assessments (e.g., focus group interviews or visitor studies) and on-site monitoring	ERMAs	ERMA	Ongoing	Visitor use, visitor health and safety, resource conditions, and the physical qualities of the landscape with the help of recreation-tourism partnerships	
SRMA	Customer assessments (e.g., focus group interviews or visitor studies) and on-site monitoring	SRMAs	SRMA	Every 5 years or as funding allows for customer assessments and ongoing for on-site monitoring.	Monitor outcome attainment and preferences Monitor activity participation and RSCs annually during the primary use season	
Comprehensive Trails and Travel Management						
Routes	Route inspection through on-site inspection	Field Office Wide	Miles	Ongoing	Conditions represent a hazard to visitor safety, resource damage, or causes use and user conflicts.	
Lands and Realty						
Rights-of-way compliance (Program Element NH)	Site inspections	Field Office-wide	Site	Annually	Non-compliance or non-use	
Fluid Minerals (Oil and Gas, Oil Shale, and Geothermal Resources)						
Reclamation Implementation	Site inspections and operator annual reports	Field Office-wide	Site	Within first year following end of site disturbance.	Ground disturbing activities.	
Reclamation Effectiveness	Site inspections and operator annual reports	Field Office-wide	Ocular Estimate of % of cover of native species	Every 2 years, or as needed.	Ground disturbing activities.	
Noxious Weed Treatment Implementation	Site inspections and operator annual reports	Field Office-wide	Site	Annually or as needed	Ground disturbing activities.	

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Noxious Weed Treatment Effectiveness	Site inspections and operator annual reports	Field Office-wide	Presence/Absence of Noxious Weeds	Every 2 years, or as needed.	Ground disturbing activities.	
Special Status Plant Protection implementation	Site inspections	Field Office-wide	Special Status Plant occurrence/Site	Annually or as needed	Ground disturbing activities.	
Special Status Plant Protection Effectiveness	Occurrence monitoring in conjunction with site inspections	Field Office-wide	Special status plant occurrence - # of plants (small occurrences) -estimated # of plants based on density sampling (large occurrences)	Every 2 years, or as needed.	Ground disturbing activities.	
Solid Minerals (Locatable Minerals, Salable Minerals/Mineral Materials, and Non-Energy Leasable Minerals)						
Monitor and maintain AML physical safety closures (program element 1990-LB)	Visual observation	Field Office-wide	Adequacy of closure	Annually or as needed	Maintenance of closures for public safety	
III. Special Designations						
Areas of Critical Environmental Concern						
Resource Condition: (i.e. scenic, cultural, geological, paleontological, ecological, special status plants, caves, bats (as applicable))	Site Inspections or remote sensing	All ACECs	Evidence of surface disturbance; evidence of invasive species; numbers and species of bats.	Every 1 to 5 years	Evidence of human-caused surface disturbance above and beyond baseline; Evidence of illegal collection of paleo or T&E plants; Detection of noxious weeds; Loss of special status plant species or habitat due to	Conduct regular monitoring to ensure protection of the relevant and important values.

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
					disturbance. Bat populations are declining or evidence of White Nose Syndrome.	
Wilderness Study Areas						
Ensure continued suitability for designation as wilderness	Site Visit or remote sensing	WSA area	Compliance with non-impairment standard per Manual 6330.	Once per month during the months the area is accessible by the public.	Violation of the regulations applicable to the use of WSAs, unauthorized impacts.	Unauthorized impacts usually include motorized or mechanized use in the WSA, or litter and dumping.
Wild and Scenic Rivers						
Alteration of water quality or river/stream conditions inconsistent with objectives.	Physically collected through direct field measurement	Colorado River Segment 6 and 7; Deep Creek 2b and 3	Water quality parameters, flow measurements, or habitat condition.	Ongoing	Changes in water quality and quantity	Water quality and quantity
Alteration of landform, vegetation, or river condition inconsistent with visual quality objectives within the viewshed as seen from the river and high-use areas.	Maintain viewshed consistent with VRM objectives.	Colorado River Segment 6 and 7; Deep Creek 2b and 3.	Impacts of an individual intrusion	Ongoing	Intrusion that exceeds the definition of the classification	Scenic ORV
Management Framework for SRMA objective, experiences, and RSCs as shown in Appendix.	Customer assessments; activity participation monitoring; RSC monitoring.	Colorado River Segment 6 and 7	Social RSCs, resource damage, user conflicts; results from customer assessments for outcome attainment and preferences	Customer Assessments - Once every 5 years or as funding allows; Activity participation and RSCs – Annually during the primary use season of June through September.	Not meeting management framework for SRMA.	Recreational ORV

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
Alteration of landform or river condition inconsistent with the geologic integrity of Glenwood Canyon and Deep Creek Canyon.	Review of proposed projects; site visits and remote sensing.	Colorado River Segment 7; Deep Creek Segments 2b and 3.	Impacts to geologic formations or natural processes that form geologic formations (see cave and karst monitoring section for Deep Creek Canyon).	LaSunder Cave monitored every permitted trip (at least once per year if trips occur that year); other cave and karst resources monitored as resources allow; Glenwood Canyon monitored as needed with new information.	Undue or unnecessary degradation or loss of resources or ORVs as a result of human or natural causes, or not meeting LaSunder Cave Management Plan goals and objectives.	Geologic ORV
Physical disturbance or changes in plant community composition.	Periodic site inspections or remote sensing	Colorado River Segment 6; Deep Creek Segments 2b and 3.	Evidence of surface disturbance; evidence of invasive species	Every 2-4 years	Detection of noxious weeds; loss of species or habitat due to surface disturbance.	Botanical and Ecological ORVs
Bat Monitoring	Site visits or remote sensing	Cave or karst area within Deep Creek Segments 2b and 3.	Populations monitored to determine if population trends are stable, declining or increasing; and what kind of bat use is occurring in the area.	As resources allow with cooperation with Colorado Parks and Wildlife. Goal is to monitor each known cave every 5 years.	Populations are declining or evidence of White Nose Syndrome occurs within a cave or karst area.	Ecological ORV
River Otter Monitoring	Surveys and observation forms	Colorado River Segment 6	Populations and utilized range of river otters monitored.	Cooperation with Colorado Parks and Wildlife.	Populations status, trends, and recovery criteria.	Wildlife ORV

Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers	Other Information
IV. Support						
Transportation Facilities						
Routes	Route inspection through on-site inspection	Field Office Wide	Miles	Ongoing, by all resources	Conditions represent a hazard to visitor safety, resource damage, use and user conflicts.	
Health and Safety						
Monitor and maintain AML, Hazmat & NRDAR sites (program element 1640-MG)	Visual observation or soil/water sampling	Field office wide	Site safety	Annually or as needed	Maintenance of sites for public health and safety	

Resource Management Plan Evaluation

RMPs are periodically evaluated to determine if: (1) the RMP remains relevant to current issues, (2) decisions are effective in achieving (or making progress toward achieving) desired outcomes, (3) any decisions need to be amended or revised, (4) any decisions need to be dropped from further consideration, and (5) any areas require new decisions. The RMP is evaluated in accordance with Colorado BLM schedules. RMP evaluations are also completed prior to any plan revisions and for major plan amendments. Evaluations will follow the protocols established by the BLM Land Use Planning Handbook H-1601-1 in effect at the time the evaluation is initiated.