

CHAPTER 4—ENVIRONMENTAL CONSEQUENCES

This chapter evaluates the environmental impacts of implementing each alternative described in Chapter 2. Chapter 3 describes the existing conditions of the resource topics that would be affected by the alternatives. The organization of this chapter parallels that of Chapter 3. Because resource topics are often interrelated, one section may refer to another.

4.1 INTRODUCTION

The purpose of this chapter is to analyze and disclose potential significant impact of the “federal action” on the “human environment.” The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) state that the human environment shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment [40 Code of Federal Regulations (CFR) §1508.14]. The federal action is the Bureau of Land Management’s (BLM) selection of an alternative plan on which future land use actions would be based.

Many BLM-proposed actions are common to all alternatives or are the same for two or more alternatives. Impacts are discussed by alternative under each resource topic. Some BLM management actions may affect only certain resources and alternatives. If an activity or action is not addressed in a given section, it is because no impacts are expected or the impact is minimal.

Acreage figures and other numbers used in this analysis are approximate projections for comparison and analytic purposes only. They do not reflect exact measures of precise calculations.

4.1.1 Types of Impacts

Analysis of the alternatives focused on identifying types of impacts and estimating their potential significance. Throughout this chapter the terms “impact” and “effect” are synonymous. Although impacts may be perceived as positive (beneficial) or negative (adverse), those determinations are left for the reader of this document to decide. An overview of types of impacts is presented below. Cumulative impacts are defined and discussed in Section 4.20.

Table 4-1. Types of Impacts

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

4.1.2 Determination of Significance for the Purposes of this Impact Analysis

Direct, indirect, and cumulative impacts may be significant. The concept of significance requires consideration of both the context and intensity of the impact. The magnitude of change—existing conditions and the likelihood that the change will occur are also considered. Context relates to the environmental circumstances at the location of the impact, such as the immediate vicinity, affected interests, and the locality. Intensity refers to the severity or extent of impact. Both short-term and long-term effects are relevant.

Determining significance is complex. The significance of a resource or impact is dynamic and may change during the planning period. Significance can be real and supportable by fact, or perceived and perhaps not fully supportable even with rigorous study. For this analysis, the approach to establish significance criteria was based on legal issues, public perception, and professional judgment. Specific significance criteria are presented for each resource topic. Each resource topic also ends with a summary statement regarding the significance of effects.

The significance criteria are intended to provide thresholds for comparison of the impacts of the planning alternatives but are not necessarily thresholds which would individually trigger the need to prepare an environmental impact statement (EIS) as required by Section 102 (C) of NEPA. The significance of the impacts of implementation level decisions will be made based on more site-specific analysis and further consideration of the context and intensity of impacts as explained in CEQ's Significance Criteria found in 40 CFR 1508.27.

4.1.3 Methods and Assumptions

Impact analysis is a cause and effect process. To evaluate the context of an impact, an affected resource is compared with the available area or quantity of that resource. For this study, analysis methods identified resources that would be subject to change based on the proposed activities and then predicted changes to these resources. The magnitude or scale of the resource change was defined and a judgment about the significance of that change was made based on the significance criteria. Additional information regarding specific methods of analysis is presented for each resource topic.

Environmental impacts associated with the alternatives are caused by land use activities. Certain assumptions are made regarding level of land use activity, resource condition, and resource response. Potential impacts are determined based on these assumptions. The analysis considered the following:

- Restrictions or prohibitions on activities in specific areas to protect sensitive resources
- Mitigation requirements that prevent or limit direct impacts associated with land use activities or that reclaim the land after the activity has been completed
- Standards and guidelines that assess rangeland health and provide strategies to achieve resource conditions and management objectives
- Projections of the level of activity for land use based on historical trends, existing land use agreements such as leases or permits, and statements of interest in land use by individuals and industry organizations
- Impacts of land use activities that occur regardless of location of the land use and impacts dependent on the location of the activity and potentially affected resources
- The availability of funding to implement the alternatives described in Chapter 2.

Additional assumptions are presented within the Methods of Analysis section under each resource topic.

BLM manages public lands for multiple uses in accordance with the Federal Land Policy and Management Act (FLPMA). Land use decisions are made that protect the resources while allowing different uses of those resources, such as livestock grazing, energy development, and recreation. When there are conflicts between resource uses, or when a land use activity may result in unacceptable or irreversible impacts to the environment, BLM may restrict or prohibit some land uses in specific areas. To ensure that BLM meets its mandate of multiple use in land management actions, the impacts of the alternatives on resource users are identified and assessed as part of the planning process. The projected impacts on land use activities and the associated environmental impacts of land uses are characterized and evaluated for each of the alternatives. It is important to note that all management prescriptions for each resource and resource use directly and/or indirectly relate to each other; therefore, impacts of other prescriptions and guidance may apply to each resource management activity.

4.2 CUMULATIVE IMPACTS

Cumulative impacts are the effects on the environment that result from the impact of implementing any one of the alternatives in combination with other actions outside the scope of this plan, either within the planning area or outside it. The CEQ regulations for implementing NEPA defines cumulative impacts as:

“...the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (Federal or Non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” (40 CFR 1500-1508)

Cumulative impact analysis is required because the environmental conditions are the result of many different factors that act together. The real effect of any single action cannot be determined by considering that action in isolation but must be determined by considering the likely result of that action when acting in conjunction with many others. Management decisions may well be influenced by activities and conditions on intermingled nonpublic lands and on adjacent lands beyond the planning area boundary. Therefore assessment data and information may span multiple scales, land ownerships, and jurisdictions. These involve determinations that are often complex and are, to some degree, subjective.

4.2.1 Cumulative Analysis Methodology

The cumulative impacts discussion that follows considers the alternatives in the context of the broader human environment and specifically actions that occur outside the scope and geographic area covered by the RMP. Due to the programmatic, broad-scale nature of this RMP, this assessment is broad and generalized to address potential effects that could occur from a hypothetical management scenario when combined with other activities or projects. This assessment is primarily qualitative for many resources because of lack of detailed information that would result from project-level decisions and other activities or projects.

Cumulative impact analysis is limited to important issues of national, regional, or local significance. Therefore, not all issues identified for direct or indirect impact assessment in this EIS are analyzed for cumulative effects. Because of the wide geographic scope of a cumulative impact assessment and the variety of activities assessed, cumulative impacts are commonly examined at a more qualitative and less detailed level than are direct and indirect impacts presented previously in this chapter. This analysis includes discussion of factors that have created the current environment. These past actions are considered cumulatively with the alternatives of this RMP. Factors that could be expected to influence that environment in the future are also considered.

Spatial boundaries vary and are larger for resources that are mobile or migrate compared to resources that are stationary. In some cases spatial boundaries may be contained within the PFO or an area of the PFO. Evaluation of potential impacts considers incremental impacts that may occur from the proposed project, while also considers impacts from past, present, and reasonably foreseeable future actions (RFFA). RFFAs are those future action activities that have been committed to or that are known proposals that could take place within the 20-year planning period. RFFA scenarios are projections made only for the prediction of future impacts; they are not actual planning decisions or resource commitments.

Projections, which have been developed for analytical purposes only, are based on current conditions and trends and represent a best professional estimate. Unforeseen changes in such factors as economics, demand, and Federal, State, and local laws and policies could result in different outcomes than those projected for this analysis.

The following factors were considered in this cumulative impact assessment:

- Federal, nonfederal, and private actions
- The potential for synergistic effects or synergistic interaction among or between effects
- The potential for effects to cross political and administrative boundaries
- Other spatial and temporal characteristics of each affected resource
- The comparative scale of cumulative impacts across alternatives.

4.2.2 Projects and Activities Considered

Projects and activities were identified through review of available information. The following general types of projects were identified as having the greatest likelihood to generate potential cumulative impacts when added to the Price RMP alternatives:

- Regional minerals and energy development and operations
- Water projects
- Public lands planning and management outside the PFO
- Wild and scenic river designations
- Road improvement projects
- Actions on private lands

Minerals and energy activity presents the greatest potential for significant impacts in the area. Oil and gas development, which includes tar sands, comprise the largest development potential, consisting of 1,100–1,900 wells developed over the next 20 years. Two additional coal mines (the Lila Canyon and North Horn mines), 10 CO₂ wells, one new gypsum mine, and one new humate mine may be developed over the next 20 years. No helium or oil shale development is anticipated for the life of the plan. Table 4-2 presents existing and reasonably foreseeable minerals and energy development and associated surface disturbance on lands throughout the PFO regardless of jurisdiction. These numbers represent allowable development under each of the alternatives and do not represent actual wells that would be drilled. Subsequent NEPA analyses would be required for mineral and energy exploration and development with more detailed information and analysis.

Table 4-2. Price Minerals Reasonable Foreseeable Development (RFD)

Oil and Gas Development										
Well Location	No Action		Alt A		Alt B		Alt C		Alt D	
	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan
Emery/Book Cliffs Play	35	700	45	900	40	800	35	700	40	800
Tavaputs Plateau	30	600	35	700	20	400	15	300	20	400
Oil and Gas Wells in the Remaining PFO	12	240	15	300	10	200	5	100	12	240
Total Wells	77	1,540	95	1,900	70	1,400	55	1,100	72	1,440
Initial Disturbance Over 20 Years (Acres)										
Type of Activity	No Action		Alt A		Alt B		Alt C		Alt D	
	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan
Roads and Pipelines	493	9,856	608	12,160	448	8,960	352	7,040	461	9,216
Drill Pads	116	2,310	143	2,850	105	2,100	83	1,650	108	2,160
Ancillary Facilities	10	200	10	200	10	200	10	200	10	200
Total Surface Disturbance Over 20 Years (Acres)	618	12,366	761	15,210	563	11,260	445	8,890	579	11,576
Long-Term Disturbance Over 20 Years (Acres)										
Type of Activity	No Action		Alt A		Alt B		Alt C		Alt D	
	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan	Annually	Life of Plan
Roads and Pipelines	139	2,772	171	3,420	126	2,520	99	1,980	130	2,592
Drill Pads	77	1,540	95	1,900	70	1,400	55	1,100	72	1,440
Ancillary Facilities	10	200	10	200	10	200	10	200	10	200
Total Surface Disturbance Over 20 Years (Acres)	226	4,512	276	5,520	206	4,120	164	3,280	212	4,232
Assumptions:										
Roads and pipelines average an initial 70 feet total width disturbance for 3/4 mile per well (6.4 acres). After reclamation, average disturbance of 20 feet total width disturbance for 1/4 mile per well (1.8 acres). Assume reclamation is complete after 3–5 years.										
Drill pads average initial disturbance of 1.5 acres including pits, cuts and fills per well. After reclamation, average disturbance of 1.0 acre per well.										
Ancillary facilities average initial and long-term disturbance of 20 acres per facility (e.g., compressor stations and power lines).										

Initial disturbance is based on 6.4 acres of roads and pipelines, 1.5 acres for drill pads, and 20 acres per ancillary facility.

Long-term disturbance is based on 1.8 acres of roads and pipelines, 1.0 acre for drill pads, and 20 acres per ancillary facility.

Past, present, and potential future actions that are reasonably foreseeable over the life of the RMP for the planning area to be considered include the following list of projects.

Power Plants

- **Existing Power Plants.** Continued operation of the Hiawatha cogeneration project composed of the American Syngas Project and the Carbon County cogeneration project; the Questar Pipeline Dew Point Plant; the Sunnyside cogeneration facility; and the coal-fired PacifiCorp Hunter, Huntington, and Carbon Plants are sources of NOx emissions near the PFO and provide a stable source for employment in local communities. Operation of these plants also places a demand on water quantity, stress on water quality for steam generation, and plant cooling.
- **Potential expansion of the PacifiCorp Hunter Plant.** The Hunter Coal-Fired Plant in Castledale may add a fourth unit to its current operations. The expansion would increase current NOx and SOx emissions, demand on water quantity, and stress on water quality. The proposed project would increase local jobs during plant construction and provide approximately 350 additional long-term jobs in the region.

Coal Mines

- **Lila Canyon Coal Mine.** This mine is located on BLM lands in the Book Cliffs, south of Price, Utah. Utah American Energy Inc. plans to build approximately 4.7 miles of road and begin mining coal near the canyon. This underground coal mine has a potential to yield approximately 800,000 to 1 million tons of coal per year. Operation of the mine would place greater demand on US-6 with an estimated 550 round-trips per day from the mine north to a drop off point near the town of Wellington. Approximately 150–200 new jobs are anticipated from the coal mine operation. This project is sponsored by American Coal Company and is currently in the permitting stages through the Utah Division of Oil, Gas, and Mining (UDOGM). Approvals are expected in late 2004; construction would depend on marketing and permit approval. The area for the proposed mine and portal facilities has been identified by BLM as having wilderness characteristics. The area contains bighorn sheep populations and may fragment wildlife habitat. The Turtle Mountain WSA is above the mining activity and may also experience surface disturbance. The springs in Lila Canyon could experience interrupted flows and discharge would reduce water quality in Coleman, Washington.
- **North Horn Coal Mine.** The proposed North Horn coal mine is sponsored by PacifiCorp/Scottish Power and is located on approximately 10,000 acres of U.S. Forest Service (USFS) land west of Castledale. USFS is currently conducting an EIS for the mine. A lease is proposed for the underground coal mine by both SITLA and BLM with consent of other federal agencies. Approximately 2–4 million tons of coal per year is anticipated during operation. Construction of roads to the mine, power lines, and other related infrastructure is expected as part of the project. Increases in air emissions are anticipated and discharge would degrade water quality. The area contains known populations of threatened and endangered plants and elk and mule deer habitat.
- **Willow Creek Coal Mine.** The Willow Creek coal mine is located on BLM and private split-estate state land and minerals along highway US-191, 4 miles north of Helper, Carbon County, Utah. Several hundred million tons of reserves are projected in the area. Approximately 15,000 acres of coal lease areas at 2–4 million tons of coal production per year could be realized. An additional 250–300 jobs may be created with operation. This underground coal mine is not currently leased because it is challenging to mine and presents miner safety issues because of the amount of coal bed natural gas present. However, as coal demand increases, the possibility of the mine being leased increases. Surface disturbance from the mine may impair viewsheds on the plateau, alter existing raptor habitat, cause ground subsidence, and degrade water quality in Willow Creek.

Coal bed Natural Gas Projects

- **Price Coal bed Natural Gas Project.** An EIS was completed for this project and was approved in 1997. Construction, drilling, completion, and simulation of approximately 545 CBNG gas wells and associated access roads, pipelines, and electrical distribution lines is anticipated over approximately 10 years on 290 square miles near the City of Price, Utah. Wells and facilities would be proposed in 1,609-acre subdivision to minimize disturbance to wildlife corridors. Approximately 20–70 jobs would be created. Operation of the compressor stations would cause an increase in NOx and carbon monoxide (CO) concentrations, but approval is required from the Utah Department of Environmental Quality (UDEQ). Nitrogen oxide emissions from the compressor stations would contribute to regional haze and reductions in visibility. Impacts to mule deer populations and winter habitat in the North Manti and Manti herds is anticipated, which would reduce regional big game populations, habitat carrying capacity, and hunting opportunities. Surface water quality would be degraded from CBNG construction activities and reduced flow from springs is anticipated where the Ferron Sandstone is exposed.
- **Ferron Natural Gas Project.** An EIS and ROD was completed for this project. The project is located in Carbon and Emery counties in the vicinity of Price and Castle Dale, Utah. The project area encompasses 111,782 acres of mixed federal, state, and private lands. Four private companies proposed to produce and transport natural gas. The approved project would involve construction, drilling, completion, and simulation for approximately 335 natural gas wells drilled into coal beds of the Ferron Formation over a 5-year period. Associated access roads, gas and water pipelines, electrical distribution lines, compressor stations, disposal wells, and related facilities would also be constructed. Emissions of nitrogen oxides from the compressor stations would contribute to regional haze and reductions in visibility. Impacts to mule deer populations and winter habitat are anticipated, which would reduce regional big game populations, habitat carrying capacity, and hunting opportunities. Surface water quality would be degraded from CBNG construction activities and its quantity reduced.

Water Projects

- **Gooseberry Narrows Dam.** The U.S. Bureau of Reclamation prepared a Draft EIS to develop additional supply of municipal water to support population growth in north Sanpete County, Utah. The proposed Narrows dam would be located in the Upper Price River drainage basin between the lower Gooseberry Reservoir and the Fairview Lakes. The reservoir capacity would be approximately 17,000 acre feet and the project would divert 5,400 acre feet per year from the Price River basin to the San Pitch River basin for the Sanpete Water Conservancy District. This would create an average annual depletion in the Price River drainage of 5,709 acre feet per year. The project proponent, Sanpete Water Conservancy District, is applying for financing under the Small Reclamation Projects Act of 1956. The project is anticipated to reduce water flows in Upper Fish Creek, reduce downstream flows in the lower Price River below Wellington, decrease quality of Blue Ribbon Fisheries, alter habitat for fish species of concern, and alter affected stream morphology on BLM-managed lands between Price and Castle Gate.
- **Reauthorization of Flaming Gorge Dam.** Flaming Gorge Dam, located on the Green River in northeastern Utah, is an authorized storage unit of the Colorado River Storage Project. The Bureau of Reclamation is preparing a Draft EIS to adjust operation of the Flaming Gorge Dam to protect and assist in recovery of populations and designated critical habitat of four endangered fish species. The Dam, in combination with grazing and stream flow depletion and regulation, contributed to a change in the riverine environment, which contributed to the decline of both native fish species and native vegetation along the Green River.
- **Gordon Creek Dam.** A dam is proposed on Gordon Creek in Carbon County below Gordon Creek Wildland Management Area. This project would result in an additional Price River water storage facility that proposes to store 15,000 acre feet. Water quantity and quality may be reduced below Wellington, which may affect stream morphology and fish and wildlife species.

Neighboring Public Lands Planning

- **Vernal RMP.** The BLM Vernal Field Office (VFO) is preparing a new RMP to provide planning guidance for public land and federal mineral estate managed by the VFO in Daggett, Duchesne, and Uintah counties in northeastern Utah as well as a small portion of Grand County. Active fuel load reduction (approximately 51,000–55,000 acres per decade), rangeland improvements (approximately 35,000–51,000 acres), and forest treatments (290,000–585,000 acres) under new RMP direction would reduce the potential for wildland fire and improve vegetation and forest health, but would increase particulate emissions and contribute to regional haze. Special designations (approximately 150,000–610,000 acres) provide protections for natural resources, but would limit motorized access and development activities. There is a potential for 4,300 gas and 2,000 oil wells on approximately 2.9–3.2 million acres, which would provide socioeconomic benefits and increase surface disturbance, visual intrusions, and air quality emissions. AUMs allotted for livestock grazing (187,000–246,000 AUMs) would provide socioeconomic benefits, but would increase surface disturbance, riparian damage, and vegetation damage. Restriction of OHV use to designated routes (1.1–1.6 acres) and closing areas to OHV use (51,000–406,000 acres) would reduce surface disturbance and impacts to cultural resource while providing recreation opportunities.

Wild and Scenic River Designations

- **39 Eligible Stream Segments in the PFO.** Should Congress designate any of the eligible/suitable segments into the NWSRS, protection of the outstandingly remarkable values, tentative classifications, and free-flowing nature of these rivers would continue, but to a greater extent. In addition to BLM's protection of the values to the extent of its authority, the Federal Energy Regulatory Commission (FERC) would not be able to license any hydropower projects within a designated segment. Public lands within river segments designated into the NWSRS, with a tentative classification of wild would automatically be withdrawn from mineral location and public land laws. Congress may choose to provide a federal, reserved water right for in-stream flow purposes for rivers it designates into the national system, but it would be junior to existing water rights.

Road Improvement Projects

- **US-6 Roadway Improvements.** The Utah Department of Transportation (UDOT) is proposing improvement projects to improve safety and increase capacity along US-6 between Green River and Spanish Fork over the next 20 years. An EIS is being prepared for the project and is anticipated for completion in February 2005. These proposed improvement projects include constructing a new interchange in Helper, adding 2 miles of eastbound passing lanes north of the Port of Entry, renovating the Port of Entry bridge over the railway, widening and extending the bridge at the Sunnyside intersection, extending passing lanes south of Sunnyside Junction, adding passing lanes from Soldier Summit to Price, continuing to widen US-6 from Price to Wellington, and beginning a 12-mile asphalt overlay project near Green River. The road improvements would increase access to the PFO, which may lead to increased recreational use. Impacts may affect water quality, fragmentation of wildlife corridors, damage to cultural resources, and may increase particulate emissions during construction.
- **SR-10 Corridor Study.** UDOT is preparing a Corridor Transportation Plan for SR-10 from Stake Farm Road to SR-6 near Price, Utah. The project length is 5 miles from range post 62.8 to 67.8. An EIS is planned for the project but is not yet under way. Potential options or plans for this segment would include widening the existing segment and alternative routes. Water quality, air quality, cultural resources, wildlife fragmentation, and increased traffic impacts are likely to be associated with this project.

Actions on Private Lands

- **Logging on Private Land.** Logging for Douglas fir, white fir, and ponderosa pine occurs frequently on private lands adjacent to the PFO. Harvests often do not account for best management practices or sustainability, which leads to increased erosion and sediment loading in streams. These actions lead to increased habitat fragmentation and spread of noxious weeds.
- **Elk Ranching.** Private elk ranching occurs near the PFO in Castle Dale, Willow Creek, Ferron, Emery, and potentially on the Tavaputs Plateau for private hunting and production of antlers and meat. Elk ranches may increase disease transmission to wildlife. High fences are often erected around these operations, which sometimes cuts off wild, big game migration routes and limits movement on adjacent public and private lands.

Other potential future actions have been considered and eliminated from further analysis, because there is only a small likelihood of these actions being pursued and implemented within the life of the plan or because there is so little known about the potential action that formulating an analysis of impacts is premature. In addition, potential future actions that protect the environment (such as new, potential threatened or endangered species listings or regulations related to fugitive dust emissions) are unlikely to create significant, adverse environmental effects alone or in combination with this planning effort. Federal actions such as species listings would require BLM to reconsider the decisions created from this plan because the consultations and relative impacts may no longer be appropriate. These potential future actions may have greater capacity to affect the resource uses within the planning area. However, until more information is developed, no reasonable estimation of impacts can be developed.

New management plans for resources on neighboring public lands are anticipated for the Richfield, Monticello and Moab Field offices and Fishlake, Dixie, and Manti-LaSal National Forests. However, these projects are in the early stages or have not yet begun the planning process and little information is known about their proposed management direction. Appropriate NEPA documents would be prepared for these projects, and further consideration would be required regarding the cumulative effects from the management action alternatives associated with these plans and the management actions decided on within this RMP.

Continued surface disturbing activities are foreseeable actions anticipated for the planning area. Some management actions related to these uses have been considered within the range of the alternatives, but the continued existence of these activities is driven by the multiple use mandate and will occur unless another legislative action intercedes. The potential cumulative impacts of these land uses are then inherent and are not clearly identifiable as these uses are historically connected to the condition of the land.

Data on the precise locations and overall extent of the resources within the planning area are considerable, however, they vary according to resource type and locale. Further, understanding of the impacts on and the interplay among these resources is evolving. As knowledge improves, management measures (adaptive or otherwise) would be considered to reduce potential cumulative impacts in accordance with law, regulations, and the final RMP for the PFO.

4.2.3 Collective and Cumulative Impacts by Alternative

For each alternative—No Action, A, B, C, and D—a summary of the overall, collective impacts for that alternative is provided below. Following the summary is the cumulative impacts for the alternative, which incorporates the impacts associated with other past, present, and foreseeable future actions described in Section 4.20.2.

4.2.3.1 No Action Alternative

Under current management practices, projects would be mainly considered case by case. As a result of this management, more conflicts between uses would likely result and it would be more difficult to achieve landscape scale management goals for the PFO. Seventy-five percent of the PFO would be subject to impacts from surface-disturbing activities, including open cross-country OHV use and mineral and energy development, and these impacts would likely increase as demand increases. These activities would place a greater demand on resource management, increase potential for damage to resources, increase traffic, and increase conflicts among uses. Piecemeal management may lead to significant degradation of cultural resource systems and visual quality.

Collective Impacts From No Action Alternative

Prescribed burning activities, dispersed recreation, and mineral and energy development would continue to lead to particulate matter, CO, and nitrogen oxide emissions below regulatory thresholds. Surface disturbance may be more widespread leading to decreased quality of vegetation and soils; and riparian, wetland, and water resources, which may place greater demands on management. Lack of adequate vegetation treatments; soil, water, and riparian improvements; and a timber program eventually could lead to a decline in quality and health of range and riparian vegetation, increase in soil erosion, and decrease in water quality. Fuels accumulations would increase the potential for uncharacteristically intense wildfires, which would increase potential damage to cultural resources, vegetation, soil crusts, and water quality.

Vegetation, soils, and water quality conditions would most likely be maintained by management prescriptions but may not be improved over the long term. As a result, competition may increase between livestock, wild horses and burros, Special Status Species, and wildlife that are reliant on habitat, forage, and water. Continuing livestock use in sagebrush communities alters vegetation structure and species composition over the long term, which may indirectly decrease Special Status Species and wildlife habitat quality. Continuing without a timber or woodland commercial harvest program would deny potential benefits to local communities from this resource and increase forest density and decadence, which leads to increased risk of fire or insect infestation in northeastern portions of the PFO.

Continued grazing, recreation, and minerals and energy activities would support jobs and income in the local economy. However, conflicts between these uses may occur in the long term from case-by-case management, and quality of recreation experience may decrease. Current management prescriptions do not adequately address the type and intensity of recreation uses that would continue to occur in the San Rafael Swell and Nine Mile Canyon areas, which would lead to greater potential for conflicts among uses, damage to natural resources, and detraction from scenic quality and recreation experience. Management prescriptions for other resources and resource uses are not entirely compatible with recreation use of Desolation Canyon, Labyrinth Canyon, or Cleveland-Lloyd Dinosaur Quarry SRMAs. Applying protective management of all 39 eligible river segments would indirectly protect riparian, vegetation, soils, paleontological, and cultural resources and reduce salinity on 144,254 acres of BLM lands within 641 miles of river corridors, but is not anticipated to impose restrictions on current uses.

Cumulative Impacts From No Action Alternative

The No Action Alternative has the potential to cumulatively affect the following resources and resource uses when combined with effects of other actions beyond the scope of the RMP: air, water, vegetation, wildlife, cultural resources, lands with wilderness characteristics, and infrastructure.

Reasonably foreseeable development in the PFO in combination with existing power plants, proposed coal mines, and coal bed natural gas development would lead to a cumulative increase in air emissions and regional haze. Criteria pollutants of interest resulting from BLM activities in the PFO are nitrogen dioxide (NO₂), sulfur dioxide (SO₂), CO, and particulate matter (PM₁₀). Coal-fired electric generating stations and power plant operations contribute 96 percent of the NO_x emissions in the area. Permitted stationary sources of air emissions would continue to contribute to cumulative impacts of regional air quality. Regional scale modeling was not conducted to determine air quality impact resulting from BLM activities in the PFO because emissions from normal BLM actions would not require regional scale modeling. Emissions would primarily come from industrial operations and would most likely be modeled by the company seeking to conduct the action. Fostering the continued expansion of new oil and gas leases would increase NO_x emissions and increase regional haze. However, implementation of the electric power compressors reduces effects to within the Utah Ambient Air Quality Standards (UAAQS) or allowable Class I and Class II increments.

Although temporary, area emissions of fugitive dust are not subject to state air quality permitting procedures. Utah Air Conservation Rule R307-205-4 does not require dust control on unpaved roads when the average daily traffic level does not exceed 150 vehicles averaged over a 5-day period. Fugitive dust from minerals and energy construction activities, unimproved roads, and increased use of OHV on trail systems would lead to increases in fugitive dust that would be localized and temporary. The combination of fugitive dust emissions from coal mine operations and construction of roadway improvement projects would lead to cumulative increases in fugitive dust emissions that may have localized, visible dust clouds, but the emissions are expected to have minimal effect on regional haze in the long term. Wildland fires and prescribed burns in the PFO and adjacent public lands would result in temporary, short-term emissions of particulates and polyaromatic hydrocarbons (PAH) as well as reduced visibility. However, the impacts from increased particulate matter related to fire would be reduced because fuels treatments, including prescribed fire, reduce fuel loading and the associated potential of unplanned wildland fire.

Reasonably foreseeable development, power plant operations, coal mines, water projects, road projects, and logging on private lands reduce water quality and quantity in the field office. Mineral development and livestock grazing would also place a greater demand on water supply as use increases. Surface disturbing activities within and adjacent to the PFO disturb vegetation, cause soil compaction, channel overland flows, and increase sediment and nutrient loads to stream channels. Significant, cumulative losses of vegetation could occur from case-by-case management in areas of intense surface disturbance making it difficult to achieve management goals. In combination with continued surface-disturbing activities and resource management, conditions of water quality and quantity may decline or be maintained, but not improved. Actions outside the PFO, particularly upstream water projects, have altered stream hydrology and morphology. Management actions for the PFO are directed toward improving stream corridors; however, management goals may become more difficult to achieve as these projects are implemented.

Groundwater quality could decrease from a combination of existing mineral and energy development with reasonably foreseeable development. Impacts would depend on the quality and maintenance of wells and the overall level of activity. Improper casing and cementing of wells, undetected spills, or leachate from produced water or mud pits could introduce contaminants to the groundwater.

Existing and reasonably foreseeable coal bed natural gas and oil and gas well development would result in cumulative, crucial elk and deer habitat losses, habitat fragmentation, and displacement of bighorn sheep herds as development increases. Habitat fragmentation could be significant combined with habitat losses from coal mines, actions on private lands, and road improvement projects. Management of development within the PFO would attempt to minimize or reduce the impacts to important habitat areas, but regional habitat loss would occur as development continues to increase. The increased amount of roads, oil and gas wells, and rate of vegetation treatments proposed would convert more habitats to unsuitable or marginal for Special Status Species.

Case-by-case management combined with roadway improvements, increased recreation demand, and reasonably foreseeable mineral development could increase inadvertent damage to or loss of cultural resources in the region. Any damage or loss of significant cultural resources would constitute a significant impact. Although management would be directed to limit resource impacts, the extent or potential for this impact is difficult to determine.

Operation of the Lila Canyon coal mine; development of existing mineral leases in Desolation Canyon, Jack Canyon, and Turtle Canyon WSAs; and increased recreation demand may result in degradation of wilderness study areas and lands with and likely to have wilderness characteristics. Solitude, naturalness, and opportunities for primitive recreation may decrease in these lands with wilderness characteristics.

Greater demands would be placed on infrastructure in the PFO from reasonably foreseeable mineral development, increased recreation demand, existing minerals and energy operations, power plant activity, and coal mines. Increased demand would create additional infrastructure and improvements, which could have significant, cumulative impacts on other resources as a result of case-by-case management.

4.2.3.2 Alternative A

Alternative A provides the greatest potential for mineral and energy development activity in the northern portion of the PFO, the greatest amount of authorized livestock use, increased management actions to address recreation demands, and aggressive vegetation treatments. To accommodate these actions, the existing road network throughout the PFO and land use changes would also increase. Impacts associated with this increased activity include fragmentation and loss of deer and elk habitats, changes to vegetation cover, potential indirect loss of Special Status Species habitat, the greatest amount of water diversion from streams, and increased air emissions. Greater socioeconomic benefits would be realized under this alternative; however, the visitor experience would be degraded for those who strongly value primitive recreation opportunities or existing scenic quality.

Collective Impacts From Alternative A

Aggressive management of vegetation, intensive recreation, increased vehicular activity, and fostering increased oil, gas, and coal bed natural gas development would collectively lead to increased particulate matter, CO, and nitrogen oxide emissions, which may lead to reduced visibility in the long term. These emissions would be particularly concentrated near local communities. More water would be diverted, which would result in more severe loss of soils through erosion. Aggressive vegetation treatments would impact vegetation, soils, and water resources in the short term, but long-term impacts would result in more forage and reduced competition among livestock, wild horses and burros, and wildlife. Intensive manipulation of forest resources would improve forest structure and reduce the potential for uncharacteristically large or intense wildfires in the northeastern portion of the PFO. Maximizing production values of forests and woodlands would provide short-term socioeconomic benefits; however, the sustainability of these resources would be reduced in the long term by changing forest structure to early- to midseral stages. Likewise, maximizing production values of range resources by aggressive vegetation treatments would result in a short-term socioeconomic detriment as treatment areas recovered from disturbance. In the long term, these treatments would favor early- to midseral stages, providing increased forage production and socioeconomic benefits. Indirectly, removal of forest, woodland, and range vegetation in the short term would result in increased siltation and sediment loading that would reduce water quality and the vigor of riparian areas and wetlands. Reduced restrictions on oil and gas leasing categories and other surface-disturbing activities decrease habitat quality and quantity for fish, wildlife, and Special Status Species.

Continuing livestock grazing at the current rate of AUMs per allotment, maximizing recreational activities, and increasing mineral exploration and development would benefit the local economy. However, these actions would also place a greater demand on the resources, convert vegetation cover types to early seral stages, damage biological soil crusts, increase erosion, damage riparian and wetland areas, reduce water quality, and lead to greater potential for inadvertent damage to or loss of cultural and paleontological resources. Management prescriptions for other resources would detract from the quality and quantity of available recreation experiences. Minerals development traffic and recreation users in the northern portion of the PFO, particularly the Nine Mile Canyon SRMA, may create conflicts between these uses, place a greater demand on resources, and have a greater potential for damage to natural and cultural resources. Protective management of six of 39 suitable river segments would indirectly protect riparian, vegetation, soils, paleontological, and cultural resources and reduce salinity along 159 miles of river corridors, but is not anticipated to impose restrictions on current uses.

Cumulative Impacts From Alternative A

Alternative A has the potential to cumulatively affect the following resources and resource uses when combined with effects of other actions beyond the scope of the RMP: air, water, soils; riparian, vegetation, wildlife, visual, cultural resources; lands with and likely to have wilderness characteristics; infrastructure; and socioeconomics.

Maximized mineral development combined with reasonably foreseeable development in the PFO, existing power plants, proposed coal mines, and coal bed natural gas development would lead to a cumulative increase in air emissions and regional haze. Electric power compressors would be implemented to reduce effects, but emissions may become more significant as development activities expand. Fugitive dust and particulate matter from minerals and energy development, aggressive vegetation treatments, construction activities, unimproved roads, increased road network, and increased recreational use would lead to increases in fugitive dust, which may result in decreased visibility and increased occurrence of haze. Wildland fires and prescribed burns in the PFO and adjacent public lands would result in temporary, short-term emissions of particulates and PAHs, as well as reduced visibility. However, the impacts from increased particulate matter related to fire would be reduced as fuels treatments, including prescribed fire, reduce fuel loading and the associated potential of unplanned wildland fire. This alternative would result in the greatest increase of air emissions of the analyzed alternatives.

Reduction in water quality and quantity in the PFO would result from maximized mineral development, increased livestock use, and increased recreation combined with reasonably foreseeable development in the PFO, power plant operations, coal mines, water projects, road projects, and logging on private lands. Mineral development and livestock grazing under this alternative would place the greatest demand on water supply and water quality as use increases. Increased surface-disturbing activities within and adjacent to the PFO would result in greater disturbance to vegetation, cause soil compaction or channel overland flows, and increase sediment and nutrient loads to stream channels over more of the field office. Combined with continued surface-disturbing activities and resource management, water quality and quantity may decline and affect the health of water resources and species that rely on them. Groundwater quality would also decrease from minerals and energy development because of improper well casing, spills, and discharge, which would contribute to degradation of water quality in streams. If upstream water projects are constructed, significant, cumulative impacts may occur to fish species, riparian corridors, resource uses, scenic quality, and recreation experience. Management goals may be more difficult to achieve and water allocation may be of significant concern as uses are maximized.

Should Congress designate any of the eligible/suitable segments into the NWSRS, protection of the outstandingly remarkable values, tentative classifications, and free-flowing nature of these rivers would continue, but to a greater extent. In addition to BLM's protection of values to the extent of its authority, the FERC would not be able to license any hydropower projects within a designated segment. Public lands within river segments designated into the NWSRS with a tentative classification of wild would automatically be withdrawn from mineral location and public land laws. Congress may choose to provide a federal, reserved water right for in-stream flow purposes for rivers it designates into the national system, but it would be junior to existing water rights.

Maximized mineral development combined with existing and reasonably foreseeable coal bed natural gas and oil and gas well development would result in significant, cumulative, crucial elk and deer habitat losses, habitat fragmentation, and displacement of bighorn sheep herds as development increases. Habitat fragmentation combined with habitat losses from coal mines, actions on private lands, increased recreation, and road improvement projects could intensify already significant impacts. Management of development within the PFO would attempt to minimize or reduce impacts to important habitat areas, but regional habitat loss under this intense development scenario would reduce carrying capacity of lands in the areas and reduce viability of their populations.

Maximized mineral development, increased livestock grazing, increased recreation demand, aggressive vegetation treatments, and reasonably foreseeable mineral development would have much greater potential for inadvertent damage to or loss of cultural resources in the region of the analyzed alternatives. Any damage to or loss of significant cultural resources would constitute a significant impact. Although management would be directed to limit resource impacts, the extent or potential for this impact is difficult to determine.

Maximized mineral and energy development, operation of the Lila Canyon coal mine, development of existing mineral leases for Desolation Canyon, Jack Canyon, and Turtle Canyon WSAs, and increased recreation demand may result in degradation of wilderness study areas and lands with and likely to have wilderness characteristics. Solitude, naturalness, and opportunities for primitive recreation would likely decrease in these lands with wilderness characteristics.

Greater demands would be placed on infrastructure in the PFO from reasonably foreseeable mineral development, increased recreation demand, existing minerals and energy operations, power plant activity, and coal mines. Increased demand would create additional infrastructure and improvements, which could have significant, cumulative impacts on other resources, increase user conflicts, create a greater extent of resource damage and surface disturbance in the PFO, and detract from scenic quality, recreation experience, and quality of life in local communities. Under this alternative greater cumulative, socioeconomic benefits would be realized in local communities from increased employment and economic activity.

4.2.3.3 Alternative B

Alternative B provides a balanced approach toward resource conservation and resource uses. Mineral and energy resource use would be balanced with maintenance of ecological integrity in key ecosystems and habitats. Existing livestock use would continue at a capacity that does not exceed rangeland health standards. Recreation management would be concentrated in high-use areas that minimize impacts to natural and cultural resources. User conflicts would be minimized and areas of high scenic quality would be maintained. There are more vegetation treatments (190,000 acres over the life of the plan), but the rate of treatment enables natural processes to adjust. As a result of balanced management, wildlife populations and areas would increase and potentially expand in different areas of the PFO.

Collective Impacts From Alternative B

Prescribed burning activities, dispersed recreation, and mineral and energy development would continue to lead to particulate matter, CO, and nitrogen oxide emissions, but would be less than continuing the current situation. Vegetation treatments would reduce the risk of uncharacteristically intense wildland fires and result in increased forage over the long term, which would reduce competition among livestock, wild horses and burros, and wildlife. Increases in forest health and productivity would increase the sustainability of forest product use. OHV designations, oil and gas categories, and prescriptions for other surface-disturbing activities would minimize conflicts with fish, wildlife, and Special Status Species. Priority leasing of mineral and energy commodities would reduce surface disturbance including damage to vegetation, soil structure, and water resources. This, in turn, would preserve cultural resources in place because of surface-disturbance restrictions and protective designations.

Reducing the current rate of AUMs per allotment, increased restrictions on transportation and motorized access, and restrictions in oil and gas development may impact employment and earnings in the local economy. However, increased protection of wildlife and natural resources would improve local quality of life and the visitor experience. NSO requirements, seasonal restrictions, controlled surface use stipulations, and the absence of areas open to leasing, subject to the terms and conditions of the lease, collectively limit the time and area available for drilling activities and increase operator costs. Protective management of 14 suitable river segments would indirectly protect riparian, vegetation, soils, wildlife and fisheries, paleontological, and cultural resources and reduce salinity through 319 miles of river corridors, but is not anticipated to impose restrictions on current uses.

Cumulative Impacts From Alternative B

Alternative B has the potential to cumulatively affect the following resources and resource uses when combined with effects of other actions beyond the scope of the RMP: air, water, soils, vegetation, riparian, visual, wildlife, cultural resources, lands with and likely to have wilderness characteristics, and infrastructure.

Balancing mineral and energy resource use with conservation goals would result in less mineral and energy development and associated air emissions than currently experienced. Air emissions from existing power plants, proposed coal mines, and coal bed natural gas development would continue to persist. However, reduced potential for emissions in the PFO under this alternative would not likely exceed air quality thresholds and the potential for regional haze would be reduced. Fugitive dust and particulate matter from minerals and energy development, construction activities, unimproved roads, and increased recreation demand would result only in short-term, localized impacts because of more restrictions and less intense, surface-disturbing activities. Prescribed burns in the PFO and adjacent public lands would result in temporary, short-term particulate and PAH emissions and reduced visibility. The likelihood of short-term, significant emissions from intense wildland fire also would be greatly reduced.

In combination with power plant operations, coal mines, water projects, road projects, and logging on private lands, reduced AUMs per allotment, increased restrictions on transportation and motorized access, and restrictions in oil and gas development would reduce surface disturbance and potential for significant damage to vegetation, soil structure, and water resources within the PFO. Under this alternative reduced water quality and quantity impacts would occur from surface-disturbance restrictions. Improved forest and vegetation health would reduce the incremental amount of nutrient and sediment loading of watersheds. Ground and surface water quality may still deteriorate because of minerals and energy development activities, but impacts would be less concentrated. The magnitude of projected impacts for other projects and activities would still occur in those areas but would be reduced in the PFO as a result of management direction. Impacts from projected upstream water projects would still alter conditions within the PFO, but management direction would attempt to restore riparian corridors, improve vegetation health, and improve fisheries habitat. As a result of balanced use management, scenic quality in sensitive viewsheds and visitor experience are likely to be maintained.

Should Congress designate any of the eligible/suitable segments into the NWSRS, protection of the outstandingly remarkable values, tentative classifications, and free-flowing nature of these rivers would continue, but to a greater extent. In addition to BLM's protection of values to the extent of its authority, the FERC would not be able to license any hydropower projects within a designated segment. Public lands within river segments designated into the NWSRS with a tentative classification of wild would automatically be withdrawn from mineral location and public land laws. Congress may choose to provide a federal, reserved water right for in-stream flow purposes for rivers it designates into the national system, but it would be junior to existing water rights.

Existing and reasonably foreseeable coal bed natural gas and oil and gas well development would impact crucial elk and deer habitat and displace bighorn sheep herds as development increases. However, balancing mineral and energy use with key ecosystems and habitats would reduce the magnitude of these impacts to wildlife populations. Improved vegetation and forest conditions may provide supplemental habitat areas and support carrying capacity of wildlife populations.

Reduced surface-disturbing activities from increased restrictions would reduce the potential for significant regional losses of cultural resources combined with roadway improvements, increased recreation demand, and reasonably foreseeable mineral development. However, this alternative provides more protective designations in areas that contain significant cultural resources.

Mineral and energy development, operation of the Lila Canyon coal mine, development of existing mineral leases in Desolation Canyon, Jack Canyon, and Turtle Canyon WSAs, and increased recreation demand may result in degradation of wilderness study areas and lands with and likely to have wilderness characteristics. However, more protective management and restrictions on surface-disturbing activities would reduce the likelihood of significant decreases in solitude, naturalness, and opportunities for primitive recreation on these lands with wilderness characteristics.

Greater demands would be placed on infrastructure in the PFO from reasonably foreseeable mineral development, increased recreational use, existing minerals and energy operations, power plant activity, and coal mines. Increased demand would create additional infrastructure and improvements, but management that protects key ecosystems and habitats would reduce the magnitude of significant resource damage.

4.2.3.4 Alternative C

Alternative C is the most restrictive on surface-disturbing activities and relies on natural processes for resource management. Twenty-five percent of the Price Field Office is closed to oil and gas leasing and permits would be limited to single-resource leasing (oil and gas, coal bed natural gas). Vegetation and forests would be manipulated using only natural processes and minimal vegetation treatment, which may result in less productivity and reduced vegetation and forest health, and cause a short-term reduction in authorized livestock use. Resource goals may be more difficult and take more time to accomplish.

Collective Impacts From Alternative C

Dispersed recreation and mineral and energy development would continue to lead to particulate matter, CO, and nitrogen oxide emissions, but would be reduced from the current situation. Maintaining natural flows in streams would decrease erosion and soil loss, which would improve riparian conditions and water quality. Reliance on natural processes for vegetation and forest management would lead to additional fuel loading and greater risk of less frequent, more intense wildland fires, which would lead to greater short-term particulate emissions and reduced visibility during wildland fire events. As the vegetation communities fire return interval is reset, this impact will decline and wildland fire frequency and intensity will resemble a natural schedule. Natural process management would result in more late seral communities of aspen and sagebrush which would reduce diversity in age, class, and seral stages. Pinyon-juniper would continue to invade previously unoccupied areas of the PFO, which would decrease vegetation diversity and soil composition. Natural succession creates a finer scale mosaic of vegetation over the long term. This may improve the resistance of vegetation to insect and disease infestations.

Availability of livestock grazing may be reduced in the short term, but forage quantity and quality would increase in the long term. Limiting the amount of surface disturbance from grazing AUMs, dispersed recreation, vegetation treatments, and oil and gas development would reduce vegetation damage, soil crust damage, erosion, inadvertent loss of or damage to cultural resources, wildlife habitat loss and fragmentation, and impacts to water resources. Closing areas and limiting livestock grazing, oil and gas development, and recreation would benefit wildlife habitat and watersheds and indirectly maintain and improve special-status species populations and habitat. However, this alternative also minimizes certain land use practices that may improve habitat quality because they are not considered a natural process. The overall quality of the viewshed would be maintained or improved by restrictions on development and surface disturbance.

This alternative provides the greatest opportunities for primitive types of recreation but would not meet demand levels in excess of capacity, which would lead to resource impacts. User conflicts would be reduced and viewsheds would be improved. Greater restrictions on land use would decrease the road network and motorized access throughout the PFO. NSO requirements, seasonal restrictions, controlled surface use stipulations, and the absence of mineral leasing areas open to leasing, subject to the terms and conditions of the lease, would collectively and significantly limit the time and area available for drilling activities and increase operator costs. Protective management of all 39 suitable river segments would indirectly protect riparian, vegetation, soils, water quality (reduced salinity), and cultural resources by surface-disturbing activities through 730 miles of river corridors. Fish and wildlife avoidance areas, SRMAs, ACECs, and wild and scenic rivers all set restrictions on surface-disturbing activities.

Cumulative Impacts From Alternative C

Alternative C has the potential to cumulatively affect the following resources and resource uses when combined with effects of other actions beyond the scope of the RMP: air, water, soils, vegetation, riparian, wildlife, cultural resources, lands with and likely to have wilderness characteristics, infrastructure, and socioeconomics.

Should Congress designate any of the eligible/suitable segments into the NWSRS, protection of the outstandingly remarkable values, tentative classifications, and free-flowing nature of these rivers would continue, but to a greater extent. In addition to BLM's protection of values to the extent of its authority, the FERC would not be able to license any hydropower projects within a designated segment. Public lands within river segments designated into the NWSRS with a tentative classification of wild would automatically be withdrawn from mineral location and public land laws. Congress may choose to provide a federal, reserved water right for in-stream flow purposes for rivers it designates into the national system, but it would be junior to existing water rights.

Greater restrictions on mineral and energy resources that could be reasonably developed would reduce associated air emissions more than currently experienced. Air emissions from existing power plants, proposed coal mines, and coal bed natural gas development would continue to persist. However, reduced potential for emissions in the PFO under this alternative would not likely exceed air quality thresholds and the potential for regional haze would be reduced. Fugitive dust and particulate matter from minerals and energy development, construction activities, unimproved roads, and increased recreation demand would result only in short-term, localized impacts because of more restrictions and less intense surface-disturbing activities. Reliance on natural processes for vegetation and forest management would lead to additional fuel loading and greater risk of less frequent, more intense wildland fires, which would lead to greater short-term particulate emissions and reduced visibility during wildland fire events.

In combination with power plant operations, coal mines, water projects, road projects, logging on private lands, reduced AUMs per allotment, increased restrictions on transportation and motorized access, and restrictions in oil and gas development would reduce surface disturbance and potential for significant damage to vegetation, soil structure, and water resources within the PFO. Under this alternative water quality and quantity impacts would be greatly reduced by surface-disturbance restrictions. Improved forest and vegetation health would reduce the incremental amount of nutrient and sediment loading of watersheds. Ground and surface water quality may still deteriorate because of minerals and energy development activities, but impacts would be less concentrated. The magnitude of projected impacts for other projects and activities would still occur in those areas but would be reduced in the PFO as a result of management direction. Impacts from projected, upstream water projects would still alter conditions within the PFO, but management direction would improve the health of riparian corridors, improve vegetation health, and improve fisheries habitat. As a result of reliance on natural processes and more restrictive management, scenic quality in sensitive viewsheds and the visitor experience are likely to be maintained.

Existing and reasonably foreseeable coal bed natural gas and oil and gas well development would impact crucial elk and deer habitat and displace bighorn sheep herds as development increases. However, less available area for leasing and greater restrictions would reduce the magnitude of these impacts to wildlife populations. Improved late-seral vegetation and forest conditions may provide supplemental habitat areas and support carrying capacity for wildlife populations. However, climax communities would degrade wildlife habitats and reduce carrying capacity.

Reduced impacts from surface-disturbing activities because of increased restrictions combined with roadway improvements, increased recreation demand, and reasonably foreseeable mineral development would reduce the potential for significant regional losses of cultural resources. In addition, this alternative provides more protective designations in areas that contain significant cultural and paleontological resources.

Mineral and energy development, operation of the Lila Canyon coal mine, development of existing mineral leases in Desolation Canyon, Jack Canyon, and Turtle Canyon WSAs, and increased recreational use may result in degradation of wilderness study areas and lands with and likely to have wilderness characteristics. However, more protective management and restrictions on surface-disturbing activities would reduce the likelihood of significant decreases in solitude, naturalness, and opportunities for primitive recreation on these lands with wilderness characteristics.

Greater demands would be placed on infrastructure in the PFO from reasonably foreseeable mineral development, increased recreational use, existing minerals and energy operations, power plant activity, and coal mines. Increased demand would create additional infrastructure and improvements, but more restrictive management would reduce the magnitude of significant resource damage. This alternative would increase resource uses costs and reduce socioeconomic benefits in the community. However, socioeconomic impacts are not anticipated to be severe because of development and resource use associated with reasonably foreseeable actions.

4.2.3.5 Alternative D

Alternative D provides a balance through multiple use and incorporates a better approach to manage key ecosystems while providing opportunities for resource uses that meet social and economic needs. More predictable change in resource conditions would occur while resource sustainability would be retained. Vegetation manipulations would be prescribed (mechanical, biological, manual, prescribed fire, and chemical, etc.) case by case to maintain ecosystem functionality. Habitat fragmentation would be reduced by prioritizing use to avoid high-value resource areas.

Collective Impacts From Alternative D

Prescribed burning activities, dispersed recreation, and mineral and energy development would continue to lead to particulate matter, CO, and nitrogen oxide emissions, but would be less than if the current situation continues. Prescribed manipulation in vegetation, forest, and woodlands management would increase soil erosion, decrease water quality and riparian/wetland resources, but fuel loads would be reduced and health would be improved in the long term. Forest and woodland product harvest would be used to improve forest and woodland health and increase products available for use. Vegetation and forest diversity and structure would improve, which would create communities more resistant to wildland fire, insect pest infestations, and disease. Closing areas to livestock grazing and limiting recreation to benefit wildlife habitat and watersheds would indirectly maintain and improve Special Status Species populations and habitat.

Adjusting grazing AUMs would provide a more balanced and sustainable use of forage availability and reduce competition. Increasing grass- and forb-dominated areas would increase the amount of forage available for livestock grazing. Mineral and energy development would increase the amount of vegetation in midseral stage at the site where development occurs, which would decrease late-seral stage woody vegetation. Stipulations to oil and gas activities such as NSO requirements, seasonal restrictions, controlled surface use stipulations, and the absence of areas open to leasing, subject to the terms and conditions of the lease, would collectively limit the time and area available for drilling activities and increase operator costs. Construction of facilities and ROW for pipelines, transmission lines, communication lines, and towers, and other developments would reduce scenic quality within those viewsheds. Expanded BLM management of areas with high levels of concentrated recreational use would address recreation demands and impacts. Protective management of 10 suitable river segments would indirectly protect riparian, vegetation, wildlife and fisheries, soils, water quality (reduced salinity), and cultural resources from surface-disturbing activities through 223 miles of river corridors. Prescriptions for visual resource management and oil and gas leasing would provide only limited protection of wilderness characteristics and would allocate to management large areas of non-WSA lands with or likely to have wilderness characteristics, which would permit new surface disturbances and decrease scenic quality.

Cumulative Impacts From Alternative D

Alternative D has the potential to cumulatively affect the following resources and resource uses when combined with effects of other actions beyond the scope of the RMP: air, water, soils, vegetation, riparian, wildlife, cultural resources, lands with and likely to have wilderness characteristics, and infrastructure.

Balancing mineral and energy resource use with conservation goals would result in less mineral and energy development and associated air emissions than currently experienced. Air emissions from existing power plants, proposed coal mines, and coal bed natural gas development would continue to persist. However, under this alternative reduced potential for emissions in the PFO would not likely exceed air quality thresholds and the potential for regional haze would be reduced. Fugitive dust and particulate matter from minerals and energy development, construction activities, unimproved roads, and increased recreational use would result only in short-term, localized impacts because of more restrictions and less intense surface-disturbing activities. Prescribed burns in the PFO and adjacent public lands would result in temporary, short-term particulate and PAH emissions and reduced visibility, and the likelihood of short-term, significant emissions from intense wildland fire would be greatly reduced.

In combination with power plant operations, coal mines, water projects, road projects, logging on private lands, reduced AUMs per allotment, increased restrictions on transportation and motorized access, and restrictions in oil and gas development would reduce surface disturbance and potential for significant damage to vegetation, soil structure, and water resources within the PFO. Reduced water quality and quantity impacts would occur by surface-disturbance restrictions under this alternative. Improved forest and vegetation health would reduce the incremental amount of nutrient and sediment loading of streams. Ground and surface water quality may still deteriorate because of minerals and energy development activities, but impacts would be less concentrated. The magnitude of projected impacts for other projects and activities would still occur in those areas but would be reduced in the PFO as a result of management direction. Impacts from projected upstream water projects would still alter conditions within the PFO, but management direction would attempt to restore riparian corridors, improve vegetation health, and improve fisheries habitat. As a result of balanced use, management scenic quality in sensitive viewsheds and the visitor experience are likely to be maintained.

Should Congress designate any of the eligible/suitable segments into the NWSRS, protection of the outstandingly remarkable values, tentative classifications, and free-flowing nature of these rivers would continue, but to a greater extent. In addition to BLM's protection of values to the extent of its authority, the FERC would not be able to license any hydropower projects within a designated segment. Public lands within river segments designated into the NWSRS with a tentative classification of wild would automatically be withdrawn from mineral location and public land laws. Congress may choose to provide a federal, reserved water right for in-stream flow purposes for rivers it designates into the national system, but it would be junior to existing water rights.

Existing and reasonably foreseeable coal bed natural gas and oil and gas well development would impact crucial elk and deer habitat and displace bighorn sheep herds as development increases. However, balancing mineral and energy use with key ecosystems and habitats would reduce the magnitude of these impacts to wildlife populations. Improved vegetation and forest conditions may provide supplemental habitat areas and support carrying capacity for wildlife populations.

Reduced impacts from surface-disturbing activities because of increased restrictions combined with roadway improvements, increased recreation demand, and reasonably foreseeable mineral development would reduce the potential for loss or damage to significant regional cultural resources. In addition, this alternative provides more protective designations in areas that contain significant cultural resources.

Mineral and energy development, operation of the Lila Canyon coal mine, development of existing mineral leases in Desolation Canyon, Jack Canyon, and Turtle Canyon WSAs, and increased recreational use may result in degradation of wilderness study areas and lands with and likely to have wilderness characteristics. Management of large areas of non-WSA lands with or likely to have wilderness characteristics would permit new surface disturbances which would result in significant decreases in solitude, naturalness, and opportunities for primitive recreation on these lands with wilderness characteristics.

Greater demands would be placed on infrastructure in the PFO from reasonably foreseeable mineral development, increased recreation demand, existing minerals and energy operations, power plant activity, and coal mines. Increased demand would create additional infrastructure and improvements, but management that protects key ecosystems and habitats would reduce the magnitude of significant resource damage.

4.2.4 Irreversible and Irrecoverable Commitment of Resources

Section 102(2)(C) of NEPA requires a discussion of any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented. An irretrievable commitment of a resource is one in which the resource or its use is lost for a period of time (e.g., extraction of any locatable mineral ore or oil and gas). An irreversible commitment of a resource is one that cannot be reversed (e.g., the extinction of a species or disturbance to protected cultural resources).

Implementation of the RMP would result in surface-disturbing activities, including mineral and energy development, dispersed recreation, livestock grazing, and infrastructure development, that would result in loss of irreversible or irretrievable resources. These surface-disturbing activities would permanently alter soil, remove vegetation cover, fragment wildlife habitat, and potentially damage cultural and paleontological resources. Slight increases in sediment, salinity, and nonpoint source pollution may result in an irretrievable degradation of water quality from these activities. Wildlife dependent on the affected habitats may be displaced and populations may be reduced as carrying capacity of the range is reduced. Irreversible and irretrievable losses of wildlife habitat indirectly reduce the amount of suitable Special Status Species habitat. However, management prescriptions and mitigation prescribed under the alternatives are intended to reduce the magnitude of these impacts and would restore some of the soil, vegetation, and habitat lost. Construction of roads, well pads and other transportation infrastructure improvements create an irretrievable loss of habitat and impair important visual elements, particularly near communities. Stand-replacing fires may cause an irreversible loss to some key ecosystem components.

An irretrievable commitment of nonrenewable fossil fuels (i.e., oil, gas, coal) would occur from extraction of potential 1,100–1,900 wells developed over the next 20 years. The extraction of locatable mineral resources would constitute an irretrievable commitment of resources up to 5,500 acres of public land. Mineral and energy development would result in an irreversible loss of vegetation resources and crucial mule deer, elk, and pronghorn habitat within minerals and energy development categories as development occurs. Lands occupied by mineral extraction would permanently lose habitat values and reduce carrying capacity for wildlife resources.

4.2.5 Unavoidable Adverse Impacts

Section 102(C) of NEPA requires disclosure of any adverse environmental effects that cannot be avoided should the proposal be implemented. Unavoidable adverse impacts are those that remain following the implementation of mitigation measures or impacts for which there are no mitigation measures. Some unavoidable adverse impacts would occur as a result of implementing the RMP. Others are a result of public use of the BLM-managed lands within the planning area.

Continuing to allow surface-disturbing activities as required by the BLM multiple-use mandate would result in unavoidable adverse impacts. Although these impacts are mitigated to the extent possible, unavoidable damage is inevitable. Permanent conversion of vegetation resources to other uses such as transportation and mineral and energy development reduces the quantity of vegetation resources. Energy and mineral resource extraction on public lands potentially creates visual intrusions, soil erosion, and compaction problems. Portions of the resource area with more intense recreational use would continue to experience scarring, increased soil erosion, and loss of vegetation. Although these impacts are unavoidable, they are concentrated in areas already disturbed, which reduces the spread of impacts to more remote or less frequented areas.

Because most of the crucial, high-value deer and elk habitats coincide with the known areas of oil and gas potential, impacts to habitats would be unavoidable under current BLM policy to foster oil and gas development. However, permanent oil and gas well sites and their associated infrastructure would be mitigated to the extent possible to minimize fragmentation and avoid the most significant wildlife habitat values. Competition is anticipated for habitat resources between wildlife, livestock, and wild horses and burros. The extent of the impacts would vary by season as well as drought cycle. Although there may be short-term periods of significant impacts, long-term management will ensure that these uses are compatible to the extent possible.

Inadvertent damage to or loss of cultural resources from increased visitation and surface-disturbing activities is unavoidable. Although mitigation measures could be implemented for scientific data recovery (leaving portions of the site undisturbed for future exploration), the impacts to the area of excavation would be unmitigatable. The number of sites anticipated to be inadvertently damaged is unknown.

Conflicts between user types, such as recreationists who seek more primitive types of recreation and motorized users who share recreation areas, are unavoidable adverse impacts. As recreation demand increases, recreational use would disperse to other areas of the PFO, which could create conflicts with previous uses of those areas. Under alternatives in which mineral development is expected to be higher, recreational use would be transferred from those areas, which will increase the extent and frequency of conflict between these incompatible user groups.

Numerous land use restrictions imposed throughout the PFO to protect sensitive resources and other important values, by their nature, would impact the ability of operators, individuals, and groups who use the public lands to do so freely without limitations. Although attempts are made to minimize these impacts by limiting to the level of protection necessary to accomplish management objectives and by providing alternative use areas for impacted activities, unavoidable adverse impacts would occur.

4.2.6 Relationship Between Local Short-term Uses and Long-term Productivity

Section 102(C) of NEPA requires discussion of the relationship between local, short-term uses of man's environment and the maintenance and enhancement of long-term productivity of resources. As described in the introduction to this chapter, short term is defined as anticipated to occur within 1 to 5 years of implementation of the activity. Long term is defined as following the first 5 years of implementation but within the life of the RMP (projected to be 20 years).

Management actions would result in various short-term effects, such as increased localized soil erosion, fugitive dust emissions, vegetation damage, and decreased visual resource quality. Surface-disturbing activities, including mineral and energy development, dispersed recreation, livestock grazing, and infrastructure development, and human use would result in the greatest potential for impacts to long-term productivity. Management actions and best management practices are intended to minimize the effect of short-term uses and the reverse change over the long term. However, BLM lands are managed to foster multiple uses and some long-term productivity impacts may occur regardless of management approach.

The short-term effects of oil and gas development decrease the area and productivity of potential crucial deer and elk and Special Status Species habitats. Short-term impacts from oil and gas well development would impact 8,890–15,210 acres of wildlife habitat. Rehabilitation of these habitats, if completely successful, would reduce these impacts to 3,280–5,520 acres. Development of additional roads associated with oil and gas development would cause the greatest impacts. However, permanent oil and gas well sites and their associated infrastructure would be mitigated to the extent possible to minimize fragmentation and avoid the most significant wildlife habitat values. In addition, management actions to improve soil, water, riparian, vegetation, and habitat resources would improve the productivity of wildlife and Special Status Species habitats throughout the PFO.

Long-term impacts to soil structure and vegetation would occur in areas where concentrated recreational use is directed. However, concentrating recreational use to certain areas would limit these adverse impacts from extending to other areas of the PFO. Maximizing short-term use of forage resources without an increase in woodland harvest or vegetation treatments would result in a long-term continued build-up of large fuels, which would result in uncharacteristically intense wildland fires and longer return-fire intervals. However, increases in short-term woodland product harvest (pole/post, dead and down fuel collection, etc.) as well as forest harvests would reduce the long-term intensity and size of wildland fires.

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AIR QUALITY

Issue:

Compliance with existing regulation: (From Planning Manual 1601—Appendix C)

Identify desired future conditions and area-wide criteria or restrictions, in cooperation with the appropriate air quality regulatory agency, that apply to direct or authorized emission-generating activities, including the Clean Air Act's requirements for compliance with:

- Applicable National Ambient Air Quality Standards (Section 109);
- State Implementation Plans (Section 110);
- Control of Pollution from Federal Facilities (Section 118);
- Prevention of Significant Deterioration, including visibility impacts to mandatory Federal Class I Areas (Section 160 et. seq.); and
- Conformity Analyses and Determinations (Section 176(c)).

Affected Environment/Description:

As part of this planning process, BLM completed an Air Quality Baseline Report (BLM, 2003). This report is available as part of the administrative record for this process. It contains detailed analysis of activities taking place on public lands and the impact those activities have on air quality in the field office. Summary of this document is provided below.

This report provides air quality baseline and analysis information for the Price Field Office (PFO) and its Resource Management Plan (RMP). The PFO is the Public Land (land administered by the BLM) and federal mineral estate managed by BLM in Carbon and Emery counties, Utah. This report provides a baseline analysis for planning alternatives developed for the RMP. The conclusions regarding air quality within the Price Field Office are summarized as follows:

- The overall air quality in the PFO is good. Carbon and Emery counties are designated as "attainment" or "unclassifiable" for all criteria and therefore classified as Class II air sheds.
- Potential impacts to air quality could result from the use of natural gas-fired compressors; there are no reasonably foreseeable actions by the BLM or activities on BLM lands in the field office that would negatively affect air quality. Compressors in current natural gas fields, including coal bed natural gas fields, are electric powered and will not adversely affect either National Ambient Air Quality Standards (NAAQS) or Class I and Class II Increments.
- Flaring and venting of natural gas wells causes occasional impacts to air quality
- Future demand on this resource will be an extension of the current situation. No major new resource development is anticipated. Ability to meet unexpected future demands will have to be considered on a case-by-case basis as potential air quality impacts are tested against NAAQS and prevention of significant deterioration (PSD) standards.
- Sources outside the PFO are expected to create most of the future demand for energy generation and resource recovery within the field office. As air quality deteriorates in more populated areas outside the area, the concern and desire to maintain good air quality conditions in the area may increase.
- The PFO is a designated Class II air quality area, which allows air quality incremental change for moderate, well-controlled growth.
- BLM actions would probably not require regional scale modeling since the effects would come from industrial operations that would most likely be modeled by the party seeking to conduct the action. Regional scale modeling would not likely be a good approach to evaluating air quality impacts from activities in the area given the number of shortfalls associated with this type of modeling.
- The State of Utah requires that land managers submit to the Utah Division of Air Quality a burn plan for prescribed fires that will cover 20 acres or more as per Utah Air Conservation Regulations R307-204.
- The average visual range is currently 50 miles, which has decreased from the historical visual range of 115 miles in 1977.

SUMMARY: Normal BLM activities and operations will not have a significant impact to Air Quality Standards in the Price Field Office.

AIR QUALITY**Assumptions**

Impacts to air quality would be considered significant if any of the following were to occur:

- Degradation in air quality that would not meet the State of Utah Ambient Air Quality Standards
- Degradation in air quality that would impact Class I air sheds of the National Parks (i.e., Capitol Reef) and Wilderness Areas (i.e., Mexican Mountain, San Rafael Reef, Sits Mountain, and the lower Green River)
- Degradation in air quality standards that would cause a significant deterioration in Class II air quality standards.

Evaluation of Impacts Within the Existing Regulatory Framework

In accordance with the 1970 Clean Air Act (CAA) and the 1977 and 1990 Clean Air Act Amendments (CAAA), the Environmental Protection Agency (EPA) promulgated ambient air quality standards and regulations. The NAAQS were enacted for the protection of the public health and welfare. The State of Utah has adopted all of the NAAQS as the State Ambient Air Quality Standards, and the State of Utah now operates the state air quality regulatory program with oversight from EPA.

Under the PSD program, a "baseline" concentration is set for new or modified air emission sources. The increment is the amount that the concentration for each pollutant type is allowed to increase over that baseline. There is also a ceiling on increases. In no case may a change result in concentrations that are higher than the lowest applicable NAAQS limits. The maximum allowable increases in concentrations in Class I, II, and III areas are those increments specified in Utah Air Conservation Rule R307-405-4. Calculations of increases to baseline concentrations are made each time a new source is proposed or an existing source is proposed for modification in any given area to ensure the increments will not be exceeded. All new major sources or major modifications will undergo a complete PSD review, including an air quality analysis to ensure all applicable requirements are met and emissions are minimized. New minor sources will undergo a similar analysis; however, although a detailed air quality related analysis would not be required of the source, emissions for the source will be counted against increment consumption.

Methods of Analysis

Analysis of air impacts for this Environmental Impact Statement (EIS) was conducted on a qualitative basis only. No air quality modeling was conducted as part of the analysis. Based on available information, several air quality issues in the planning area have been evaluated, as summarized below.

One of the more substantial potential impacts to air quality in the planning area is from the use of natural gas-fired compressors; however, compressors in current natural gas fields, including coal bed methane fields, are almost entirely electric powered and do not generally adversely affect either the UAAQS or allowable Class I and Class II increments. Electrification has proven to be the best method to decrease gaseous emissions when compared with other options.

Construction activities generate fugitive dust from earth-moving activities and construction vehicles. No significant construction or road building activities are anticipated in the planning area. However, road-grading activities are conducted on those roads claimed by the counties that traverse BLM lands. The fugitive dust from these activities would then become the responsibility of Carbon and Emery counties.

Fugitive dust would also be created by travel (including off-highway vehicle [OHV] use) on unpaved roads. Utah Air Conservation Rule R307-205-4 does not require dust control on unpaved roads when the average daily traffic level does not exceed 150 vehicles averaged over a 5-day period. Although fugitive dust from travel on unpaved roads would cause some localized visible dust clouds (especially on extended weekends), because most of these particulates are large, they are not respirable and are believed to have little health effect. The emissions are thought to have minimal effect on regional haze.

The prescribed fire program for the Moab Fire District has averaged one prescribed burn every 2 years for the last 20 years. Approximately 5,000 acres in the PFO would be scheduled for prescribed fire or mechanical treatment every 2 years, depending on climate and wildland fuels condition. The contribution of fires to air quality can be substantial over short-term periods, but fires occur relatively infrequently and thus have a lower contribution to long-term averages. Fire events making substantial contributions to haze in a given Class I area have occurred relatively infrequently, and as a practical matter, will contribute less than sources for which emissions are more continuous. Where smoke impacts from fire are identified as an important contributor to regional haze, smoke management programs should be a key component of regional and state regional haze planning efforts and long-term strategies (EPA, 1999a).

AIR QUALITY

Potential adverse impacts will be mitigated through site-specific NEPA documents prepared when an action in the area is proposed. Mitigation will be developed as part of the state permitting process. The BLM would also strive to minimize, within the scope of its authority, any emissions that might add to the atmospheric deposition, cause violations of air quality standards, or degrade visibility.

The qualitative impact analysis conducted for this EIS has been based on the following assumptions:

- No significant increase in BLM authorized actions will occur that may cause an increase in emissions.
- Oil and gas field compressors and glycol dehydration units would continue to be converted from natural gas-fired compressors to electrical units.
- Flaring of natural gas wells would be limited.
- Particulate matter (PM) generated by construction activities will not increase.
- BLM-managed access roads would be maintained to reduce dust.
- OHV activities that would cause extensive dust would be limited.

AIR QUALITY

Common to All Alternatives

Decision Background

The following decisions provide direction for the management and protection of air quality resources. These decisions are included to clarify standard operating procedures.

Decisions

- All BLM and BLM-authorized activities would be managed to maintain air quality within the thresholds established by the State of Utah Ambient Air Quality Standards (UAAQS) and to ensure that those activities continue to keep the area as attainment, meet PSD Class II standards, and protect the Class I air sheds of the National Parks (e.g., Capitol Reef within the PFO and Canyonlands and Arches National Parks).
- Consider visual range and regional haze impacts when analyzing site-specific actions through the NEPA process.

Impact Analysis

RESOURCES

Impacts to Air Quality from Air Quality Management

Air quality monitoring activities, which are predominantly trips to service and maintain air quality monitoring stations, would have minimal impact on air quality resources.

Impacts to Air Quality from Vegetation Management

Prescribed burns would have a short-term impact on air quality standards. The EPA has recognized that these activities, conducted during the appropriate time of year, produce fewer PM emissions than wildland fires. There would be some increases in vehicular emissions, but these would be insignificant.

Impacts to Air Quality from Fire and Fuels Management

Allowing natural fires to burn would cause a significant impact on air quality because of the increased PM10 emissions from these fires. The emissions from vehicles used to control wildland fires would also cause an impact to air quality; however, this would be minor.

Impacts to Air Quality from Forest and Woodland Management

The use of prescribed fires to manage forest and woodlands would cause a short-term, insignificant impact to air quality. This would be in the form of increased PM10 emissions associated with local burning to increase forest health and the burning of slash piles.

AIR QUALITY

Common to All Alternatives

Impacts to Air Quality from Recreation Management

Increased recreational and OHV activity, particularly on 3-day holiday weekends, would cause increases in fugitive dust and vehicular emissions. However, these would be limited to local concentrations and not have a significant impact on air quality standards as determined in the Air Quality Baseline Report (BLM, 2003).

Impacts to Air Quality from Minerals and Energy Management

Continuing with current leasing of minerals would not cause a significant impact on air quality, as determined in the Air Quality Baseline Report (BLM, 2003).

Summary

Under all alternatives, only minor, short-term impacts to air quality would be noted from activities associated with vegetation, forest management, and wildlife and fisheries habitat improvement practices. These impacts would be primarily associated with prescribed burns. Recreation, particularly OHV use, would also cause limited impacts to air quality, especially fugitive dust, on long (3-day) holiday weekends.

SOIL, WATER, AND RIPARIAN RESOURCES

Assumptions

The analysis is based on the following assumptions:

- Substantial disturbance to soil, including compaction of soil or loss of vegetative cover, would increase water runoff and downstream sediment loads, and lower soil productivity, thereby degrading water quality, channel structure, and overall watershed health.
- The degree of impact attributed to any one disturbance or series of disturbances is influenced by several factors, including location within the watershed, time and degree of disturbance, existing vegetation, and precipitation.
- Increased pollutants in surface waters would degrade habitat used by aquatic life and would affect other beneficial uses (e.g., stock-watering, irrigation, and/or drinking water supplies).
- BLM would comply with the Water Quality Standards for Salinity in Colorado River System as recommended by the Colorado River Basin Salinity Control Forum and adopted by the State of Utah, Department of Environmental Quality, Division of Water Quality.
- BLM would assess wetland/riparian sites on BLM land using the PFC method. BLM, in managing livestock and implementing rangeland improvement projects, would seek to bring locations rated as not in PFC into PFC, where conditions allowed. BLM would continue to develop and maintain water sources in the uplands as a critical tool for managing grazing animals to reduce impacts on wetland/riparian areas.
- Access roads would follow standard practices. However, properly designed roads would alter hill slope hydrology and concentrate overland flow in some areas. In areas with steep topography, these impacts would increase.

Significance Criteria

Impacts to soil, water (quality and quantity, and watershed health), and riparian resources would be considered significant if any of the following were to occur:

- Any unmitigated loss of wetlands or wetland function, or violation of Clean Water Act Section 404 permit requirements
- Degradation of water quality beyond the designated use of the receiving water body, or other violations of federal or state water quality standards
- Human activities degrade wetland/riparian areas such that, as a minimum physical state, proper functioning condition (PFC) is not being maintained. authorized activities, land management activities (i.e., impacts of cattle grazing trampling damage and utilization may not be considered by some to be a

SOIL, WATER, AND RIPARIAN RESOURCES
<p>human activity).</p> <ul style="list-style-type: none"> • Soil loss greater than 2 tons per acre per year in areas because of surface disturbance after reclamation. <p>Methods of Analysis Impact analysis and conclusions are based on interdisciplinary team knowledge of resources and the project area, review of existing literature, and information provided by other agencies. Effects are quantified where possible. Spatial analysis was conducted using ESRI's ArcGIS Desktop 8.x computer software. Impacts are occasionally described using ranges of potential impacts or in qualitative terms, if appropriate.</p> <p>Analysis of impacts on water resources would be based on achieving the watershed objectives of managing surface land use and groundwater resources to maintain or improve water quality according to the uses and numerical standards specified by the State of Utah's classification of water resources in the PFO, and to maintain wetland/riparian areas at PFC or better.</p>

SOIL, WATER, AND RIPARIAN RESOURCES
Common to All Alternatives
Decision Background
<p>The following decisions provide direction for the management and protection of soil, water, and riparian resources. These decisions are included to clarify standard operating procedures.</p>
Decisions
<p>Water Resources</p> <ul style="list-style-type: none"> • Maintain or restore overall watershed health and reduce erosion, stream sedimentation, and salinization of water. • Work to improve streams listed as water quality limited and prevent listing of additional streams, under the Clean Water Act, Section 303(d) • Maintain or restore the chemical, physical, and biological integrity of the area's waters • Protect community watersheds and sources of culinary water. <p>Soil Resources</p> <ul style="list-style-type: none"> • Manage uses to minimize and mitigate damage to soils, including critical soils and fragile chemical and biological soil crusts. <p>Riparian Resources</p> <ul style="list-style-type: none"> • Maintain, protect, and restore riparian and wetland areas to PFC and achieve advanced riparian obligate vegetation community. (See Appendix 10 for description)
Impact Analysis
RESOURCES
<p>Impacts to Air Quality No significant impact.</p>
<p>Impacts to Soil, Water and Riparian No significant impact.</p>

SOIL, WATER, AND RIPARIAN RESOURCES

Common to All Alternatives

Impacts to Vegetation Resources

Existing regulations and standards for maintaining or improving water quality for the preservation of natural resources would indirectly maintain or improve the condition of vegetation over the long term. Protecting municipal watersheds would maintain or improve vegetation resources located in those watersheds. Management actions aimed at maintaining or improving soil conditions and minimizing soil erosion would indirectly maintain or improve the condition of vegetation resources.

Impacts to Cultural Resources

Water resources, riparian/wetland areas, and cultural resources (particularly archaeological sites and historic ranches) are often located adjacent to each other. Preventing or minimizing soil erosion would result in preservation or at least decreased degradation to archaeological sites. Managing riparian and wetland areas in PFC would reduce stream bank erosion from localized flooding events and other soil-disturbing actions. These impacts, limited to those cultural resources located in or directly adjacent to riparian areas, would preserve the cultural resource in place and would not be significant.

Impacts to Paleontology Resources

No significant impact.

Impacts to Visual Resources

No significant impact.

Impacts to Special Status Species

Management actions aimed at maintaining or improving soil conditions, minimizing soil erosion, and improving riparian resources would maintain or improve the condition of Special Status Species populations and their habitats.

Impacts to Fish and Wildlife

Management actions designed to improve water quality and watershed health would improve important riparian areas and directly benefit wildlife and fish species. Soils, water, and riparian resource management provides benefits to wildlife by maintaining or restoring habitat conditions through the establishment of avoidance zones surrounding riparian areas, improving livestock management, and establishing surface use requirements within floodplains.

Impacts to Wild Horses and Burros

Potential impacts to wild horses and burros from water quality, watershed, and soils management, if they occur, would not be significant. Management actions aimed at reducing soil erosion in watersheds and improving water quality would provide long-term impacts to wild horses by enhancing their habitat and increasing forage production. Riparian management actions would ensure that forage and water would remain available for wild horses in the HMAs.

Impacts to Fire and Fuels Management

Maintaining and protecting critical soils, sensitive watersheds, or riparian areas identified as high-value resources would impact fire suppression and fuels treatments, requiring suppression of wildland fires threatening these areas. Depending on the site, limitations and/or restrictions on certain types of fire suppression methods would be necessary. This could affect the ability of firefighters to protect the area during wildland fire suppression activities. These areas would receive hazardous fuels treatments to reduce the need for suppression actions during wildland fire events.

RESOURCE USES

Impacts to Forest and Woodlands

Implementing measures to enhance and protect municipal and priority watersheds would increase forest and woodland health and sustainability throughout the PFO by improving forest soil characteristics and decreasing surface flows that cause erosion.

Improving permeability and infiltration rates of upland soils for site productivity would increase forest and woodland health and sustainability throughout the PFO by decreasing erosion, improving ecological function, and enabling natural successional processes in forest and woodland communities.

SOIL, WATER, AND RIPARIAN RESOURCES**Common to All Alternatives****Impacts to Livestock**

Any project designed to enhance watershed health would benefit vegetation resources by reducing erosion and improving water quality. Indirectly, improvement to vegetation would increase forage quantity and quality for livestock.

Protection of water quality and watersheds would in some cases require changes in livestock management, such as forage allocation reductions, deferred or shortened grazing periods, fencing of riparian pastures, increased cattle herding, increased fencing of cattle, and upland water development.

Soils management considerations during the implementation of the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah would generally enhance vegetative conditions through actions designed to reduce erosion, which would indirectly increase forage levels for livestock.

Impacts to Recreation

Management of water quality to achieve water standards for beneficial uses and avoid 303(d) listing would improve the quality of the recreational experience along waterways. Improving fisheries and providing for clean water for water-based recreation would improve the recreation experience.

Some streams used for water-based recreation such as San Rafael River and Nine Mile Creek would continue to have poor water quality under all alternatives, which would result in a less than optimal recreation experience. Exposure to higher concentrations of fecal-coliform bacteria would increase the risk of infectious diseases for people who come in contact with those waters.

Management of soils to reduce or prevent erosion and improve site productivity could limit motorized recreation in some areas.

Management of riparian areas to achieve PFC would limit types and amounts of recreation in and along rivers and other riparian corridors by closing areas for restoration.

Impacts to Lands and Realty

No significant impact.

Impacts to Minerals and Energy

No significant impact.

SPECIAL DESIGNATIONS**Impacts to Wilderness Study Areas**

No significant impact.

Impacts to Areas of Critical Environmental Concern

No significant impact.

Impacts to Wild and Scenic Rivers

No significant impact.

SUPPORT**Impacts to Transportation and Motorized Access**

Protection of soils that would be susceptible to erosion would restrict ROW and potentially prohibit road development in those areas.

Short-term, direct impacts would occur to transportation road surfacing or surface protection measures being required to minimize erosion of soils and to encourage reclamation. Long-term, direct impacts would occur if the relocation of a specific alignment or project were required to avoid sensitive or hard-to-reclaim soils.

SOIL, WATER, AND RIPARIAN RESOURCES Common to All Alternatives	
Impacts to Hazardous Materials and Waste No significant impact.	

SOIL, WATER, AND RIPARIAN RESOURCES Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Protection of Water Quality in Natural Springs: Natural springs are a scarce resource in the PFO area, and they are critical components for rangeland health and wildlife populations.				
Decisions				
A 660-foot buffer zone of no surface disturbance and/or occupancy would be maintained around natural springs to protect water quality.	Buffer zones of no surface disturbance and/or occupancy would be maintained around natural springs to protect the water quality of the spring. The distance would be based on geophysical, riparian, and other factors necessary to protect the water quality of the springs. If these factors could not be determined, a 660-foot buffer zone would be maintained.			
No Similar Action.	BLM would allow development of spring sources but would require protection of the spring source to maintain water quality and avoid detrimental impacts. (See BLM Manual 9000.)	BLM would discourage development of spring sources. (See BLM Manual 9000.)	BLM would allow development of spring sources but would require protection of the spring source to maintain water quality and avoid detrimental impacts. (See BLM Manual 9000.)	
Impacts Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	
Impacts to Soil, Water and Riparian A 660-foot buffer zone and no surface disturbance and/or occupancy would protect springs and prevent degradation of their water quality. The enhancement of vegetation associated with	Impacts to Soil, Water and Riparian Restricting BLM permitted surface disturbing activities within established buffer zones would limit the ability to control invasive weeds (tamarisks, phragmites, etc), conduct instream and riparian habitat enhancement projects.	Impacts to Soil, Water and Riparian Restricting BLM permitted surface disturbing activities within established buffer zones would limit the agency ability to control invasive weeds (tamarisks, phragmites, etc), conduct instream and riparian	Impacts to Soil, Water and Riparian No significant impact.	

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>these buffers improve the stability of soils and reduce erosion.</p> <p>Restricting BLM permitted surface disturbing activities within established buffer zones would limit the agency ability to control invasive weeds (tamarisks, phragmites, etc), conduct instream and riparian habitat enhancement projects.</p>			<p>habitat enhancement projects.</p>	
<p>Impacts to Vegetation Resources The 660-foot buffer zones restricting surface disturbance or occupancy surrounding natural springs to protect water quality would indirectly protect and enhance vegetation species diversity and structure.</p>	<p>Impacts to Vegetation Resources Same as No Action Alternative.</p>		<p>Impacts to Vegetation Resources Same as No Action Alternative.</p>	<p>Impacts to Vegetation Resources Same as No Action Alternative.</p>
<p>Impacts to Cultural Resources Precluding surface disturbance and/or occupancy in buffer zones surrounding natural springs would preserve cultural resources in place.</p>	<p>Impacts to Cultural Resources Avoiding new surface disturbance and/or occupancy in buffer zones surrounding natural springs would preserve cultural resources in place. new surface disturbing activities not precluded, the potential for disturbance of cultural sites adjacent to these areas would remain.</p> <p>These sites would be preserved through data recovery, increasing the understanding of the area's cultural history, but reducing or eliminating the value of the given sites for other uses such as public use, traditional use, or conservation use.</p>		<p>Impacts to Cultural Resources Impacts would be similar to those identified in Alternative A, except fewer natural springs would be developed. This would reduce, if only slightly, the potential for cultural resource sites adjacent to the springs to be disturbed. In some cases, that would mean the particular site would go undiscovered but would remain preserved in place. In addition, the buffer zones would preclude development within 660 feet of the riparian areas.</p>	<p>Impacts to Cultural Resources Same as Alternative A</p>
<p>Impacts to Paleontology</p>	<p>Impacts to Paleontology Resources</p>		<p>Impacts to Paleontology</p>	<p>Impacts to Paleontology</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Resources Precluding surface disturbance and/or occupancy in buffers zones surrounding natural springs would preserve adjacent paleontological resources.</p>	<p>Avoiding surface disturbance and/or occupancy in buffers zones surrounding natural springs would protect adjacent paleontological resources. The acreage of the buffer zones would vary based on site-specific topographic features.</p>		<p>Resources Same as Alternative A.</p>	<p>Resources Same as Alternative A.</p>
<p>Impacts to Visual Resources Buffer zones of no surface disturbance and/or occupancy around natural springs would maintain the visual qualities of these areas.</p>	<p>Impacts to Visual Resources Same as No Action Alternative.</p>		<p>Impacts to Visual Resources Same as No Action Alternative.</p>	<p>Impacts to Visual Resources Same as No Action Alternative. Buffer zones of no surface disturbance and/or occupancy around natural springs would maintain the visual qualities of these areas.</p>
<p>Impacts to Special Status Species A 660-foot buffer zone of no surface disturbance or occupancy around natural springs maintain habitat integrity in these areas and improve Special Status Species populations and habitats.</p>	<p>Impacts to Special Status Species A 660-foot buffer zone of no surface disturbance or occupancy around natural springs maintain habitat integrity. habitat integrity in these areas improve Special Status Species populations and habitats. Allowing the development of spring sources but protecting water quality and avoiding detrimental impacts is not anticipated to impact Special Status Species populations and habitats.</p>		<p>Impacts to Special Status Species A 660-foot buffer zone of no surface disturbance or occupancy maintain habitat integrity. Habitat integrity in these areas indirectly improves Special Status Species populations and habitats. Discouraging the development of spring sources but protecting water quality and avoiding detrimental impacts is not anticipated to impact Special Status Species populations and habitats.</p>	<p>Impacts to Special Status Species Same as Alternative A.</p>
<p>Impacts to Fish and Wildlife Implementing a 660-foot no surface occupancy buffer zone around natural springs would protect fisheries and wildlife habitat. A 100-year floodplain or 330 feet from the centerline (whichever is greater) along</p>	<p>Impacts to Fish and Wildlife Implementing a 660-foot no surface occupancy buffer zone around natural springs would protect fisheries and wildlife habitat. These buffers would also enhance riparian vegetation communities that provide food, cover, and nesting sites during critical periods in the lifecycle for neo-tropical migrants and waterfowl. Protecting riparian areas would benefit grouse. Allowing development of spring sources would require protection</p>		<p>Impacts to Fish and Wildlife Same as A, except discouraging the development of springs would potentially reduce the ability of wildlife to fully u these crucial water sources during dry periods and especially during drought years.</p>	<p>Impacts to Fish and Wildlife Same as Alternative A</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>perennial streams would also inhibit degradation of valuable soil, water, and riparian values.</p> <p>Restricting BLM permitted surface disturbing activities within these buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc).</p> <p>These buffers would also enhance riparian vegetation communities that provide food, cover, and nesting sites during critical periods in the lifecycle for neo-tropical migrants and waterfowl. Protecting riparian areas would benefit grouse.</p> <p>Riparian-wetland ecosystems are especially crucial for the subsistence of such species as the goshawk, coopers and sharp shinned hawks, northern Harrier and short-eared owls. Protecting these ecosystems with buffers whelp ensure the survival of these species.</p> <p>Riparian-wetland areas are in proper functioning condition when adequate vegetation is present and will provide diverse ponding and channel characteristics to provide habitat and water depth, duration and temperature necessary for fish populations. Buffers will allow riparian vegetation to remain, or become established where</p>	<p>of the spring source to maintain water quality. Development of spring sources would result in displacement of wildlife that uses the spring for a water source. In addition, any alteration of the spring, (e.g., water temperature, quality or quantity of aquatic vegetation and nutrient load) might not drastically impact the quality of the water but might result in adverse impacts to fish species.</p> <p>Restricting BLM permitted surface disturbing activities within these buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc).</p> <p>Riparian-wetland ecosystems are especially crucial for the subsistence of such species as the goshawk, coopers and sharp shinned hawks, northern Harrier and short-eared owls. Protecting these ecosystems with buffers help ensure the survival of these species.</p> <p>Riparian-wetland areas are in when adequate vegetation is present and will provide diverse ponding and channel characteristics to provide habitat and water depth, duration and temperature necessary for fish populations. Buffers will allow riparian vegetation to remain, or become established where absent, thus providing escape and hiding cover for local fish populations. The resultant riparian vegetation will shade waters, cooling them and making them more livable for fish populations.</p> <p>Numerous amphibian species rely on riparian-wetland communities for their existence. Buffering these areas will provide crucial habitats necessary for their lifecycles.</p>			

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>absent, thus providing escape and hiding cover for local fish populations. The resultant riparian vegetation will shade waters cooling them and making them more livable for fish populations.</p> <p>Numerous amphibian species rely on riparian-wetland communities for their existence. Buffering these areas will provide crucial habitats necessary for their life cycles.</p>				
<p>Impacts to Wild Horses and Burros Precluding permitted surface disturbing activities and/or occupancy in buffer zones surrounding natural springs would result in a long-term impact. Vegetation around these water resources would not be impacted by permitted surface disturbance or occupancy. Management actions to improve water and riparian resources without fencing off access to water resources would impact wild horses and burros by ensuring areas for watering.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative. Precluding permitted surface disturbing activities and/or occupancy in buffer zones surrounding natural springs would result in a long-term impact. Vegetation around these water resources would not be impacted by permitted surface disturbance or occupancy. Management actions to improve water and riparian resources without fencing off access to water resources would impact wild horses and burros by ensuring areas for watering.</p>	
<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>	
RESOURCE USES				
Impacts to Forest and	Impacts to Forest and Woodlands	Impacts to Forest and	Impacts to Forest and	

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Woodlands No significant impact.	No significant impact.		Woodlands No significant impact.	Woodlands No significant impact.
Impacts to Livestock Livestock management actions required to meet management objectives associated with soil, water and riparian resources if areas not in. These resources include springs, reservoirs, and wet meadows. Not allowing new surface disturbing activities within 660 feet of natural springs would maintain or improve vegetative resources in those areas. Livestock production in some upland/riparian allotment areas may be further limited to meet water quality standards. Improved soil stability would sustain forage production over the long term.	Impacts to Livestock Buffer zones to protect water quality around natural springs would be either 660 feet or the distance defined by geophysical, riparian, and other factors. Additional fencing of riparian areas and buffer zones may be required to meet PFC and reduce soil erosion. Livestock production in some upland/riparian allotment areas may be further limited to meet water quality standards. Improved soil stability would sustain forage production over the long term.		Impacts to Livestock Same as Alternative A, however, discouraging the development of natural springs m influence the location of rangeland water improvement projects.	Impacts to Livestock Same as Alternative A. Buffer zones to protect water quality around natural springs would be either 660 feet or the distance defined by geophysical, riparian, and other factors. Additional fencing of riparian areas and buffer zones m be required to meet PFC and reduce soil erosion. Livestock production in some upland/riparian allotment areas m be further limited to meet water quality standards. Improved soil stability would sustain forage production over the long term.
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.		Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.		Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy The 660-foot buffer zone of no surface disturbance and/or occupancy surrounding natural springs would restrict the placement of minerals and energy developments. This would potentially require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It	Impacts to Minerals and Energy Buffer zones of no surface disturbance and/or occupancy would be maintained surrounding natural springs to protect the water quality of the spring. The distance of the buffer zone would be based on factors necessary to protect the water quality of the springs. If these factors could not be determined, a 660-foot buffer zone of no surface disturbance and/or occupancy would be established. This would potentially require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these restrictions would not allow		Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy Buffer zones of no surface disturbance and/or occupancy would be maintained surrounding natural springs to protect the water quality of the spring. The distance of the buffer zone would be based on factors necessary to protect the water quality of the springs. If these factors could not be

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these restrictions would not allow the placement of mineral material operations within these buffers.	the placement of mineral material operations within these buffers.			determined, a 660-foot buffer zone of no surface disturbance and/or occupancy would be established. This would potentially require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these restrictions would not allow the placement of mineral material operations within these buffers.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.		Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.		Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.				
SUPPORT				
Impacts to Transportation and Motorized Access Buffer zones of no surface disturbance and/or occupancy would limit the location and design of some roads. The design of roads and	Impacts to Transportation and Motorized Access No significant impact.		Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.

SOIL, WATER, AND RIPARIAN RESOURCES				
Protection of Water Quality in Natural Springs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
transportation systems would require the consideration of surface hydrology in the placement of culverts and bridges to allow for drainage through the system and road surface drainage systems (e.g., placement of water bars, road surface slope, road surfacing, wing ditches, and other engineering methods).				
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impact.		Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

SOIL, WATER, AND RIPARIAN RESOURCES				
Maintenance of Water Table in Wetland and Riparian Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Maintenance of Water Table in Wetland and Riparian Areas: Wetland and riparian areas comprise less than 2 percent of the PFO area. These areas are vital components for rangeland health, wildlife populations, and hydrologic functions.				
Decisions				
The water table in wetlands and riparian areas would be maintained or restored.	The water table in wetlands and riparian areas would be maintained or restored.	The water table in wetlands and riparian areas would be maintained or restored.	BLM would seek to restore water recharge areas in wetland and riparian areas.	The water table in wetlands and riparian areas would be maintained or restored.
No Similar Action.	BLM would work collaboratively with partners to establish minimum water requirements in wetlands and riparian areas.	Same as Alternative A.	BLM would work collaboratively with partners to establish minimum water requirements and restore water recharge areas for wetlands and riparian areas.	BLM would work collaboratively with partners to establish minimum water requirements in wetlands and riparian areas. If additional water is required for restoration efforts, appropriate water rights would need to be obtained in accordance with

SOIL, WATER, AND RIPARIAN RESOURCES				
Maintenance of Water Table in Wetland and Riparian Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				Utah Law.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water, and Riparian Efforts to restore and/or maintain the water table in wetland and riparian zones would provide increased benefits to soil, water, and riparian/wetland areas.	Impacts to Soil, Water, and Riparian BLM actions to maintain or restore the water table in riparian and wetland areas would provide stability to these areas, increasing associated vegetation communities that would stabilize and reduce the amount of soil erosion and associated siltation and sediment loading in adjacent streams.	Impacts to Soil, Water, and Riparian BLM actions to maintain or restore the water table in riparian and wetland areas would provide stability to these areas and reduce the amount of soil erosion and associated siltation and sediment loading in adjacent streams.	Impacts to Soil, Water, and Riparian Same As Alternative A.	Impacts to Soil, Water, and Riparian Same As Alternative A.
Impacts to Vegetation Resources Restoring the water table in wetlands and riparian areas potentially would improve plant species diversity, structure, and the percent cover by some species in those areas.	Impacts to Vegetation Resources Working collaboratively with partners to establish minimum water requirements for wetlands and riparian areas potentially would improve vegetation communities adjacent to wetlands and riparian areas.	Impacts to Vegetation Resources Same as Alternative A.	Impacts to Vegetation Resources Working collaboratively with partners to establish minimum water requirements and restore water recharge areas for wetlands and riparian areas potentially would improve vegetation communities adjacent to wetlands and riparian areas to a greater extent than the other alternatives.	Impacts to Vegetation Resources Same as Alternative A.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources	Impacts to Paleontology Resources	Impacts to Paleontology Resources	Impacts to Paleontology Resources	Impacts to Paleontology Resources

SOIL, WATER, AND RIPARIAN RESOURCES				
Maintenance of Water Table in Wetland and Riparian Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species Maintaining and restoring water tables in wetland and riparian areas would improve water quality and wetland and riparian habitat integrity. Populations of Special Status Species (e.g., alcove bog orchid) potentially would benefit directly from improved water quality and wetland and riparian habitats.	Impacts to Special Status Species Maintaining and restoring water tables in wetland and riparian areas would improve water quality and wetland and riparian habitat integrity. Populations of Special Status Species (e.g., alcove bog orchid, and sage-grouse) potentially would benefit directly from improved water quality and wetland and riparian habitats. Improved water quality and intact wetland and riparian areas would assist in maintaining or improving other Special Status Species populations and habitats. Working collaboratively with partners to establish minimum water quality requirements in wetlands and riparian areas indirectly would improve Special Status Species populations and their habitats.	Impacts to Special Status Species Same as Alternative A.	Impacts to Special Status Species Same as the No Action Alternative.	Impacts to Special Status Species Same as Alternative A.
Impacts to Fish and Wildlife Maintaining or restoring the water table in riparian areas would benefit fish and wildlife by achieving proper functioning condition. This would result in increased vegetative cover, cooler water temperatures, less sediment loading and siltation, and greater filtration of	Impacts to Fish and Wildlife Same as the No Action Alternative.	Impacts to Fish and Wildlife Same as the No Action Alternative.	Impacts to Fish and Wildlife Same as the No Action Alternative.	Impacts to Fish and Wildlife Same as the No Action Alternative: Maintaining or restoring the water table in riparian areas would benefit fish and wildlife by achieving proper functioning condition. This would result in increased vegetative cover, cooler water temperatures, less sediment

SOIL, WATER, AND RIPARIAN RESOURCES				
Maintenance of Water Table in Wetland and Riparian Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
pollutants from the aquatic system.				loading and siltation, and greater filtration of pollutants from the aquatic system.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock Working collaboratively with partners to establish minimum water requirements for wetlands and riparian areas potentially would modify some rangeland water improvement projects.	Impacts to Livestock Same as the No Action Alternative.	Impacts to Livestock Same as the No Action Alternative.	Impacts to Livestock Same as Alternative A.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern	Impacts to Areas of Critical Environmental Concern	Impacts to Areas of Critical Environmental Concern	Impacts to Areas of Critical Environmental Concern	Impacts to Areas of Critical Environmental Concern

SOIL, WATER, AND RIPARIAN RESOURCES				
Maintenance of Water Table in Wetland and Riparian Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Motorized Access No significant impacts.	Motorized Access No significant impacts.	Motorized Access No significant impacts.	Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats: Functioning wetland and riparian areas improve water quality, reduce soil erosion, provide critical wildlife habitats and travel corridors. These are also desirable areas for livestock grazing, recreation use, and travel and utility corridors.				
Decisions				
Buffer zones of no surface disturbance or no surface occupancy (excluding fence lines) would be required in areas equal to the 100-year floodplain or 330 feet on either side from the centerline, whichever is greater, along all perennial streams. Recreational facilities designed so as not to impede the function of the floodplain would be permitted.	Allow no new surface-disturbing activities within 100-year flood plains, public water reserves, or 100m (330 ft) of riparian areas. Recreational facilities designed so as not to impede the function of the floodplain would be permitted. Exception may be authorized by AO if it can be shown that the project as mitigated, eliminates the need for the restriction.	New surface disturbance (excluding fence lines) would be avoided in areas equal to the 100-year floodplain or 100 m (330 feet) on either side from the centerline, whichever is greater, along all perennial streams, and riparian areas. Recreational facilities designed so as not to impede the function of the floodplain would be permitted.	Buffer zones of no new surface disturbance (excluding fence lines) would be required in areas equal to the 100-year floodplain or 100 m (330 feet) on either side from the centerline, whichever is greater, along all perennial streams, streams with perennial reaches, and all intermittent streams, and riparian areas. Recreational facilities designed so as not to impede the function of the floodplain would be permitted.	Allow no new surface-disturbing activities within 100 – year flood plains, public water reserves, or 100m (330 ft) of riparian areas. Recreational facilities designed so as not to impede the function of the floodplain would be permitted. Exception may be authorized by AO if it can be shown that the project as mitigated, eliminates the need for the restriction.

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water, and Riparian Buffers of 330 feet either side of or within the 100-year floodplain of perennial streams would benefit the soil, water, and riparian characteristics of these areas. Maintaining these buffers around riparian zones would enhance and protect these valuable resources from surface-disturbing activities that would impact the soils in these areas. Disruption of soils in the floodplain would cause erosion during peak flows that would lead to increased siltation and sediment loading of riparian/wetland complexes downstream.	Impacts to Soil, Water, and Riparian Restricting BLM permitted surface-disturbing activities within established buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects. Avoiding surface disturbances within the 100-year floodplain would reduce the impacts to these resources. Any recreational facility allowed within the 100-year floodplain, no matter how well designed, would have some measurable impact to these resources in the event of the occurrence of a once in 25-year meteorological event.	Impacts to Soil, Water, and Riparian Avoiding surface disturbances within the 100-year floodplain or 330 feet on either side from the centerline of perennial streams, whichever is greater, would reduce the impacts to these resources. Any recreational facility allowed within the 100-year floodplain, no matter how well designed, would have some measurable impact to these resources in the event of the occurrence of a once in 25-year meteorological event.	Impacts to Soil, Water, and Riparian Buffer zones of no new surface disturbance within the 100-year floodplain or 330 feet either side of the centerline of perennial streams, whichever is greater, and along all streams within perennial reaches, and on all intermittent streams would reduce the impacts to these resources. Any recreational facility allowed within the 100-year floodplain would have some measurable impact to these resources in the event of the occurrence of a once in 25-year meteorological event.	Impacts to Soil, Water, and Riparian Avoiding surface disturbances within the 100-year floodplain would reduce the impacts to these resources. Any recreational facility allowed within the 100-year floodplain would have some measurable impact to these resources in the event of the occurrence of a once in 25-year meteorological event.
Impacts to Vegetation Resources The 660-foot buffer zones restricting surface disturbance or occupancy surrounding natural springs to protect water quality would indirectly protect and enhance vegetation species diversity.	Impacts to Vegetation Resources Providing a buffer equal to either the 100-year floodplain or 660 feet also indirectly improves vegetation resources in these areas. These buffer zones indirectly protect habitat quality for Special Status Species in those areas.	Impacts to Vegetation Resources Same as Alternative A.	Impacts to Vegetation Resources Same as Alternative A.	Impacts to Vegetation Resources Same as Alternative A.
Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Resources Precluding surface disturbance and/or occupancy in buffer zones surrounding perennial streams would preserve cultural resources in place on about 30,000 acres and, potentially, more depending on the floodplain (see Map 3-4).</p>	<p>Resources Avoiding surface disturbance and/or occupancy in buffer zones surrounding perennial streams would preserve cultural resources in place on approximately 30,000 acres and, potentially, more depending on the floodplain (see Map 3-4). As this acreage changes, the number of cultural resources associated with these acreages would change.</p>	<p>Resources Same as Alternative A.</p>	<p>Resources Impacts would be similar to those identified in Alternative A, except the restrictions would apply to perennial streams and their reaches, intermittent streams, and riparian areas. This would increase the acreages on which cultural resources are preserved in place.</p>	<p>Resources Same as Alternative A.</p>
<p>Impacts to Paleontology Resources Precluding surface disturbance and/or occupancy in buffers zones surrounding perennial streams would in the long term protect adjacent paleontological resources on at least 30,000 acres, potentially more depending on the floodplain.</p>	<p>Impacts to Paleontology Resources Avoiding surface disturbance and/or occupancy in buffers zones surrounding riparian areas would in the long term protect adjacent paleontological resources on at least 30,000 acres, potentially more depending on the floodplain (see Maps 3-4 and 3-5).</p>	<p>Impacts to Paleontology Resources Same as Alternative A.</p>	<p>Impacts to Paleontology Resources Same as Alternative A.</p>	<p>Impacts to Paleontology Resources Same as Alternative A.</p>
<p>Impacts to Visual Resources Buffer zones of no surface disturbance and/or occupancy around riparian-wetland areas would maintain the visual qualities of these areas.</p>	<p>Impacts to Visual Resources Buffer zones of no surface disturbance and/or occupancy around riparian-wetland areas would maintain the visual qualities of these areas.</p>	<p>Impacts to Visual Resources Same as the No Action Alternative except surface disturbance in riparian-wetlands habitat areas would be avoided in areas equal to the 100-year floodplain along all perennial streams. Short-term, direct impacts would occur from degraded visual qualities in these areas if development occurred; depending on the proximity to recreation areas, the sensitivity of these impacts</p>	<p>Impacts to Visual Resources Impacts would be the same as the No Action Alternative except the area closed to new surface disturbance in riparian-wetlands habitat areas would be expanded to include streams with perennial reaches and all intermittent streams.</p>	<p>Impacts to Visual Resources Same as Alternative A.</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		could increase.		
<p>Impacts to Special Status Species A 660-foot buffer zone of no surface disturbance or occupancy around 100-year floodplains would maintain habitat integrity. Indirectly, habitat integrity in these areas would improve Special Status Species populations and their habitats. Improved water quality and intact wetland and riparian areas would assist in maintaining or improving other Special Status Species populations and their habitats.</p>	<p>Impacts to Special Status Species Along perennial streams, a 100-year floodplain buffer zone of no surface disturbance or occupancy for permitted activities would improve wetland and riparian habitat quality. Improving wetland and riparian habitat quality would indirectly assist in maintaining and improving Special Status Species populations and their habitats.</p>	<p>Impacts to Special Status Species A buffer zone of 330-foot (or the 100-year floodplain, whichever is greater,) along perennial streams of no surface disturbance or occupancy would improve wetland and riparian habitat quality. Improving wetland and riparian habitat quality indirectly would assist in maintaining and improving Special Status Species populations and their habitats.</p>	<p>Impacts to Special Status Species Same as Alternative A.</p>	<p>Impacts to Special Status Species Same as Alternative A.</p>
<p>Impacts to Fish and Wildlife Implementing a buffer zone to the 100-year floodplain or 330 feet on either side from the centerline, whichever is greater, along perennial streams would inhibit degradation of valuable soil, water, and riparian values. Restricting BLM permitted surface disturbing activities within these buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects. Birds: These buffers would also enhance riparian vegetation communities that provide food, cover, and nesting sites during critical periods in the lifecycle</p>	<p>Impacts to Fish and Wildlife Implementing a 100-year floodplain, public water reserves, or 330 feet of riparian areas would inhibit degradation of valuable soil, water, and riparian values. Restricting BLM permitted surface disturbing activities within these buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects. Birds: These buffers would also enhance riparian vegetation communities that provide food, cover, and nesting sites during critical periods in the lifecycle for neo-tropical migrants and</p>	<p>Impacts to Fish and Wildlife Same as the No Action Alternative, except the impacts would extend to riparian areas beyond the 330 feet either side of stream centerline.</p>	<p>Impacts to Fish and Wildlife Impacts would be the same as those identified in the No Action Alternative, except the extent of the impacts would extend to both perennial stream reaches, intermittent streams, as well as riparian areas.</p>	<p>Impacts to Fish and Wildlife Implementing a 100-year floodplain, public water reserves, or 330 feet of riparian areas would inhibit degradation of valuable soil, water, and riparian values. Restricting BLM permitted surface-disturbing activities within these buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects. Birds: These buffers would also enhance riparian vegetation communities that provide food, cover, and nesting sites during critical periods in the lifecycle for neotropical migrants and</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>for neotropical migrants and waterfowl. Protecting riparian areas would benefit grouse populations.</p> <p>Raptors: Riparian-wetland ecosystems are especially crucial for the subsistence of such species as the goshawk, coopers and sharp shinned hawks, northern marsh harrier and short-eared owls. Protecting these ecosystems with buffers will help ensure the survival of these species.</p> <p>Fish: Riparian-wetland areas are in PFC when adequate vegetation is present and will provide diverse ponding and channel characteristics to provide habitat and water depth, duration and temperature necessary for fish populations. Buffers will allow riparian vegetation to remain, or become established where absent, thus providing escape and hiding cover for local fish populations. The resultant riparian vegetation will shade waters present cooling them and making them more livable for fish populations.</p> <p>Amphibians: Numerous amphibian species are reliant upon riparian-wetland communities for their existence. Buffering these areas will provide crucial habitats</p>	<p>waterfowl. Protecting riparian areas would benefit grouse populations.</p> <p>Raptors: Riparian-wetland ecosystems are especially crucial for the subsistence of such species as the goshawk, coopers and sharp shinned hawks, northern Harrier and short-eared owls. Protecting these ecosystems with buffers will help ensure the survival of these species.</p> <p>Fish: Riparian-wetland areas are in proper functioning condition when adequate vegetation is present.</p>			<p>waterfowl. Protecting riparian areas would benefit grouse populations.</p> <p>Raptors: Riparian-wetland ecosystems are especially crucial for the subsistence of such species as the goshawk, coopers and sharp shinned hawks, northern Harrier and short-eared owls. Protecting these ecosystems with buffers will help ensure the survival of these species.</p> <p>Fish: Riparian-wetland areas are in proper functioning condition when adequate vegetation is present and will provide diverse ponding and channel characteristics to provide habitat and water depth, duration and temperature necessary for fish populations. Buffers will allow riparian vegetation to remain, or become established where absent, thus providing escape and hiding cover for local fish populations. The resultant riparian vegetation will shade waters present cooling them and making them more livable for fish populations.</p> <p>Amphibians: Numerous amphibian species rely on riparian-wetland communities for their existence. Buffering these areas will provide crucial habitats necessary for their life</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
necessary for their life cycles.				cycles.
<p>Impacts to Wild Horses and Burros Precluding permitted surface disturbing activities and/or occupancy in buffer zones surrounding perennial streams would result in a long-term impact. Vegetation around these water resources would not be impacted by permitted surface disturbance or occupancy on at least 30,000 acres throughout the PFO, and potentially more depending on specific floodplains (see Maps 3-4 and 3-5). Management actions to improve water and riparian resources without fencing off access to water resources would impact wild horses and burros by ensuring areas for watering.</p>	<p>Impacts to Wild Horses and Burros Same as the No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as the No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as the No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Precluding permitted surface-disturbing activities and/or occupancy in buffer zones surrounding perennial streams would result in a long-term impact. Vegetation around these water resources would not be impacted by permitted surface disturbance or occupancy on at least 30,000 acres throughout the PFO, and potentially more depending on specific floodplains (see Maps 3-4 and 3-5). Management actions to improve water and riparian resources without fencing off access to water resources would impact wild horses and burros by ensuring areas for watering.</p>
<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands Maintaining a buffer zone of no surface disturbance or occupancy in all 100-year floodplain areas or 330 feet from the centerline of perennial streams would maintain forest and woodland health by maintaining soil permeability and water flow. However, long-</p>	<p>Impacts to Forest and Woodlands Same as the No Action Alternative, except restrictions would apply to riparian areas only.</p>	<p>Impacts to Forest and Woodlands Same as the No Action Alternative, except restrictions would apply to both perennial streams and riparian areas.</p>	<p>Impacts to Forest and Woodlands Same as the No Action Alternative, except restrictions would apply to perennial streams, perennial reaches, intermittent streams, and riparian areas.</p>	<p>Impacts to Forest and Woodlands Same as Alternative A.</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
term decreases in forest and woodland product harvest would occur by limiting harvest areas.				
<p>Impacts to Livestock Livestock management actions will be required to meet management objectives associated with soil, water and riparian resources where these areas are not in proper functioning condition. These resources include springs, reservoirs, and wet meadows. Not allowing new surface disturbing activities within the 100-year flood plain, or 330 feet on either side from the centerline, whichever is greater, along all perennial streams would maintain or improve vegetative resources in those areas. Grazing allotments contain approximately 27,000 acres of riparian habitat. Improvements to vegetative resources can indirectly increase forage available for livestock use.</p> <p>Fencing riparian areas and the 660-foot buffer (330 feet on either side) area may be required to meet PFC and reduce soil erosion. Livestock production in some upland/riparian allotments may be further limited to meet water quality standards. Improved soil stability would sustain</p>	<p>Impacts to Livestock Livestock management actions may be required to meet management objectives associated with soil, water, and riparian resources where these areas are not in proper functioning condition. Not allowing new surface disturbing activities within the 100-year flood plain, public water reserves or 330 feet of riparian areas would maintain or improve vegetative resources in those areas. Improvements to vegetative resources can indirectly increase forage available for livestock use. Grazing allotments contain approximately 27,000 acres of riparian habitat. Improvements to vegetative resources can indirectly increase forage available for livestock use.</p>	<p>Impacts to Livestock Livestock management actions may be required to meet management objectives associated with soil, water, and riparian resources where these areas are not in proper functioning condition. Not allowing new surface disturbing activities within the 100-year flood plain, public water reserves or 100 meters of riparian areas would maintain or improve vegetative resources in those areas. Improvements to vegetative resources can indirectly increase forage available for livestock use. Livestock grazing allotments contain approximately 27,000 acres of riparian habitat. Improvements to vegetative resources can indirectly increase forage available for livestock use.</p> <p>Improved soil stability would sustain forage production over the long term.</p>	<p>Impacts to Livestock Livestock management actions will be required to meet management objectives associated with soil, water and riparian resources where these areas are not in proper functioning condition. Precluding new surface disturbing activities within the 100-year flood plain, public water reserves or 100 meters of riparian areas would maintain or improve vegetative resources in those areas. Improvements to vegetative resources can indirectly increase forage available for livestock use. Livestock grazing allotments contain approximately 27,000 acres of riparian habitat. Improvements to vegetative resources can indirectly increase forage available for livestock use.</p>	<p>Impacts to Livestock Same as Alternative A.</p>

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
forage production over the long term.				
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy The 660-foot buffer zone of no surface disturbance and/or occupancy within 330 feet on either side from the centerline of perennial streams or within the 100-year floodplain, whichever is greater, would preclude the placement of minerals and energy developments. This potentially would require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these restrictions would not allow the placement of mineral material operations within these buffers.	Impacts to Minerals and Energy The buffer zone of no surface disturbance and/or occupancy within 330 feet of riparian areas, within public water reserves, or within the 100-year floodplain, would preclude the placement of minerals and energy developments. This would potentially require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these restrictions would not allow the placement of mineral material operations within these buffers.	Impacts to Minerals and Energy Avoiding new surface disturbance in a buffer zone of within the 100-year floodplain or within 330 feet of from centerline, which ever is greater, along perennial streams and riparian areas would restrict the placement of minerals and energy developments. This would potentially require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these avoidances would restrict the placement of mineral material operations within these buffers.	Impacts to Minerals and Energy The buffer zone of no surface disturbance and/or occupancy within areas equal to the 100-year floodplain or 330 feet of on either side from the centerline, whichever is greater, along perennial streams, streams with perennial reaches, intermittent streams and riparian areas would preclude the placement of minerals and energy developments. This would potentially require oil and gas developments to directional drill to extract hydrocarbon resources under these areas. It would also restrict the placement of locatable mineral facilities within these buffers and could increase costs associated with locatable mineral activities. Additionally, these restrictions would not allow the placement of mineral material operations within these buffers.	Impacts to Minerals and Energy Same as Alternative A.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers Allowing no surface disturbance or occupancy within the 100-year floodplains or 330 feet (whichever is greater) of 641 miles of eligible river segments would indirectly ensure protection of outstandingly remarkable values within these proximities to the river regardless of tentative classification.	Impacts to Wild and Scenic Rivers Allowing no surface disturbance or occupancy within the 100-year floodplains, public drinking water reserves, or 100m (330 feet) of riparian areas along 125 miles of suitable river segments would indirectly ensure protection of outstandingly remarkable values within these proximities to the river regardless of tentative classification. This protection of riparian areas and floodplains would also apply to 516 miles of rivers that would not be determined suitable for designation into the NWSRS with this alternative.	Impacts to Wild and Scenic Rivers Allowing no surface disturbance or occupancy within the 100-year floodplains or 330 feet (whichever is greater) along 277 miles of suitable river segments would indirectly ensure protection of outstandingly remarkable values within these proximities to the river regardless of tentative classification. This protection of riparian areas and floodplains would also apply to 364 miles of rivers that would not be determined suitable for designation into the NWSRS with this alternative.	Impacts to Wild and Scenic Rivers Allowing no surface disturbance or occupancy within the 100-year floodplains or 330 feet (whichever is greater) of 641 miles of suitable river segments would indirectly ensure protection of outstandingly remarkable values within these proximities to the river regardless of tentative classification.	Impacts to Wild and Scenic Rivers Allowing no surface- disturbing activities within the 100-year floodplains, public drinking water reserves, or 100m (330 feet) of riparian areas along 223 miles of suitable river segments would indirectly ensure protection of outstandingly remarkable values within these proximities to the river regardless of tentative classification. This protection of riparian areas and floodplains would also apply to 417 miles of rivers that would not be determined suitable for designation into the NWSRS with this alternative.
SUPPORT				
Impacts to Transportation and Motorized Access Buffer zones of no surface disturbance and/or occupancy would limit the location and design of some roads in relation to 100-year floodplains of perennial streams. The design of roads and transportation systems would require the consideration of surface hydrology in the placement of	Impacts to Transportation and Motorized Access Buffer zones of no surface disturbance and/or occupancy would restrict the location and design of some roads in relation to public water reserves, 100-year floodplains of perennial streams and within 330 feet of riparian areas. The design of roads and transportation systems would require the	Impacts to Transportation and Motorized Access Buffer zones of no surface disturbance and/or occupancy would result in locating and designing roads to avoid 100-year floodplains or 330 feet on either side of centerline, whichever is greater, of perennial streams and riparian areas.	Impacts to Transportation and Motorized Access Buffer zones of no surface disturbance and/or occupancy would restrict the location and design of some roads in relation to 100-year floodplains or 330 feet from centerline, whichever is greater, along perennial streams, streams with perennial reaches, intermittent streams and riparian areas. The design	Impacts to Transportation and Motorized Access Same as Alternative A.

SOIL, WATER, AND RIPARIAN RESOURCES				
Establishment of Buffer Zones for No Surface Disturbance Around Riparian-Wetlands Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
culverts and bridges to allow for drainage through the system and road surface drainage systems.	consideration of surface hydrology in the placement of culverts and bridges to allow for drainage through the system and road surface drainage systems. Allowance of construction within these areas would be authorized if protection of the wetland and riparian values is ensured.		of roads and transportation systems would require the consideration of surface hydrology in the placement of culverts and bridges to allow for drainage through the system and road surface drainage systems. Some road construction/maintenance actions would be precluded.	
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

SOIL, WATER, AND RIPARIAN RESOURCES
Mitigation for Surface Disturbing Activities in Riparian-Wetlands Habitats
Decision Background
Mitigation for Surface Disturbing Activities in Riparian-Wetlands Habitats: These habitats are of such great importance and yet so limited that loss of their productivity and functionality are detrimental to wildlife, water quality, and hydrologic function
Decisions
See Vegetation section for mitigation of surface disturbance.

VEGETATION

Assumptions

The general assumptions for all resources were adequate for considering impacts to vegetation resources.

Significance Criteria

Impacts to vegetation would be considered significant if any of the following were to occur:

- Vegetation structure and species composition of relict vegetation communities no longer provide a baseline for scientific research and monitoring.
- Federally listed or BLM Sensitive species and their habitats do not meet objectives.
- Actions contribute to the listing of Federal Candidate or BLM Sensitive species.
- Reclaimed areas do not attain adequate vegetation cover to stabilize disturbed sites within 5 years or noxious weeds dominate the area.
- A 25 percent increase occurs in noxious weeds or invasive plant species dominating an area during the life of the plan.

Methods of Analysis

Management actions and resource uses occurring in the PFO are assessed for their impacts to vegetation resources. Impacts to vegetation resources include removing soil and vegetation or altering the vegetation community structure. Impact analysis and conclusions are based on interdisciplinary team knowledge of the region of influence and the interaction of the different management activities. The effects of each action on vegetation resources are quantified when possible; however, many impacts must be qualitatively assessed when suitable data is unavailable.

VEGETATION

Common to All Alternatives

Decision Background

The following decisions provide direction for the management and protection of vegetation resources. These decisions are included to clarify standard operating procedures.

Decisions

- Allow mechanical, fire, biological, and chemical vegetation manipulation, with restrictions to protect ground cover and water quality, to achieve the desired vegetation condition. Use the type of manipulation appropriate to, and consistent with, other land-use goals.
- Treat areas determined to need vegetation reestablishment using methods such as introductions, transplants, augmentation, reestablishments, and restocking. These areas would be treated with a variety of plant species that are desirable for wildlife habitat, livestock, watershed management, and other resource values while maintaining vegetation species diversity.
- Restore, sustain, or enhance the health of ecosystems through the implementation of the Rangeland Health Standards (RHS) and Guidelines.

VEGETATION
Common to All Alternatives
Impact Analysis

RESOURCES

Impacts to Air Quality

Using prescribed burns to improve rangeland health would result in pollutant emissions and create short-term impacts to Air Quality through the increase in PM10 emissions.

Impacts to Soil, Water and Riparian

The complex root systems of plants hold soils together preventing erosion. The base stems and trunks of vegetation also allow water to percolate into the soil instead of running off. The maintenance of sufficient native and beneficial non-native species would prevent degradation of soils, water quality and help protect riparian-wetland complexes.

Existing guidelines established by the Utah Department of Environmental Quality, Division of Water Quality encourage the maintaining and improvement of vegetation resources. These would also lead to proper functioning condition (PFC) in riparian and wetland communities. Other management actions aimed at improving soil conditions would minimize erosion and reduce siltation and sediment loading in streams.

Buffer zones to protect natural springs would also protect and enhance plant species diversity, which is necessary to maintain soil stability and allow for better recharge of the water table and filtration of water.

Impacts to Vegetation Resources

Allowing mechanical, fire, biological, and chemical vegetation manipulation to meet the desired vegetation condition would cause short-term losses of vegetation and increase plant species diversity, age classes, and structure. However, in the long term, vegetation treatments would increase health and vigor of remaining vegetation and change vegetation types (i.e., woodlands to shrub steppe or grasslands).

Noxious/Invasive Weed Management

Control of noxious weed species and invasive plant species through cooperative agreements with local governments would improve the composition, productivity, and structure of vegetation resources.

Surface disturbing activities could create short- and long-term impacts to vegetation resources. Short-term impacts would result from the removal of vegetation in the area disturbed. Surface disturbance might change the structure and composition of the vegetative community, reducing the desired vegetation condition in the long term.

Impacts to Cultural Resources

No significant impact.

Impacts to Paleontology Resources

The most common impact to paleontological resources from vegetation management activities would be the potential identification, recordation, and collection of paleontological resources before the implementation of surface-disturbing vegetation treatments. Most areas throughout the PFO with paleontological resources present at the surface are not conducive to supporting vegetation. As such, impacts from vegetation management, if they occur, are not anticipated to be significant.

Impacts to Visual Resources

Removal of vegetation through vegetation treatments, such as mechanical, fire, biological, and chemical vegetation manipulation or a change in vegetation type (native perennial vegetation to annual vegetation, native woodland to grassland) might impact the visual characteristics of the landscape. The degree of these impacts would depend on what VRM Class they occur in; for example, vegetation manipulations, if permitted, in VRM Class I or II would require appropriate mitigation; however, impacts would be minimal in VRM Class III or IV.

VEGETATION

Common to All Alternatives

Impacts to Special Status Species

Using mechanical, fire, biological, and chemical treatments to achieve a desired future vegetation condition will indirectly improve or maintain Special Status Species populations and their habitat. Management actions for vegetation treatments applied to maintain and achieve RHS through vegetation treatments are not anticipated to adversely impact Special Status Species populations over the long term. Consultation would occur with USFWS on any action that may take place in a Federally listed species potential or occupied habitat.

Impacts to Fish and Wildlife

Vegetation treatments would include prescribed burns, biological, manual, and chemical methods. To meet the multiple-use objectives of this plan, vegetation manipulations would be prescribed on a case-by-case basis to meet RHS. Vegetation management would be beneficial to wildlife and their habitats; however, there would be short-term impacts to habitat and displacement of wildlife until vegetation communities reestablished themselves. Vegetation treatments would provide diverse habitats for various species of wildlife. For example, in vegetation climax communities, treatments (especially fire) would return the vegetation community to an earlier seral stage of succession that would be beneficial to some wildlife species.

Impacts to Wild Horses and Burros

Vegetation treatments and manipulation projects would cause vegetation removal and temporary displacement of wild horses from within the project area, both of which would result in short-term impacts. The long-term effect would be enhanced forage production and availability.

Noxious/invasive weed control would spatially displace wild horses and burros while it was being implemented. Generally, though, preventing the infestation and spread of noxious weeds would decrease the potential for noxious/invasive weeds to replace more desirable forage species.

Impacts to Fire and Fuels Management

Managing healthy, diverse vegetation communities to condition class 1 would promote a mosaic vegetation pattern that would slow the spread of fires and reduce potential fire size and intensity.

Controlling the infestation and spread of invasive species would reduce the potential for losing key ecosystem components while reintroducing fire into condition class 2 and 3 fire regimes. Controlling invasive weeds following fires would increase the complexity of fire rehabilitation and reclamation.

RESOURCE USES

Impacts to Forest and Woodlands

No significant impact.

Impacts to Livestock

Managing vegetation for the desired vegetation condition would increase forage production, vegetation age, and structural diversity, improving livestock distribution and forage use. These vegetation treatments, designed to reach or maintain rangeland health initiative requirements as outlined in the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah, could impact livestock grazing by restricting use for a short period of time. Forage availability and production would increase over the long term, as herbaceous vegetation replaced woody shrub species.

Treatment of noxious weeds and invasive plant species over the planning period would control and contain weed species proliferation, thereby maintaining forage production, diversity, and vigor in the treatment areas. Livestock would be temporarily displaced during treatment activities, and grazing would resume after a short period.

Noxious weed and invasive plant species management actions would minimize competition with desirable forage producing species. Relocating livestock to public lands may require delaying turnout to prevent transferring noxious weeds and invasive plant species from other areas.

VEGETATION Common to All Alternatives
Impacts to Recreation Managing vegetation for healthy and diverse vegetation communities would enhance settings used for recreational activities. Recreationists could be displaced from vegetation treatment areas to other more desirable areas until revegetation occurs. However, the vegetation treatments would benefit recreationists by improving the long-term aesthetics of an area. Closures during prescribed burns would temporarily prohibit recreational use of closed areas.
Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS
Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT
Impacts to Transportation and Motorized Access Protection of vegetation resources might restrict improvement or development of roads and could result in realignments of transportation facilities.
Impacts to Hazardous Materials and Waste No significant impact.

VEGETATION Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Implementing vegetation treatments to retain or restore vegetation communities may conflict with other resource values and uses. Restoration and improvement of aspen communities and sagebrush communities benefit wildlife species including Special Status Species. Reducing the area of pinyon-juniper encroachment can increase available forage for wildlife and livestock uses. Encroachment of pinyon-juniper and diminishing aspen communities and loss of sagebrush communities are not meeting the DFC for vegetation resources and other resource uses. Priority vegetation communities are aspen, pinyon-juniper, and sagebrush.				
Existing Vegetation Treatments				
Vegetation manipulations would	Existing vegetation treatments	Existing vegetation treatments	Vegetation would be	Vegetation manipulations would

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
be prescribed (mechanical, biological, manual, prescribed fire, chemical, etc.) on a case-by-case basis to achieve/maintain Rangeland Health Standards (RHS).	would be maintained and additional treatments would be aggressively implemented (mechanical, biological, manual, prescribed fire, chemical, etc.) to achieve/maintain RHS.	would be maintained and limited new treatments would be implemented (mechanical, biological, manual, prescribed fire, chemical, etc.) to achieve/maintain RHS.	manipulated using only natural process, such as wildland fire, disease, and insects.	be prescribed (mechanical, biological, manual, prescribed fire, and chemical, etc.) on a case-by-case basis to achieve/maintain RHS. (Same as the No Action Alternative)
Priority Vegetation Communities				
Existing pinyon-juniper woodland treatments would be managed and maintained for their intended purpose. Treatments would focus on WUI areas and wildlife mitigation areas.	Pinyon-juniper woodlands treatments would be maintained, and new treatments would be aggressively implemented to move the woodlands toward their historic range.	Pinyon-juniper woodland treatments would be maintained, and limited amounts of new treatments would be implemented to move the woodlands toward their approximate historic range.	Existing pinyon-juniper woodland treatments would no longer be maintained. Natural succession of vegetation communities would be fostered.	Pinyon-juniper woodland treatments would be maintained, and limited amounts of new treatments would be implemented to move the woodlands toward their approximate historic range. (Same as Alternative B)
Sagebrush communities would be managed and maintained for natural composition and age class distribution	The sagebrush steppe would be managed to emphasize livestock grazing and wildlife habitat.	The sagebrush steppe would be managed for all resources. Actions that result in a mosaic of age and structure would be encouraged.	The sagebrush steppe would be managed for natural succession and processes.	Sagebrush communities would be managed and maintained for natural composition and age class distribution, in a manner that accommodates key habitat condition for key sagebrush obligate species.
Recognize and manage aspen as a unique and limited high-value vegetation type for other resources (wildlife, livestock grazing, etc.)	Land uses within aspen vegetation types would be managed to promote regeneration, diverse age class distribution, and preservation or restoration of diverse understory to include forbs, grass, and shrub species.			
Impacts Analysis				
RESOURCES				
Impacts to Air Quality Prescribed burns would result in pollutant emissions and have a short-term impact on air quality standards. The EPA has recognized that these activities,	Impacts to Air Quality Aggressive implementation of prescribed burning for vegetation treatments could result in pollutant emissions and have short-term impacts	Impacts to Air Quality Same as Alternative A except: Increasing the amount and type of new treatments for vegetation management would have short-term and limited impacts to air	Impacts to Air Quality Same as Alternative A except: Allowing only wildland fires to be a manipulation technique and not allowing prescribed burns to control vegetation	Impacts to Air Quality Selective treatments for vegetation management on a case-by-case basis would have short-term and limited impacts to air quality. The use of

VEGETATION Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>conducted during the appropriate time of year, produce far less PM emissions than wildland fires. There would be some increases in vehicular emissions, but these would not be significant.</p>	<p>on air quality. This would be especially true when these controlled burns are associated with sagebrush, pinyon-juniper woodland, and tamarisk burning to modify these vegetation communities.</p>	<p>quality. The use of prescribed burning to modify and control noxious weeds would result in pollutant emissions that have limited, short-term impacts to air quality.</p>	<p>would cause a major impact to air quality during a wildland fire occurrence. This would increase the amount of pollutant emissions such as PM10 emissions and also cause an increase in vehicular emissions associated with controlling a wildland fire</p>	<p>prescribed burning to modify and control noxious weeds would result in pollutant emissions and have limited, short-term impacts to air quality</p>
<p>Impacts to Soil, Water, and Riparian Treatments to restore vegetation communities to a more natural condition would have short-term impacts to soil, water, and riparian resources, but would result in long-term benefits once the areas are returned to vegetation condition class.</p> <p>The treatment of pinyon-juniper woodlands to return their dispersion to their historic range would provide significant benefits to these resources. Pinyon-juniper woodland is noted for causing loss of grasses and understory because of the toxicity of its needles to other vegetation when the needles fall on the ground. This causes a loss of vegetation diversity in these areas that leads to increased runoff and erosion. This, in turn, would cause increased siltation and sediment loading of streams impacting water quality and riparian/wetland</p>	<p>Impacts to Soil, Water, and Riparian Treatments to restore vegetation communities to more natural conditions would have short-term impacts to soil, water, and riparian resources, but would result in long-term benefits once the areas were returned to PFC.</p> <p>The treatment of pinyon-juniper woodlands to return their dispersion to their historic range would provide significant benefits to these resources. Pinyon-juniper woodland is noted for causing loss of grasses and understory because of the toxicity of its needles to other vegetation when the needles fall on the ground.</p> <p>Restoration of sagebrush steppe communities would result in greater permeability of soils, increasing absorption of precipitation in the water table. The result of these actions would be less erosion of those</p>	<p>Impacts to Soil, Water, and Riparian Treatments to restore vegetation communities to a more natural condition would have short-term impacts to soil, water, and riparian, but would result in long-term benefits once the areas were returned to PFC.</p> <p>Restricting BLM permitted surface-disturbing activities within established buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects.</p> <p>The treatment of pinyon-juniper woodlands to return their dispersion to their historic range would provide significant benefits to these resources. Pinyon-juniper woodland is noted for causing loss of grasses and understory because of the toxicity of its needles to other vegetation when the needles fall on the ground.</p> <p>Restoration of sagebrush steppe</p>	<p>Impacts to Soil, Water, and Riparian Using only natural processes to manipulate and restore vegetation communities to more natural conditions would result in long-term benefits once the areas were returned to PFC.</p> <p>Restricting BLM permitted surface-disturbing activities within established buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects.</p> <p>Not allowing treatment of pinyon-juniper woodland would result in further encroachment of pinyon-juniper woodland into more suitable sage steppe and grassland communities. This would result in long-term impacts to soil, water, and riparian resources because pinyon-juniper woodland is noted for causing loss of grasses and understory</p>	<p>Impacts to Soil, Water, and Riparian Treatments to restore vegetation communities to a more natural condition would have short-term impacts to soil, water, and riparian resources, but would result in long-term benefits once the areas were returned to PFC.</p> <p>Restricting BLM permitted surface-disturbing activities within established buffer zones would limit the agency's ability to control invasive weeds (tamarisks, phragmites, etc.), conduct instream and riparian habitat enhancement projects.</p> <p>The treatment of pinyon-juniper woodlands to return their dispersion to their historic range would provide significant benefits to these resources. Pinyon-juniper woodland is noted for causing loss of grasses and understory because of the toxicity of its needles to other vegetation when the needles fall on the</p>

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>communities.</p> <p>Restoration of sagebrush steppe communities would result in greater diversity of vegetation communities that allows for better permeability of soils, increasing percolation of water into the water table. The result of these actions would be less erosion of those soils normally associated with siltation and sediment loading of streams.</p> <p>Management of aspen communities for a diverse age class distribution to promote the greatest biodiversity in their understory would protect the associated soils, water sources, and complex riparian/wetland ecosystems found within these communities.</p>	<p>soils normally associated with siltation and sediment loading of streams.</p> <p>Management of aspen communities for a diverse age class distribution to promote the greatest biodiversity in their understory would protect the associated soils, water sources, and complex riparian/wetland zones found within these communities.</p>	<p>communities would result in greater permeability of soils, increasing absorption of precipitation in the water table. The result of these actions would be less erosion of those soils normally associated with siltation and sediment loading of streams.</p> <p>Management of aspen communities for a diverse age class distribution to promote the greatest biodiversity in their understory would protect the associated soils, water sources, and complex riparian/wetland zones found within these communities.</p>	<p>because of the toxicity of its needles to other vegetation when the needles fall on the ground. This leads to increased runoff accompanied by increased erosion, and more siltation and sediment loading of streams, impacting water quality and riparian/wetland resources.</p> <p>Management of sagebrush steppe communities by allowing natural succession and processes would result in some long-term benefits, including greater permeability of soils, increasing absorption of precipitation in the water table. However, once sagebrush steppe communities reached maturity, they would begin to overshadow understory grasses and forbs resulting in loss of the beneficial effects of these plant species in relation to soil, water, and riparian resources. This would cause impacts to local resources from increased erosion; loss of soils, and siltation and sediment loading of streams impacting water quality and riparian resources.</p> <p>Management of aspen communities for a diverse age class distribution to promote the greatest biodiversity in their understory would protect</p>	<p>ground.</p> <p>Restoration of sagebrush steppe communities would result in greater permeability of soils, increasing absorption of precipitation in the water table. The result of these actions would be less erosion of those soils normally associated with siltation and sediment loading of streams.</p> <p>Management of aspen communities for a diverse age class distribution to promote the greatest biodiversity in their understory would protect the associated soils, water sources, and complex riparian/wetland zones found within these communities.</p>

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			the associated soils, water sources, and complex riparian/wetland zones found within these communities.	
<p>Impacts to Vegetation Resources Manipulating vegetation by mechanical, biological, manual, prescribed fire, or chemical means on a case-by-case basis to achieve or maintain RHS would improve vegetation resources. These improvements would result in increased plant species diversity and resistance to disease or insect pest infestations. Evaluating vegetation manipulations on a case-by-case basis potentially would improve a greater area of the PFO if these actions were mutually compatible. For example, improvements to both rangelands and wildlife habitat that removed annual weeds would both improve vegetation resources.</p> <p>Managing aspen communities as a high-value habitat would increase species diversity, age class, and structure on about 9,300 acres. Maintaining existing pinyon-juniper woodland treatments preserves existing plant species diversity, age class, and structure.</p> <p>Vegetation treatments to</p>	<p>Impacts to Vegetation Resources Aggressively implementing and maintaining vegetation treatments by mechanical, biological, manual, prescribed fire or chemical means to achieve or maintain RHS would improve vegetation resources. These improvements would increase plant species diversity, resistance to disease or insect pest infestations. Aggressive treatments are not limited to prescribed fire and fuels treatments, but also include natural processes such as mortality from drought, insects, or disease. Such changes potentially increase either the number of acres treated during the life of the plan, or the amount of vegetation changed by treatments. Completing vegetation treatments on BLM lands within 50 years of plan implementation is considered an aggressive treatment rate.</p> <p>Research shows that in Utah pinyon-juniper woodlands are increasing. Aggressive treatments to pinyon-juniper woodlands would increase structure and species diversity</p>	<p>Impacts to Vegetation Resources Maintaining existing treatments and implementing a limited number of new vegetation treatments by mechanical, biological, manual, prescribed fire, or chemical means to achieve or maintain RHS would improve vegetation resources. These improvements would increase plant species diversity, structure, and resistance to disease or insect pest infestations. Vegetation treatments are not limited to prescribed fire and fuels treatments, but also include natural processes such as mortality from drought, insects, or disease. Completing vegetation treatments on BLM lands within 100 years of plan implementation is considered as the limited rate of implementation.</p> <p>Maintaining existing treatments and the limited implementation of new treatments to pinyon-juniper woodland would improve the plant structure and species diversity of the vegetation resources in those areas. Limited implementation of new treatments requires a 1.3 percent</p>	<p>Impacts to Vegetation Resources No significant impacts.</p> <p>Initiating vegetation treatments by natural processes such as wildland fire, or mortality from drought to achieve or maintain RHS would gradually improve vegetation resources. These improvements would increase plant species diversity, resistance to disease or insect pest infestations. Changes in rangeland vegetation from natural processes are difficult to predict and in the short-term may not maintain existing forage productivity levels. Completing vegetation treatments on BLM lands within 200 years of plan implementation is considered to be the approximate natural processes treatment rate.</p> <p>Research shows that in Utah pinyon-juniper woodlands are increasing. Not maintaining existing treatments and allowing natural processes to occur in pinyon-juniper woodlands would in the long-term increase structure and species diversity. Natural processes are anticipated to</p>	<p>Impacts to Vegetation Resources Manipulating vegetation by mechanical, biological, manual, prescribed fire, or chemical means on a case-by-case basis to achieve or maintain RHS would improve vegetation resources. These improvements would result in increased plant species diversity and resistance to disease or insect pest infestations. Evaluating vegetation manipulations on a case-by-case basis potentially would improve a greater area of the PFO if these actions were mutually compatible. For example, improvements to both rangelands and wildlife habitat that removed annual weeds would both improve vegetation resources.</p> <p>Maintaining existing treatments and the limited implementation of new treatments to pinyon-juniper woodland would improve the plant structure and species diversity of the vegetation resources in those areas. Limited implementation of new treatments requires a 1.3 percent average annual reduction of pinyon-juniper</p>

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<p>pinyon-juniper woodlands and aspen communities are likely to increase plant species diversity and structure, and increase resistance to disease or insect pest infestations.</p>	<p>in treated areas. Aggressively implementing treatment to reduce pinyon-juniper woodlands to their historic range requires a 2.5 percent average annual reduction on BLM lands within the PFO. About 196,000 acres through the life of the plan (about 9,800 per year) of existing pinyon-juniper woodlands could be affected by these treatments.</p> <p>Restricting pinyon-juniper woodlands to their historic range increases areas dominated by grasses and forbs in the PFO and may increase sagebrush steppe areas. This indirectly increases forage production leading to the potential for additional use by wildlife and livestock. If RHS is not being met, increased use by wildlife and livestock may increase invasions by noxious weeds and other invasive plant species. If this occurs, there may be more acres requiring treatment to prevent noxious weed invasions to meet RHS and desired Condition Class for those areas.</p> <p>Aggressively implementing vegetation treatments to manage sagebrush steppe to emphasize livestock and wildlife habitat would change the composition or structure of</p>	<p>average annual reduction of pinyon-juniper woodlands for about the next 100 years. Approximately 98,000 acres through the life of the plan (about 4,800 acres per year) of existing pinyon-juniper woodlands could be affected by these treatments. Restricting pinyon-juniper woodland stands to their historic range potentially increases areas dominated by grasses and forbs and sagebrush steppe areas on BLM lands within the PFO.</p> <p>Restricting pinyon-juniper woodlands to their approximate historic range increases areas dominated by grasses and forbs in the PFO and may increase sagebrush steppe areas. This indirectly increases forage production leading to the potential for additional use by wildlife and livestock. If RHS is not being met, increased use by wildlife and livestock may increase invasions by noxious weeds and other invasive plant species. If this occurs, there may be more acres requiring treatment to prevent noxious weed invasions to meet RHS and desired Condition Class for those areas.</p> <p>Limited implementation of vegetation treatments to manage sagebrush steppe for a mosaic of age classes and structure would change the composition or</p>	<p>affect about 2,500 acres per year, an average annual change of less than 1 percent. Approximately 49,000 acres of existing pinyon-juniper woodlands could convert to another vegetation cover type. This indirectly increases forage production, however is may not occur within the existing allotment boundaries. If RHS is not being met, increased use by wildlife and livestock may increase invasions by noxious weeds and other invasive plant species. If this occurs, there may be more acres requiring treatment to prevent noxious weed invasions to meet RHS and desired Condition Class for those areas.</p> <p>Managing sagebrush steppe through natural processes would change the composition or structure of existing vegetation. Natural processes are likely to increase plant species diversity, age class and structure, which indirectly may increase available forage and improve habitat for wildlife and some Special Status Species. Managing sagebrush steppe areas through natural process vegetation is anticipated to affect about 1,600 acres per year, a less than 1 percent average annual change per year. Through the</p>	<p>woodlands for the next 100 years. About 98,000 acres through the life of the plan (about 4,800 acres per year) of existing pinyon-juniper woodlands could be affected by these treatments. Restricting pinyon-juniper woodland stands to their historic range potentially increases areas dominated by grasses and forbs and sagebrush steppe areas on BLM lands within the PFO.</p> <p>Restricting pinyon-juniper woodlands to their approximate historic range increases areas dominated by grasses and forbs in the PFO and may increase sagebrush steppe areas. This indirectly increases forage production leading to the potential for additional use by wildlife and livestock. If RHS is not being met, increased use by wildlife and livestock may increase invasions by noxious weeds and other invasive plant species. If this occurs, there may be more acres requiring treatment to prevent noxious weed invasions to meet RHS and desired Condition Class for those areas.</p> <p>Managing sagebrush steppe through natural processes would change the composition or structure of existing vegetation. Natural processes are likely to increase plant</p>

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	<p>existing vegetation. Treatments are likely to increase plant species diversity, age class and structure, which indirectly may increase available forage and improve habitat for wildlife and some special status species. Aggressive implementation of vegetation treatments in sagebrush steppe areas is anticipated to affect about 6,300 acres per year, a 1.5 percent average annual increase. Through the life of the plan, vegetation treatments implemented to manage sagebrush steppe are anticipated to occur on about 126,000 acres.</p> <p>Data from National Forest System lands indicates aspen areas in Utah have declined by about 60 percent. A similar decline is anticipated to have occurred on BLM lands within the PFO. Regenerating aspen stands by aggressively implementing treatments requires a 2.5 percent average annual increase in aspen cover type, about 460 acres per year. Through the life of the plan, vegetation treatments to restore aspen communities are anticipated to affect about 9,300 acres. Regenerating and restoring aspen communities would increase plant species diversity, age</p>	<p>structure of existing vegetation. Encouraging these treatments in sagebrush steppe areas are likely to increase plant species diversity, age class, and structure, which indirectly may increase available forage and improve habitat for wildlife and some Special Status Species. Aggressive implementation of vegetation treatments in sagebrush steppe areas is anticipated to affect about 3,100 acres per year, a less than 1 percent average annual increase. Through the life of the plan, vegetation treatments implemented to manage sagebrush steppe are anticipated to occur on about 126,000 acres.</p> <p>Data from National Forest System lands indicates that aspen areas have declined by about 60 percent in Utah. A similar decline is anticipated to have occurred on BLM lands within the PFO. Regenerating aspen stands by limited new treatments to promote regeneration and expansion would require treating about 230 acres per year. Through the life of the plan, vegetation treatments to restore aspen communities are anticipated to affect about 4,600 acres, a 1.3 percent average annual increase in aspen cover type acres.</p>	<p>life of the plan, natural processes in sagebrush steppe areas are anticipated to occur on approximately 32,000 acres.</p> <p>Data from National Forest System lands indicates aspen areas in Utah have declined by approximately 60 percent. A similar decline is anticipated to have occurred on BLM lands within the PFO. Regenerating aspen stands by natural process is anticipated to occur at a less than 1 percent average annual change, affecting about 120 acres per year. Through the life of the plan, vegetation treatments to restore aspen communities are anticipated to affect approximately 2,300 acres. Regenerating and restoring aspen communities would increase plant species diversity, age class distribution and structure. Indirectly these changes can improve wildlife habitat and increase the amount of forage available.</p>	<p>species diversity, age class, and structure, which indirectly may increase available forage and improve habitat for wildlife and some Special Status Species. Managing sagebrush steppe areas through natural process vegetation is anticipated to affect about 1,600 acres per year, a less than 1 percent average annual change per year. Through the life of the plan, natural processes in sagebrush steppe areas are anticipated to occur on about 32,000 acres.</p> <p>Recognizing wetland vegetation types and managing them for high values for other resources may alter plant species' composition and structure. These impacts would not alter these areas' ability to meet NHS standards.</p> <p>Data from National Forest System lands indicates aspen areas in Utah have declined by about 60 percent. A similar decline is anticipated to have occurred on BLM lands within the PFO. Regenerating aspen stands by natural process is anticipated to occur at a less than 1 percent average annual change, affecting about 120 acres per year. Through the life of the plan, vegetation treatments to restore aspen communities are anticipated to</p>

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	class distribution, and structure. Indirectly, these changes can improve wildlife habitat and increase the amount of forage available	Regenerating and restoring aspen communities would increase plant species diversity, age class, and structure. Indirectly, these changes can improve wildlife habitat and increase the amount of forage available.		affect about 2,300 acres. Regenerating and restoring aspen communities would increase plant species diversity, age class, and structure. Indirectly, these changes can improve wildlife habitat and increase the amount of forage available.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources Surface disturbance related to vegetation management (i.e. off-site mitigation, vegetation treatments, collection of vegetation products) could result in the potential identification and disturbance of paleontological resources. Most areas throughout the PFO with paleontological resources present at the surface are not conducive to significant vegetation cover. As such, impacts from vegetation management, if they occur, are not anticipated to be significant.	Impacts to Paleontology Resources Aggressive implementation of additional vegetation treatments would increase the area of related surface disturbance. Because paleontological assessments would not be required before discovery of a paleontological locality, the possibility of incidentally damaging unidentified localities would increase. In addition, increased vegetation treatments would sharply increase short-term soil erosion, leading to potentially increased locality exposure and identification in these eroded areas. Most areas throughout the PFO with paleontological resources present at the surface are not conducive to significant vegetation cover. As such, impacts from vegetation	Impacts to Paleontology Resources Same as Alternative A.	Impacts to Paleontology Resources Same as Alternative A except: The short-term impacts related to vegetation manipulation (vegetation loss, soil erosion, etc.) would not impact paleontological resources. Because the areas containing paleontological resources at the surface are not conducive to significant vegetation cover, this change in impact is not anticipated to change the impacts to paleontological resources from those identified in Alternative A.	Impacts to Paleontology Resources Manipulating vegetation on a case-by-case basis would allow paleontological assessments to be completed before project implementation. This could result in the identification of new paleontological localities in the treatment areas. The possibility of incidentally damaging unidentified resources would also increase. Implementation of additional vegetation treatments would increase the area of related surface disturbance. Increased vegetation treatments would increase short-term impacts such as soil erosion, and surface visibility of previously unidentified paleontological resources. Because most areas throughout the PFO with paleontological resources present at the surface

VEGETATION Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	management, if they occur, are not anticipated to be significant.			are not conducive to supporting vegetation, the impacts from vegetation management noted above, if they occur, would not be significant.
<p>Impacts to Visual Resources Management of priority vegetation communities (e.g., pinyon-juniper woodland, wetland vegetation types, and aspen stands) under this alternative would preserve visual qualities in these areas by maintaining the diversity of the vegetation pattern.</p>	<p>Impacts to Visual Resources Same as the No Action Alternative, except impacts would increase from additional treatments being aggressively implemented to achieve RHS and to limit pinyon-juniper woodlands to their historic range</p>	<p>Impacts to Visual Resources No significant impacts.</p>	<p>Impacts to Visual Resources Visual qualities would be maintained and enhanced from the following: Allowing vegetation to be manipulated using only natural processes Allowing the natural succession of vegetation communities Managing wetland and aspen vegetation types to promote restoration and regeneration Off-site mitigation for habitat enhancement would not be required, thus potentially impacting the visual quality of areas where surface-disturbing activities take place within crucial value habitat.</p>	<p>Impacts to Visual Resources Same as the No Action Alternative. Management of priority vegetation communities (e.g., pinyon-juniper woodland, wetland vegetation types, and aspen stands) under this alternative would preserve visual qualities in these areas by maintaining the diversity of the vegetation pattern.</p>
<p>Impacts to Special Status Species Vegetation treatments applied to maintain and achieve RHS on a case-by-case basis are not anticipated to impact Special Status Species. Maintaining existing pinyon-juniper woodland areas for their intended purpose is not anticipated to impact Special Status Species populations and</p>	<p>Impacts to Special Status Species Limited implementation of new pinyon-juniper woodland areas and maintenance of existing treated areas removes vegetation, disturbs soil surfaces, and changes vegetation structure. However, the removing about 4,900 acres per year (98,329 acres through the life of the</p>	<p>Impacts to Special Status Species Management actions for vegetation treatments applied to maintain and achieve RHS are not anticipated to adversely impact Special Status Species over the long term. Consultation would occur with USFWS on any action that may take place in a Federally listed species potential</p>	<p>Impacts to Special Status Species Management actions for vegetation treatments applied to maintain and achieve RHS are not anticipated to adversely impact Special Status Species over the long term. Consultation would occur with USFWS on any action that may take place in a Federally listed species</p>	<p>Impacts to Special Status Species Management actions for vegetation treatments would only occur through natural processes such as wildland fire, insects, and disease. Natural succession of vegetation communities and not maintaining existing pinyon-juniper woodland are not anticipated to adversely impact</p>

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<p>habitats.</p> <p>Sagebrush communities managed for a mosaic of age classes and structure are not anticipated to adversely impact Special Status Species populations. Sagebrush communities managed for natural composition and age class distribution provide a greater diversity of habitat and forage for sage grouse. A greater age class distribution and composition of sagebrush improves forage for sage grouse young while still providing escape cover from predators. This directly improves not only their population and habitat but also other Special Status Species habitats.</p> <p>Managing aspen stands as a unique, limited, and high-value vegetation type for wildlife and livestock is not anticipated to impact Special Status Species populations.</p>	<p>plan) of pinyon-juniper woodlands may cause short-term adverse impacts to some BLM Sensitive Special Status Species populations and habitats.</p> <p>Management actions to aggressively implement vegetation treatments applied to maintain and achieve RHS are not anticipated to adversely impact Federally Listed Special Status Species. Consultation would occur with USFWS on any action that may take place in a Federally listed species potential or occupied habitat. Aggressive implementations of vegetation treatment under this alternative are anticipated to be about 16,000 acres per year (831,000 acres over the life of the plan) that would remove vegetation and disturb soils. Indirectly, these could cause short-term adverse impacts to BLM Sensitive Special Status Species.</p> <p>Aggressively implementing new pinyon-juniper woodland treatment areas for their intended purpose and maintaining existing treated areas removes vegetation, disturbs soil surfaces, and changes vegetation structure. There would be short-term adverse impacts to BLM</p>	<p>or occupied habitat.</p> <p>Limited implementation of new pinyon-juniper woodland areas and maintenance of existing treated areas removes vegetation, disturbs soil surfaces, and changes vegetation structure. However, removing about 4,900 acres per year (98,329 acres through the life of the plan) of pinyon-juniper woodlands may cause short-term adverse impacts to some BLM Sensitive Special Status Species populations and habitats.</p> <p>Sagebrush communities managed for a mosaic of age classes and structure are not anticipated to adversely impact Special Status Species populations and will benefit sage grouse. Encouraging actions that result in a mosaic of sagebrush ages and structures will provide a greater diversity of habitat and forage for sage grouse. A greater age class distribution and composition of sagebrush improves forage for sage grouse young while still providing escape cover from predators. Short-term disturbance associated with the removal of sagebrush may adversely impact some Special Status Species. However, in the long term, these actions may benefit some Special Status</p>	<p>potential or occupied habitat.</p> <p>Limited implementation of new pinyon-juniper woodland areas and maintenance of existing treated areas removes vegetation, disturbs soil surfaces, and changes vegetation structure. However, removing about 4,900 acres per year (98,329 acres through the life of the plan) of pinyon-juniper woodlands may cause short-term adverse impacts to some BLM Sensitive Special Status Species populations and habitats.</p> <p>Sagebrush communities managed for a mosaic of age classes and structure are not anticipated to adversely impact Special Status Species populations and will benefit sage grouse. Encouraging actions that result in a mosaic of sagebrush ages and structures will provide a greater diversity of habitat and forage for sage grouse. A greater age class distribution and composition of sagebrush improves forage for sage grouse young while still providing escape cover from predators. Short-term disturbance associated with the removal of sagebrush may adversely impact some Special Status Species. However, in</p>	<p>Special Status Species over the long term. Consultation would occur with USFWS if any natural processes could adversely impact a Federally listed species potential or occupied habitat.</p> <p>Sagebrush communities managed for a natural succession and processes are likely to maintain or improve Special Status Species populations in the long term. However, in the short term, natural processes could result in decreased structural diversity and age class distribution. This may indirectly cause adverse impacts to some Special Status Species.</p> <p>Managing aspen stands to promote regeneration, diversity, age class distribution, and restore understory vegetation indirectly improves Special Status Species populations and habitat.</p>

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	<p>Sensitive Special Status Species populations and habitats from the removal of about 197,000 (9,800 acres per year) acres of pinyon-juniper woodlands through the life of the plan.</p> <p>Sagebrush communities managed to emphasize livestock grazing and wildlife habitat are not anticipated to adversely impact Federally Listed Special Status Species.</p> <p>Vegetation treatments to sagebrush habitat are anticipated to be roughly 6,300 acres per year and about 126,000 through the life of the plan. These vegetation treatments remove existing vegetation and disturb soil surfaces. Indirectly, these could adversely impact some BLM Special Status Species by reducing habitat quantity and quality.</p> <p>Managing aspen stands to promote regeneration and diversity, age class, and to restore understory vegetation indirectly maintains and improves Special Status Species populations and habitats.</p>	<p>Species populations.</p> <p>Managing aspen stands to promote regeneration and diversity, age class, and to restore understory vegetation indirectly improves Special Status Species populations and habitats.</p>	<p>the long term, these actions may benefit some Special Status Species populations.</p> <p>Managing aspen stands to promote regeneration and diversity, age class, and to restore understory vegetation indirectly improves Special Status Species populations and habitats.</p>	
<p>Impacts to Fish and Wildlife Prescribed fires mimic natural fire behavior; increasing age class diversity , forage quantity</p>	<p>Impacts to Fish and Wildlife General: Existing vegetation treatments would be maintained, and additional</p>	<p>Impacts to Fish and Wildlife Existing vegetation treatments would be maintained, and limited new treatments would be</p>	<p>Impacts to Fish and Wildlife Vegetation would be manipulated using only natural process. These would include,</p>	<p>Impacts to Fish and Wildlife Existing vegetation treatments would be maintained, and new treatments would be</p>

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<p>and quality, and palatability for wildlife. Often this provides a habitat for a greater number of species than would be found in the communities flanking these areas.</p> <p>Big Game: Management of pinyon-juniper woodlands would continue to provide and improve big game winter range. The open stands provide forage for wildlife, while closed stands usually provide little more than cover. Treatments of pinyon-juniper woodlands would focus on wildlands and wildlife, which would serve to protect and improve habitat, forage, and cover.</p> <p>Non-game: Many non-game species would benefit from vegetation manipulation. Climax communities, especially pinyon-juniper woodlands, provide little benefit to most non-game species. Manipulating these would result in improvements in seral stage and greater diversity of vegetation; this would lead to greater habitat variability necessary for many species.</p> <p>Birds: Only a few species of birds (e.g., scrub jays and ferruginous hawks) rely on climax communities for part of their life requirements. Vegetation manipulation to open</p>	<p>treatments would be aggressively implemented to achieve or maintain RHS.</p> <p>Big Game: Pinyon-juniper woodlands provide little more than some cover for big game species. Treating pinyon-juniper woodlands to return them to their historic range would benefit big game species by opening these areas to more suitable forage compositions. Developing a mosaic pattern that would incorporate open forage areas interspersed with closed stands of pinyon-juniper woodlands would provide better quality habitat.</p> <p>Non-game: Many non-game species would benefit from vegetation manipulation. Climax communities, especially pinyon-juniper woodlands, provide little benefit to most non-game species. Manipulating these would result in improvements in seral stage and greater diversity of vegetation; this would lead to greater habitat variability necessary for many species.</p> <p>Birds: Only a few species of birds (e.g., scrub jays and ferruginous hawks) rely on climax communities for part of their life requirements.</p>	<p>implemented. Mechanical, biological, manual, prescribed fire, chemical, and pinion/juniper woodland treatments would not be aggressively pursued; however, an emphasis would be placed on natural processes to reach RHS. This would benefit fish and wildlife species and habitat by using vegetation treatments only when necessary, therefore minimizing disturbance and short-term impacts associated with vegetation treatments. In addition, not pursuing pinion-juniper woodland encroachment would result in loss of suitable habitat for many wildlife species.</p> <p>Big Game: Limiting pinyon-juniper woodlands to their historic ranges would open vast quantities of upland areas to more suitable big game habitat. This would be especially valuable in those areas of crucial winter range.</p> <p>Sagebrush-steppe communities are some of the most important areas for big game winter range. The management of these areas for mosaic patterns would open old-growth sagebrush to much needed forbs and grasses.</p> <p>Non-game: Many non-game species would benefit from vegetation manipulation. Climax communities, especially pinyon-</p>	<p>but are not limited to, wildland fire, disease, and insects. This alternative may not allow for adequate amounts of diverse forage and cover that results from vegetation manipulation. In addition, pinion-juniper woodland treatments would no longer be maintained. This may result in encroachment of pinion-juniper woodlands into sagebrush communities and result in reduction of available habitat for sage grouse and other wildlife that rely on sagebrush-steppe.</p> <p>Big Game: By not controlling the invasion of pinyon-juniper woodlands, significant amounts of winter range will be lost over time due to continued encroachment of these trees. The dense canopy cover that occurs in these areas reduces the amount of precipitation that reaches the ground. This reduces the amount of grasses and forbs that would normally be found in these areas.</p> <p>Upland game birds: The invasions of pinion/juniper woodlands into sagebrush-steppe communities has been identified as one of the key factors in the loss of crucial habitat needed for sage grouse, quail, and other game bird populations.</p>	<p>implemented. Mechanical, biological, manual, prescribed fire, chemical, and pinion/juniper woodland treatments would be pursued on a case-by-case basis; however, an emphasis would be placed on natural process to reach RHS. This would benefit fish and wildlife species and habitat by using vegetation treatments only when necessary, therefore minimizing disturbance and short-term impacts associated with vegetation treatments.</p> <p>Big Game: Reducing pinyon-juniper woodlands encroaching into sagebrush-steppe would open vast quantities of upland areas to more suitable big game habitat. Sagebrush -steppe communities are some of the most important areas for big game winter range. The management of these areas for mosaic patterns would open old-growth sagebrush to much needed forbs and grasses. This would be especially valuable in those areas of crucial winter range.</p> <p>Non-game: Many species of small mammals would increase in population from vegetation manipulation and many would decline in population, and some species populations would not be affected. Manipulating these populations for a mosaic pattern</p>

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<p>closed-canopy communities and provide greater diversity in vegetation type and seral stage would benefit many species of birds, including scrub jays and ferruginous hawks.</p> <p>Upland game birds: In addition, sagebrush communities would be managed for natural composition and age class distribution, therefore providing a greater diversity of habitat and forage for grouse, quail, and other upland game bird species. Providing a greater age class distribution of sagebrush and opening dense old growth would provide better foraging for sage grouse young while still providing escape cover from predators.</p> <p>Raptors: Many raptors, especially Ferruginous hawks, are adapted to specific types of vegetation communities. Manipulating vegetation to provide more ecotones would provide more habitats for small mammals that are the primary prey of raptors.</p>	<p>Vegetation manipulation to open closed-canopy communities will provide greater diversity in vegetation type and seral stage that would benefit many species of birds, including scrub jays and ferruginous hawks.</p> <p>Upland game birds: Managing sagebrush communities for natural composition and age class distribution would provide greater diversity of habitat and forage for sage grouse. Providing a greater age class distribution of sagebrush and opening dense old growth would provide better foraging for sage grouse young while still providing escape cover from predators.</p> <p>Raptors: Many raptors, especially ferruginous hawks, are adapted to specific types of vegetation communities. Manipulating vegetation to provide more ecotones would provide more habitats for small mammals that are the primary prey of raptors.</p>	<p>juniper woodlands, provide little benefit to most non-game species. Manipulating these would result in improvements in seral stage and greater diversity of vegetation; this would lead to greater habitat variability necessary for many species.</p> <p>Birds: Only a few species of birds (e.g., scrub jays and ferruginous hawks) rely on climax communities for part of their life requirements. Vegetation manipulation to open closed-canopy communities and provide greater diversity in vegetation type and seral stage would benefit many species of birds, including scrub jays and ferruginous hawks.</p> <p>Upland game birds: Under Alternative B, sagebrush would be managed in a mosaic of age and structure. Sage grouse and other game birds would benefit as the mosaic pattern provides diverse age and structure and generally improves brood rearing habitat.</p> <p>Raptors: Many raptors, especially ferruginous hawks, are adapted to specific types of vegetation communities. Manipulating vegetation to provide more ecotones would provide more habitats for small mammals that are the primary prey of raptors</p>		<p>would result in a variety of age classes, edge effect, and greater diversity of vegetation; this would lead to greater habitat variability necessary for many species.</p> <p>Birds: Vegetation manipulation to open closed-canopy communities and provide greater diversity in vegetation type and seral stage would benefit many species of birds and would negatively impact others. Shrub and ground nesting species would benefit; tree-nesting species would be impacted.</p> <p>Upland game birds: Sagebrush would be managed in a mosaic of age and structure. In general, Sage grouse would benefit, as the mosaic pattern would provide diverse age and structure and generally improve brood rearing habitat depending on the area being treated and the needs of the local populations.</p> <p>Raptors: Many raptors, especially ferruginous hawks, are adapted to specific types of vegetation communities. Manipulating vegetation to provide more ecotones would provide more habitats for small mammals that are the primary prey of raptors.</p> <p>Reptiles and amphibians:</p>

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				Vegetation manipulation to open closed-canopy communities and provide greater diversity in vegetation type and seral stage would benefit some species of reptiles and would negatively impact others.
<p>Impacts to Wild Horses and Burros Managing vegetation to meet Utah Standards for Rangeland Health would provide for the maintenance and improvement of the range condition.</p>	<p>Impacts to Wild Horses and Burros Impacts would include those identified in the No Action Alternative, although because the wild equine AML is reduced to just the wild burros in the Sinbad HMA those identified impacts may not occur. In addition, the following impacts would occur:</p> <p>Aggressive implementation of vegetation treatments would magnify the impacts Common to All Alternatives (spatial and temporal displacement of wild burros in the short term and increased forage production in the long term). The potential for these impacts to occur exists because there is pinyon-juniper woodland vegetation type in the HMA. This impact would not be significant because of the size of the HMAs and because only 6,000 acres of fuels/vegetation treatments are anticipated per year.</p>	<p>Impacts to Wild Horses and Burros Same as the No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros The short-term impact of eliminating vegetation treatments would be the preservation of existing forage resources. However, unless wildland fire or other natural processes impact vegetation, vegetation in the HMAs will advance in seral stage and age class, reduce in diversity, and increase in cover, crowding out understory forage species. Increased wildland fire use is a potential under this alternative, so the impact noted above may be tempered by increased fire use. The significance of the impact would vary based on the ability of wildland fire to play its natural role in the environment.</p>	<p>Impacts to Wild Horses and Burros Impacts would include those identified in No Action Alternative, although because the wild equine AML is reduced to just the wild burros in the Sinbad HMA those identified impacts may not occur. The following impacts, however, would occur:</p> <p>Aggressive implementation of vegetation treatments would magnify the impacts Common to All Alternatives (spatial and temporal displacement of wild burros in the short term and increased forage production in the long term). The potential for these impacts to occur exists because there is pinyon-juniper woodland vegetation type in the HMA. This impact would not be significant because of the size of the HMAs and because only 6,000 acres of fuels/vegetation treatments are anticipated per year.</p>
Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Maintaining areas where previous vegetation treatments reduced pinyon-juniper woodland encroachment would maintain those areas' characteristics of lower wildland fire intensity. Without continued treatments, the condition classes of fire regimes would continue to decline, moving from Condition Class 1.</p>	<p>Aggressive implementation of vegetation treatments would move treated areas toward Condition Class 1. As fire regimes in the PFO move toward condition class 1 the resulting mosaic would result in more firebreaks and reduce fuel loading. This would result in fires that are less intense and easier to manage. Aggressive treatments in pinyon-juniper woodlands would reduce the potential for intense, stand-replacing fires, and reduce the need for suppression of these types of wildland fires.</p>	<p>Same as Alternative A except: Because the number of new vegetation treatments would be reduced, wildland fires could spread more easily, resulting in an increase in average annual fire acreages</p>	<p>Managing vegetation using only natural processes would result in a short-term increase in the potential for larger, more intense wildland fires as wildland fires occur in condition classes 2 and 3. To maintain other resource goals and objectives, significant resources would be used to suppress these fires. The potential size and intensity of the wildland fires would increase the potential threats to life and property, and the potential to lose key ecosystem components. Implementation of emergency stabilization and rehabilitation (ESR) measures following the wildland fires would tend to mitigate the impacts from losing the key components, however, it would not eliminate the impact. As a result, the wildland fire pattern of increasingly frequent and intense wildland fires would return to a more natural fire cycle, although some areas may have altered fire regimes. This would be a significant impact.</p>	<p>Implementing treatments to limit pinyon-juniper woodlands to their historic range would move these areas toward condition class 1, resulting in fires that were less intense and were easier to manage, although not to the magnitude of Alternative A. Managing sagebrush steppe for a mosaic would move this fire regime toward condition class 1. It would also result in slower moving, less intensive wildland fires that would be easier to manage. Managing aspen vegetation types to promote regeneration and to diversify age class would result in a reduced demand to suppress wildland fires in these areas.</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands Direct and indirect decreases in forest and woodland health and sustainability would occur by</p>	<p>Impacts to Forest and Woodlands Short-term decreases in forest and woodland health and sustainability would occur</p>	<p>Impacts to Forest and Woodlands Same as Alternative A.</p>	<p>Impacts to Forest and Woodlands Decreased forest and woodland health and sustainability would result from</p>	<p>Impacts to Forest and Woodlands Decreases in forest and woodland health and sustainability would occur by</p>

VEGETATION Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>allowing mechanical, fire, biological, and chemical vegetation manipulation. Forest health and productivity would improve in the long term when manipulation occurred consistent with objectives of the Forest and Woodlands Management Plan. Decreases in the harvest of forest and woodland products could occur from a reduction in areas available for gathering these products.</p> <p>Continuing existing pinyon-juniper woodland treatments would decrease forest and woodland productivity by limiting the range of pinyon-juniper woodland to existing areas, which could limit availability of woodland products.</p> <p>Actions to manage aspen as a high value vegetation type would increase forest and woodland health by maintaining early successional aspen communities in existing ranges.</p>	<p>through aggressively implementing mechanical, fire, biological, and chemical vegetation manipulation. Forest health and productivity would improve in the long term when manipulation occurred consistent with objectives of the FWMP. Decreases in the availability of forest and woodland products could occur from a reduction in areas available for gathering these products.</p> <p>Continuing existing pinyon-juniper woodland treatments and aggressively implementing new treatments would cause decreases in forest and woodland productivity by limiting the range of pinyon-juniper woodlands to existing areas, which could limit availability of woodland products.</p> <p>Actions to manage land uses within aspen vegetation types to promote regeneration, diverse ages classes, and preservation and restoration of a diverse understory would increase forest and woodland health by maintaining and increasing early successional aspen communities in existing ranges.</p>		<p>restricting vegetation manipulation to natural processes. Forest health and productivity would improve in the long term if manipulation occurred consistent with objectives of the FWMP.</p> <p>Allowing pinyon-juniper woodland treatments to return to natural processes would result in increased woodland health and productivity by expanding the range of pinyon-juniper woodland, and expanding the availability of woodland products.</p> <p>Actions to manage land uses within aspen vegetations types to promote regeneration, diversify age classes, and preserve and restore a diverse understory would cause increases in forest and woodland health by maintaining and increasing early successional aspen communities in existing ranges.</p>	<p>allowing mechanical, fire, biological, and chemical vegetation manipulation. Forest health and productivity would improve in the long term when manipulation occurred consistent with objectives of the FWMP. Decreases in the availability of forest and woodland products could occur from a reduction in areas available for gathering these products.</p> <p>Maintaining existing pinyon-juniper woodland treatments and aggressively implementing new treatments would decrease forest and woodland productivity by limiting the range of pinyon-juniper woodland to existing areas, which could limit availability of woodland products.</p> <p>Actions to promote regeneration, diversify age classes, and preserve and restore a diverse understory of vegetation types would increase forest and woodland health by maintaining and increasing early successional aspen communities in existing ranges.</p>
Impacts to Livestock Implementing vegetation	Impacts to Livestock Maintaining existing vegetation	Impacts to Livestock Maintaining existing vegetation	Impacts to Livestock Manipulating vegetation by	Impacts to Livestock Implementing vegetation

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>treatments to meet RHS would improve forage quality and quantity; however, mechanical treatments may result in local short-term forage loss. Vegetation treatments on a case-by-case basis to achieve and/or maintain RHS would increase forage availability and quality and indirectly could increase the amount of forage available for livestock grazing.</p> <p>Focusing vegetation treatments to reduce pinyon-juniper woodland in the Wildland Urban Interface (WUI) and maintain existing treatments would increase forage production in those areas. Managing and maintaining sagebrush communities for natural composition and age class distribution can increase forage production. The recognition of aspen as a high-value habitat for other resources may change the timing, season, or duration of livestock grazing in those areas.</p>	<p>treatments and aggressively implementing additional ones to meet RHS would improve forage quality and quantity. Mechanical treatments may result in local short-term forage loss; however, vegetation treatments to improve RHS would increase forage availability and quality. Aggressively implementing treatments in pinyon-juniper woodlands, aspen, and sagebrush communities on about 16,600 acres per year would create more short-term impacts, but in the long term, would improve vegetation resources within the PFO. Indirectly, this would improve forage quantity and quality available for livestock use on about 830,000 acres over the life of the plan.</p> <p>Focusing vegetation treatments to reduce pinyon-juniper woodlands to their historic range by aggressively implementing new treatments and maintaining existing ones would increase forage production in those areas. This is anticipated to affect about 9,800 acres per year of existing pinyon-juniper woodlands. Managing sagebrush communities to emphasize livestock production and wildlife could increase forage production on</p>	<p>treatments and limiting implementation of additional ones to meet RHS would improve forage quality and quantity. Mechanical treatments may result in local short-term forage loss; however, vegetation treatments to improve RHS would increase forage availability and quality. Limited implementation of new treatments in pinyon-juniper woodlands, aspen, and sagebrush communities on about 8,300 acres per year would create more short-term impacts, but in the long term, it would improve vegetation resources within the PFO. Indirectly, this would improve forage quantity and quality available for livestock use on about 415,000 acres over the life of the plan.</p> <p>Focusing vegetation treatments to maintain existing treatment areas and limiting implementation of new treatments to move pinyon-juniper woodland toward their approximate historic range would increase forage production in those areas. This is anticipated to affect about 4,900 acres per year of existing pinyon-juniper woodlands. Managing sagebrush communities to emphasize livestock production and wildlife could increase forage production on about 3,100 acres per year. Forage production</p>	<p>natural processes such as wildland fire, disease, and insects would over the short-term decrease the amount of forage available for livestock grazing. About 4,100 acres per year and roughly 207,000 acres during the life of the plan of existing pinyon-juniper woodlands, sagebrush, and aspen vegetation is predicted to change from these natural processes. Over the long term manipulating vegetation through natural processes would improve forage quantity and quality. Changes due entirely to natural processes may take many years to realize and they may not meet each allotment's authorized AUMs</p>	<p>treatments to meet RHS would improve forage quality and quantity; however, mechanical treatments may result in local short-term forage loss. Vegetation treatments on a case-by-case basis to achieve and/or maintain RHS would increase forage availability and quality and indirectly could increase the amount of forage available for livestock grazing. Focusing vegetation treatments on maintaining existing treatment areas and limiting implementation of new treatments to move pinyon-juniper woodlands toward their approximate historic range would increase forage production in those areas. This is anticipated to affect about 4,900 acres per year of existing pinyon-juniper woodlands. Managing and maintaining sagebrush communities for natural composition and age class distribution in a manner that accommodates key habitat conditions for key obligate species could increase forage production. Forage production increases indirectly increase the amount of forage available for livestock and other resource uses.</p> <p>Managing land uses within aspen vegetation types to promote regeneration, diversify age class distribution, and</p>

VEGETATION Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	about 6,300 acres per year. Forage production increases indirectly increase the amount of forage available for livestock and other resource uses. Managing land uses within aspen vegetation types to promote regeneration, diversify age class distribution, and preserve or restore a diverse understory to include forbs, grasses, and shrubs may change the timing, season, or duration of livestock grazing in those areas. Treatments to restore aspen communities are anticipated to affect about 460 acres of existing and potential aspen communities per year.	increases indirectly increase the amount of forage available for livestock and other resource uses. Managing land uses within aspen vegetation types to promote regeneration, diversify age class distribution, and preserve or restore a diverse understory to include forbs, grasses, and shrubs may change the timing, season, or duration of livestock grazing in those areas.		preserve or restore a diverse understory to include forbs, grasses, and shrubs may change the timing, season, or duration of livestock grazing in those areas.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers Mechanical prescriptions to	Impacts to Wild and Scenic Rivers All prescriptions involving BLM	Impacts to Wild and Scenic Rivers Mechanical prescriptions to	Impacts to Wild and Scenic Rivers Mechanical prescriptions to	Impacts to Wild and Scenic Rivers All prescriptions involving BLM

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>maintain healthy vegetative communities would be incompatible with 273 miles of eligible river corridors tentatively classified as wild. All prescriptions involving BLM lands within the 238 miles of river corridor tentatively classified as scenic and 130 miles tentatively classified as recreational, would likely be consistent with these classifications.</p> <p>Some vegetation management prescriptions may be incompatible with protective management of some outstandingly remarkable values of eligible river segments. Any vegetative treatment within the eligible corridors would involve site-specific NEPA analysis to determine appropriate locations, methods, and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p>	<p>lands within the 80 miles of river corridor tentatively classified as scenic and 45 miles tentatively classified as recreational would likely be consistent with those classifications.</p> <p>Vegetation management prescriptions could be incompatible with protective management of some outstandingly remarkable values of suitable river segments.</p> <p>Any vegetative treatment within the suitable corridors would involve site-specific NEPA analysis to determine appropriate locations, methods, and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p> <p>Outstandingly remarkable values along 516 miles of eligible rivers not found suitable with this alternative could be compromised by certain vegetation management prescriptions. For example, the quality of the scenery could be compromised, there could be unintentional damage to cultural sites not identified before treatments, and there could be short-term</p>	<p>maintain healthy vegetative communities would be incompatible with 80 miles of suitable river corridors tentatively classified as wild. All prescriptions involving BLM lands within the 121 miles of river corridor tentatively classified as scenic and 76 miles tentatively classified as recreational, would likely be consistent with these classifications.</p> <p>Some vegetation management prescriptions may be incompatible with protective management of some outstandingly remarkable values of suitable river segments. Any vegetative treatment within the suitable corridors would involve site-specific NEPA analysis to determine appropriate locations, methods, and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p> <p>Outstandingly remarkable values along 364 miles of eligible rivers not found suitable with this alternative could be compromised by certain vegetation management prescriptions. For example, the quality of the scenery could be compromised, there could be unintentional damage to cultural sites not identified before treatments, and there could be short-term displacement of</p>	<p>maintain healthy vegetative communities would be incompatible with 273 miles of suitable river corridors tentatively classified as wild. All prescriptions involving BLM lands within the 238 miles of river corridor tentatively classified as scenic and 130 miles tentatively classified as recreational, would likely be consistent with these classifications.</p> <p>Some vegetation management prescriptions may be incompatible with protective management of some outstandingly remarkable values of suitable river segments. Any vegetative treatment within the suitable corridors would involve site-specific NEPA analysis to determine appropriate locations, methods, and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p>	<p>lands within the 122 miles of river corridor tentatively classified as scenic and 101 miles tentatively classified as recreational would likely be consistent with those classifications.</p> <p>Vegetation management prescriptions could be incompatible with protective management of some outstandingly remarkable values of suitable river segments.</p> <p>Any vegetative treatment within the suitable corridors would involve site-specific NEPA analysis to determine appropriate locations, methods, and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p> <p>Outstandingly remarkable values along 417 miles of eligible rivers not found suitable with this alternative could be compromised by certain vegetation management prescriptions. For example, the quality of the scenery could be compromised, there could be unintentional damage to cultural sites not identified before treatments, and there could be short-term displacement of recreational opportunities.</p>

VEGETATION				
Vegetation Treatments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	displacement of recreational opportunities.	recreational opportunities.		
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

VEGETATION				
Wetland Vegetation Types				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Wetland vegetation types (meadow, marsh, riparian) comprise less than 2 percent of the PFO area. These areas are vital components for rangeland health, wildlife populations, and hydrologic functions.				
Decisions				
Wetland vegetation types (meadow, marsh, riparian) would be recognized and managed as unique and limited high-value vegetation types for other resources (wildlife, livestock grazing, etc.)	Land uses within wetland vegetation types would be managed to promote restoration expansion and protection of this high-value vegetation type. Vegetation management would achieve diverse species composition of riparian obligate species including forbs, grass, and grass-like species and shrubs. Where livestock grazing of these habitats occurs, use would be avoided during the spring and managed to ensure a minimum 6-inch stubble height of herbaceous cover at the end of the grazing season.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water, and Riparian Management and protection of	Impacts to Soil, Water, and Riparian Management and protection of	Impacts to Soil, Water, and Riparian Management and protection of	Impacts to Soil, Water, and Riparian Management and protection of	Impacts to Soil, Water, and Riparian Management and protection of

VEGETATION Wetland Vegetation Types				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
wetland communities (i.e., wet and dry meadows, marsh, and riparian zones) for their unique water recharge and vegetation community associations would provide long-term benefits to all wildlife and livestock uses. Intensive management of these areas would provide long-term benefits and limited impacts to these resources.	wetland vegetation communities (i.e., meadows, marsh, and riparian zones) for their unique water recharge and vegetation community associations would provide long-term benefits to all wildlife and livestock uses. Intensive management of these areas would provide long-term benefits and limited impacts to these resources.	wetland vegetation communities (meadows, marsh, and riparian zones) for their unique water recharge and vegetation community associations would provide long-term benefits to all wildlife and livestock uses. Intensive management of these areas would provide long-term benefits and limited impacts to these resources.	wetland vegetation communities (wet and dry meadows, marsh, and riparian zones) for their unique water recharge and vegetation community associations would provide long-term benefits to all wildlife and livestock uses. Intensive management of these areas would provide long-term benefits and limited impacts to these resources.	wetland vegetation communities (e.g., meadows, marsh, and riparian zones) for their unique water recharge and vegetation community associations would provide long-term benefits to all wildlife and livestock uses. Intensive management of these areas would provide long-term benefits and limited impacts to these resources.
Impacts to Vegetation Resources Recognizing wetland vegetation types and managing them as containing high values for other resources may alter the percent cover of some plant species and increase age class structure.	Impacts to Vegetation Resources Recognizing wetland vegetation types and managing them for high values for other resources may alter plant species composition and structure. Indirectly, this can improve water quality, wildlife habitat and reduce erosion. These impacts would increase these areas ability to meet RHS standards.	Impacts to Vegetation Resources Same as Alternative A	Impacts to Vegetation Resources Same as Alternative A	Impacts to Vegetation Resources Same as Alternative A Recognizing wetland vegetation types and managing them for high values for other resources may alter plant species composition and structure. Indirectly, this can improve water quality, wildlife habitat and reduce erosion. These impacts would increase these areas ability to meet RHS standards.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species

VEGETATION				
Wetland Vegetation Types				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Managing wetland and riparian areas as a high-value habitat for wildlife or livestock grazing would change the vegetation structure and species composition. Indirectly, this could reduce habitat for wetland and riparian dependent Special Status Species populations.	Managing wetland and riparian areas as a high-value habitat to promote the restoration and expansion indirectly maintains and improves wetland and riparian dependent Special Status Species populations and habitat.	Same as Alternative A	Managing wetland and riparian areas as a high-value habitat to promote the restoration and expansion indirectly maintains and improves wetland and riparian dependent Special Status Species populations and habitat.	Managing wetland and riparian areas as a high-value habitat to promote the restoration and expansion indirectly maintains and improves wetland and riparian dependent Special Status Species populations and habitats.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas	Impacts to Wilderness Study Areas

VEGETATION				
Wetland Vegetation Types				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

VEGETATION				
Collection of Vegetation Products (Seeds/Live Plants)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Collection of vegetation products for restoration projects may interfere with maintaining viable populations of desired species. Permitting collection of vegetation products is a discretionary action for BLM.				
Decisions				
Use of vegetation products (seed collection, live plant collection, etc.) would be allowed by permit.	Commercial and non-commercial collection of vegetation products (seed, live plant, etc.) would be allowed by permit. Collection would be limited to areas and species, determined on a case-by-case basis and evaluated on a rangeland health basis as	Commercial and non-commercial collection of vegetation products (seed, live plant, etc.) would be allowed by permit. Collection would be limited to areas and species, determined on a case-by-case basis and evaluated on a rangeland health basis as needed.	No commercial collection of vegetation products would be allowed.	Commercial and non-commercial collection of vegetation products (seed, live plant, etc.) would be allowed by permit. Collection would be limited to areas and species, determined on a case-by-case basis and evaluated on a rangeland health basis as

VEGETATION				
Collection of Vegetation Products (Seeds/Live Plants)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	needed.			needed
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water, and Riparian Treating insect pests would result in possible contamination of water and riparian resources. Insect pests would be treated on a case-by-case basis to ensure that only appropriate measures, aimed directly at the specific pests, would be implemented. Widespread dispersal of non-specific insecticides would have a negative effect on insect populations that require water, riparian, and wetland ecosystems for their livelihood.	Impacts to Soil, Water, and Riparian No significant impacts.	Impacts to Soil, Water, and Riparian No significant impacts.	Impacts to Soil, Water, and Riparian No significant impacts.	Impacts to Soil, Water, and Riparian No significant impacts.
Impacts to Vegetation Resources Collecting vegetation products (i.e., live plants or seeds) by permit would not impact vegetation resources.	Impacts to Vegetation Resources No significant impacts.			
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.

VEGETATION				
Collection of Vegetation Products (Seeds/Live Plants)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Special Status Species Vegetation products such as seeds or live plants collected via permit are not anticipated to impact Special Status Species populations.	Impacts to Special Status Species Trampling associated with the collection of vegetation products such as seeds or live plants with a commercial or non-commercial permit may adversely impact some Special Status Species populations.	Impacts to Special Status Species Trampling associated with the collection of vegetation products such as seeds or live plants with a commercial permit may adversely impact some Special Status Species populations.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species Same as Alternative A.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.
Impacts to Wild Horses and Burros Impacts from collecting vegetation products would be localized directly in the area of collection and would include temporary short-term spatial displacement.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy	Impacts to Minerals and Energy	Impacts to Minerals and Energy	Impacts to Minerals and Energy	Impacts to Minerals and Energy

VEGETATION				
Collection of Vegetation Products (Seeds/Live Plants)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

VEGETATION				
Insect Pest Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Implementing insect pest control may not adequately protect high-value resources and may interfere with ecosystem processes. There is public controversy over the use of pesticides for control of insect pests. Some people believe it is necessary to protect values on private lands; others are concerned about the environmental and ecological effects.				
Decisions				
Strategies would be developed and implemented to address insect control, as needed.	Insect pests would be treated in coordination with the State of Utah, federal agencies, affected counties, adjoining	Insect pests would be treated on public land adjacent to other landowners or where impacts to high-value resources would	No control measures for insect pest control would be implemented.	Insect pests would be treated in coordination with the State of Utah, federal agencies, affected counties, adjoining private

VEGETATION				
Insect Pest Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Strategies would be developed and implemented in cooperation with the State of Utah, federal agencies, affected counties, adjoining private land owners, and other interests directly affected (e.g., 1997 Rangeland Grasshopper Cooperative Management Program).	private landowners, and other interests directly affected.	occur, in coordination with the State of Utah, federal agencies, affected counties, adjoining private landowners, and other interests directly affected.		landowners, and other interests directly affected.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water, and Riparian No significant impacts.	Impacts to Soil, Water, and Riparian Treating all insect pests would result in possible contamination of water and riparian resources. Insect pests need to be treated on a case-by-case basis to ensure that only appropriate measures, aimed directly at the specific pests, are implemented. Widespread dispersal of non-specific insecticides would have a negative effect on insect populations that require water, riparian, and wetland ecosystems for their livelihood.	Impacts to Soil, Water, and Riparian Treating all insect pests would result in possible contamination of water and riparian resources. Insect pests need to be treated on a case-by-case basis to ensure that only appropriate measures, aimed directly at the specific pests, are implemented. Widespread dispersal of non-specific insecticides would have a negative effect on insect populations that require water, riparian, and wetland ecosystems for their livelihood.	Impacts to Soil, Water, and Riparian Not implementing any control measures for insect pests would result in less chance of contamination of water and riparian resources. However, there would be long-term impacts when insect populations reached infestation levels. They would invade riparian and wetland communities, resulting in increased loss of vegetation that would cause loss of soils, increased erosion, and siltation and sediment loading of local streams, impacting water quality and riparian areas.	Impacts to Soil, Water, and Riparian Treating all insect pests would result in possible contamination of water and riparian resources. Insect pests need to be treated on a case-by-case basis to ensure that only appropriate measures, aimed directly at the specific pests, are implemented. Widespread dispersal of non-specific insecticides would have a negative effect on insect populations that require water, riparian, and wetland ecosystems for their livelihood.
Impacts to Vegetation Resources Cooperatively developing insect pest control strategies with the State of Utah, federal agencies,	Impacts to Vegetation Resources Treating insect pests in coordination with the State of Utah, federal agencies,	Impacts to Vegetation Resources Treating insect pests in coordination with the State of Utah, federal agencies, affected	Impacts to Vegetation Resources Not implementing insect pest control measures could change vegetation composition	Impacts to Vegetation Resources Treating insect pests in coordination with the State of Utah, federal agencies, affected

VEGETATION				
Insect Pest Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
affected counties, adjoining private landowners, and other interests directly affected could reduce the loss of vegetation from insect pest infestations.	affected counties, adjoining private landowners, and other interests directly affected could reduce the loss of vegetation from insect pest infestations. Indirectly, controlling insect pests could prevent the loss of vegetation cover and reduce erosion. Controlling insect pests on BLM lands limits the amount of forage consumed by insect pests, making forage available for other resources uses.	counties, adjoining private landowners, and other interests directly affected can reduce the loss of vegetation from insect pest infestations. Indirectly controlling insect pests can prevent the loss of vegetation cover and reduce erosion. Controlling insect pests on BLM lands limits the amount of forage consumed by insect pests, making it available for other resources uses.	and structure in the short and long term. The loss of vegetation from insect pest infestations might increase erosion in areas severely affected, reduce the amount of forage available for livestock and wildlife use, and increase the spread of some noxious weeds and invasive plant species.	counties, adjoining private landowners, and other interests directly affected could reduce the loss of vegetation from insect pest infestations. Indirectly controlling insect pests could prevent the loss of vegetation cover and reduce erosion. Controlling insect pests on BLM lands would limit the amount of forage consumed by insect pests, making forage available for other resources uses.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species Strategies to control insect pests are developed in cooperation with other federal and state agencies, local governments, and private landowners. These management actions are not anticipated to impact Special Status Species populations.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species Strategies to control insect pests are developed in cooperation with other federal and state agencies, local governments, and private landowners. These management actions are not anticipated to impact Special Status Species populations.	Impacts to Special Status Species Strategies to control insect pests are not anticipated to directly affect Special Status Species populations. Insects that pollinate Special Status Species plants would not be targets for control. However, some non-targeted insect species may be affected, and this could indirectly affect Special Status Species plants.	Impacts to Special Status Species Strategies to control insect pests are developed in cooperation with other federal and state agencies, local governments, and private landowners. These management actions are not anticipated to impact Special Status Species populations.
Impacts to Fish and Wildlife Impacts from insect pest control	Impacts to Fish and Wildlife Impacts from insect pest	Impacts to Fish and Wildlife .Insect pest control measures	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife

VEGETATION				
Insect Pest Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
management would be similar to vegetation management. Fish and wildlife species may be temporarily displaced by the human presence and change in vegetation in their habitat. However, the long-term benefits of insect pest control would result in a healthier, more diverse habitat and forage base.	control management would be similar to vegetation management. Fish and wildlife species may be temporarily displaced by human presence and change in vegetation in their habitat. However, the long-term benefits of insect pest control would result in a healthier, more diverse habitat and forage base.	would be implemented only on public lands where impacts to high-value resources are occurring. This would minimize impacts to fish and wildlife associated with insect pest control	No significant impacts.	No significant impacts.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock Cooperatively developing insect pest control strategies with the State of Utah, federal agencies, affected counties, adjoining private landowners, and other interests directly affected could reduce the loss of vegetation from insect pest infestations. Controlling insect pests on BLM lands would limit the amount of forage consumed by insect pests, making it available for other resources uses.	Impacts to Livestock Treating insect pests in coordination with the State of Utah, federal agencies, affected counties, adjoining private landowners, and other interests directly affected could reduce the loss of vegetation from insect pest infestations. Controlling insect pests on BLM lands would limit the amount of forage consumed by insect pests, making forage available for other resources uses.	Impacts to Livestock Treating insect pests on public lands adjacent to other landowners and areas with high-value resources in coordination with the State of Utah, federal agencies, affected counties, adjoining private landowners, and other interests directly affected can reduce the loss of vegetation from insect pest infestations. Controlling insect pests on BLM lands limits the amount of forage consumed by insect pests, making it available	Impacts to Livestock Not implementing any control measures for insect pests could reduce the amount of forage available for livestock and other resources uses particularly during periods of drought. Under certain climatic and rangeland conditions, insect pests could reduce the amount forage available for livestock production.	Impacts to Livestock Treating insect pests in coordination with the State of Utah, federal agencies, affected counties, adjoining private landowners, and other interests directly affected could reduce the loss of vegetation from insect pest infestations. Controlling insect pests on BLM lands would limit the amount of forage consumed by insect pests, making forage available for other resources uses.

VEGETATION				
Insect Pest Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		for other resources uses.		
Impacts to Recreation No significant impacts.				
Impacts to Lands and Realty No significant impacts.				
Impacts to Minerals and Energy No significant impacts.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

VEGETATION				
Off-Site Mitigation for Habitat Loss				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				

VEGETATION				
Off-Site Mitigation for Habitat Loss				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Surface-disturbing activities would result in habitat fragmentation and would reduce habitat quality and quantity. Surface-disturbing activities that result in long-term land use changes would fragment habitat and affect habitat integrity and quality. Off-site mitigation by way of habitat enhancement or replacement indirectly would reduce the severity of these impacts. These reductions in severity occur by replacing some habitat loss, improving quality of habitat, or reducing fragmentation of habitat.</p>				
Decisions				
<p>Require 1:1, acre-for-acre, off-site vegetation/habitat enhancement for any action that would result in surface disturbance to crucial value habitats (wildlife crucial ranges, suitable livestock grazing areas, wild horse ranges, and riparian wetland habitats).</p>	<p>BLM recognizes the merit of off-site mitigation strategies for the purposes of habitat enhancement. BLM would encourage willing partners to participate in off-site mitigation strategies.</p>			
Impact Analysis				
RESOURCES				
<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>			
<p>Impacts to Soil, Water, and Riparian Off-site mitigation for riparian disturbances conducted at a 1:1 ration (1 acre mitigation for 1 acre of impact) concurrent with surface disturbance would, in the long term, maintain the desired riparian PFC. A 1:1 ratio would require each acre of mitigation to be 100 percent successful.</p>	<p>Impacts to Soil, Water, and Riparian Requiring off-site mitigation for impacts from actions affecting wetland and riparian resources would not resolve the effects of actions that would cause erosion, siltation, and sediment loading in the affected area and downstream of the proposed project. It would be better to avoid actions in these sensitive environments, rather than mitigating them offsite. Aggressive implementation of additional vegetation treatments would lead to the possibility of increased erosion, indirectly reducing vegetation cover.</p>			
<p>Impacts to Vegetation Resources Requiring off-site 1:1 vegetation/habitat enhancement mitigation to offset impacts from any surface-disturbing activity in critical value habitat would</p>	<p>Impacts to Vegetation Resources Voluntary mitigation to offset impacts from surface-disturbing actions would be encouraged. Using mitigation techniques to offset impacts from any surface-disturbing activity in critical value habitat would improve vegetation resources. Improvements include increasing plant species diversity and structure.</p>			

VEGETATION				
Off-Site Mitigation for Habitat Loss				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
improve vegetation resources. Improvements include increasing plant species diversity and structure.				
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.			
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.			
Impacts to Visual Resources Requiring acre-for-acre offsite habitat enhancement for any surface-disturbing activity located within crucial value habitat would directly benefit VRM by mitigating impacts to the visual quality of the area affected	Impacts to Visual Resources Off-site mitigation for habitat enhancement would be voluntary and potentially would impact the visual quality of areas within crucial value habitats where surface-disturbing activities occurred.			
Impacts to Special Status Species Offsite mitigation at a 1:1 ratio to enhance vegetation or habitat would not affect Federally Listed species. However, mitigation would cause short-term impacts by disturbing soil surface and removing some existing vegetation. Long-term, BLM sensitive species populations and habitats would benefit when mitigation resulted in increased species and habitat mosaic diversity.	Impacts to Special Status Species Voluntary off-site mitigation to enhance habitat from surface-disturbing actions would be encouraged. Using mitigation techniques could offset impacts from surface-disturbing activities by reducing habitat fragmentation and improving habitat integrity. Intact high-quality habitats could indirectly increase or stabilize Special Status Species populations.			
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife Encouraging voluntary mitigation at a ratio of 1:1 (acre-for-acre) for actions that would disturb habitat would be beneficial to fish and wildlife because it would result in no net loss of crucial ranges and riparian wetland habitats. This would benefit fish and wildlife species			

VEGETATION				
Off-Site Mitigation for Habitat Loss				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	by ensuring that adequate habitat would be available. However, this would benefit fish and wildlife species only if the habitat restoration was of equal functionality and was 100 percent successful.			
Impacts to Wild Horses and Burros Off-site mitigation of surface disturbance would create short-term spatial displacement, but long-term impacts would not occur, because surface disturbances to vegetation would be mitigated.	Impacts to Wild Horses and Burros Mitigation of surface-disturbing activities, while voluntary, would result in short-term spatial displacement of wild burros if mitigation took place in the Sinbad HMA. Long-term impacts would not be anticipated because surface disturbances to vegetation would be mitigated.			
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management Requesting an acre-for-acre 1:1 ratio voluntary mitigation for actions that would disturb habitat would be beneficial to fish and wildlife because it would result in no net loss of crucial ranges and riparian wetland habitats. Under this alternative, voluntary off-site mitigation would be requested on about 10 percent of the PFO. This would benefit fish and wildlife species only if the habitat restoration was of equal functionality and was 100 percent successful.			
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands Requiring 1:1, acre-for-acre, off-site vegetation and habitat enhancement for any surface-disturbing actions in crucial value habitats would significantly increase forest and woodland health and productivity. Surface disturbance and subsequent mitigation techniques would cause a short-term impact to the use of forests and woodland products by reducing acreage available for product harvest, but they would produce long-term increases in forest health and productivity in the PFO by enhancing vegetation composition and structure within mitigated areas.			
Impacts to Livestock Requiring off-site vegetation/habitat enhancement for any action that would result in surface disturbance to crucial value habitats (wildlife crucial ranges, suitable livestock grazing areas, wild horse ranges, and riparian wetland habitats) in the long term could improve vegetation resources in the areas mitigated. Improvements to vegetation resources could indirectly	Impacts to Livestock No significant impacts.			

VEGETATION				
Off-Site Mitigation for Habitat Loss				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
increase the amount of forage available for livestock and other resource uses.				
Impacts to Recreation No significant impacts	Impacts to Recreation Any potential developed recreation facility that would be located within crucial value habitat (wildlife crucial ranges, suitable livestock grazing areas, wild horse ranges, and riparian wetland habitats) would be required to compensate for all surface disturbance with acre-for-acre off-site mitigation.			
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.			
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.			
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.			
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.			
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.			

CULTURAL RESOURCES**Assumptions**

The analysis is based on the following assumptions:

- Cultural resources will continue to be discovered throughout the PFO.
- Inventories required prior to “permitted” surface disturbance would result in the identification and evaluation of cultural resources.
- As access to an area increases, vandalism of cultural resources adjacent to the access routes would increase. Impacts from vandalism would be reduced as distance from the access route increases.
- Inventories required prior to surface-disturbing activities would allow for prescriptive mitigation of impacts through avoidance or data recovery.
- Impacts to identified cultural resources would be mitigated as determined through consultation with the State Historic Preservation Office (SHPO) and other interested parties.

Significance Criteria

Impacts to cultural resources would be considered significant when management actions or actions occurring that are reasonably associated with those actions result in unmitigated damage to cultural resources protected by either federal or state law.

Examples of adverse effects include—

- Physical destruction, damage, or alteration of all or part of the property
- Alteration of a property that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines
- Removal of the property from its historic location
- Change of the property’s use or of physical features within the property’s setting that contribute to its historical significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property’s significant historic features
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization
- Transfer, lease, or sale of the property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property’s historical significance (36 CFR Part 800.5(a)(2)).

Methods of Analysis

In general, impacts on physical cultural resources from ground disturbance are long-term. Although deterioration of archaeological sites may be slowed or halted, impacts cannot typically be reversed. Impacts to cultural resources include elimination or damage to the setting and physical integrity of a cultural resource site (e.g., National Register listed and eligible sites, landscapes, and cultural theme areas); disruption or reduction of the cultural, historic, and religious values of sites and areas; reduction in the data potential of a site; and damage to traditional collection areas or resource sites. Short-term impacts to cultural resource values generally affect public or traditional uses of cultural sites or areas. This includes visual or auditory impacts disturbing the site’s cultural values. These impacts can often be ameliorated or accommodated through activity planning.

The following analysis is a discussion of both long- and short-term impacts and their predicted severity by alternative. Although the location of every cultural site in the PFO is not known, the analysis considers the different management actions and their potential to directly or indirectly impact cultural resources. The alternatives presented in this document are programmatic in nature, and their potential impacts will be addressed at that level. To ensure preservation of specific cultural resource sites, further analyses are required at the implementation level of planning following site-specific cultural resource inventories.

The number of sites that could be impacted by various actions is directly correlated with the degree, nature, and quantity of surface disturbing activities within the planning area.

CULTURAL RESOURCES**Common to All Alternatives****Decision Background**

The following decisions provide direction for management of cultural resources. These decisions are included to clarify standard operating procedures.

Decisions

- Mitigate adverse impacts to cultural resources resulting from authorized federal undertakings (permitted activities, recreation use, OHV use, etc.) that could affect cultural resources or historic properties
- Allow permitted federal undertakings that could affect cultural resources or historic properties only after cultural resource management objectives are met
- Manage cultural resources according to the management objectives for the use category to which each cultural resource site is assigned.
- Complete a cultural resources inventory before beginning permitted federal undertakings that could affect cultural resources or historic properties, excluding those areas and circumstances identified in BLM M-8110.23, UT-BLM-H-8110 Section II.C, and UT-BLM-H-8110 Appendix 1
- Although complete Class III inventories would be performed for most land use actions, a field manager could waive inventory for any part of an area of potential effect when one or more of the following conditions exist:
 - Previous natural ground disturbance has modified the surface so extensively that the likelihood of finding cultural properties is negligible (Note: This is not the same as being able to document that any existing sites may have been impacted by surface disturbance; ground disturbance must have been so extensive as to reasonably preclude the location of any such sites)
 - Human activity within the last 50 years has created a new land surface to such an extent as to eradicate locatable traces of cultural properties.
 - Existing Class II or equivalent inventory data are sufficient to indicate that the specific environmental situation did not support human occupation or use to a degree that would make further inventory information useful or meaningful:
 - » Previous inventories must have been conducted according to current professionally acceptable standards.
 - » Records must be available and accurate and must document the location, methods, and results of the inventory.
 - » Class II or equivalent inventory data should include an adequate amount of acreage distributed across the same specific environmental situation that is located within the study area.
 - Inventory at the Class III level has previously been performed, and records documenting the location, methods, and results of the inventory are available. Such inventories must have been conducted according to current professionally acceptable standards.
 - Natural environmental characteristics are unfavorable to the presence of cultural properties (such as recent landslides or rock falls).
 - The nature of the proposed action is such that no impact can be expected on significant cultural resources.

CULTURAL RESOURCES Common to All Alternatives Impact Analysis	
RESOURCES	
Impacts to Air Quality	No significant impact.
Impacts to Soil, Water and Riparian	Unmitigated cultural resource excavations associated with recovery and excavations of cultural sites would cause local disruption of soils. To prevent erosion, sensitive soils would have to be protected and replaced when cultural resource excavation was completed. Standard protection measures associated with surface disturbing activities and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.
Impacts to Vegetation Resources	No significant impact.
Impacts to Cultural Resources	<p>Unmitigated, many authorized uses (permitted activities, recreation use, OHV use, etc.) identified in the alternatives could result in significant adverse impacts to cultural resources. However, these impacts would be mitigated through implementation of existing laws and policy, such as Section 106 of the National Historic Preservation Act (NHPA) and FLPMA. Required cultural resource inventories would result in the identification of cultural resource sites. Following site identification through site-specific inventories, mitigation measures would be prescribed as necessary according to the sites' assigned use category. Mitigation measures include project relocation or redesign (avoidance), or various scientific data recovery methods, such as recordation, surface collection, subsurface testing, or excavation. Cultural resource management requirements would increase the knowledge and understanding of the area's history and prehistory. These actions effectively minimize the potential for unmitigated impacts to known cultural resources.</p> <p>Although the preferred mitigation measure for significant cultural resources within the area of an undertaking is avoidance, this is not always possible. As such, data recovery is an alternative to avoidance. Although avoidance preserves the physical archaeological record in place (within its original context), data recovery preserves the record through archaeological measures. These measures often result in the elimination of the physical archaeological record at the site and conversion to a paper or archival record associated with collected artifacts. In addition, data recovery preserves the scientific values of a site using modern scientific methods. Removing a site using current scientific methods eliminates the scientific values that future, more accurate methods may be able to identify. Site preservation through data recovery also reduces, if not eliminates, other uses of cultural resources sites such as traditional use, public use, conservation use, or experimental use. As land development increases, preferring data recovery to avoidance would result in the gradual reduction of the physical archaeological record within the PFO. It would also reduce the number of sites available for other cultural resource uses.</p>
Impacts to Paleontology Resources	No significant impact.
Impacts to Visual Resources	No significant impact.
Impacts to Special Status Species	No significant impact.
Impacts to Fish and Wildlife	No significant impact.
Impacts to Wild Horses and Burros	

CULTURAL RESOURCES Common to All Alternatives	
No significant impact.	
Impacts to Fire and Fuels Management No significant impact.	
RESOURCE USES	
Impacts to Forest and Woodlands No significant impact.	
Impacts to Livestock No significant impact.	
Impacts to Recreation No significant impact.	
Impacts to Lands and Realty No significant impact.	
Impacts to Minerals and Energy	
Leasable Minerals Oil and Gas. Required cultural resource inventories prior to initiating surface disturbing activities could decrease potential costs to operators and would minimize the potential for costly delays in oil and gas exploration and development were cultural resources identified/disturbed/damaged during construction activities. Coal. Required cultural resource inventories prior to surface-disturbing activities would decrease potential costs and would minimize the potential for costly delays in coal development activities if cultural resources were identified, disturbed, or damaged during the activities.	
Locatable Minerals Impacts to locatable minerals from cultural resource management actions would not be significant.	
Mineral Materials Impacts to mineral materials from cultural resource management actions would not be significant.	
SPECIAL DESIGNATIONS	
Impacts to Wilderness Study Areas No significant impact.	
Impacts to Areas of Critical Environmental Concern No significant impact.	
Impacts to Wild and Scenic Rivers No significant impact.	
SUPPORT	
Impacts to Transportation and Motorized Access	

CULTURAL RESOURCES Common to All Alternatives	
No significant impact.	
Impacts to Hazardous Materials and Waste No significant impact.	

CULTURAL RESOURCES Cultural Resources Management Categories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
<p>Cultural resource values would be managed for the following uses:</p> <ul style="list-style-type: none"> • Information potential • Public values • Conservation <p>The Buckhorn Cattle Guard Panel and the Buckhorn Panel would be designated Public Use sites.</p>	<p>Cultural resources would be allocated to the use categories identified and described in BLM-M-8110.4:</p> <ul style="list-style-type: none"> • Scientific use • Public use • Conservation for future use • Traditional use • Experimental use • Discharged from management <p>Allocations to the use categories would be made during implementation and activity-level planning.</p> <p>Cultural resource use allocations would be reevaluated and revised, as needed, when circumstances change or when new data become available.</p>			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources Allocating cultural resource sites to use categories at the	Impacts to Cultural Resources Same as No Action Alternative.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.

CULTURAL RESOURCES				
Cultural Resources Management Categories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
implementation level would allow the sites to be preserved according to their values and the potential impacts to those values. Management objectives have been developed for the allocations, identified in Appendix 5, to guide site management. Allocations would guide site-by-site management to ensure the preservation of cultural resource values in light of use for the identified values.				
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.

CULTURAL RESOURCES				
Cultural Resources Management Categories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Livestock No significant impact.				
Impacts to Recreation No significant impact.				
Impacts to Lands and Realty No significant impact.				
Impacts to Minerals and Energy No significant impact.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>There are many documented cultural sites throughout the PFO, and many more that have not yet been discovered. Prehistoric and historic resources are fragile non-renewable resources that are vulnerable to surface-disturbing activities. Cultural resources are important nationally and valued by local communities as a heritage resource. Cultural inventories are required in response to permits that include surface disturbing activities. Other inventories are required to identify resources at risk from non-permitted activities, such as recreation use. BLM also needs inventories of priority areas to fulfill its duties as a steward of cultural resources under the NHPA.</p>				
<p>Implementation-level plans for Desolation Canyon National Historic Landmark (NHL) and Nine Mile Canyon identify a need for new field inventories.</p>	<p>Areas for new field inventories would be prioritized as follows:</p> <ul style="list-style-type: none"> • Areas of special cultural designation (ACECs, RNAs, NHLs, National Register sites, etc.) that have not been fully inventoried • Resources eligible for the National Register of Historic Places at a national level of significance that have not been fully inventoried • Cultural resource sites designated for public use • 5-mile vulnerability zones surrounding cities and towns • 400-feet from the centerline on designated OHV trails. 			
<p>Impacts from new field inventories would be beneficial to Cultural ACECs (Dry Lake ACEC, Copper Globe ACEC, Muddy Creek ACEC, Rock Art ACEC, Swasey Cabin, Temple Mountain).</p>	<p>Cultural inventories would increase knowledge of the relevance and importance of these sites:</p> <ul style="list-style-type: none"> • Copper Globe—Cultural • Dry Lake—Cultural • Rock Art—Cultural • Muddy Creek—Cultural • Swasey Cabin—Cultural • Temple Mountain—Cultural • Heritage Sites—Cultural • Uranium District—Cultural • Temple Cottonwood—Cultural 			
Impact Analysis				
RESOURCES				
<p>Impacts to Air Quality No significant impact</p>	<p>Impacts to Air Quality No significant impact</p>	<p>Impacts to Air Quality No significant impact</p>	<p>Impacts to Air Quality No significant impact</p>	<p>Impacts to Air Quality No significant impact</p>
<p>Impacts to Soil, Water and Riparian Unmitigated cultural resource excavations associated with</p>	<p>Impacts to Soil, Water and Riparian Cultural resource excavations associated with recovery and</p>	<p>Impacts to Soil, Water and Riparian Cultural resource excavations associated with recovery and</p>	<p>Impacts to Soil, Water and Riparian Unmitigated cultural resource excavations associated with</p>	<p>Impacts to Soil, Water and Riparian Unmitigated cultural resource excavations associated with</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
recovery and excavations of cultural sites would cause local disruption of soils. To prevent erosion, sensitive soils would have to be protected and replaced when cultural resource excavation was completed. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	excavations of cultural sites would cause local disruption of soils. To prevent erosion, sensitive soils would have to be protected and replaced when cultural resource excavation was completed. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	excavations of cultural sites would cause local disruption of soils. To prevent erosion, sensitive soils would have to be protected and replaced when cultural resource excavation was completed. Standard protection measures associated with surface-disturbing activities, including 100-foot buffers and appropriate reclamation practices, would prevent long-term impacts to soils, water, and riparian/wetland resources.	recovery and excavations of cultural sites would cause local disruption of soils. To prevent erosion, sensitive soils would have to be protected and replaced when cultural resource excavation was completed. Standard protection measures associated with surface-disturbing activities and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	recovery and excavations of cultural sites would cause local disruption of soils. To prevent erosion, sensitive soils would have to be protected and replaced when cultural resource excavation was completed. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water quality, and riparian/wetland resources.
<p>Impacts to Vegetation Resources Prioritizing the areas listed in Chapter 2 for new field inventories would create a high probability that additional cultural resource sites would be identified in the Desolation Canyon National Historic Landmark and Nine Mile Canyon area. Identification of new sites could change the type, location, and extent of vegetation treatments within the area.</p> <p>Inventory and mitigation of cultural resources in the direct and indirect impact area before vegetation treatments would decrease cost and complexity of the planned treatment. Inventories minimize the potential for costly delays in</p>	<p>Impacts to Vegetation Resources Prioritizing the areas listed in Chapter 2 for new field inventories would create a high probability that additional cultural resource sites would be identified in the Desolation Canyon National Historic Landmark and Nine Mile Canyon area. Identification of new sites could change the type, location, and extent of vegetation treatments within the area.</p> <p>Inventory and mitigation of cultural resources in the direct and indirect impact area before vegetation treatments would decrease cost and complexity of the planned treatment. Inventories minimize the potential for costly delays in</p>	<p>Impacts to Vegetation Resources Prioritizing the areas listed in Chapter 2 for new field inventories would create a high probability that additional cultural resource sites would be identified in the Desolation Canyon National Historic Landmark and Nine Mile Canyon area. Identification of new sites could change the type, location, and extent of vegetation treatments within the area.</p> <p>Inventory and mitigation of cultural resources in the direct and indirect impact area and a 100-foot buffer before vegetation treatments would decrease cost and complexity of the planned treatment. Inventories minimize the</p>	<p>Impacts to Vegetation Resources Cultural resource inventories for all direct impacts plus a 300-foot area of potential effect are not anticipated to significantly impact vegetation resources. Inventory and mitigation of cultural resources in the direct and indirect impact area before vegetation treatments would decrease cost and complexity of the planned treatment. Inventories minimize the potential for costly delays in project implementation where cultural resources are identified, disturbed, or damaged during the improvement or construction activities.</p> <p>Avoidance and protection of cultural sites would decrease</p>	<p>Impacts to Vegetation Resources Prioritizing the areas listed in Chapter 2 for new field inventories would create a high probability that additional cultural resource sites would be identified in the Desolation Canyon National Historic Landmark and Nine Mile Canyon area. Identification of new sites could change the type, location, and extent of vegetation treatments within the area.</p> <p>Inventory and mitigation of cultural resources in the direct and indirect impact area before vegetation treatments would decrease cost and complexity of the planned treatment. Inventories minimize the potential for costly delays in</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>project implementation where cultural resources are identified/disturbed/damaged during the improvement/construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact vegetative resources.</p> <p>Cultural resource inventories and excavations for all federal actions are not anticipated to significantly impact vegetation resources.</p> <p>Avoidance and protection of cultural sites would decrease local surface-disturbing activities on or near those sites, which would minimize disturbance to vegetation in those areas. Avoidance of cultural sites would impact vegetation treatments by adjusting project locations or methods. Standard protection measures associated with surface disturbing activities and reclamation would reduce damage to vegetation in those areas over the long term.</p> <p>Cultural data recovery excavations would cause local surface disturbance and vegetation removal; however,</p>	<p>project implementation where cultural resources are identified/disturbed/damaged during the improvement/construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact vegetative resources.</p> <p>Cultural resource inventories and excavations for all federal actions are not anticipated to significantly impact vegetation resources.</p> <p>Avoidance and protection of cultural sites would decrease local surface disturbing activities on or near those sites, which would minimize disturbance to vegetation in those areas. Avoidance of cultural sites would impact vegetation treatments by adjusting project locations or methods. Standard protection measures associated with surface disturbing activities and reclamation would reduce damage to vegetation in those areas over the long term.</p> <p>Cultural data recovery excavations would cause local surface disturbance and vegetation removal; however,</p>	<p>potential for costly delays in project implementation where cultural resources are identified/disturbed/damaged during the improvement/construction activities.</p> <p>Avoidance and protection of cultural sites would decrease local surface-disturbing activities on or near those sites, which would minimize disturbance to vegetation in those areas. Avoidance of cultural sites would impact vegetation treatments by adjusting project locations or methods. Standard protection measures associated with surface-disturbing activities and reclamation would reduce damage to vegetation in those areas over the long term.</p> <p>Cultural data recovery excavations would cause local surface disturbance and vegetation removal; however, standard protection measures and required reclamation practices would mitigate any long-term effects on the vegetation resource.</p> <p>Cultural resource excavations would disturb soil surfaces, providing noxious weeds and invasive species an opportunity for establishment.</p>	<p>local surface-disturbing activities on or near those sites, which would minimize disturbance to vegetation in those areas. Avoidance of cultural sites would impact vegetation treatments by adjusting project locations or methods. Standard protection measures associated with surface-disturbing activities and reclamation would reduce damage to vegetation in those areas over the long term.</p> <p>Cultural data recovery excavations would cause local surface disturbance and vegetation removal; however, standard protection measures and required reclamation practices would mitigate any long-term effects to the vegetation resource.</p> <p>Cultural resource excavations would disturb soil surfaces, providing noxious weeds and invasive species an opportunity for establishment.</p>	<p>project implementation where cultural resources are identified, disturbed, or damaged during the improvement or construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact vegetative resources.</p> <p>Cultural resource inventories and excavations for all federal actions are not anticipated to significantly impact vegetation resources.</p> <p>Avoidance and protection of cultural sites would decrease local surface disturbing activities on or near those sites, which would minimize disturbance to vegetation in those areas. Avoidance of cultural sites would impact vegetation treatments by adjusting project locations or methods. Standard protection measures associated with surface disturbing activities and reclamation would reduce damage to vegetation in those areas over the long term.</p> <p>Cultural data recovery excavations would cause local surface disturbance and vegetation removal; however,</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>standard protection measures and required reclamation practices would mitigate any long-term effects on the vegetation resource.</p> <p>Cultural resource excavations would disturb soil surfaces, providing noxious weeds and invasive species an opportunity for establishment.</p>	<p>standard protection measures and required reclamation practices would mitigate any long-term effects on the vegetation resource.</p> <p>Cultural resource excavations would disturb soil surfaces, providing noxious weeds and invasive species an opportunity for establishment.</p>			<p>standard protection measures and required reclamation practices would mitigate any long-term effects to the vegetation resource.</p> <p>Cultural resource excavations would disturb soil surfaces, providing noxious weeds and invasive species an opportunity for establishment.</p> <p>Cultural resource inventories and excavations for all federal actions are not anticipated to significantly impact vegetation resources.</p> <p>Avoidance and protection of cultural sites would decrease local surface disturbing activities on or near those sites, which would minimize disturbance to vegetation in those areas. Avoidance of cultural sites would impact vegetation treatments by adjusting project locations or methods. Standard protection measures associated with surface disturbing activities and reclamation would reduce damage to vegetation in those areas over the long term.</p> <p>Cultural data recovery excavations would cause local surface disturbance and vegetation removal; however, standard protection measures and required reclamation practices would mitigate any</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				<p>long-term effects to the vegetation resource.</p> <p>Cultural resource excavations would disturb soil surfaces, providing noxious weeds and invasive species an opportunity for establishment.</p>
<p>Impacts to Cultural Resources Managing disturbance to linear cultural resources (historic railroad grades, irrigation systems, etc.) at the point of a disturbing project, including recordation and mitigation, would result in a long-term potentially significant impact. While the decision does not specifically preclude analysis of other information relating to the complete resource, the extent to which such an analysis would be completed would likely be low, resulting in a long-term cumulative loss in information through piecemeal degradation. Continually managing linear cultural features at the point of impact may lead to a gradual loss of system integrity. Because the feature would not be documented as a single site, individual elements could be affected until the context of the entire feature is lost.</p>	<p>Impacts to Cultural Resources The prioritization for new field inventories would highlight those areas where cultural resources of known importance, or sites vulnerable to unmitigated impact, would be inventoried as monies and staff are available. This would increase the knowledge base in these areas, while providing for improved management of these resources.</p>	<p>Impacts to Cultural Resources Impacts would be the same as those identified in Alternative A, except in relation to linear cultural resource management and required cultural resource inventories. Requiring inventories in a 100-foot area of potential effect beyond the area of direct impact would increase the potential for identifying and/or mitigating adverse effects on cultural resource sites. As a result, cultural resources in these areas would be identified and impacts, whether direct or indirect, would be mitigated, thereby preserving the cultural resource values.</p> <p>Management of linear cultural resources differs from that in Alternative A in that fees would be assessed for disturbing a portion of a linear site. The fees would be placed in an account held by the Division of State History, in accordance with an agreement with the BLM. Monies from the account</p>	<p>Impacts to Cultural Resources Impacts would be the same as those identified in Alternative A, except in relation to linear cultural resource management and required cultural resource inventories. Requiring inventories in a 300-foot area of potential effect beyond the area of direct impact would increase the potential for identifying and/or mitigating adverse effects to cultural resource sites. As a result, cultural resources in these areas would be identified and impacts, whether direct or indirect, would be mitigated, thereby preserving the cultural resource values.</p> <p>Management of linear cultural resources differs from that in Alternative A in that the first activity to disturb a portion of the linear feature would be required to complete documentation of the resource as a whole. This would ensure that cultural resource information for linear features</p>	<p>Impacts to Cultural Resources Impacts would be the same as those identified in Alternative A, except with regard to management of linear cultural resources. Managing disturbance to linear cultural resources (historic railroad grades, irrigation systems, etc.) at the point of a disturbing project, including recordation and mitigation, would result in a long-term potentially significant impact. Management of linear features at points of impact would lead to a gradual loss of system integrity. Because the feature would not be fully documented as a single site, elements could be affected until the context of the entire feature is lost.</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		would be used to document the complete linear resource, similarly to the mitigation fund for wildlife habitat. This action would ensure the documentation/data recovery of complete linear cultural resources.	is not lost through segmented documentation. This decision would increase the understanding of the feature in the context in which it was constructed.	
Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact
Impacts Visual Resources No significant impact	Impacts Visual Resources No significant impact	Impacts Visual Resources No significant impact	Impacts Visual Resources No significant impact	Impacts Visual Resources No significant impact
Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact
Impacts to Fish and Wildlife Excavation and studies of cultural resources in caves and around cliff areas would be restricted during those periods identified for buffers in the USFWS "Guidelines for Raptor Protection from Human and Land Use Disturbances."	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Same as No Action Alternative. Excavation and studies of cultural resources in caves and around cliff areas would be restricted during those periods identified for buffers in the USFWS "Guidelines for Raptor Protection from Human and Land Use Disturbances."
Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact
Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact
RESOURCE USES				
Impacts to Forest and Woodlands	Impacts to Forest and Woodlands	Impacts to Forest and Woodlands	Impacts to Forest and Woodlands	Impacts to Forest and Woodlands

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact	No significant impact	No significant impact	No significant impact	No significant impact
<p>Impacts to Livestock Management actions associated with cultural resources would affect relatively small areas and would not impact the quantity of livestock forage available. Even under the most intense management (e.g., excavation), the amount of acreage disturbed would be very small. Fencing cultural sites and excluding grazing from these sites would eliminate livestock use, which would result in a loss of available forage. However, given the size of most cultural sites, this impact would not significantly affect livestock grazing within the PFO. Restrictions on surface disturbing activities near cultural sites would result in modifications to range improvements or relocation of the range improvements.</p> <p>Livestock management actions may be required to meet management objectives associated with soil, water, and riparian resources. These resources include springs, reservoirs, and wet meadows. Not allowing new surface disturbing activities within the 100-year flood plain, or 330 feet on either side from the</p>	<p>Impacts to Livestock Management actions associated with cultural resources would affect relatively small areas and would not impact the quantity of livestock forage available. Even under the most intense management (e.g., excavation), the amount of acreage disturbed would be very small. Fencing cultural sites and excluding grazing from these sites would eliminate livestock use, which would result in a loss of available forage. However, given the size of most cultural sites, this impact would not significantly affect livestock grazing within the PFO. Restrictions on surface-disturbing activities near cultural sites would result in modifications to range improvements or relocation of the range improvements.</p> <p>Prioritizing the areas listed in Chapter 2 for new field inventories create a high probability that additional cultural resource sites would be identified. Identifying new cultural sites could require additional avoidance and mitigation for rangeland improvement projects within the area. This can include</p>	<p>Impacts to Livestock Management actions associated with cultural resources would affect relatively small areas and would not impact the quantity of livestock forage available. Even under the most intense management (i.e., excavation), the amount of acreage disturbed would be very small. Fencing cultural sites and excluding grazing from these sites would eliminate livestock use, which would result in a loss of available forage. However, given the size of most cultural sites, this impact would not significantly affect livestock grazing within the PFO. Restrictions on surface disturbing activities near cultural sites would result in modifications to range improvements or relocation of the range improvements.</p> <p>Prioritizing the areas listed in Chapter 2 for new field inventories creates a high probability that additional cultural resource sites will be identified. Identifying new cultural sites could require additional avoidance and mitigation for rangeland improvement projects within the area. This can include changing the location of a</p>	<p>Impacts to Livestock Management actions associated with cultural resources would affect relatively small areas and would not impact the quantity of livestock forage available. Even under the most intense management (e.g., excavation), the amount of acreage disturbed would be very small. Fencing cultural sites and excluding grazing from these sites would eliminate livestock use, which would result in a loss of available forage. However, given the size of most cultural sites, this impact would not significantly affect livestock grazing within the PFO. Restrictions on surface disturbing activities near cultural sites would result in modifications to range improvements or relocation of the range improvements.</p> <p>Prioritizing the areas listed in Chapter 2 for new field inventories create a high probability that additional cultural resource sites would be identified. Identifying new cultural sites could require additional avoidance and mitigation for rangeland improvement projects within the area. This could include</p>	<p>Impacts to Livestock Management actions associated with cultural resources would affect relatively small areas and would not impact the quantity of livestock forage available. Even under the most intense management (e.g., excavation), the amount of acreage disturbed would be very small. Fencing cultural sites and excluding grazing from these sites would eliminate livestock use, which would result in a loss of available forage. However, given the size of most cultural sites, this impact would not significantly affect livestock grazing within the PFO. Restrictions on surface-disturbing activities near cultural sites would result in modifications to range improvements or relocation of the range improvements.</p> <p>Prioritizing the areas listed in Chapter 2 for new field inventories would create a high probability that additional cultural resource sites would be identified in the Desolation Canyon National Historic Landmark and Nine Mile Canyon area. Identification of new sites could require additional avoidance and</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>centerline, whichever is greater, along all perennial streams would maintain or improve vegetative resources in those areas. Grazing allotments contain approximately 27,000 acres of riparian habitat. Improvements to vegetative resources can indirectly increase forage available for livestock use.</p> <p>These resources include springs, reservoirs, and wet meadows. Fencing riparian areas and the 660-foot buffer (330 feet on either side) area may be required to meet PFC and reduce soil erosion. Livestock production in some upland/riparian allotment areas may be further limited to meet water quality standards. Improved soil stability would sustain forage production over the long term.</p>	<p>changing the location of a rangeland improvement project.</p> <p>Inventory and mitigation of cultural resources in the direct and indirect impact area before rangeland improvement projects would decrease cost and complexity of the development. Inventories would minimize the potential for costly delays in improvement or construction if cultural resources were identified, disturbed, or damaged during the improvement or construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact livestock grazing.</p>	<p>rangeland improvement project.</p> <p>Inventory and mitigation of cultural resources in a 100-foot area around the direct impact area before rangeland improvements would decrease cost and complexity of the development. Inventories would minimize the potential for costly delays in development/construction if cultural resources were identified, disturbed, or damaged during the construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact livestock grazing.</p>	<p>changing the location of a rangeland improvement project.</p> <p>Inventory and mitigation of cultural resources in a 300-foot perimeter around the direct impact area before rangeland improvement projects would decrease cost and complexity of the development. Inventories would minimize the potential for costly delays in improvement or construction if cultural resources were identified, disturbed, or damaged during the improvement or construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact livestock grazing. However, if a rangeland improvement project was the first potentially site-disturbing activity, a complete documentation of the resource as a whole may change the type or location of the rangeland improvement project.</p>	<p>mitigation for recreation uses and facilities within the area.</p> <p>Inventory and mitigation of cultural resources in the direct and indirect impact area before rangeland improvement projects would decrease cost and complexity of the development. Inventories would minimize the potential for costly delays in improvement or construction if cultural resources were identified, disturbed, or damaged during the improvement or construction activities.</p> <p>Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) and coordination with Utah SHPO is not anticipated to impact livestock grazing.</p>
<p>Impacts to Recreation No significant impact</p>	<p>Impacts to Recreation No significant impact</p>	<p>Impacts to Recreation No significant impact</p>	<p>Impacts to Recreation No significant impact</p>	<p>Impacts to Recreation No significant impact</p>
<p>Impacts to Lands and Realty No significant impact</p>	<p>Impacts to Lands and Realty No significant impact</p>	<p>Impacts to Lands and Realty No significant impact</p>	<p>Impacts to Lands and Realty No significant impact</p>	<p>Impacts to Lands and Realty No significant impact</p>

CULTURAL RESOURCES				
New Field Inventories				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Minerals and Energy No significant impact				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact				
Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact
IMPACTS TO WILD AND SCENIC RIVERS No significant impact	IMPACTS TO WILD AND SCENIC RIVERS No significant impact	IMPACTS TO WILD AND SCENIC RIVERS No significant impact	IMPACTS TO WILD AND SCENIC RIVERS No significant impact	IMPACTS TO WILD AND SCENIC RIVERS No significant impact
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact
Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact

CULTURAL RESOURCES				
Cultural Resource Inventories for Federal Undertakings That Could Affect Cultural Resources or Historic Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Cultural Resource Inventories for Federal Undertakings That Could Affect Cultural Resources or Historic Properties				
Decisions				

CULTURAL RESOURCES				
Cultural Resource Inventories for Federal Undertakings That Could Affect Cultural Resources or Historic Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Cultural resource inventories (including point, area, and linear features) would be required for all federal undertakings that could affect cultural resources or historic properties in areas of both direct and indirect impacts.	Cultural resource inventories (including point, area, and linear features) would be required for all federal undertakings that could affect cultural resources or historic properties in areas of both direct and indirect impacts. (Same as No Action Alternative)	Cultural resource inventories would be required for areas of direct impact, plus a 100-foot area of potential effect extending beyond the impact area.	Cultural resource inventories would be required for areas of direct impact, plus a 300-foot area of potential effect extending beyond the impact area.	Cultural resources inventories (including point, area, and linear features) would be required for all federal undertakings that could affect cultural resources or historic properties in areas of both direct and indirect impacts. (Same as No Action Alternative)
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact
Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact
Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact
Impacts to Cultural Resources Coordination with Native American Tribes to identify and manage traditional cultural properties would result in the potential identification of traditional cultural properties. If traditional cultural properties were identified, management of these resources could result in avoidance of surface disturbing actions in and around the sites, either temporally or spatially. The cultural resource sites would	Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact

CULTURAL RESOURCES				
Cultural Resource Inventories for Federal Undertakings That Could Affect Cultural Resources or Historic Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
be preserved in place. In addition to avoidance of non-cultural resource surface disturbances, there could be a potential for preclusion of scientific research at the site				
Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact
Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact
Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact
Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact
Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact
Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact
Impacts to Livestock No significant impact	Impacts to Livestock No significant impact	Impacts to Livestock No significant impact	Impacts to Livestock No significant impact	Impacts to Livestock No significant impact
Impacts to Recreation No significant impact	Impacts to Recreation No significant impact	Impacts to Recreation No significant impact	Impacts to Recreation No significant impact	Impacts to Recreation No significant impact
Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact

CULTURAL RESOURCES				
Cultural Resource Inventories for Federal Undertakings That Could Affect Cultural Resources or Historic Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Minerals and Energy Oil and Gas. Required cultural resource inventories prior to initiating surface- disturbing activities could decrease potential costs to operators and would minimize the potential for costly delays in oil and gas exploration and development if cultural resources were identified, disturbed, or damaged during construction activities. If the cultural sites were small, access roads, drill pads, pipelines, and other ancillary facilities would be relocated. For larger cultural sites, the ability to extract the oil and gas resource may be more difficult and directional drilling would potentially be used.</p> <p>Coal. No significant impact</p> <p>Locatable Minerals No significant impact</p> <p>Mineral Materials No significant impact</p>	<p>Impacts to Minerals and Energy Same as Alternative 1.</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Cultural resource inventories would be required for areas of direct impact, plus a 100-foot area of potential effect extending beyond the impact area, which could decrease potential costs to operators and would minimize the potential for costly delays in oil and gas exploration and development if cultural resources were identified, disturbed, or damaged during construction activities. If the cultural sites were small, access roads, drill pads, pipelines, and other ancillary facilities would be relocated. For larger cultural sites, the ability to extract the oil and gas resource may be more difficult and directional drilling would potentially be used.</p> <p>Coal. No significant impact</p> <p>Locatable Minerals No significant impact</p> <p>Mineral Materials No significant impact</p>	<p>Impacts to Minerals and Energy Oil and Gas. Cultural resource inventories would be required for areas of direct impact, plus a 300-foot area of potential effect extending beyond the impact area, which could decrease potential costs to operators and would minimize the potential for costly delays in oil and gas exploration and development if cultural resources were identified, disturbed, or damaged during construction activities. If the cultural sites were small, access roads, drill pads, pipelines, and other ancillary facilities would be relocated. For larger cultural sites, the ability to extract the oil and gas resource may be more difficult, and it is possible that directional drilling would be used.</p> <p>Coal. No significant impact</p> <p>Locatable Minerals No significant impact</p> <p>Mineral Materials No significant impact</p>	<p>Impacts to Minerals and Energy Oil and Gas. Required cultural resource inventories prior to initiating surface- disturbing activities could decrease potential costs to operators and would minimize the potential for costly delays in oil and gas exploration and development if cultural resources were identified, disturbed, or damaged during construction activities. If the cultural sites were small, access roads, drill pads, pipelines, and other ancillary facilities would be relocated. For larger cultural sites, the ability to extract the oil and gas resource may be more difficult and directional drilling would potentially be used.</p> <p>Coal. No significant impact</p> <p>Locatable Minerals No significant impact</p> <p>Mineral Materials No significant impact</p>
SPECIAL DESIGNATIONS				
<p>Impacts to Wilderness Study Areas No significant impact</p>	<p>Impacts to Wilderness Study Areas No significant impact</p>	<p>Impacts to Wilderness Study Areas No significant impact</p>	<p>Impacts to Wilderness Study Areas No significant impact</p>	<p>Impacts to Wilderness Study Areas No significant impact</p>
<p>Impacts to Areas of Critical</p>	<p>Impacts to Areas of Critical</p>	<p>Impacts to Areas of Critical</p>	<p>Impacts to Areas of Critical</p>	<p>Impacts to Areas of Critical</p>

CULTURAL RESOURCES				
Cultural Resource Inventories for Federal Undertakings That Could Affect Cultural Resources or Historic Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Environmental Concern No significant impact	Environmental Concern No significant impact	Environmental Concern No significant impact	Environmental Concern No significant impact	Environmental Concern No significant impact
Impacts to Wild and Scenic Rivers No significant impact	Impacts to Wild and Scenic Rivers No significant impact	Impacts to Wild and Scenic Rivers No significant impact	Impacts to Wild and Scenic Rivers No significant impact	Impacts to Wild and Scenic Rivers No significant impact
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact
Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact

CULTURAL RESOURCES				
Management of Traditional Cultural Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Traditional cultural properties are a type of historic property of traditional, religious, and cultural importance to an Indian tribe. The following decisions provide direction for the management of cultural resources. These decisions are included to clarify standard operating procedures.				
Decisions				
BLM would coordinate with tribes to identify and manage traditional cultural properties	<ul style="list-style-type: none"> • BLM would coordinate with tribes and/or other cultural groups to identify and manage traditional cultural properties. • BLM would seek agreements with the tribes or other cultural groups to identify the types of projects or areas where they desire consultation. 			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact			

CULTURAL RESOURCES				
Management of Traditional Cultural Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact			
Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact			
Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources Seeking agreements with Native American Tribes or other cultural groups could result in long-term impacts that are not quantifiable. These agreements could allow identified cultural resources to be identified and preserved for traditional, spiritual, or other uses.			
Impacts to Paleontology Resources No significant impact	Impacts to Paleontology Resources No significant impact			
Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact			
Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact			
Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact			
Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact			
Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact			
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact			
Impacts to Livestock No significant impact	Impacts to Livestock No significant impact			

CULTURAL RESOURCES				
Management of Traditional Cultural Properties				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Recreation No significant impact	Impacts to Recreation No significant impact			
Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact			
Impacts to Minerals and Energy No significant impact	Impacts to Minerals and Energy No significant impact			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact	Impacts to Wilderness Study Areas No significant impact			
Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact			
Impacts to Wild and Scenic Rivers No significant impact	Impacts to Wild and Scenic Rivers No significant impact			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact	Impacts to Transportation and Motorized Access No significant impact			
Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact			

CULTURAL RESOURCES
Old Spanish Trail (Public Law 107-325)
Decision Background
With the passage of the Old Spanish Trail Recognition Act of 2002, the Old Spanish Trail National Historic Trail was added to the National Historic Trails System. The National Park Service is the lead agency in developing a management plan for this trail. This decision recognizes the need to apply special management to this resource.

CULTURAL RESOURCES Old Spanish Trail (Public Law 107-325) Decisions	
Coordinate with the National Park Service and other managing agencies in management of the Old Spanish Trail (Refer to Recreation section for management of recreation activity on National Trails in the field office).	
Impact Analysis	
RESOURCES	
Impacts to Air Quality	No significant impact
Impacts to Soil, Water and Riparian	No significant impact
Impacts to Vegetation Resources	No significant impact
Impacts to Cultural Resources	No significant impact
Impacts to Paleontology Resources	No significant impact
Impacts to Visual Resources	No significant impact
Impacts to Special Status Species	No significant impact
Impacts to Fish and Wildlife	No significant impact
Impacts to Wild Horses and Burros	No significant impact
Impacts to Fire and Fuels Management	No significant impact
RESOURCE USES	
Impacts to Forest and Woodlands	No significant impact
Impacts to Livestock	No significant impact

CULTURAL RESOURCES Old Spanish Trail (Public Law 107-325)	
Impacts to Recreation	No significant impact
Impacts to Lands and Realty	No significant impact
Impacts to Minerals and Energy	No significant impact
SPECIAL DESIGNATIONS	
Impacts to Wilderness Study Areas	No significant impact
Impacts to Areas of Critical Environmental Concern	No significant impact
Impacts to Wild and Scenic Rivers	No significant impact
SUPPORT	
Impacts to Transportation and Motorized Access	No significant impact
Impacts to Hazardous Materials and Waste	No significant impact

CULTURAL RESOURCES Linear Cultural Resource Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Although individual actions that cross linear cultural resources (historic rail grade, irrigation ditches, etc.) will not usually result in loss of the feature's values, numerous crossings throughout the life of the plan could cause the feature to lose its integrity. With this decision, BLM is trying to mitigate the collective effects of individual actions by implementing a plan to allow for the preservation of this feature as a whole.				
Decisions				

CULTURAL RESOURCES				
Linear Cultural Resource Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>The following standard operating procedures would apply for management of linear cultural resources:</p> <p>Record the site at the point of the project. Unless specific features are identified at that portion of the resource, no mitigation is required.</p>	<p>The following standard operating procedures would apply for management of linear cultural resources:</p> <p>Record the site at the point of the project. Unless specific features are identified at that portion of the resource, no mitigation is required. (Same as No Action Alternative)</p>	<p>The following standard operating procedures would apply for management of linear cultural resources:</p> <p>Record the site at the point of the project. Unless specific features are identified at that portion of the resource, no mitigation is required.</p> <p>If a portion of a linear site were disturbed, fees would be assessed. The fees would be held in an account at the Division of State History to be used to document the resource as a whole. This process would be initiated and implemented through an agreement between the State Historic Preservation Officer (SHPO) and the BLM.</p>	<p>The following standard operating procedures would apply for management of linear cultural resources:</p> <p>Record the site at the point of the project. Unless specific features are identified at that portion of the resource, no mitigation is required.</p> <p>The first site-disturbing activity would complete the cultural resource documentation for the resource as a whole.</p>	<p>The following standard operating procedures would apply for management of linear cultural resources:</p> <p>Record the site at the point of the project. Unless specific features are identified at that portion of the resource, no mitigation is required. (Same as No Action Alternative)</p>
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact	Impacts to Air Quality No significant impact
Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact	Impacts to Soil, Water and Riparian No significant impact
Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact	Impacts to Vegetation Resources No significant impact
Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact	Impacts to Cultural Resources No significant impact
Impacts to Paleontology	Impacts to Paleontology	Impacts to Paleontology	Impacts to Paleontology	Impacts to Paleontology

CULTURAL RESOURCES				
Linear Cultural Resource Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Resources No significant impact	Resources No significant impact	Resources No significant impact	Resources No significant impact	Resources No significant impact
Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact	Impacts to Visual Resources No significant impact
Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact	Impacts to Special Status Species No significant impact
Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact	Impacts to Fish and Wildlife No significant impact
Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact	Impacts to Wild Horses and Burros No significant impact
Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact	Impacts to Fire and Fuels Management No significant impact
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact	Impacts to Forest and Woodlands No significant impact
Impacts to Livestock Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) and coordination with Utah SHPO is not anticipated to impact livestock grazing.	Impacts to Livestock Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact livestock grazing.	Impacts to Livestock Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact livestock grazing.	Impacts to Livestock Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) is not anticipated to impact livestock grazing. However, if a rangeland improvement project was the first potentially site-disturbing activity, a complete documentation of the resource as a whole may change the type or location of the rangeland improvement	Impacts to Livestock Following the standard operating procedures for recording the location of linear cultural resources (e.g., historic roadways or irrigation ditches) and coordination with Utah SHPO is not anticipated to impact livestock grazing.

CULTURAL RESOURCES				
Linear Cultural Resource Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			project.	
Impacts to Recreation No significant impact	Impacts to Recreation No significant impact	Impacts to Recreation No significant impact	Impacts to Recreation No significant impact	Impacts to Recreation No significant impact
Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact	Impacts to Lands and Realty No significant impact
Impacts to Minerals and Energy No significant impact	Impacts to Minerals and Energy No significant impact	Impacts to Minerals and Energy No significant impact	Impacts to Minerals and Energy No significant impact	Impacts to Minerals and Energy No significant impact
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact	Impacts to Wilderness Study Areas No significant impact	Impacts to Wilderness Study Areas No significant impact	Impacts to Wilderness Study Areas No significant impact	Impacts to Wilderness Study Areas No significant impact
Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact	Impacts to Areas of Critical Environmental Concern No significant impact
Impacts to Wild and Scenic Rivers Law and policy protecting cultural resources would complement protective management of outstandingly remarkable cultural values on 136,454 acres of BLM lands along 608 miles of eligible river segments.	Impacts to Wild and Scenic Rivers Law and policy protecting cultural resources would complement protective management of outstandingly remarkable cultural values on 35,435 acres of BLM lands along 125 miles of the Green River. Protection of cultural resources within the corridors of 516 miles of rivers not found suitable with this alternative would still be provided by law and policy.	Impacts to Wild and Scenic Rivers Law and policy protecting cultural resources would complement protective management of outstandingly remarkable cultural values on 76,797 acres of BLM lands along 277 miles of suitable river segments. Protection of cultural resources within the corridors of 364 miles of rivers not found suitable with this alternative would still be provided by law and policy.	Impacts to Wild and Scenic Rivers Law and policy protecting cultural resources would complement protective management of outstandingly remarkable cultural values on 136,453.8 acres of BLM lands along 608 miles of suitable river segments.	Impacts to Wild and Scenic Rivers Law and policy protecting cultural resources would complement protective management of outstandingly remarkable cultural values on 66,540 acres of BLM lands along 223 miles of suitable river segments.
SUPPORT				
Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access

CULTURAL RESOURCES				
Linear Cultural Resource Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact				
Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact	Impacts to Hazardous Materials and Waste No significant impact

PALEONTOLOGICAL RESOURCES

Assumptions

The analysis is based on the following assumptions:

- Paleontological resources will continue to be discovered throughout the PFO.
- Inventories required before permitted surface-disturbing activities begin will result in the identification and evaluation of paleontological resources.
- Not all paleontological resources will be identified before permitted surface-disturbing activities begin.
- Recovery and curation of paleontological resources by permitted specialists is not considered damage to or loss of paleontological values.

Significance Criteria

Impacts to paleontological resources would be considered significant if they resulted in the unmitigated damage, destruction, or loss of vertebrate fossils or other scientifically significant fossil resources.

Methods of Analysis

In general, impacts to paleontological resources occur from unmitigated ground disturbance. Because of the nature of fossil resources, most impacts are long term in nature. Impacts include damage or destruction of the fossil itself, removal of the fossil from its source material (what rock the fossil comes from tells a great deal about the fossil itself), or loss of the fossil material (either through obliteration or vandalism/theft).

Vandalism, looting, or non-compliant use of public lands could result in the damage, destruction, or loss of paleontological resources. Even if these actions were inadvertent or uninformed, their impacts would be significant. However, this analysis process assumes public land users will comply with RMP management actions and applicable laws. Vandalism, looting, or non-compliance with RMP designations, whether willful, inadvertent, or uninformed, is an issue of informing public land users and enforcement and will not be addressed in this analysis.

The following analysis is a discussion of both long- and short-term impacts and their predicted severity by alternative. Although the location of every significant paleontological resource in the PFO is not known, the analysis considers the different management actions and their potential to directly or indirectly impact paleontological resources. The alternatives presented are programmatic in nature, and their potential impacts will be addressed at that level. To ensure protection of specific paleontological resources and values, further analyses will be required at the implementation level of planning following site-specific resource inventories.

Impact analysis and conclusions are based on interdisciplinary team knowledge of resources and the project area, review of existing literature, spatial analysis using ESRI's ArcGIS computer software, and information provided by other agencies. Effects are quantified where possible. In the absence of quantitative data, qualitative impacts and the direction of impact were identified.

PALEONTOLOGICAL RESOURCES

Common to All Alternatives

Decision Background

The following decisions provide direction for the protection and management of paleontological resources. These decisions are included to clarify standard operating procedures.

Decisions

PALEONTOLOGICAL RESOURCES**Common to All Alternatives**

- Mitigate adverse impacts to vertebrate and significant non-vertebrate paleontological resources resulting from authorized surface-disturbing actions (permitted activities, recreation use, OHV use, etc.)
- Promote and facilitate scientific investigation of fossil resources.
- Approve collection of vertebrate fossils under a permit issued to qualified individuals who agree to place all specimens and data in an approved repository.
- Allow collection of common invertebrate and plant fossils for personal, non-commercial use, except on developed recreation sites and areas, or where otherwise prohibited and posted.
- Prohibit collection of common invertebrate and plant fossils for commercial use.
- Support and provide public education and interpretive opportunities for paleontological resources, where appropriate. Such appropriate opportunities may include agreements with visitor information providers (such as the Dinosaur Diamond Partnership), use of special designations such as the Dinosaur Diamond National Byway and Cleveland-Lloyd Dinosaur Quarry (CLDQ), or development of landscape-level interpretive sites.
- Manage the CLDQ as a significant scientific and public education resource as guided by an activity-level planning document.
- Provide (via BLM) public visitation and education opportunities while simultaneously protecting and supporting the scientific and research value of paleontological resources at CLDQ.
- Manage the CLDQ, at a minimum, as an 80-acre National Natural Landmark.

PALEONTOLOGICAL RESOURCES Common to All Alternatives Impact Analysis	
RESOURCES	
Impacts to Air Quality	No significant impacts.
Impacts to Soil, Water and Riparian	Unmitigated surface disturbances associated with recovery and excavations of paleontological sites would cause local disruption of soils. Sensitive soils would have to be protected and replaced once cultural resource excavation was completed to prevent erosion. Standard protection measures associated with surface-disturbing activities and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.
Impacts to Vegetation Resources	Paleontology excavation and research activities and non-commercial hobby collection would cause short-term, small, and localized impacts to vegetation resources by disturbing the ground surface and removing topsoil and vegetation. Reclamation standards would prevent long-term impacts to vegetation resources. Non-commercial hobby collection would also cause short-term impacts to vegetation. However, available paleontological resources in a local area would become scarce over time and hobby collection would cease. No long-term impacts from hobby collection of paleontological resources would occur to the vegetation resource. Employing mitigation measures appropriate for surface-disturbing activities would mitigate these impacts to the vegetation resource.
Impacts to Cultural Resources	No significant impacts.
Impacts to Paleontology Resources	<p>Although the preferred mitigation measure for protecting significant paleontological resources would be avoidance, this is not always possible. Avoidance would protect the paleontological resource in place (within its original context), resulting in preservation of the physical resource. However, using this approach would not increase scientific knowledge. Data recovery could not guarantee complete identification of paleontological resources in an area. As land development increases, the statistical probability for significant paleontological resources to be inadvertently damaged or destroyed would also increase.</p> <p>Paleontological resources would be protected through public education and interpretation programs, and through agreements with other agencies and organizations. CLDQ National Natural Landmark would be integral to providing the public with education opportunities.</p>
Impacts to Visual Resources	No significant impacts.
Impacts to Special Status Species	No significant impacts.
Impacts to Fish and Wildlife	No significant impacts.
Impacts to Wild Horses and Burros	No significant impacts.

PALEONTOLOGICAL RESOURCES**Common to All Alternatives****Impacts to Fire and Fuels Management**

No significant impacts.

RESOURCE USES**Impacts to Forest and Woodlands**

No significant impacts.

Impacts to Livestock

No significant impacts.

Impacts to Recreation

Management of paleontological resources as prescribed would increase the knowledge of an area's paleontological resources and provide for higher quality tourism activities. Interpretation of paleontological resources at developed recreation sites would enhance visitor experiences.

Management of educational and interpretive facilities for paleontological resources (e.g., CLDQ and Dinosaur Diamond National Scenic Byway) would increase and diversify recreation opportunities in the field office.

Impacts to Lands and Realty

BLM lands with paleontological resources may not be disposed of, exchanged, or have other land tenure actions taken that would impact the paleontological resources. This would limit BLM's ability to conduct land tenure actions that might impact these resources.

Impacts to Minerals and Energy**Leasable Minerals**

Oil and Gas. Impacts to oil and gas development from paleontology management actions would not be significant. Paleontology management actions under this RMP do not require more than those assessments and inventories directed by BLM policies (BLM-H-8270-1 – General Procedural Guidance for Paleontological Resource Management).

Coal. Impacts to coal development from paleontology management actions would not be significant. Paleontology management actions under this RMP do not require more than those assessments and inventories directed by BLM policies (BLM-H-8270-1 – General Procedural Guidance for Paleontological Resource Management).

Locatable Minerals

Impacts to locatable minerals development from paleontology management actions would not be significant. Paleontology management actions under this RMP do not require more than those assessments and inventories directed by BLM policies (BLM-H-8270-1 – General Procedural Guidance for Paleontological Resource Management).

Mineral Materials

Impacts to mineral materials development from paleontology management actions would not be significant. Paleontology management actions under this RMP do not require more than those assessments and inventories directed by BLM policies (BLM-H-8270-1 – General Procedural Guidance for Paleontological Resource Management).

PALEONTOLOGICAL RESOURCES Common to All Alternatives
SPECIAL DESIGNATIONS
Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT
Impacts to Transportation and Motorized Access Mitigation measures placed on transportation and motorized access and the potential realignment of roads would reduce the potential for surface-disturbing activities that could damage paleontological resources. Short-term, direct impacts would occur to transportation if paleontological resources were discovered during the construction of new transportation facilities because proper mitigation measures would be implemented, such as data recovery or realignment of the proposed road.
Impacts to Hazardous Materials and Waste No significant impacts.

PALEONTOLOGICAL RESOURCES Scientific Study				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following decisions provide direction for the protection and management of paleontological resources. These decisions are included to clarify standard operating procedures.				
Decisions				
Paleontological Resource Use permits would be issued for scientific study as appropriate.				
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.

PALEONTOLOGICAL RESOURCES				
Scientific Study				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>
<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>
<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>
<p>Impacts to Paleontology Resources Paleontological resources would continue to be studied. The protection of the fossil resources would be ensured through permit agreements.</p> <p>Paleontological resource assessments would be performed on a case-by-case basis. Based on the findings of the assessment, mitigation would be implemented at all phases of development.</p> <p>As scientific study continues, knowledge of the area's paleontological resources would continue to increase. This action would result in the inventory, identification, and collection of paleontological resources.</p>	<p>Impacts to Paleontology Resources Paleontological resources would continue to be studied. The protection of the fossil resources would be ensured through permit agreements.</p> <p>Areas in which the paleontological record is poorly known would potentially become the subject of greater study. Unfortunately, as the knowledge base expands, the lack of required assessments prior to surface disturbances would result in more fossil resources being damaged or destroyed.</p>	<p>Impacts to Paleontology Resources Paleontological resources would continue to be studied. The protection of the fossil resources would be ensured through permit agreements.</p> <p>Impacts would be similar to those identified in the No Action Alternative, with the exception of the use of predictive modeling and broad-scale sampling to identify significant fossils. Use of predictive modeling would enable paleontological assessments to "clear" a project without having to visit each project site. Modeling would be based on the likelihood of significant fossils being present in any given location or geologic formation.</p>	<p>Impacts to Paleontology Resources Paleontological resources would continue to be studied. The protection of the fossil resources would be ensured through permit agreements.</p> <p>Promoting paleontological investigations in poorly known areas or in areas where surface- disturbance activities are occurring or anticipated would help fill the gaps in knowledge throughout the area. As investigations are completed, areas where fossils are known or expected to be found could be refined. These actions would streamline the process of paleontological assessments, ensuring protection without damage to paleontological resources while allowing surface- disturbing projects to continue with</p>	<p>Impacts to Paleontology Resources Same as the No Action Alternative. Paleontological resource assessments would be performed on a case-by-case basis. Based on the findings of the assessment, mitigation techniques would be implemented at all phases of development.</p> <p>As scientific study continues, knowledge of the area's paleontological resources would continue to increase. This action would result in the inventory, identification, and collection of paleontological resources.</p>

PALEONTOLOGICAL RESOURCES				
Scientific Study				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			minimal delay.	
Impacts to Visual Resources No significant impacts.				
Impacts to Special Status Species No significant impacts.				
Impacts to Fish and Wildlife No significant impacts.				
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.				
Impacts to Livestock No significant impacts.				
Impacts to Recreation No significant impacts.				
Impacts to Lands and Realty No significant impacts.				
Impacts to Minerals and Energy No significant impacts.				
SPECIAL DESIGNATIONS				

PALEONTOLOGICAL RESOURCES				
Scientific Study				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

PALEONTOLOGICAL RESOURCES				
Protecting Paleontological Resources from Surface-Disturbing Impacts				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>Paleontological resources are a relatively rare, non-renewable resource of great public interest. The PFO has nationally and internationally significant sites from the Jurassic and Cretaceous periods. Undoubtedly, there are important future discoveries to be made. Paleontological resources are vulnerable to loss and destruction by natural processes, surface-disturbing activities, and improper collection. The following decisions address hobby collection and protection of resources from surface-disturbing activities.</p>				
Decisions				

PALEONTOLOGICAL RESOURCES				
Protecting Paleontological Resources from Surface-Disturbing Impacts				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
An assessment of fossil resources would be required on a case-by-case basis, mitigating adverse impacts as necessary before and/or during surface disturbance.	Damage to significant fossils would be prevented through lease notices, stipulations, and other requirements. Adverse impacts would be mitigated in response to reports of finds.	An assessment of fossil resources would be required on a case-by-case basis, mitigating adverse impacts as necessary before and/or during surface disturbance. Areas with significant fossils would be identified through predictive modeling and broad-scale sampling.	An assessment of fossil resources would be required on a case-by-case basis, mitigating adverse impacts as necessary before and/or during surface disturbance. Assessment and use of mitigation techniques in all areas where significant fossils are known or expected to occur would be required.	An assessment of fossil resources would be required on a case-by-case basis, mitigating adverse impacts as necessary before and/or during surface disturbance. (Same as No Action Alternative)
Impacts from Paleontological Resources to ACECs: Protection of paleontological resources would provide further protection of the R&I values of cultural ACECs such as Copper Globe ACEC, Dry Lake ACEC, Rock Art ACEC, Muddy Creek ACEC, Swasey Cabin ACEC, and Temple Mountain ACEC.	Impacts from Paleontological Resources to ACECs: Protection of paleontological resources would provide further protection of the R&I values of cultural ACECs such as Copper Globe ACEC, Dry Lake ACEC, Rock Art ACEC, and Muddy Creek ACEC.	Impacts from Paleontological Resources to ACECs: Protection of paleontological resources would provide further protection of the R&I values of cultural ACECs such as Copper Globe ACEC, Dry Lake ACEC, Rock Art ACEC, and Muddy Creek ACEC.	Impacts from Paleontological Resources to ACECs: Protection of paleontological resources would provide further protection of the R&I values of cultural ACECs such as Copper Globe ACEC, Dry Lake ACEC, Rock Art ACEC, Muddy Creek ACEC, Swasey Cabin ACEC, Temple Mountain ACEC, Heritage Sites ACEC, Uranium District ACEC, and Temple Cottonwood ACEC.	Impacts from Paleontological Resources to ACECs: Protection of paleontological resources would provide further protection of the R&I values of cultural ACECs such as Copper Globe ACEC, Dry Lake ACEC, Rock Art ACEC, Muddy Creek ACEC, Swasey Cabin ACEC, Temple Mountain ACEC, Heritage Sites ACEC, Uranium District ACEC, and Temple Cottonwood ACEC.

PALEONTOLOGICAL RESOURCES				
Collection of Paleontological Resources				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				

PALEONTOLOGICAL RESOURCES				
Collection of Paleontological Resources				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	Areas for hobby collection would be identified.		Areas for hobby collection would be identified. Areas with rare and significant invertebrate and plant fossils would be identified and closed to hobby collection.	Areas for hobby collection would be identified.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian Unmitigated surface disturbances associated with recovery and excavations of paleontologic sites would cause local disruption of soils. Sensitive soils would have to be protected and replaced once paleontologic resource excavation was completed to prevent erosion. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	Impacts to Soil, Water and Riparian Surface disturbances associated with recovery and excavations of paleontologic sites would cause local disruption of soils. Sensitive soils would have to be protected and replaced once paleontologic resource excavation was completed to prevent erosion. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	Impacts to Soil, Water and Riparian Surface disturbances associated with recovery and excavations of paleontologic sites would cause local disruption of soils. Sensitive soils would have to be protected and replaced once paleontologic resource excavation was completed to prevent erosion. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	Impacts to Soil, Water and Riparian Unmitigated surface disturbances associated with recovery and excavations of paleontologic sites would cause local disruption of soils. Sensitive soils would have to be protected and replaced once paleontologic resource excavation was completed to prevent erosion. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.	Impacts to Soil, Water and Riparian Unmitigated surface disturbances associated with recovery and excavations of paleontologic sites would cause local disruption of soils. Sensitive soils would have to be protected and replaced once paleontologic resource excavation was completed to prevent erosion. Standard protection measures associated with surface-disturbing activities, and appropriate reclamation practices would prevent long-term impacts to soils, water, and riparian/wetland resources.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.

PALEONTOLOGICAL RESOURCES				
Collection of Paleontological Resources				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources Adverse impacts to vertebrate and significant non-vertebrate paleontological resources would be mitigated. Mitigation measures include project relocation or redesign (avoidance), or various scientific data recovery methods such as recordation, surface collection, subsurface testing, or excavation. Mitigation actions would prevent significant impacts to paleontological resources. They also would increase the knowledge and understanding of the area's paleontological resources and of the history of life on Earth. These actions would effectively minimize the potential for unmitigated impacts to known paleontological resources.	Impacts to Paleontology Resources Same as the No Action Alternative, with the following addition: Mitigating adverse impacts to paleontological resources following reports of finds would increase the potential for significant impacts to paleontological resources. Because assessments would not be required before surface-disturbing activities began, the potential for inadvertent damage to paleontological resources (paleontological resources found during and not before ground disturbing activities) would increase as development actions increase. As a result, more paleontological resources would be damaged through initial phases of surface disturbance. This would result in significant impacts.	Impacts to Paleontology Resources Adverse impacts to vertebrate and significant non-vertebrate paleontological resources would be mitigated. Mitigation measures include project relocation or redesign (avoidance), or various scientific data recovery methods such as recordation, surface collection, subsurface testing, or excavation. Mitigation actions would prevent significant impacts to paleontological resources. They also would increase the knowledge and understanding of the area's paleontological resources and of the history of life on Earth. These actions would effectively minimize the potential for unmitigated impacts to known paleontological resources.	Impacts to Paleontology Resources Adverse impacts to vertebrate and significant non-vertebrate paleontological resources would be mitigated. Mitigation measures include project relocation or redesign (avoidance), or various scientific data recovery methods such as recordation, surface collection, subsurface testing, or excavation. Mitigation actions would prevent significant impacts to paleontological resources. They also would increase the knowledge and understanding of the area's paleontological resources and of the history of life on Earth. These actions would effectively minimize the potential for unmitigated impacts to known paleontological resources.	Impacts to Paleontology Resources Adverse impacts to vertebrate and significant non-vertebrate paleontological resources would be mitigated. Mitigation measures include project relocation or redesign (avoidance), or various scientific data recovery methods such as recordation, surface collection, subsurface testing, or excavation. Mitigation actions would prevent significant impacts to paleontological resources. They also would increase the knowledge and understanding of the area's paleontological resources and of the history of life on Earth. These actions would effectively minimize the potential for unmitigated impacts to known paleontological resources.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species

PALEONTOLOGICAL RESOURCES				
Collection of Paleontological Resources				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation See Impacts Common to All Alternatives.	Impacts to Recreation See Impacts Common to All Alternatives, plus the following: Areas would be identified for the recreational collection of paleontological resources, which would benefit recreationists seeking this type of activity.	Impacts to Recreation See Impacts Common to All Alternatives, plus the following: Areas would be identified for the recreational collection of paleontological resources, which would benefit recreationists seeking this type of activity.	Impacts to Recreation See Impacts Common to All Alternatives, plus the following: Areas would be identified for the recreational collection of paleontological resources, which would benefit recreationists seeking this type of activity. Areas with rare and significant invertebrate and plant fossils would be identified and closed to hobby collection.	Impacts to Recreation See Impacts Common to All Alternatives, plus the following: Areas would be identified for the recreational collection of paleontological resources, which would benefit recreationists seeking this type of activity.
Impacts to Lands and Realty See Impacts Common to All Alternatives.	Impacts to Lands and Realty BLM lands with paleontological resources may not be disposed of, exchanged, or have other	Impacts to Lands and Realty BLM lands with paleontological resources may not be disposed of, exchanged, or have other	Impacts to Lands and Realty BLM lands with paleontological resources may not be disposed of, exchanged, or have other	Impacts to Lands and Realty BLM lands with paleontological resources may not be disposed of, exchanged, or have other

PALEONTOLOGICAL RESOURCES				
Collection of Paleontological Resources				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	land tenure actions taken that would impact the cultural resource. This would limit BLM's ability to conduct land tenure actions that may impact these resources.	land tenure actions taken that would impact the cultural resource. This would limit BLM's ability to conduct land tenure actions that may impact these resources.	land tenure actions taken that would impact the cultural resource. This would limit BLM's ability to conduct land tenure actions that may impact these resources.	land tenure actions taken that would impact the cultural resource. This would limit BLM's ability to conduct land tenure actions that may impact these resources.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

VISUAL RESOURCE MANAGEMENT

Assumptions

The analysis is based on the following assumptions:

- VRM classes are prescriptive for all resources. Class objectives will be adhered to through project design, avoidance, or mitigation.
- Stipulations for VRM Classes I and II will increase the burden for project proponents (i.e., increased costs for contrast rating analysis and mitigation such as changes in location or design).
- The majority of disturbances to visual resources are long-term irretrievable impacts.
- Established VRM classifications and management of the classes apply only to BLM-administered lands.

Significance Criteria

- Impacts not meeting the objectives of the Visual Resources Inventory Class shown on Map 2-1 are considered significant.

Methods of Analysis

Impact analysis and conclusions are based on interdisciplinary team knowledge of resources and the project area, review of existing literature, spatial analysis, and information provided by other agencies. Effects are quantified where possible. Spatial analysis was conducted using ESRI's ArcGIS desktop computer software. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate.

VISUAL RESOURCE MANAGEMENT

Common to All Alternatives

Decision Background

The following decisions are policy or regulation for the protection of visual resources. These decisions are included to clarify standard operating procedures.

Decisions

- Manage WSAs as VRM Class I in accordance with BLM IM 2000-096, Use of Visual Resource Management Class I Designation in Wilderness Study Areas
- Manage wild segments of any Wild and Scenic Rivers recommended as suitable as VRM Class I
- Manage scenic segments of any Wild and Scenic Rivers recommended as suitable as VRM Class II
- Manage recreational segments of any Wild and Scenic Rivers recommended as suitable in the same VRM class as surrounding lands
- Manage Desolation Canyon National Historic Landmark (NHL) as VRM Class I
- For all VRM classes, require all resource uses and management activities to meet VRM objectives.

VISUAL RESOURCE MANAGEMENT Common to All Alternatives Impact Analysis
RESOURCES
Impacts to Air Quality There would be no direct impacts to air quality from VRM.
Impacts to Soil, Water and Riparian There would be no direct impacts to soil, water and riparian resources from VRM.
Impacts to Vegetation Resources VRM Class I potentially would impact the timing and extent of vegetation treatments. Limitations on vegetation treatment to meet VRM Class 1 would have the short-term effect of not changing vegetation structure and potentially would have the long-term effect of not meeting the desired vegetation condition unless adverse impacts could be mitigated to meet VRM Class 1 objective of unnoticeable change. VRM Class II, III, and IV would not impact vegetation treatments.
Impacts to Cultural Resources There would be no direct impacts to cultural resources from VRM. Preclusion of or stipulations on surface-disturbing development activities would have an indirect impact, resulting in preservation of cultural resources in place.
Impacts to Paleontology Resources There would be no direct impacts to paleontological resources from VRM. Preclusion of or stipulations on surface-disturbing development activities would have an indirect impact, resulting in the protection of paleontological resources from surface disturbance.
Impacts to Visual Resources Other resource uses and management activities would be required to meet VRM objectives for that class. The objectives for each VRM Class are located in Table 3-10. VRM classifications are linked to many special designations, including most of the existing and proposed ACECs. Based on the alternative, most ACECs would be managed as VRM Class I or II to maintain and enhance visual qualities and protect the important values for which the ACEC was designated. Impacts to VRM from individual VRM classes include— <ul style="list-style-type: none"> • VRM Class I areas. This VRM class provides the greatest protection to important visual resources throughout the PFO by restricting surface disturbance and development. Surface-disturbing activities would not be allowed unless adverse impacts could be mitigated to meet VRM Class I objectives. Consistent with BLM policy, all WSA lands would be managed as VRM Class I. • VRM Class II. Minor surface-disturbing activities would be allowed in this class. Modifications to the landscape must retain existing characteristics, which would provide protection to important visual qualities while allowing minor modifications to the landscape. • VRM Class III areas. Moderate surface-disturbing activities would be allowed in this class. Modification to the landscape should partially retain existing characteristics; however, these areas do not emphasize protection of visual resources. • VRM Class IV. Major modifications to the existing landscape would be allowed for management activities. The level of characteristic landscape could be high. Activities that would be allowed in these areas would be located in areas of low sensitivity to the casual observer and a great enough distance away from other VRM classes that they would not diminish visual qualities in those areas.

VISUAL RESOURCE MANAGEMENT**Common to All Alternatives****Impacts to Special Status Species**

Land use restrictions complying with VRM objectives are likely to improve or maintain Special Status Species habitat. VRM for Class I objectives would indirectly improve and maintain Special Status Species populations and habitat by reducing surface disturbance. VRM objectives for Class II, III and IV are not anticipated to adversely impact Special Status Species.

Impacts to Fish and Wildlife

Visual Resource Management could preclude vegetation manipulation that would benefit wildlife species and their habitats.

Impacts to Wild Horses and Burros

There would be no direct impacts to wild horses and burros from VRM.

Impacts to Fire and Fuels Management

No significant impact.

RESOURCE USES**Impacts to Forest and Woodlands**

No significant impacts.

Impacts to Livestock

There would be no direct impacts to livestock from VRM.

Impacts to Recreation

No significant impacts.

Impacts to Lands and Realty

VRM classes can affect the development and location of rights of way. Proposed project designs need to meet the objectives associated with VRM.

Impacts to Minerals and Energy**Leasable Minerals**

Oil and Gas. Surface-disturbing activities, including oil and gas exploration and development and placement of associated facilities, would not be allowed in VRM Class I areas. WSAs (253,159 acres), wild segments of wild and scenic rivers, and Desolation Canyon NHL would be managed as VRM Class I, within the oil and gas development area. Facilities could be placed outside of VRM Class I areas, and directional drilling could be used to extract hydrocarbon resources under VRM Class I areas open to oil and gas leasing.

Coal. Location of coal processing facilities would not occur in VRM Class I or II areas.

Locatable Minerals

Impacts to locatable minerals from VRM classes would not be significant.

Mineral Materials

Impacts to mineral materials from VRM classes would not be significant.

SPECIAL DESIGNATIONS

VISUAL RESOURCE MANAGEMENT Common to All Alternatives	
Impacts to Wilderness Study Areas	No significant impacts.
Impacts to Areas of Critical Environmental Concern	No significant impacts.
Impacts to Wild and Scenic Rivers	No significant impacts.
SUPPORT	
Impacts to Transportation and Motorized Access	VRM Classes I and II area would restrict the location of new roads because projects would have to be designed to meet the objectives of the established VRM classification. In addition, VRM Class II might not necessarily restrict transportation or motorized access but would impact travel and access plans depending on the sensitivity of the area. For example, a heavily forested landscape would not allow a roadway to pass through a Class II VRM designated area. However, a flat grassy area in a less sensitive area may allow a road to pass through it. The limitations, therefore, would be contingent on the sensitivity of the area.
Impacts to Hazardous Materials and Waste	No significant impacts.

VISUAL RESOURCE MANAGEMENT Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Scenic resources are an important component of landscapes within the PFO. Scenic resources are highly valued by visitors to the area, as well as by local communities. Visual resources are assigned one of four management classes (I through IV). Each class provides management actions and structural developments with an allowable degree of visual contrast. The more restrictive VRM classes (I and II) may preclude some types of development or require mitigation actions.				
Decisions				

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
VRM includes the following acreage for each management class as indicated in Map 2-1: <ul style="list-style-type: none"> • Class I: 661,305 acres • Class II: 570,625 acres • Class III: 1,367,186 acres • Class IV: 1,033,158 acres 	Manage the following acreages, as indicated on Map 2-2, for the objectives defined for each VRM class (see Appendix 6) <ul style="list-style-type: none"> • Class I: 668,049 acres • Class II: 177,745 acres • Class III: 1,754,301 acres • Class IV: 1,034,179 acres 	Manage the following acreages, as indicated on Map 2-3, for the objectives defined for each VRM class (see Appendix 6) <ul style="list-style-type: none"> • Class I: 698,402 acres • Class II: 419,794 acres • Class III: 1,982,926 acres • Class IV: 531,152 acres 	Manage the following acreages, as indicated on Map 2-4, for the objectives defined for each VRM class (see Appendix 6): <ul style="list-style-type: none"> • Class I: 640,294 acres • Class II: 573,449 acres • Class III: 1,915,712 acres • Class IV: 497,758 acres 	Manage the following acreages, as indicated on Map 2-5, for the objectives defined for each VRM class (see Appendix 6) <ul style="list-style-type: none"> • Class I: 701,260 acres • Class II: 418,280 acres • Class III: 1,981,583 acres • Class IV: 531,152 acres
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian There would be no direct impacts to soil, water and riparian resources from VRM.	Impacts to Soil, Water and Riparian There would be no direct impacts to soil, water and riparian resources from VRM.	Impacts to Soil, Water and Riparian There would be no direct impacts to soil, water and riparian resources from VRM.	Impacts to Soil, Water and Riparian There would be no direct impacts to soil, water and riparian resources from VRM.	Impacts to Soil, Water and Riparian There would be no direct impacts to soil, water and riparian resources from VRM.
Impacts to Vegetation Resources Managing about 605,000 acres of land to meet VRM Class I objectives could change the method, location, or extent of vegetation treatment. VRM Class I objectives of no noticeable change reduces surface disturbance, erosion, and the loss of vegetation. Approximately 24 percent of the aspen and about 36 percent of the pinyon-juniper	Impacts to Vegetation Resources Suitable segments of the Green River would be largely within VRM Class I areas with some in areas of Class II. These classes provide appropriate protection of outstandingly remarkable scenic values and are consistent with protective management of suitable river segments where these values are present.	Impacts to Vegetation Resources VRM Class I criteria require that changes to the landscape should not be noticeable. This requirement can alter the timing, location, extent, or type of vegetation treatment. Approximately 630,000 acres of BLM land within the PFO are managed for VRM Class I criteria. Vegetation treatments in these areas could be more expensive because it may take	Impacts to Vegetation Resources VRM Class I criteria require that changes to the landscape not be noticeable. The requirement would alter the timing, location, extent, or type of vegetation treatment. Also vegetation treatments in these areas potentially would be more expensive, and reaching the desired vegetation condition may take longer. The objectives of VRM Classes	Impacts to Vegetation Resources VRM criteria for Class I requires that changes to the landscape not be noticeable. The requirement would alter the timing, location, extent, or type of vegetation treatment. Also vegetation treatments in these areas potentially would be more expensive, and reaching the desired vegetation condition may take longer. The objectives of VRM

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>woodland cover types are within VRM Class I. Implementing vegetation treatments in VRM Class I areas can increase the cost of vegetation treatments because of possible spatial and temporal limitations necessary to meet other resource objectives.</p>	<p>The segment of the Green River that is not suitable in this alternative lies within VRM Class III where change to the visual landscape can be moderate. This segment (Swaseys boat ramp to I-70 bridge), however, was determined eligible with tentative classification of recreational because there already exists a moderate change to the natural landscape due to human development.</p> <p>Other eligible rivers with outstandingly remarkable scenic values that would not be suitable with this alternative and have portions within VRM Class III and IV areas are Rock Creek, Range Creek, Nine Mile Canyon, North Salt Wash, San Rafael River Coal Wash, and Cane Wash. VRM Class III and IV areas would not provide adequate protection for scenic values identified along these river corridors.</p>	<p>longer to reach the desired future vegetation condition and Condition Class. Section 3.2.3 describes each vegetation cover type.</p> <p>The objectives of VRM Classes II, III, and IV are less restrictive regarding changes. Approximately 1.85 million acres of vegetation cover types fall within VRM Classes II, III, and IV. Vegetation treatments in these VRM classes will require less modification to meet VRM objectives.</p>	<p>II, III, and IV are less restrictive regarding changes. Approximately 1.82 million acres of vegetation falls within VRM Classes II, II, and IV, and about 655,000 acres are within Class I. Vegetation treatments in these VRM classes will require less modification to meet VRM objectives.</p>	<p>Classes II, III, and IV are less restrictive regarding changes. Approximately 1.85 million acres of vegetation falls within VRM Classes II, II, and IV. Vegetation treatments in these VRM classes will require less modification to meet VRM objectives.</p>
<p>Impacts to Cultural Resources Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 600,000 acres. This long-term impact would usually preserve cultural resources in place. This and other impacts from</p>	<p>Impacts to Cultural Resources Restrictions on visually obtrusive developments on VRM Class I areas would limit development in view of key observation points on approximately 612,000 acres. This long-term impact would usually preserve cultural</p>	<p>Impacts to Cultural Resources Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 630,700 acres. This long-term impact would usually preserve cultural resources in place. This and other impacts from</p>	<p>Impacts to Cultural Resources Restrictions on visually obtrusive developments on VRM Class I areas would limit development on nearly 656,000 acres. This long-term impact would usually preserve cultural resources in place. This and other impacts from</p>	<p>Impacts to Cultural Resources Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 630,700 acres. This long-term impact would usually preserve cultural resources in place. This and other impacts from</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
VRM designations, if any, are not anticipated to be significant.	resources in place. This and other impacts from VRM designations, if any, are not anticipated to be significant.	VRM designations, if any, are not anticipated to be significant.	VRM designations, if any, are not anticipated to be significant.	VRM designations, if any, are not anticipated to be significant.
<p>Impacts to Paleontology Resources</p> <p>Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 600,000 acres. This long-term impact would usually protect paleontological resources from surface disturbance. In addition, it would result in fewer identified, documented, and recorded paleontological resources because of the consequential reduction in paleontological resource inventories.</p>	<p>Impacts to Paleontology Resources</p> <p>Restrictions on visually obtrusive developments on VRM Class I areas would limit development on over 612,000 acres. This long-term impact would usually protect paleontological resources from surface disturbance. In addition it would result in fewer identified, documented, and recorded paleontological resources due to the consequential reduction in paleontological resource inventories.</p>	<p>Impacts to Paleontology Resources</p> <p>Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 630,700 acres. This long-term impact would usually protect paleontological resources from surface disturbance. In addition, it would result in fewer identified, documented, and recorded paleontological resources because of the consequential reduction in paleontological resource inventories.</p>	<p>Impacts to Paleontology Resources</p> <p>Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 656,000 acres. This long-term impact would usually protect paleontological values in place. In addition, it would result in fewer identified, documented, and recorded paleontological resources because of the consequential reduction in paleontological resource inventories.</p>	<p>Impacts to Paleontology Resources</p> <p>Same as Alternative B.</p> <p>Restrictions on visually obtrusive developments on VRM Class I areas would limit development on more than 630,700 acres. This long-term impact would usually protect paleontological resources from surface disturbance. In addition, it would result in fewer identified, documented, and recorded paleontological resources because of the consequential reduction in paleontological resource inventories.</p>
<p>Impacts to Visual Resources</p> <p>Visual resources would be managed in accordance with the classes identified in Map 2-1.</p> <p>Management of visual resources would be aimed at maintaining or improving the scenic quality, while allowing appropriate development within the PFO by managing the impacts of human activities on the visual landscape. The following acreage would be protected under the various VRM classes: 605,828 acres</p>	<p>Impacts to Visual Resources</p> <p>Visual resources would be managed in accordance with the classes identified in Map 2-2.</p> <p>Impacts resulting from visual resource management would be similar to those of Alternative 1, except that 611,985 acres would be protected as VRM Class I; 142,137 acres as Class II; 990,593 acres as Class III; and 733,929 acres as Class IV. The shift of Class to areas in the Nine Mile and Range</p>	<p>Impacts to Visual Resources</p> <p>Visual resources would be managed in accordance with the classes identified in Map 2-3.</p> <p>Impacts resulting from VRM would be similar to those of the No Action Alternative, except that 630,732 acres would be protected as VRM Class I; 326,404 acres as Class II; 1,222,849 acres as Class III; and 298,707 acres as Class IV. The decrease in Class IV areas would restrict major modifications of the landscape,</p>	<p>Impacts to Visual Resources</p> <p>Visual resources would be managed in accordance with the classes identified in Map 2-4.</p> <p>Impacts resulting from VRM would be similar to those of the No Action Alternative, except that 655,968 acres would be protected as VRM Class I; 472,359 acres as Class II; 721,045 acres as Class III; and 629,471 acres as Class IV. The decrease in Class IV areas would restrict major modifications of the landscape,</p>	<p>Impacts to Visual Resources</p> <p>Visual resources would be managed in accordance with the classes identified in Map 2-5.</p> <p>Impacts resulting from visual resource management would be similar to those of the No Action Alternative, except that 630,632 acres would be protected as VRM Class I; 327,755 acres as Class II; 1,221,598 acres as Class III; and 298,707 acres as Class IV. The decrease in Class IV areas would restrict major</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
would be protected as VRM Class I; 379,257 acres as Class II; 758,931 acres as Class III; and 734,676 acres as Class IV.	Creek areas would allow activities to occur that would impact the visual qualities of these areas.	primarily in the San Rafael Desert area.	primarily in the San Rafael Desert area.	modifications of the landscape, primarily in the San Rafael Desert area.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands Maintaining VRM Class II across large portions of the forested areas in the northeastern portion of the PFO would decrease harvest of forest and woodland products in VRM Class II areas. Product harvest prescriptions would have to be designed to include techniques for minimizing changes to the landscape so that existing character would be maintained and changes to the area's visual quality would not attract attention.	Impacts to Forest and Woodlands Maintaining VRM Class III across large portions of the forested areas in the northeastern portion of the PFO would cause long-term increases in the amount of forest and woodland products harvest in VRM Class III areas. Commercial and noncommercial harvest of forest and woodland products could take place with few VRM stipulations.	Impacts to Forest and Woodlands Maintaining a mix of VRM Classes II and III in forested areas in the northeastern portion of the PFO would result in fewer long-term impacts to the harvest of forest and woodland products than the No Action Alternative. Harvest of products in VRM Class II areas would require avoidance or mitigation, resulting in increased complexity and cost for commercial and noncommercial harvests in these areas. Alternatively, commercial and noncommercial forest and	Impacts to Forest and Woodlands Same as Alternative B.	Impacts to Forest and Woodlands Maintaining a mix of VRM Classes II and III in forested areas in the northeastern portion of the PFO would result in fewer long-term impacts to the harvest of forest and woodland products than under the No Action Alternative. Harvest of products in VRM Class II areas would require avoidance or mitigation, resulting in increased complexity and cost for commercial and noncommercial harvests in these areas. Alternatively, commercial and

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		woodland product harvest could take place with few VRM stipulations in VRM Class III areas.		noncommercial forest and woodland product harvest could take place with few VRM stipulations in VRM Class III areas.
<p>Impacts to Livestock Design and location of proposed range improvements could change based on the four different VRM categories. VRM objectives restricting surface disturbance would indirectly help to maintain forage production levels. One of the objectives for VRM Class I is no noticeable change. This alternative contains approximately 606,000 acres of vegetation in Class I and 1.87 million acres in Class II, III, and IV.</p>	<p>Impacts to Livestock Design and location of proposed range improvements could change based on the four VRM categories. VRM objectives restricting surface disturbance would indirectly help to maintain forage production levels. One of the objectives for VRM Class I is no noticeable change. This alternative contains approximately 612,000 acres of vegetation in Class I and 1.86 million acres in Class II, III, and IV.</p>	<p>Impacts to Livestock Design and location of proposed range improvements could change based on the four VRM categories. VRM objectives restricting surface disturbance would indirectly help to maintain forage production levels. One of the objectives for VRM Class I is no noticeable change. This alternative contains approximately 631,000 acres of vegetation in Class I and 1.85 million acres in Class II, III, and IV.</p>	<p>Impacts to Livestock Design and location of proposed range improvements could change based on the four VRM categories. VRM objectives restricting surface disturbance would indirectly help to maintain forage production levels. One of the objectives for VRM Class I is no noticeable change. This alternative contains approximately 656,000 acres of vegetation in Class I and 1.82 million acres in Class II, III, and IV.</p>	<p>Impacts to Livestock Design and location of proposed range improvements could change based on the four VRM categories. VRM objectives restricting surface disturbance would indirectly help to maintain forage production levels. One of the objectives for VRM Class I is no noticeable change. This alternative contains approximately 631,000 acres of vegetation in Class I and 1.85 million acres in Class II, III, and IV.</p>
<p>Impacts to Recreation Impacts to recreation from visual classes as indicated on Map 2-1 would differ by VRM class and would include the following: VRM Class I (605,828 Acres) Managing WSAs and the Highway I-70 ACEC as VRM Class I would maintain scenic qualities by restricting landscape change, which would in turn maintain and enhance the recreation experience. Conversely, managing these</p>	<p>Impacts to Recreation Impacts to recreation from VRM classes as indicated on Map 2-2 would differ by VRM class and would include the following: VRM Class I (611,985 Acres) Managing WSAs and the Highway I-70 ACEC as VRM Class I would maintain scenic qualities by restricting landscape change, which would in turn maintain and enhance opportunities for recreation, including scenic driving.</p>	<p>Impacts to Recreation Impacts to recreation from VRM classes as indicated on Map 2-3 would differ by VRM class and would include the following: VRM Class I (630,732 Acres) Managing WSAs, the Highway I-70 ACEC, and the lower Green River corridor as VRM Class I would maintain scenic qualities by restricting landscape change, which would in turn maintain and enhance opportunities for recreation, including scenic</p>	<p>Impacts to Recreation Impacts to recreation from VRM classes as indicated on Map 2-4 would differ by VRM class and would include the following: VRM Class I (655,968 Acres) Managing WSAs, Highway I-70 ACEC, and the Lower Green River ACEC as VRM Class I would maintain scenic qualities by restricting landscape change, which would in turn maintain and enhance opportunities for recreation, including scenic driving.</p>	<p>Impacts to Recreation Impacts to recreation from VRM classes as indicated on Map 2-5 would differ by VRM class and would include the following: VRM Class I (630,632 Acres) Managing WSAs, the Highway I-70 ACEC, and the lower Green River corridor as VRM Class I would maintain scenic qualities by restricting landscape change, which would in turn maintain and enhance opportunities for recreation, including scenic</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>areas as VRM Class I would restrict development of recreational facilities and restrict the availability of some activities permitted under the SRP program.</p> <p>VRM Class II (379,257 Acres)</p> <p>Under the No Action Alternative, areas managed as VRM Class II include the Nine Mile Canyon area, Range Creek area, and portions of the San Rafael Swell area surrounding WSAs. Management of VRM Class II areas to retain the existing character of the landscape would maintain scenic quality, which would enhance the recreation experience throughout these areas. Areas where VRM Class I and Class II areas are connected provide large contiguous landscapes of high scenic quality. These areas of high scenic quality are major components of unique and high-value recreation opportunities throughout the PFO.</p> <p>VRM Class III (758,931 Acres)</p> <p>Management of VRM Class III areas would not impact the type or amount of recreational use that would occur in these areas. Facilities to support recreation could be</p>	<p>Conversely, managing these areas as VRM Class I would restrict development of recreational facilities and limit some forms of recreation.</p> <p>VRM Class II (142,137 Acres)</p> <p>Under Alternative A, areas managed as VRM Class II include the CLDQ area, Price River, and portions of the San Rafael Swell area surrounding WSAs. Management of VRM Class II areas to retain the existing character of the landscape would maintain scenic quality, which would enhance recreation opportunities throughout these areas. Areas where VRM Class I and Class II areas are connected provide large contiguous landscapes of high scenic quality. These areas of high scenic quality are major components of unique and high-value recreation opportunities throughout the Field Office.</p> <p>Additionally, management of these areas as VRM Class II, while restricting some forms of recreation facilities, would allow limited development, which would further enhance dispersed and primitive recreation opportunities such as hiking, camping, and recreational OHV use.</p>	<p>driving.</p> <p>Conversely, managing these areas as VRM Class I would restrict development of recreational facilities and limit some forms of recreation.</p> <p>VRM Class II (326,404 Acres)</p> <p>Under Alternative B, areas managed as VRM Class II include the Cleveland Lloyd Dinosaur Quarry area, Price River, portions of the San Rafael Swell area around WSAs, areas around Desolation Canyon WSA, Labyrinth Canyon WSA, and a portion of the Nine Mile Canyon area. Management of VRM Class II areas to retain the existing character of the landscape would maintain scenic quality, which would enhance recreational opportunities throughout these areas. Areas where VRM Class I and Class II areas are connected provide large contiguous landscapes of high scenic quality. These areas of high scenic quality are major components of unique and high-value recreation opportunities throughout the PFO.</p> <p>Additionally, management of these areas as VRM Class II, while restricting some forms of recreation facilities, would</p>	<p>Conversely, managing these areas as VRM Class I would restrict development of recreational facilities and limit some forms of recreation.</p> <p>VRM Class II (472,359 Acres)</p> <p>Under this alternative, areas managed as VRM Class II include the Range Creek area, Cedar Mountain North area, portions of the San Rafael Swell area surrounding WSAs, and a portion of the Nine Mile Canyon area. Management of VRM Class II areas to retain the existing character of the landscape would maintain scenic quality, which would enhance recreation opportunities throughout these areas. Areas where VRM Class I and Class II areas are connected provide large contiguous landscapes of high scenic quality. These areas of high scenic quality are major components of unique and high-value recreation opportunities throughout the PFO. VRM Class II management would be retained in Nine Mile Canyon.</p> <p>Additionally, management of these areas as VRM Class II, while restricting some forms of recreation facilities, would allow limited development, which would further enhance</p>	<p>driving.</p> <p>Conversely, managing these areas as VRM Class I would restrict development of recreational facilities and limit some forms of recreation.</p> <p>VRM Class II (327,755 Acres)</p> <p>Under Alternative D, areas managed as VRM Class II include the Cleveland Lloyd Dinosaur Quarry area, Price River, portions of the San Rafael Swell area around WSAs, areas around Desolation Canyon WSA, and the Labyrinth Canyon WSA. Management of VRM Class II areas to retain the existing character of the landscape would maintain scenic quality, which would enhance recreation opportunities throughout these areas. Areas where VRM Class I and Class II areas are connected provide large contiguous landscapes of high scenic quality. These areas of high scenic quality are major components of unique and high-value recreation opportunities throughout the PFO.</p> <p>Additionally, management of these areas as VRM Class II, while restricting some forms of recreation facilities, would allow limited development, which would further enhance</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>accommodated in these areas.</p> <p>VRM Class IV (734,676 Acres)</p> <p>Management of VRM Class IV areas would allow major modifications to the landscape, which would not limit recreation facilities or activities in these areas. However, this type of management could diminish scenic quality to a degree that would detract from recreation experience.</p>	<p>VRM Class III (990,593 Acres)</p> <p>Management of VRM Class III areas would not impact the type or amount of recreation use that would occur in these areas. Facilities to support recreation could be accommodated in these areas.</p> <p>VRM Class IV (733,929 Acres)</p> <p>Management of VRM Class IV areas would allow major modifications to the landscape, which would not limit recreation facilities or activities in these areas. However, this type of management could diminish scenic quality to a degree that would detract from some types of recreation opportunities.</p> <p>The Nine Mile Canyon area would be designated as VRM Class IV, which would allow for management changes and intrusions to dominant the landscape, thus degrading scenic quality and the recreation experience.</p>	<p>allow limited development, which would further enhance dispersed and primitive recreation opportunities such as hiking, camping, and recreational OHV use.</p> <p>VRM Class III (1,222,849 Acres)</p> <p>Management of VRM Class III areas would not impact the type or amount of recreational use that would occur in these areas. Facilities to support recreation could be accommodated in these areas. The western half of Nine Mile Canyon SRMA would be changed from VRM Class II to Class III. This would allow for management changes and intrusions that attract attention away from the characteristics natural landscape. Loss of scenic quality and presence of intrusions would degrade the quality of the recreation experience.</p> <p>VRM Class IV (298,707 Acres)</p> <p>Management of VRM Class IV areas would allow major modifications to the landscape, which would not limit recreation facilities or activities in these areas. However, this type of management could diminish scenic quality to a degree that would detract from some types</p>	<p>dispersed and primitive recreation opportunities such as hiking, camping, and recreational OHV use.</p> <p>VRM Class III (721,045 Acres)</p> <p>Management of VRM Class III areas would not impact the type or amount of recreation use that would occur in these areas. Facilities to support recreation could be accommodated in these areas. The western half of Nine Mile Canyon SRMA would be changed from VRM Class II to Class III. This would allow for management changes and intrusions that attract attention away from the characteristics natural landscape. Loss of scenic quality and presence of intrusions would degrade the quality of the recreation experience.</p> <p>VRM Class IV (629,471 Acres)</p> <p>Management of VRM Class IV areas would allow major modifications to the landscape, which would not limit recreation facilities or activities in these areas. However, this type of management could diminish scenic quality to a degree that would degrade recreation experience.</p>	<p>dispersed and primitive recreation opportunities such as hiking, camping, and recreational OHV use.</p> <p>VRM Class III (1,221,598 Acres)</p> <p>Management of VRM Class III areas would not impact the type or amount of recreational use that would occur in these areas. Facilities to support recreation could be accommodated in these areas.</p> <p>Managing the Nine Mile Canyon SRMA as Class III would allow for management changes and intrusions that attract attention away from the characteristics natural landscape. Loss of scenic quality and presence of intrusions would degrade the quality of the recreation experience.</p> <p>VRM Class IV (298,707 Acres)</p> <p>Management of VRM Class IV areas would allow major modifications to the landscape, which would not limit recreation facilities or activities in these areas. However, this type of management could diminish scenic quality to a degree that would detract from some types of recreation opportunities.</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		of recreation opportunities.		
<p>Impacts to Lands and Realty VRM classifications would affect the location of new ROW and facilities. Projects would need to be designed to meet the objectives of the established VRM class for the project area. Most ROW and facilities would be compatible with VRM Classes III and IV.</p>	<p>Impacts to Lands and Realty Same as No Action Alternative.</p>	<p>Impacts to Lands and Realty Same as No Action Alternative.</p>	<p>Impacts to Lands and Realty Same as No Action Alternative.</p>	<p>Impacts to Lands and Realty Same as No Action Alternative.</p>
<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. VRM actions would classify the PFO into four VRM classes. Table 4-3 below shows the acres in VRM classes (Map 2-1) in the PFO and within the area north of State Route 10 and U.S. Highway 6 and south of the PFO boundary.</p> <p>VRM Class I areas would not allow any noticeable change in the landscape, which would prohibit the placement of oil and gas facilities on 605,828 acres in the PFO and on 258,278 acres in the oil and gas development area. Oil and gas facilities would not be placed in VRM Class I areas closed to leasing. Facilities could be placed outside of VRM Class I areas, and directional drilling could be used to extract hydrocarbon</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. VRM management actions would classify the PFO into four VRM Classes. Table 4-4 below shows the acres of VRM Classes in the PFO and within the area north of State Route 10 and U.S. Highway 6 and south of the PFO boundary.</p> <p>VRM Class I areas would not allow any noticeable change in the landscape, which would prohibit the placement of oil and gas facilities on 611,985 acres in the PFO and on 258,278 acres in the oil and gas development area. Oil and gas facilities would not be placed on VRM Class I areas closed to leasing. Facilities could be placed outside of VRM Class I areas and directional drilling could be used to extract hydrocarbon</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. VRM actions would classify the PFO into four VRM classes. Table 4-5 below shows the acres in VRM classes (Map 2-3) in the PFO and within the area north of State Route 10 and U.S. Highway 6 and south of the PFO boundary.</p> <p>VRM Class I areas would not allow any noticeable change in the landscape, which would prohibit the placement of oil and gas facilities on 630,732 acres in the PFO and on 258,278 acres in the oil and gas development area. Oil and gas facilities would not be placed on VRM Class I areas closed to leasing. Facilities could be placed outside of VRM Class I areas, and directional drilling could be used to extract hydrocarbon</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. VRM actions would classify the PFO into four VRM classes. Table 4-6 below shows the acres in VRM classes (Map 2-4) in the PFO and within the area north of State Route 10 and U.S. Highway 6 and south of the PFO boundary.</p> <p>VRM Class I areas would not allow any noticeable change in the landscape, which would prohibit the placement of oil and gas facilities on 655,968 acres in the PFO and on 271,516 acres in the oil and gas development area. Oil and gas facilities would not be placed on VRM Class I areas closed to leasing. Facilities could be placed outside of VRM Class I areas, and directional drilling could be used to extract hydrocarbon</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. VRM actions would classify the PFO into four VRM Classes. Table 4-7 below shows the acres of VRM classes (Map 2-5) in the PFO and within the area north of State Route 10 and U.S. Highway 6 and south of the PFO boundary.</p> <p>VRM Class I areas would not allow any noticeable change in the landscape, which would prohibit the placement of oil and gas facilities on 630,632 acres in the PFO and on 258,278 acres in the oil and gas development area. Oil and gas facilities would not be placed on VRM Class I areas closed to leasing. Facilities could be placed outside of VRM Class I areas, and directional drilling could be used to extract hydrocarbon</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>resources under VRM Class I areas open to oil and gas leasing.</p> <p>Oil and gas exploration and development and the placement of associated facilities would be restricted in VRM Class II areas and would require intensive mitigation, which would increase costs to the operator and limit the number of wells on 379,257 acres in the PFO and by 133,363 acres in the oil and gas development area.</p> <p>VRM III and IV areas would allow oil and gas development and the placement of associated facilities without intensive mitigation measures, which would increase the amount of land available to oil and gas exploration and development on 1,493,607 acres in the PFO and by 325,240 acres in the oil and gas development area.</p> <p>Coal. Impacts to coal development from VRM classes would not be significant.</p> <p>Locatable Minerals Impacts to locatable minerals from VRM classes would not be significant.</p> <p>Mineral Materials Impacts to mineral materials</p>	<p>resources under VRM Class I areas open to leasing.</p> <p>Oil and gas exploration and development and the placement of associated facilities would be restricted in VRM Class II areas and would require intensive mitigation, which would increase costs to the operator and limit the number of wells on 142,137 acres in the PFO and on 356 acres in the oil and gas development area.</p> <p>VRM III and IV areas would allow oil and gas development and the placement of associated facilities without intensive mitigation measures, which would increase the amount of land available to oil and gas exploration and development on 1,724,522 acres in the PFO and on 458,247 acres in the oil and gas development area.</p> <p>Coal. Impacts to coal development from VRM Classes would not be significant.</p> <p>Locatable Minerals Impacts to locatable minerals from VRM Classes would not be significant.</p> <p>Mineral Materials Impacts to mineral materials from VRM Classes would not</p>	<p>resources under VRM Class I areas open to leasing.</p> <p>Oil and gas exploration and development and the placement of associated facilities would be restricted in VRM Class II areas and would require intensive mitigation, which would increase costs to the operator and limit the number of wells on 326,404 acres in the PFO and on 93,860 acres in the oil and gas development area.</p> <p>VRM III and IV areas would allow oil and gas development and the placement of associated facilities without intensive mitigation measures, which would increase the amount of land available to oil and gas exploration and development on 1,521,556 acres in the PFO and on 364,743 acres in the oil and gas development area.</p> <p>Coal. Impacts to coal development from VRM classes would not be significant.</p> <p>Locatable Minerals Impacts to locatable minerals from VRM classes would not be significant.</p> <p>Mineral Materials Impacts to mineral materials from VRM classes would not</p>	<p>resources under VRM Class I areas open to leasing.</p> <p>Oil and gas exploration and development and the placement of associated facilities would be restricted in VRM Class II areas and would require intensive mitigation, which would increase costs to the operator and limit the number of wells on 472,359 acres in the PFO and on 128,902 acres in the oil and gas development area.</p> <p>VRM III and IV areas would allow oil and gas development and the placement of associated facilities without intensive mitigation measures, which would increase the amount of land available to oil and gas exploration and development on 1,350,516 acres in the PFO and on 316,463 acres in the oil and gas development area.</p> <p>Coal. Impacts to coal development from VRM classes would not be significant.</p> <p>Locatable Minerals Impacts to locatable minerals from VRM classes would not be significant.</p> <p>Mineral Materials Impacts to mineral materials from VRM classes would not</p>	<p>resources under VRM Class I areas open to leasing.</p> <p>Oil and gas exploration and development and the placement of associated facilities would be restricted in VRM Class II areas and would require intensive mitigation, which would increase costs to the operator and limit the number of wells on 327,755 acres in the PFO and by 93,860 acres in the oil and gas development area.</p> <p>VRM III and IV areas would allow oil and gas development and the placement of associated facilities without intensive mitigation measures, which would increase the amount of land available to oil and gas exploration and development on 1,520,305 acres in the PFO and by 364,743 acres in the oil and gas development area.</p> <p>Coal. Impacts to coal development from VRM classes would not be significant.</p> <p>Locatable Minerals Impacts to locatable minerals from VRM classes would not be significant.</p> <p>Mineral Materials Impacts to mineral materials from VRM classes would not</p>

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
from VRM classes would not be significant.	be significant.	be significant.	be significant.	be significant.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers VRM classes for most of the eligible river segments with outstandingly remarkable scenic values are VRM Class I or II, which provides an appropriate level of protection for these values. However, portions of Cane Wash, Coal Wash, North Salt Wash, and the San Rafael River are within areas of VRM Class III or IV, which are not compatible the protective management of scenic values along these river corridors.	Impacts to Wild and Scenic Rivers Suitable segments of the Green River would be largely within VRM Class 1 areas with some in areas of Class 2. These classes provide appropriate protection of outstandingly remarkable scenic values and are consistent with protective management of suitable river segments where these values are present. The segment of the Green River that is not suitable in this alternative lies within VRM Class 3 where change to the visual landscape can be moderate. This segment (Swaseys boat ramp to I-70 bridge), however, was determined eligible with tentative classification of recreational because there already exists a moderate change to the natural landscape due to human	Impacts to Wild and Scenic Rivers VRM for most of the suitable river segments that have outstandingly remarkable scenic values is according to VRM Class I or II, which provides an appropriate level of protection for these values. However, portions of Range Creek are within VRM Class III areas, which would not be compatible with the protective management of scenic values along this river corridor. Eligible rivers that have outstandingly remarkable scenic values not suitable in this alternative and that have portions that lie within VRM Class III and IV areas are the San Rafael River Nine Mile Canyon, North Salt Wash, San Rafael River, Coal Wash, and Cane Wash. Class III and IV areas would not provide adequate protection for scenic values identified along these	Impacts to Wild and Scenic Rivers VRM for most of the suitable river segments that have outstandingly remarkable scenic values is according to VRM Class I or II, which provides an appropriate level of protection for these values. However, portions of the San Rafael River, Coal Wash, and Cane Wash are within VRM Class IV areas, which would not be compatible with the protective management of scenic values along these river corridors.	Impacts to Wild and Scenic Rivers Suitable segments of the Green River and San Rafael River are largely within VRM Class I areas with some in areas of Class II. These classes provide appropriate protection for outstandingly remarkable scenic values and are consistent with protective management of suitable river segments where these values are present. Eligible rivers that have outstandingly remarkable scenic values not suitable in this alternative and that have portions that lie within VRM Class III and IV areas are the San Rafael River Nine Mile Canyon, Range Creek, North Salt Wash, San Rafael River, Coal Wash, and Cane Wash. VRM Class III and IV areas would not provide adequate protection of scenic values identified along these river

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	development. Other eligible rivers with outstandingly remarkable scenic values that would not be suitable with this alternative and have portions within VRM Class 3 and 4 areas are Rock Creek, Range Creek, Nine Mile Canyon, North Salt Wash, San Rafael River Coal Wash, and Cane Wash. VRM Class 3 and 4 areas would not provide adequate protection for scenic values identified along these river corridors.	river corridors		corridors.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access Impacts resulting from VRM actions would be less than those of Alternative 1 due to less VRM Class II areas and, therefore, fewer restrictions in those areas (142,137 acres versus 379,257 acres in Alternative 1). VRM Classes I (611,985 acres) and II (142,137 acres) would restrict the location of new roads because projects would have to be designed to meet the objectives of the established VRM classification. Examples of design considerations could include screening or the use of different color surface materials (See Map 2-2).	Impacts to Transportation and Motorized Access Impacts resulting from VRM actions would be less than those of the No Action Alternative due to less combined acres of VRM Class I and II areas and, therefore, fewer restrictions in those areas (754,122 combined acres versus 985,085 combined acres in the No Action Alternative). VRM Classes I (630,732 acres) and II (326,404 acres) would restrict the location of new roads because projects would have to be designed to meet the objectives of the established VRM classification. Examples of design considerations could include	Impacts to Transportation and Motorized Access Impacts resulting from VRM actions would be similar to those in the No Action Alternative, except for slightly more combined acreage of VRM Class I and II areas and, therefore, more restrictions in those areas (1,128,327 combined acres versus 985,085 combined acres in the No Action Alternative). VRM Classes I (655,968 acres) and II (472,359 acres) would restrict the location of new roads because projects would have to be designed to meet the objectives of the established VRM classification. Examples of design considerations could include	Impacts to Transportation and Motorized Access Impacts resulting from VRM actions would be less than those in the No Action Alternative because less combined acres of VRM Class I and II areas is involved and, therefore, fewer restrictions would apply in those areas (958,387 combined acres versus 985,085 combined acres in the No Action Alternative). VRM Classes I (630,632 acres) and II (327,755 acres) would restrict the location of new roads because projects would have to be designed to meet the objectives of the established VRM classification. Examples of design considerations could

VISUAL RESOURCE MANAGEMENT				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		screening or the use of different color surface materials (see Map 2-3).	screening or the use of different color surface materials (see Map 2-4).	include screening or the use of different color surface materials (see Map 2-5).
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

Table 4-3. Acres in VRM Classes in the Oil and Gas Development Area – No Action Alternative

VRM Class	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
VRM Class I	605,828	24%	258,278	36%
VRM Class II	379,257	15%	133,363	19%
VRM Class III	758,931	31%	246,071	34%
VRM Class IV	734,676	30%	79,169	11%

Table 4-4. Acres in VRM Classes in the Oil and Gas Development Area—Alternative A

VRM Class	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
VRM Class I	611,985	24%	258,278	36%
VRM Class II	142,137	6%	356	<1%
VRM Class III	990,593	40%	379,078	53%
VRM Class IV	733,929	30%	79,169	11%

Table 4-5. Acres VRM Classes in the Oil and Gas Development Area—Alternative B

VRM Class	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
VRM Class I	630,732	25%	258,278	36%
VRM Class II	326,404	13%	93,860	13%
VRM Class III	1,222,849	50%	286,450	40%
VRM Class IV	298,707	12%	78,293	11%

Table 4-6. Acres VRM Classes in the Oil and Gas Development Area—Alternative C

VRM Class	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
VRM Class I	655,968	26%	271,516	38%
VRM Class II	472,359	20%	128,902	18%
VRM Class III	721,045	29%	237,362	33%
VRM Class IV	629,471	25%	79,101	11%

Table 4-7. Acres VRM Classes in the Oil and Gas Development Area—Alternative D

VRM Class	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
VRM Class I	630,632	25%	258,278	36%
VRM Class II	327,755	14%	93,860	13%
VRM Class III	1,221,598	49%	286,450	40%
VRM Class IV	298,707	12%	78,293	11%

SPECIAL STATUS SPECIES

Assumptions

The analysis is based on the following additional assumptions:

- It is anticipated that as additional data are collected and evaluated, the U.S. Fish and Wildlife Service (USFWS) may designate additional species as threatened or endangered.
- Management of streams toward their potential natural condition generally improves habitats for native and Special Status Species.
- Management of threatened and endangered species is subject to the ESA.
- Management of streams toward their potential natural condition generally improves habitats for native and Special Status Species.
- Management of streams for natural variations in stream flow, sediment transport, and water temperatures would likely preserve or improve habitats.
- As additional data are collected and evaluated, it is anticipated that the USFWS will make changes to federally listed species.
- As additional data are collected and evaluated, it is anticipated that there will be changes to the BLM Sensitive Species list.
- Special management areas (e.g. WSA, and Wild and Scenic Rivers) could contribute to the recovery of some listed species.

Significance Criteria

Impacts to Special Status Species would be considered significant if any of the following were to occur:

- Any surface disturbance and/or human activity within potential or occupied habitat, including designated critical habitat, for a federally listed species may be significant and would require consultation with USFWS.
- Actions that contribute to lentic (e.g., lakes or ponds) and lotic (e.g., rivers or streams) riparian areas not meeting Proper Functioning Condition may be considered significant.
- Actions leading to or resulting in the “take” of any federally listed species would be considered significant and would require consultation with USFWS.
- Actions leading to the need to list a species as Threatened or Endangered under ESA would be considered significant.
- Any federal action expected to reduce the population size, trend, or habitat suitability for BLM Special Status Species may be considered significant.

Methods of Analysis

Impact analyses and conclusions are based on interdisciplinary team knowledge of resources and the PFO, review of existing literature, and professional judgment of experts within the BLM or other agencies. Effects are quantified where possible; however, in the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate. Spatial analysis was conducted using ESRI's ArcGIS desktop computer software.

It is often difficult to discern the potential impacts on Special Status Species resulting from any specific management action from population changes caused by natural factors. Changes or stressors to habitat components (e.g., vegetation, water, soil, or air) would most likely cause direct and indirect effects to Special Status Species. Therefore, potential effects to habitats are the principal focus of this assessment.

SPECIAL STATUS SPECIES

Common to All Alternatives

Decisions

- Follow guidelines and implement management recommendations presented in species recovery or conservation plans (including but not limited to those listed below) or alternative management strategies developed in consultation with USFWS
- Implement species-specific conservation measures to avoid or mitigate adverse effects to known populations of BLM sensitive plant and animal species on BLM-administered lands
- In consultation with USFWS and UDWR, impose species-specific protective stipulations on federal actions to avoid or minimize adverse effects to federally listed, proposed, or Candidate species or suitable habitat for the same
- Use emergency actions where use threatens known communities of special status plant or animal species
- Prohibit surface disturbance within known populations or potential habitats of plants or animals (Threatened, Endangered, or Candidate) without consultation or conference (Endangered Species Act [ESA], Section 7) between BLM and USFWS
- Continue BLM work with USFWS and others to ensure that plans and agreements are updated to reflect the latest scientific data
- Adhere to and use the recommendations found in the UDWR Strategic Management Plan for Sage Grouse (UDWR Publication 02-2002). Additional management strategies would be incorporated when BLM Sage-Grouse Habitat Conservation Strategy is signed.

Impact Analysis	
RESOURCES	
Impacts to Air Quality	No significant impacts.
Impacts to Soil, Water and Riparian	Actions taken to improve habitat for Special Status Species would also benefit soils, water, and riparian/wetland resources. These actions would include, but not be limited to, vegetation modifications to improve upland and riparian habitats, revegetation of native plant species, and stream bank stabilization. Although there would be some short-term impacts to soil, water, and riparian/wetland resources in the form of soil disturbances and some siltation, the long-term benefits would greatly improve the health of these resources.
Impacts to Vegetation Resources	Limiting surface disturbing activities to protect special status plant and animal species would indirectly benefit vegetation communities and structure and reduce the opportunity for noxious or invasive species to establish themselves. Implementing the recommendations in the Utah Division of Wildlife Resources Strategic Management Plan for Sage Grouse would improve the sagebrush plant community and increase the diversity of the sagebrush community structure.
Impacts to Cultural Resources	A cultural resource inventory and clearance would be required before implementation of surface disturbing Special Status Species management actions. There would be an increased potential for the identification and recordation of cultural resources where the surface disturbance took place. Avoidance of surface disturbing activities in sensitive species habitats would have an indirect impact. Where such closures were implemented there would be a reduction in both the potential for site disturbance as well as the potential for site identification and recordation through data recovery associated with development. In addition, restrictions on surface disturbance in sensitive habitats would make cultural resource studies more difficult.
Impacts to Paleontology Resources	No significant impacts.
Impacts to Visual Resources	No significant impacts.
Impacts to Special Status Species	No impacts to Special Status Species are anticipated from management actions for Special Status Species. The BLM would continue to work in conjunction with the USFWS and adjacent land managers to protect and restore Special Status Species populations and habitat.
Impacts to Fish and Wildlife	Continuing to implement species-specific recovery or conservation plans would result in additional benefits to other wildlife and fish species and associated habitats found throughout the planning area. The prevention of surface disturbance in known or potential habitat of threatened, endangered, or candidate plant or animal species would directly benefit other fish and wildlife species in the area. Avoidance measures and stipulations during critical time periods would reduce disturbance to breeding, nesting, and wintering wildlife. In addition, management of streams toward their potential natural condition would generally improve habitats for both native and Special Status Species.

Impacts to Wild Horses and Burros

Management of special status species may result in a localized direct impact. Some habitats or specific populations of Special Status Species might be fenced or otherwise protected. In comparison to the HMA acreages, the impacts of these areas would not be significant.

Additionally, Special Status Species management may result in abandonment of vegetation treatments or range improvement projects. Since range improvements in HMAs would generally result in increased forage production and decreased competition, abandonment of such projects within HMAs could impact wild horses and burros by not managing the forage to reduce forage use conflicts.

Impacts to Fire and Fuels Management

Maintaining and protecting Special Status Species habitats would impact fire suppression and fuels treatments. Some habitats would be identified as high-value resources. These areas could require suppression of wildland fires threatening the area. Depending on the species, limitations, and/or restrictions on certain types of fire suppression methods and fuels treatments, such as prescribed burns, would be necessary. This could affect the ability of firefighters to protect habitats and the surrounding areas during wildland fire suppression activities. As a result, Special Status Species habitats would receive hazardous fuels treatments to reduce the need for suppression actions during wildland fire events.

RESOURCE USES**Impacts to Forest and Woodlands**

Implementing measures to avoid or mitigate adverse effects to the Mexican Spotted Owl would decrease long-term harvest of forest and woodland products in designated Mexican Spotted Owl habitat in the northeastern portion of the PFO. Including appropriate avoidance and mitigation measures in harvest prescriptions within designated Mexican Spotted Owl habitat would increase complexity and cost of harvests in this area.

Impacts to Livestock

Management of Special Status Species might restrict opportunities for range improvements in areas where federally listed species and BLM sensitive species occur. Actions to protect species listed under the ESA, including the implementation of conservation agreements, might further constrain rangeland improvement options by limiting the season or location of the proposed improvement.

Impacts to Recreation

No significant impacts.

Impacts to Lands and Realty

The presence of Threatened and Endangered or BLM State Sensitive Species or their habitats may limit the ability to conduct land tenure activities relating to disposals or exchanges as per direction of the Endangered Species Act. Also, ROWs would require mitigation if found to impact the habitats of listed species.

Mitigation measures to protect Threatened and Endangered (T/E) species and critical habitats would impact the potential disposal of lands. These areas would have to be avoided or mitigated if the land tenure activity would result in the loss of habitat necessary to sustain the species.

<p>Impacts to Minerals and Energy</p> <p>Leasable Minerals Oil and Gas. No surface disturbance would be permitted within known populations or potential habitats of special status plants, fish, or animals (Tables 3.1.1.7-1 and 3.1.1.7-2), including Mexican Spotted Owl habitat (232,875 acres), without consultation or conference between BLM and USFWS. A portion of the Nine Mile Canyon area contains designated critical habitat for Mexican Spotted Owl. These actions would increase costs to the operator and potentially result in relocating access roads, drill pads, pipelines, and other ancillary facilities. For larger areas of Special Status Species habitat, directional drilling would potentially be required to extract the hydrocarbon resources, which would increase operator cost.</p> <p>Coal. No surface disturbance would be permitted within known populations or potential habitats of special status plants, fish, or animals (Tables 3.1.1.7-1 and 3.1.1.7-2) without consultation or conference between BLM and USFWS. This action could result in relocating facilities and/or delay coal activities.</p> <p>Locatable Minerals No surface disturbance would be permitted within known populations or potential habitats of special status plants, fish, or animals (Tables 3.1.1.7-1 and 3.1.1.7-2) without consultation or conference between BLM and USFWS, which could result in relocating locatable mineral facilities and/or delay activities.</p> <p>Mineral Materials No surface disturbance would be permitted within known populations or potential habitats of special status plants, fish, or animals (Tables 3.1.1.7-1 and 3.1.1.7-2) without consultation or conference between BLM and USFWS, which could result in relocating facilities and/or delay activities.</p>
<p>SPECIAL DESIGNATIONS</p>
<p>Impacts to Wilderness Study Areas No significant impacts.</p>
<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>
<p>Impacts to Wild and Scenic Rivers Law and policy regarding management of Special Status Species would complement protective management of outstandingly remarkable fish values, specifically, the Humpback Chub, Bonytail Chub, Razorback Sucker, and Colorado Pikeminnow, where they occur in suitable rivers as well as designated critical habitat for the Mexican Spotted Owl along the Green River.</p>
<p>SUPPORT</p>
<p>Impacts to Transportation and Motorized Access Management of Sensitive or Special Status Species might place restrictions on lands occupied by these species and could result in realignments of roads and ROW, restrict the improvement of roadways, and limit potential access opportunities. Mitigation of such sensitive habitats could prohibit access.</p>
<p>Impacts to Hazardous Materials and Waste No significant impacts.</p>

FISH AND WILDLIFE

Assumptions

Wildlife Assumptions

- It is anticipated that as additional data are collected and evaluated, changes will be made to the BLM-Utah Sensitive Species list and the threatened or endangered species list.
- The quality and quantity of winter ranges are generally considered to be the limiting factors on big game populations in the planning area. The ability of these areas to support wintering populations is a major factor in determining yearlong population levels. As acreages of surface disturbance and human activity levels increase, the quality and quantity of these habitats likely would be reduced and the ability to support UDWR herd objective numbers may be reduced. Significant modifications to habitat suitability can impact population numbers of fish and wildlife species (e.g., higher winter mortality and reduced reproductive success).
- Wildlife populations would continue to be managed by the UDWR. BLM would continue to manage wildlife habitat. Big game habitat would be managed in coordination with UDWR herd objectives.
- Human activities have various direct and indirect impacts on different wildlife species, these activities when conducted during sensitive portions of the species lifecycles cause significant impacts to the various species, for example—
- Behavioral avoidance for mule deer is up to one-fourth mile, and for elk it is up to one-half mile.
- Raptors will abandon active nest sites if disturbance occurs during the nesting season.
- Sage grouse breeding and nesting activities are disrupted by human activity.
- Surface disturbing activities can cause various direct and indirect impacts on other wildlife species, e.g., mortality to small mammals and less mobile species, and loss of forage for grazing ungulates.
- Periods of severe winters as well as outbreaks of wildlife disease or insects and diseases that affect habitat (i.e., pine bark beetle, blister rust, bleeding rust, etc.) and wildland fire that impact habitat could impact wildlife population levels. UDWR may adjust herd objectives through these periodic fluctuations in population levels. Occasional changes in movement patterns or habitat preference may occur in response to habitat changes or levels of human disturbance.

Fisheries Assumptions

- The UDWR is responsible for the management of fish populations in the State of Utah. However, the BLM is responsible for impacts occurring, through public land management activities, to these populations and would coordinate fish habitat management on public lands with other public and private agencies.
- Management of streams toward their potential natural condition would generally improve habitats for native and nonnative cold and warm water fish.
- Consideration of fish habitat requirements within BLM policies, such as Standards and Guidelines for Healthy Rangelands (S&G), Proper Function Condition (PFC) and the Riparian-Wetland Initiative, would help to identify areas where fish populations could benefit from stream habitat management and watershed management efforts.

Significance Criteria

Impacts to fish and wildlife would be considered significant if any of the following were to occur:

- Management actions result in the need to list a species under the ESA.
- Management actions result in an inability to achieve UDWR population goals for particular species.
- Loss of or other disturbance to any designated critical (USFWS definition) habitats or other protected values may be significant, which would require consultation with the USFWS (see Special Status Species section for details).
- Any human-caused surface disturbance would be considered significant if it impacts—
- Perennial or intermittent streams or channels
- Riparian-aquatic habitats
- Sage grouse leks
- Raptor nest sites and buffer zones.
- Cumulative loss of 25 acres or more of crucial (UDWR defined as “critical”) habitats, through surface disturbance or other human-caused activities rendering an equivalent amount of acreage unsuitable, and where restoration or replacement may not be possible would be a significant loss of habitat. Voluntary

FISH AND WILDLIFE

mitigation activities will occur when a cumulative loss of 10 acres or more occurs.

- Cumulative loss of 25 acres or more of high value (UDWR definition) habitats or wildlife use areas where reconstructed or enhanced habitats may be possible would be considered a substantial loss of habitat. Voluntary mitigation activities will occur when a cumulative loss of 10 acres or more occurs.

Methods of Analysis

Impact analyses and conclusions are based on interdisciplinary team knowledge of resources and the RMPPA, review of existing literature, and professional judgment of experts within the BLM or other agencies. Effects are quantified where possible. Spatial analysis was conducted using ESRI's ArcGIS desktop computer software. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate.

Wildlife populations fluctuate, sometimes widely, in response to natural factors such as cycles in the abundance of prey base or extremes in seasonal weather (e.g., severe winters). It is often difficult to discern the potential impacts on wildlife resulting from any specific management action from population changes caused by natural factors. Changes or stressors to habitat components (e.g., vegetation, water, soil, or air) would most likely cause direct and indirect effects to wildlife and fish. Therefore, potential effects to habitats are the principal focus of this assessment.

For the purpose of this analysis the following groups were reviewed for impacts to their specific habitats:

- General
- Game species (mule deer, elk, bighorn sheep, pronghorn, moose, black bear, and mountain lions)
- Non-game species (i.e., small mammals, predators)
- Birds (migratory, and neo-tropical migrants)
- Upland game birds
- Raptors
- Fish
- Reptiles and Amphibians.

If impacts were identified that would affect the habitats of the species, then these impacts were noted. If no impact was identified or the impact was considered minimal or insignificant, then no further discussion was considered. Threatened and endangered species habitat impacts are addressed in the Special Status Species section or in the Biological Assessment.

FISH AND WILDLIFE**Common to All Alternatives****Decision Background**

The following decisions are policy or regulation for the protection of fish and wildlife resources. These decisions are included to clarify standard operating procedures.

Decisions

- Recognize and support the authority of UDWR in the management of wildlife populations and in the regulation of hunting and fishing.
- Recognize and support the authority of USFWS in the management of migratory birds according to the Migratory Bird Treaty Act (MBTA).
- Continue to recognize and implement, to the extent possible, UDWR wildlife management plans (and associated revisions) and those of other cooperating agencies. Future plans and agreements will be considered for implementation on a case-by-case basis through applicable regulatory review and regulations.
- Coordinate with UDWR to establish and maintain Blue Ribbon Fisheries. Current fisheries are maintained at Scofield Reservoir, Huntington Creek, Lower Fish Creek, Range Creek, and Upper Price River.
- Manage habitat to prevent the need for additional listing of species under the ESA and to contribute to the recovery of species already listed.
- Adhere to and use the recommendations found in the BLM Bighorn Sheep Rangewide Management Plan, 1999, as revised; the Utah BLM Statewide Desert Bighorn Sheep Management Plan, 1986, as revised; and the Management of Domestic Sheep in Bighorn Sheep Habitats, 1992, as revised.
- To the extent possible and in accordance Executive Order 13186, incorporate conservation measures as outlined in the Utah Partners-in-Flight Avian Conservation Strategy and other scientific information into BLM's ongoing wildlife habitat mitigation program.
- Use spatial and seasonal conservation measures and site modification of Federal Actions to avoid or minimize adverse effects to important wildlife ranges (e.g., winter range, fawning and calving areas, and breeding and nesting habitats) or species impacts during sensitive periods of their life cycles (see Spatial and Seasonal Wildlife Conservation Measures, Appendix 8).
- Limit motorized travel within crucial wildlife areas to designated routes year round.
- For wildlife protection purposes, consider seasonal closures for motorized travel within crucial wildlife areas.
- Allow or participate in research of all wildlife species and their habitats.
- In the design of facilities associated with Federal Actions, include the concepts of habitat fragmentation and design those facilities to minimize the potential for increasing habitat fragmentation. Consider collocation of facilities, including utility corridors and oil and gas wells. Use topographic and vegetation screening when locating facilities to minimize the intrusion in wildlife habitats. Minimize road densities by reclaiming redundant roads when new roads access the same general area or when the intended purpose for the roads has been met and they are no longer necessary.
- Maintain, protect, and restore riparian and wetland areas to proper functioning condition state (within capability) to achieve multilayered, diverse riparian obligate-dominated vegetation community to support optimum diversity and density of wildlife species.

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Common to All Alternatives
Impact Analysis

RESOURCES

Impacts to Air Quality

The use of heavy equipment in habitat enhancement and restoration projects would cause a short-term pollutant emissions and insignificant impact to air quality in the form of pollutant emissions such as dust and emissions created during the project. Also, prescribed fires associated with habitat enhancement and restoration projects would cause short-term increases in particulate matter in the atmosphere.

Impacts to Soil, Water and Riparian

Habitat and stream restoration projects would have short-term impacts to soil, water, and riparian-wetland resources. These short-term impacts would include displacement of vegetation associated with the riparian resources and increased siltation and sediment loading from reshaping and preparing stream banks for placement of instream structures. There would also be impacts from equipment used in stream restoration projects.

However, there would be long-term benefits to stream geomorphology by slowing rapidly moving water, improving the function of riparian/wetland complexes, reducing soil and stream bank erosion, and allowing for reduced water depletions and increased filtration of silt and nutrients.

Impacts to Vegetation Resources

Management of vegetation communities to provide suitable habitat for wildlife would help provide for the restoration, protection, and enhancement of desirable vegetation resources. Providing structural diversity and connectivity of suitable habitats would improve vegetation within those managed areas.

Habitat management plans, which promote healthy rangelands and vegetation, would create conditions resistant to the spread of noxious weeds and invasive plant species.

Impacts to Cultural Resources

A cultural resource inventory and clearance would be required before implementation of surface disturbing wildlife management actions from wildlife management plans. There would be an increased potential for the identification and recordation of cultural resources where the surface disturbance took place.

Closing the Gordon Creek Wildlife Management Area to oil and gas leasing would indirectly impact cultural resources. Surface disturbance related to oil and gas development would not occur, resulting in no need to complete cultural inventories/clearances before well-pad construction or road and pipeline development. Where such closures were implemented, there would be a reduction in both the potential for site disturbance and the potential for site identification and recordation through data recovery associated with development. Cultural resource would be preserved in place.

Impacts from the riparian management action would be the same as those identified in the soil, water, and riparian section above.

Impacts to Paleontology Resources

No significant impacts.

Impacts to Visual Resources

Impacts to visual resources would experience long-term, indirect benefits from actions that improve wildlife ranges and habitat such as requiring collocation of facilities, utility corridors, oil and gas wells, and limiting motorized travel.

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Common to All Alternatives

Impacts to Special Status Species

Recognizing and managing priority breeding-bird habitat as a high-value vegetative type and integrating Executive Order 13186 indirectly improve Special Status Species populations and habitat.

Management actions for fish and wildlife would indirectly benefit Special Status Species by improving habitat quality and habitat integrity. Establishing Blue Ribbon Fisheries would improve and maintain some aquatic Special Status Species populations and habitat. Enhancing fish and wildlife habitats by restoring native vegetation indirectly would enhance Special Status Species populations and habitat.

Limiting motorized travel year-round to designated routes within crucial habitats would increase habitat connectivity, indirectly improving special species status populations and habitat. A detailed discussion of seasonal closures related to crucial and high-value wildlife habitat is located in Section 3.2.8. Protecting wildlife habitat areas from surface disturbing activities would indirectly improve Special Status Species populations and their habitat.

Impacts to Fish and Wildlife

Maintaining, enhancing, and restoring wildlife habitat within the planning area, in coordination with the UDWR, USFS, USFWS, and other agencies, would benefit wildlife species by improving forage quality and quantity, increasing hiding cover, and reducing stress during critical time periods.

Impacts to Wild Horses and Burros

There is potential that competition for habitat resources would occur between wild horses and burros and wildlife, specifically big game species. Meeting wildlife habitat goals would benefit wild horses and burros by improving habitat resources, assuming that populations of wildlife and wild horses and burros are maintained at or below management objectives.

Impacts to Fire and Fuels Management

No significant impact.

RESOURCE USES**Impacts to Forest and Woodlands**

No significant impact.

Impacts to Livestock

Management activities associated with wildlife habitat management would potentially restrict seasonal use for livestock grazing and rangeland improvements. Water developments designed to provide new water sources for wildlife in some situations would increase water availability for livestock, promoting improved distribution of both livestock and wildlife.

Restoring riparian and wetland areas to PFC potentially would restrict the duration or season of livestock grazing. Stream restoration potentially could impact livestock grazing by constructing exclosures to protect streamside and riparian habitats.

Limiting motorized access to designated routes or seasonal closures in crucial wildlife habitat would improve livestock grazing by reducing the opportunity for noxious weed and invasive plant introductions in those areas. Noxious weed and invasive plants would reduce the quality of available forage.

Impacts to Recreation

Management of fish and wildlife resources for healthy and diverse populations would improve opportunity and experience for both consumptive and non-consumptive recreational enjoyment of wildlife.

Impacts to Lands and Realty

No significant impact.

FISH AND WILDLIFE Common to All Alternatives	
Impacts to Minerals and Energy	
Leasable Minerals	
Oil and Gas. Seasonal restrictions to protect wildlife would have long-term, direct impacts on oil and gas exploration and production. Seasonal restrictions would compress oil and gas exploration and development into specific periods of time and would potentially lead to delays.	
Gordon Creek WMA (6,900 acres) would be closed to leasing, which would limit the land available to oil and gas development and would render hydrocarbon resources under this WMA as unrecoverable.	
Coal. Impacts to coal development from wildlife and fish resource management actions would not be significant.	
Locatable Minerals	
Impacts to locatable minerals from wildlife and fish management actions would not be significant.	
Mineral Materials	
Wildlife and fish management actions may result in relocating mineral material activities.	
SPECIAL DESIGNATIONS	
Impacts to Wilderness Study Areas	
No significant impact.	
Impacts to Areas of Critical Environmental Concern	
No significant impact.	
Impacts to Wild and Scenic Rivers	
No significant impact.	
SUPPORT	
Impacts to Transportation and Motorized Access	
No significant impact.	
Impacts to Hazardous Materials and Waste	
No significant impact.	

FISH AND WILDLIFE Predator Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Sheep and calving allotments with pinyon-juniper woodlands are avoided by permittees or are not fully used because of the presence of predators. Coyotes are a keystone species and provide a valuable mechanism to control rodent and other small mammalian populations.				

FISH AND WILDLIFE				
Predator Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
Follow Memorandum of Understanding (MOU) with the Animal Plant Health Inspection Service (APHIS).	Predator control activities would be planned and implemented for the entire planning area through proper revisions to the MOU with APHIS to target species-specific needs for livestock and wildlife populations.	Predator control action would be implemented by allotment area through proper revisions to the MOU with APHIS to target species-specific needs for livestock grazing.	Consistent with tools specified in the APHIS MOU, predator control actions would only be planned and implemented for offending animals.	Follow MOU with APHIS (i.e., same as No Action Alternative).
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources Predator control in accordance with the MOU with APHIS would not directly impact vegetation resources. Indirectly predator control may change livestock grazing in some allotments with pinyon-juniper woodlands. Indirectly this could increase the percent of cover by livestock preferred forage. These changes could increase the percent cover of livestock forage plant species.	Impacts to Vegetation Resources Implementing predator control activities throughout the entire PFO with revisions to the MOU with APHIS would not directly impact vegetation resources. Indirectly predator control targeting species-specific needs for livestock and wildlife populations may change livestock grazing in some allotments with pinyon-juniper woodlands. Indirectly this could increase the percent of cover by livestock preferred forage, alt. These changes could increase the percent cover of livestock forage plant species.	Impacts to Vegetation Resources Implementing predator control activities throughout the entire PFO with revisions to the MOU with APHIS would not directly impact vegetation resources. Indirectly predator control targeting species-specific needs for livestock may change livestock grazing in some allotments with pinyon-juniper woodlands. Indirectly this could increase the percent of cover by livestock preferred forage. These changes could increase the percent cover of livestock forage plant species.	Impacts to Vegetation Resources Implementing predator control as specified in the MOU with the APHIS for offending animals may reduce the use of livestock grazing in some allotments. Indirectly, this could change the percent cover of forage plant species and plant community structure.	Impacts to Vegetation Resources Predator control in accordance with the MOU with APHIS would not directly impact vegetation resources. Indirectly predator control may change livestock grazing in some allotments with pinyon-juniper woodlands. Indirectly this could increase the percent of cover by livestock preferred forage. These changes could increase the percent cover of livestock forage plant species.

FISH AND WILDLIFE Predator Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species Predator control, per the MOU with APHIS, is not anticipated to impact Special Status Species populations and habitat.	Impacts to Special Status Species Predator control with APHIS to target species-specific livestock needs is not anticipated to impact Special Status Species populations.	Impacts to Special Status Species Predator control by allotment area with APHIS to target species-specific livestock needs is not anticipated to impact Special Status Species populations.	Impacts to Special Status Species Predator control for offending animals by APHIS is not anticipated to impact Special Status Species.	Impacts to Special Status Species Predator control, per the MOU with APHIS, is not anticipated to impact Special Status Species populations and habitat.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock Predator control in allotments with pinyon-juniper woodlands can reduce the loss of livestock to predators and may improve the economic viability of some	Impacts to Livestock Revising the MOU with APHIS to target species-specific needs for livestock and wildlife populations for the entire planning area could change	Impacts to Livestock Revising the MOU with APHIS and implementing predator control on an allotment basis to target species-specific need for livestock grazing could change	Impacts to Livestock Implementing predator control actions only for offending animals consistent with the tools specified in the MOU with APHIS could change the use of	Impacts to Livestock Predator control in allotments with pinyon-juniper woodlands can reduce the loss of livestock to predators and may improve the economic viability of some

FISH AND WILDLIFE Predator Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
livestock operations. Allotments where predators are not controlled may be avoided by permittees and some allotments may be avoided entirely.	the use of some allotments by permittees. Predator control in allotments with pinyon-juniper woodlands can reduce the loss of livestock to predators and may improve the economic viability of some livestock operations. Some areas of allotments where predators are not controlled may be avoided by permittees and some allotments may be avoided entirely.	the use of some allotments by permittees. Predator control in allotments with pinyon-juniper woodlands can reduce the loss of livestock to predators and may improve the economic viability of some livestock operations. Some areas of allotments where predators are not controlled may be avoided by permittees and some allotments may be avoided entirely.	some allotments by permittees. Predator control in allotments with pinyon-juniper woodlands can reduce the loss of livestock to predators and may improve the economic viability of some livestock operations. Some areas of allotments where predators are not controlled may be avoided by permittees and some allotments may be avoided entirely.	livestock operations. Allotments where predators are not controlled may be avoided by permittees and some allotments may be avoided entirely.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access	Impacts to Transportation and Motorized Access

FISH AND WILDLIFE Predator Control				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.				
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Current land management actions and permitted practices limit the capabilities to fully develop quality fish and wildlife habitat.				
Decisions				
Big game winter range would be managed to maximize browse production, using class of livestock and season of use.	Prescriptive grazing would be used, including but not limited to, forage banking, to favor browse production on big game ranges.	Same as Alternative A. In addition, BLM would use livestock to improve or enhance wildlife habitat. (Including, but not limited to, prescriptive grazing techniques such as season of use, kind and class of livestock, and rangeland improvements)	Same as Alternative A. In addition, temporary, nonrenewable permits for livestock grazing would be used to favor browse in certain allotments for the purpose of achieving specific objectives for the allotments.	Big game winter range would be managed to maximize browse production, using class of livestock and season of use. (Same as No Action Alternative.)
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian Protecting and managing wildlife habitats to benefit wildlife species would provide long-term benefits to soil, water, and riparian resources.	Impacts to Soil, Water and Riparian Changes in grazing practices to benefit wildlife populations or improve forage availability would provide long-term benefits in preserving soil,	Impacts to Soil, Water and Riparian Changes in grazing practices to benefit wildlife populations or improve forage availability would provide long-term benefits in preserving soil,	Impacts to Soil, Water and Riparian Changes in grazing practices to benefit wildlife populations or improve forage availability would provide long-term benefits in preserving soil,	Impacts to Soil, Water and Riparian Changes in grazing practices to benefit wildlife populations or improve forage availability would provide long-term benefits in preserving soil,

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>There would be some impacts from habitat improvement projects, but these would be mitigated and short term.</p> <p>Prescriptive grazing of livestock would reduce the amount of time they would be allowed to graze in one area. This would allow forage species to recover from the impacts of grazing. Forage banking and rest-rotation of allotments would provide long-term benefits to the health of range and improve soil conditions from decreased disruption and compaction, leading to less erosion.</p> <p>Habitat and stream restoration projects would have short-term impacts to soil, water, and riparian/wetland resources. These short-term impacts would include displacement of vegetation associated with the riparian resources and increased siltation and sediment loading from reshaping and preparing stream banks for placement of instream structures. There would also be impacts from equipment used in stream restoration projects.</p> <p>However, there would be long-term benefits to stream geomorphology by slowing rapidly moving water,</p>	<p>water, and riparian resources. This is mainly due to the transient nature of wildlife in their grazing styles.</p> <p>Prescriptive grazing of livestock would reduce the amount of time they would be allowed to graze in one area. This would allow forage species to recover from the impacts of grazing. Forage banking and rest-rotation of allotments would provide long-term benefits to the health of range and improve soil conditions from decreased disruption and compaction, leading to less erosion.</p> <p>Protecting and managing wildlife habitats to benefit wildlife species would provide long-term benefits to soil, water, and riparian resources. There would be some impacts from habitat improvement projects, but these would be mitigated and short term.</p> <p>Habitat and stream restoration projects would have short-term impacts to soil, water and riparian/wetland resources. These short-term impacts would include displacement of vegetation associated with the riparian resources and increased siltation and sediment loading from reshaping and preparing</p>	<p>water, and riparian resources. This is due to the transient nature of wildlife in their feeding habitats.</p> <p>The feeding regimes of big game populations are more transitory than livestock. Forage allocations specifically identified for big game populations would cause short-term impacts in the form of intense, but brief grazing. There would be long-term benefits to soil, water, and riparian resources from the lack of constant grazing within one allotment. This would result in less compaction of soils, reduced erosion due to more vegetation present to absorb runoff, and would allow for percolation of water into the soils. This would reduce siltation and sediment loading of streams and riparian/wetland resources.</p> <p>Protecting wildlife habitats through the use of seasonal closures for surface-disturbing activities would provide long-term benefits in preserving soil, water, and riparian resources. Soils would be protected during their highest erodibility in the late winter and early spring periods. This would lead to less soil compaction and breakdown and the resulting erosion, and would</p>	<p>water, and riparian resources. This is due to the transient feeding nature of wildlife populations.</p> <p>Because big game populations are more transitory in their feeding regimes, forage allocations specifically identified for big game populations would provide short-term impacts but result in long-term benefits to soil, water, and riparian resources.</p> <p>Habitat and stream restoration projects would have short-term impacts to soil, water, and riparian/wetland resources. These short-term impacts would include displacement of vegetation associated with the riparian resources and increased siltation and sediment loading from reshaping and preparing stream banks for placement of instream structures. There would also be impacts from equipment used in stream restoration projects.</p> <p>However, there would be long-term benefits to stream geomorphology by slowing rapidly moving water, improving the function of riparian/wetland complexes, reducing soil and stream bank erosion, reducing water depletions, and increasing filtration of silt and nutrients.</p> <p>Protecting wildlife habitats through the use of seasonal closures for surface-disturbing activities would provide long-term benefits in preserving soil, water, and riparian resources. Protecting soil, water, and riparian resources during periods when they are most fragile would prevent the breakdown of soils that would</p>	<p>water, and riparian resources. Habitat and stream restoration projects would have short-term impacts to soil, water, and riparian/wetland resources. These short-term impacts would include displacement of vegetation associated with the riparian resources and increased siltation and sediment loading from reshaping and preparing stream banks for placement of instream structures. There would also be impacts from equipment used in stream restoration projects.</p> <p>However, there would be long-term benefits to stream geomorphology by slowing rapidly moving water, improving the function of riparian/wetland complexes, reducing soil and stream bank erosion, reducing water depletions, and increasing filtration of silt and nutrients.</p> <p>Protecting wildlife habitats through the use of seasonal closures for surface-disturbing activities would provide long-term benefits in preserving soil, water, and riparian resources. Protecting soil, water, and riparian resources during periods when they are most fragile would prevent the breakdown of soils that would</p>

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>improving the function of riparian/wetland complexes, reducing soil and stream bank erosion, reducing water depletions, and increasing filtration of silt and nutrients.</p> <p>Protecting wildlife habitats through the use of seasonal closures for surface-disturbing activities would provide long-term benefits in preserving soil, water, and riparian resources. Protecting soil, water, and riparian resources during periods when they are most fragile would prevent the breakdown of soils that would lead to erosion, siltation, and sedimentation.</p>	<p>stream banks for placement of instream structures. There would also be impacts from equipment used in stream restoration projects.</p> <p>However, there would be long-term benefits to stream geomorphology by slowing rapidly moving water, improving the function of riparian/wetland complexes, reducing soil and stream bank erosion, reducing water depletions, and increasing filtration of silt and nutrients.</p> <p>Protecting wildlife habitats through the use of seasonal closures for surface-disturbing activities would provide long-term benefits in preserving soil, water, and riparian resources. Protecting soil, water and riparian resources during periods when they are most fragile would prevent the breakdown of soils that would lead to erosion, siltation, and sedimentation.</p>	<p>result in decreased siltation and sediment loading of streams and riparian/wetland resources.</p> <p>Habitat and stream restoration projects would have short-term impacts to soil, water, and riparian/wetland resources. These short-term impacts would include displacement of vegetation associated with the riparian resources and increased siltation and sediment loading from reshaping and preparing stream banks for placement of instream structures. There would also be short-term impacts from equipment used in stream restoration projects.</p> <p>However, there would be long-term benefits to stream geomorphology by slowing rapidly moving water, improving the function of riparian/wetland complexes, reducing soil and stream bank erosion, reducing water depletions, and increasing filtration of silt and nutrients.</p>	<p>filtration of silt and nutrients.</p> <p>Protecting wildlife habitats through the use of seasonal closures for surface-disturbing activities would provide long-term benefits in preserving soil, water, and riparian resources. Protecting soil, water and riparian resources during periods when they are most fragile would prevent the breakdown of soils that would lead to erosion, siltation, and sedimentation.</p> <p>Stream restoration projects intended to help reestablish populations of native fish would provide long-term benefits to soil, water, and riparian habitats.</p>	<p>lead to erosion, siltation, and sedimentation.</p>
<p>Impacts to Vegetation Resources Managing big game winter range to maximize browse production, using class of livestock and season of use, would potentially change the percent cover of some plant</p>	<p>Impacts to Vegetation Resources The prescriptive use of livestock favors browse production on big game ranges, and forage banking changes the structure and percent cover of some plant</p>	<p>Impacts to Vegetation Resources The prescriptive use of livestock to improve or enhance big game ranges and wildlife habitat and forage banking stimulates browse and forb production. Increasing</p>	<p>Impacts to Vegetation Resources Same as Alternative A except: Prohibiting spring livestock grazing in pronghorn ranges increases the percent cover of forbs, and may, in the long-term reduce the percent cover</p>	<p>Impacts to Vegetation Resources Managing big game winter range to maximize browse production, using class of livestock and season of use, would potentially change the percent cover of some plant</p>

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>species and structure of browsed species. Maximizing forb production on pronghorn ranges would change the species composition and the percent cover of some plant species. Areas of Gray Canyon WMA that are open to OHV use would increase surface disturbance and provide an opportunity for noxious weed and invasive plant species establishment.</p> <p>Managing priority breeding bird habitat, as a unique and high-value vegetation resource, would change vegetation structure and percent cover of some plant species, and increase species diversity. Reintroducing fish and wildlife species in coordination with the Utah Division of Wildlife Resources (UDWR) would not impact vegetation resources.</p>	<p>species. Increasing browse production change the vegetation structure and the percent cover of some species. Prohibiting domestic sheep from grazing allotments that have occupied bighorn sheep habitat increases the percent cover of forbs and changes the vegetation structure.</p> <p>Allocating forage for big game populations based on permitted use changes the vegetation structure. Big game use of vegetation increases the percent cover of some plant species and reduces the height of browsed species.</p>	<p>browse production changes the structure and percent cover of some plant species. Prohibiting domestic sheep from grazing allotments in a 9-mile buffer surrounding occupied bighorn sheep habitat increases the percent cover of forbs in those areas and changes the vegetation structure.</p> <p>Allocating forage for big game populations based on permit use, available forage, and habitat changes the vegetation structure. Big game alters vegetation by increasing the percent cover of some plant species and reducing the height of browsed species. If the Utah Division of Wildlife Resources (UDWR) acquires additional habitat or forage, larger big game populations are not anticipated to impact vegetation.</p>	<p>of other species. Long-term, increasing forbs changes the structure and percent cover of some plant species. Using temporary, non-renewable grazing permits in some allotments increases the effect of this action within the PFO.</p>	<p>species and structure of browsed species. Maximizing forb production on pronghorn ranges would change the species composition and the percent cover of some plant species. Areas of Gray Canyon WMA that are open to OHV use would increase surface disturbance and provide an opportunity for noxious weed and invasive plant species establishment.</p> <p>If the Utah Division of Water Resources (UDWR) acquires additional habitat or forage or if studies indicate that additional forage is available, larger big game populations are not anticipated to impact vegetation.</p>
<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>
<p>Impacts to Paleontology Resources No significant impacts.</p>	<p>Impacts to Paleontology Resources No significant impacts.</p>	<p>Impacts to Paleontology Resources No significant impacts.</p>	<p>Impacts to Paleontology Resources No significant impacts.</p>	<p>Impacts to Paleontology Resources No significant impacts.</p>
<p>Impacts to Visual Resources No significant impacts.</p>	<p>Impacts to Visual Resources No significant impacts.</p>	<p>Impacts to Visual Resources No significant impacts.</p>	<p>Impacts to Visual Resources No significant impacts.</p>	<p>Impacts to Visual Resources No significant impacts.</p>
<p>Impacts to Special Status Species Maximizing browse production</p>	<p>Impacts to Special Status Species Maximizing browse production</p>	<p>Impacts to Special Status Species Livestock grazing to improve</p>	<p>Impacts to Special Status Species Livestock grazing to improve</p>	<p>Impacts to Special Status Species Maximizing browse production</p>

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>on big game winter ranges and forb production on pronghorn ranges with livestock grazing may impact some Special Status Species by altering the vegetative structure. Livestock grazing to improve wildlife habitat indirectly alters Special Status Species populations and habitat. This may improve or maintain some Special Status Species habitat, but not others. Recognizing and managing priority breeding-bird habitat as a high-value vegetative type and integrating Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, indirectly improve Special Status Species populations and habitat.</p>	<p>on big game winter ranges and forb production on pronghorn ranges by prescriptive grazing may impact some Special Status Species by altering the vegetative structure. Livestock grazing to improve wildlife habitat indirectly alters Special Status Species populations and habitat. This may improve or maintain some Special Status Species habitat, but not others.</p>	<p>wildlife habitat indirectly may impact some Special Status Species by altering the vegetative structure. Livestock grazing to improve wildlife habitat indirectly alters Special Status Species populations and habitat. This may improve or maintain some Special Status Species habitat, but not others.</p>	<p>wildlife habitat may impact some Special Status Species by altering the vegetative structure. Livestock grazing to improve wildlife habitat indirectly alters Special Status Species populations and habitat. This may improve or maintain some Special Status Species habitat, but not others. Eliminating spring grazing on pronghorn ranges is not anticipated to adversely affect Special Status Species.</p> <p>Integrating Executive Order 13186, recognizing and managing priority breeding-bird habitat as high-value vegetation indirectly improves Special Status Species populations and habitat by increasing plant species diversity and structure.</p>	<p>on big game winter ranges and forb production on pronghorn ranges with livestock grazing may impact some Special Status Species by altering the vegetative structure. Livestock grazing to improve wildlife habitat indirectly alters Special Status Species populations and habitat. This may improve or maintain some Special Status Species habitat, but not others.</p>
<p>Impacts to Fish and Wildlife Manipulating winter range through prescriptive livestock grazing would improve and maximize browse production that would lead to greater winter survivability of big game species. Adjusting livestock grazing to enhance forb production for pronghorn will benefit these populations through less competition for forage; this would be especially valuable in high value winter range areas. Changing class of livestock from sheep to</p>	<p>Impacts to Fish and Wildlife Managing big game habitats through prescriptive grazing and forage browsing would minimize competition for forage during critical life cycles. In addition, current livestock grazing prescriptions would continue where opportunities exist. Prescriptive livestock grazing would be used to enhance forb production on pronghorn antelope ranges. Prohibiting changes in class of livestock from cattle to sheep habitat would further limit</p>	<p>Impacts to Fish and Wildlife Managing big game habitats through prescriptive grazing would minimize competition for forage during critical life cycles. In addition, current livestock grazing prescriptions would continue where opportunities exist. Prescriptive livestock grazing would be used to enhance forb production on pronghorn antelope ranges. Change in class of livestock from cattle to domestic sheep would be prohibited within 9 miles of currently occupied</p>	<p>Impacts to Fish and Wildlife Managing big game habitats through prescriptive grazing would minimize competition for forage during critical life cycles. In addition, current livestock grazing prescriptions would continue where opportunities exist, and temporary nonrenewable permits would be used to favor browse in certain allotments for the purpose of achieving the objectives of that allotment.</p> <p>If UDWR indicates that</p>	<p>Impacts to Fish and Wildlife Big Game: Managing big game winter range for maximum browse by class of livestock and season of use would minimize competition for forage during critical life cycles. In addition, current livestock grazing prescriptions would continue where opportunities exist. However, prescriptions would continue to be adjusted to enhance forb production on pronghorn antelope ranges</p> <p>If UDWR acquires additional</p>

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
cattle will contribute to preventing increased spread of domestic sheep pathogens to bighorn sheep populations.	competition for forage with wildlife species, especially with bighorn sheep.	bighorn sheep. This would allow for a buffer between domestic sheep and bighorn sheep and prevent the spread of pathogens from domestic sheep to bighorn sheep.	additional forage is naturally available, BLM would consider providing forage to support increased population objectives for wildlife. This is particularly critical in the spring when enhanced nutrition is essential following the demands on body reserves during the winter or when certain vegetation is needed by young-of-the-year.	habitat or forage or if studies indicated that additional forage is available naturally, BLM would consider providing forage to support increased population objectives for wildlife. This is particularly critical in the spring when enhanced nutrition is essential following the demands on body reserves during the winter or when certain vegetation is needed by young-of-the-year.
<p>Impacts to Wild Horses and Burros Competition for habitat resources would occur between wild horses and burros and wildlife, specifically mule deer, Rock Mountain elk, Desert bighorn sheep, pronghorn, and sage grouse (see Maps 3-9 through 3-13). Management actions or restrictions to improve wildlife habitat or to provide protection for wildlife would impact wild horses and burros as well. In these areas, there would be a decrease in human activity. Improvements to wildlife habitat would decrease competition for forage and other habitat components between wildlife and wild horses and burros. These impacts are contingent on the actions or restrictions occurring</p>	<p>Impacts to Wild Horses and Burros Competition for habitat resources would occur between wild burros and wildlife, specifically Desert bighorn sheep and pronghorn (see Maps 3-9 through 3-13). Impacts from this competition would be the same as those identified in the No Action Alternative, but the degree of the impact would be less intense because of increased vegetation treatments and associated forage increases.</p>	<p>Impacts to Wild Horses and Burros Competition for habitat resources would occur between wild horses and burros and wildlife, specifically mule deer, elk, Desert bighorn sheep, pronghorn, and sage grouse (see Maps 3-9 through 3-13). Impacts from this competition would be the same as those identified in the No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Impacts would be the same as those identified in the No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Impacts to wild horses and burros would be the same as those identified in the No Action Alternative. Competition for habitat resources would occur between wild horses and burros and wildlife, specifically mule deer, Rock Mountain elk, desert bighorn sheep, pronghorn, and sage grouse (see Maps 3-9 through 3-13). Management actions or restrictions to improve wildlife habitat or to provide protection for wildlife would impact wild horses and burros as well. In these areas, there would be a decrease in human activity. Improvements to wildlife habitat would decrease competition for forage and other habitat components</p>

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>in an HMA.</p> <p>Adjustments to the AML would occur after monitoring to maintain a thriving natural ecological balance. As a result, some isolated cases of increased competition for or overuse of forage and water could occur during periods of drought or other adverse conditions affecting overall productivity within the HMAs. The extent of the competition or overuse, and thereby the intensity of the impacts, would vary based on the time between monitoring findings and adjustments to wild horse and burro and wildlife populations. Regular monitoring of use by all grazing animals would ensure that there would be no long-term impacts to wild horses.</p>				<p>between wildlife and wild horses and burros. These impacts are contingent on the actions or restrictions occurring in an HMA.</p> <p>Adjustments to the AML would occur after monitoring to maintain a thriving natural ecological balance. As a result, some isolated cases of increased competition for or overuse of forage and water could occur during periods of drought or other adverse conditions affecting overall productivity within the HMAs. The extent of the competition or overuse, and thereby the intensity of the impacts, would vary based on the time between monitoring findings and adjustments to wild horse and burro and wildlife populations. Regular monitoring of use by all grazing animals would ensure that there would be no long-term impacts to wild horses.</p>
<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>
<p>Impacts to Livestock Maximizing browse production</p>	<p>Impacts to Livestock If UDWR acquired additional</p>	<p>Impacts to Livestock Using livestock grazing to</p>	<p>Impacts to Livestock If UDWR acquires additional</p>	<p>Impacts to Livestock If UDWR acquires additional</p>

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>on big game winter range and forb production on pronghorn ranges potentially would increase forage available for livestock. Prohibiting the conversion of grazing allotments from cattle to sheep in bighorn sheep habitat reduces the area available for livestock forage because of domestic sheep's ability to use areas not accessible by cattle. Reducing the areas available for either sheep or cattle decreases livestock management flexibility. Although this management action affects 965,000 acres and 77 grazing allotments, none of the existing sheep-only allotments are impacted.</p> <p>Excluding livestock grazing from 124,061 acres in the Gray Canyon WMA is not anticipated to significantly change permitted use within the PFO.</p>	<p>forage or habitat, supporting increasing wildlife populations is not anticipated to significantly change the amount of permitted use. UDWR may acquire additional forage from exiting permittees, reducing the amount of livestock grazing within specific allotments.</p> <p>Allotments with overlapping crucial habitats could change the season, duration, and levels of use for livestock grazing. Changing the season of use may influence the quantity and quality of forage available for livestock grazing. If the forage quantity and quality decreased, livestock productivity may decrease.</p>	<p>improve big game winter range and forb production on pronghorn ranges reduces competition between livestock-preferred forage and wildlife-preferred forage. Indirectly, this can increase the amount of forage available for pronghorns.</p> <p>If UDWR acquired additional forage or habitat, supporting increasing wildlife populations is not anticipated to significantly change the amount of permitted use. UDWR may acquire additional forage from exiting permittees, reducing the amount of livestock grazing within specific allotments.</p> <p>Allotments with overlapping crucial and high-value habitats could change the season, duration, and levels of use for livestock grazing. Changing the season of use may influence the quantity and quality of forage available for livestock grazing. If the forage quantity and quality decreased, livestock productivity may decrease.</p>	<p>habitat or if studies indicate that additional forage is available naturally, supporting increasing wildlife populations is not anticipated to significantly change the amount of permitted use.</p> <p>Allotments with overlapping crucial and high-value habitats could change the season, duration, and levels of use for livestock grazing. Changing the season of use may influence the quantity and quality of forage available for livestock grazing. If the forage quantity and quality decreased, livestock productivity may decrease.</p>	<p>habitat or if studies indicate that additional forage is available naturally, supporting increasing wildlife populations is not anticipated to significantly change the amount of permitted use.</p> <p>Allotments with overlapping crucial habitats could change the season, duration, and levels of use for livestock grazing. Changing the season of use may influence the quantity and quality of forage available for livestock grazing. If the forage quantity and quality decreased, livestock productivity may decrease.</p>
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and	Impacts to Minerals and	Impacts to Minerals and	Impacts to Minerals and	Impacts to Minerals and

FISH AND WILDLIFE				
Identify Actions and Areawide Use Restrictions to Achieve Desired Fish and Wildlife Population and Habitat Conditions				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Energy No significant impacts.	Energy No significant impacts.	Energy No significant impacts.	Energy No significant impacts.	Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE				
Grazing Management in Pronghorn Ranges				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Current grazing in pronghorn range reduces the availability of forbs necessary to sustain pronghorn populations at UDWR objectives.				
Decisions				

FISH AND WILDLIFE				
Grazing Management in Pronghorn Ranges				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Current livestock grazing prescriptions would continue and, where opportunities exist, would be adjusted to enhance forb production on Pronghorn antelope ranges.	Prescriptive livestock grazing would be used to favor forb production on Pronghorn antelope ranges.	Prescriptive livestock grazing would be used to favor forb production on Pronghorn antelope ranges. (Same as Alternative A.)	Spring grazing (May 15–June 15) would be eliminated in allotments within antelope habitat to encourage forb production. (See Livestock Grazing: Allotment Specific Adjustments section.)	Current livestock grazing prescriptions would continue and, where opportunities exist, would be adjusted to enhance forb production on Pronghorn antelope ranges. (Same as No Action Alternative.)
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife Big Game: Prescriptive livestock grazing would be used to enhance forb production on pronghorn antelope ranges. Change in	Impacts to Fish and Wildlife No significant impacts.

FISH AND WILDLIFE				
Grazing Management in Pronghorn Ranges				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			<p>class of livestock from cattle to domestic sheep would be prohibited within 9 miles of currently occupied bighorn sheep.</p> <p>Spring grazing (May 15–June 15) would be eliminated in allotments within antelope habitat to encourage forb production. This would ensure that adequate forage is available for antelope during important life cycles.</p>	
<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>
<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands Seasonal occupancy restrictions for crucial mule deer and elk habitats, in combination with seasonal restrictions for sage-grouse leks and breeding grounds, would restrict occupancy in large portions of the northeastern PFO from December 1 through July 5 each year. Commercial harvest of forest and woodland products for materials such as fuelwood, posts, and poles, and Christmas trees would be</p>	<p>Impacts to Forest and Woodlands Same as the No Action Alternative.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands Impacts to forests and woodlands from fish and wildlife would be similar to the those under the No Action Alternative, except management of raptor habitat according to the USFWS Guidelines for Raptor Protection would cause decreases in the harvest of forest products in the PFO.</p>	<p>Impacts to Forest and Woodlands Using spatial and seasonal conservation measures and site modification of federal actions to avoid or minimize impacts to important wildlife ranges would cause moderate decreases in the amount of forest product harvest in the northeastern portion of the PFO. Seasonal occupancy restrictions for crucial and high-value mule deer and elk habitats, in combination with</p>

FISH AND WILDLIFE				
Grazing Management in Pronghorn Ranges				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
restricted in some forested areas in the PFO during this period.				seasonal restrictions for sage-grouse leks and breeding grounds, would restrict occupancy in large portions of the northeastern PFO from December 1 through July 5 each year. Commercial harvest of forest and woodland products for materials such as fuelwood, posts, and poles, and Christmas trees would be restricted in most forested areas in the PFO during this period.
Impacts to Livestock No significant impacts.	Impacts to Livestock Using prescriptive livestock grazing to improve big game winter range and forb production on pronghorn ranges reduces competition between livestock preferred forage and wildlife preferred forage. Indirectly, this can increase the amount of forage available for pronghorns, decreasing the amount of forage available for livestock.	Impacts to Livestock No significant impacts.	Impacts to Livestock Using prescriptive livestock grazing, including issuing temporary, non-renewable permits for livestock grazing to improve big game winter range and forb production on pronghorn ranges, reduces competition between livestock-preferred forage and wildlife-preferred forage. Indirectly, this can increase the amount of forage available for pronghorns, decreasing the amount of forage available for livestock.	Impacts to Livestock Maximizing browse production on big game winter range and forb production on pronghorn ranges potentially would increase forage available for livestock. Maximizing browse production on big game winter range and forb production on pronghorn ranges potentially would increase forage available for livestock.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.

FISH AND WILDLIFE				
Grazing Management in Pronghorn Ranges				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE				
Sheep Grazing in/near Bighorn Sheep Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Domestic sheep carry pathogens fatal to bighorn sheep populations.				
Decisions				

FISH AND WILDLIFE				
Sheep Grazing in/near Bighorn Sheep Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Change in class of livestock from cattle to domestic sheep would be prohibited in currently identified bighorn sheep habitat.	Change in class of livestock from cattle to domestic sheep would be prohibited in any allotments that contain occupied bighorn sheep (desert and rocky mountain) habitat.	Change in class of livestock from cattle to domestic sheep would be prohibited within 9 miles of currently occupied bighorn sheep (desert and rocky mountain) habitat to provide an adequate buffer zone.	Change in class of livestock from cattle to domestic sheep would be prohibited within 9 miles of currently identified bighorn sheep (desert and rocky mountain) habitat to provide an adequate buffer zone. (Same as Alternative B.)	Change in class of livestock from cattle to domestic sheep would be prohibited within 9 miles of currently occupied bighorn sheep (desert and rocky mountain) habitat to provide an adequate buffer zone. (Same as Alternative B.)
<p>The Gray Canyon WMA would be managed for wildlife, watershed, and recreation</p> <ul style="list-style-type: none"> Off-highway vehicle (OHV) use in Gray Canyon WMA is partially open and partially limited to designated routes. (See Maps 2-12) Grazing is excluded. 	<p>Same as No Action Alternative, with the following exceptions:</p> <ul style="list-style-type: none"> Would be managed as No Surface Occupancy for Oil and Gas Leasing. Would be managed as Closed to OHV use. 	<p>Same as No Action Alternative. In addition—</p> <ul style="list-style-type: none"> The Range Creek allotment would be added to the Gray Canyon Wildland Management Area for management for wildlife, watershed, and non-motorized recreation. The Gray Canyon Wildland Management Area would be managed as Closed to OHV use. Would be managed as No Surface Occupancy for Oil and Gas Leasing. 	<p>Same as Alternative B. In addition—</p> <ul style="list-style-type: none"> The Price River South allotment would be added to the Gray Canyon Wildland Management Area for management for wildlife, watershed, and non-motorized recreation. The Gray Canyon Wildland Management Area would be managed as Closed to OHV use. Would be managed as No Surface Occupancy for Oil and Gas Leasing 	<p>Same as No Action Alternative. In addition—</p> <ul style="list-style-type: none"> The Range Creek allotment would be added to the Gray Canyon Wildland Management Area for management for wildlife, watershed, and non-motorized recreation. The Gray Canyon Wildland Management Area would be managed as Closed to OHV use. Would be managed as No Surface Occupancy for Oil and Gas Leasing.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation	Impacts to Vegetation	Impacts to Vegetation	Impacts to Vegetation	Impacts to Vegetation

FISH AND WILDLIFE				
Sheep Grazing in/near Bighorn Sheep Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Resources No significant impacts.	Resources No significant impacts.	Resources Prohibiting domestic sheep from grazing allotments in a 9-mile buffer surrounding occupied bighorn sheep habitat increases the percent cover of forbs in those areas and changes the vegetation structure.	Resources No significant impacts.	Resources No significant impacts.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife Change in class of livestock from cattle to domestic sheep would be prohibited within 9 miles of currently occupied bighorn sheep habitat.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and	Impacts to Forest and	Impacts to Forest and	Impacts to Forest and	Impacts to Forest and

FISH AND WILDLIFE				
Sheep Grazing in/near Bighorn Sheep Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Woodlands No significant impacts.	Woodlands No significant impacts.	Woodlands No significant impacts.	Woodlands No significant impacts.	Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock Prohibiting the conversion of grazing allotments that contain occupied bighorn sheep habitat from cattle to sheep reduces the area available for livestock forage. Reducing the areas available for either sheep or cattle decreases livestock management flexibility because of domestic sheep's ability to use areas not accessible by cattle. Although this management action affects 965,00 acres on 77 grazing allotments, none of the existing sheep-only allotments is impacted.	Impacts to Livestock Prohibiting the conversion of grazing allotments within a 9-mile buffer of occupied bighorn sheep habitat from cattle to sheep reduces the area available for livestock forage. Reducing the areas available for either sheep or cattle decreases livestock management flexibility because of domestic sheep's ability to use areas not accessible by cattle. Although this management action affects about 2.1 million acres and 138 grazing allotments, only 1 sheep-only allotment with 185 acres is affected.	Impacts to Livestock Prohibiting the conversion of grazing allotments within a 9-mile buffer of occupied bighorn sheep habitat from cattle to sheep reduces the area available for livestock forage. Reducing the areas available for either sheep or cattle decreases livestock management flexibility because of domestic sheep's ability to use areas not accessible by cattle. Although this management action affects about 2.1 million acres and 138 grazing allotments, only 1 sheep-only allotment of 185 acres is affected.	Impacts to Livestock Prohibiting the conversion of grazing allotments within a 9-mile buffer of occupied bighorn sheep habitat from cattle to sheep reduces the area available for livestock forage. Reducing the areas available for either sheep or cattle decreases livestock management flexibility because of domestic sheep's ability to use areas not accessible by cattle. Although this management action affect about 2.1 million acres and 138 grazing allotments, only one sheep only allotment of 185 acres is affected.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.

FISH AND WILDLIFE				
Sheep Grazing in/near Bighorn Sheep Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE				
Forage Allocation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>In some years with particularly favorable climatic conditions, a surplus of forage, seed and mast crops is produced. Traditionally, additional forage was allocated to livestock grazing under a Temporary Non Renewable Permit. There is a concern that this does not adequately balance the needs of wildlife and rangeland health. Such high productivity in the vegetation may have an important ecological role in maintaining population vigor and replacement.</p>				
Decisions				

FISH AND WILDLIFE Forage Allocation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Forage for big game population objective numbers would be provided as currently allocated.	Same as the No Action Alternative, with the following: <ul style="list-style-type: none"> Based on existing permit use, increased population objective numbers for big game would be supported if UDWR acquires additional forage or habitats and the increased population objective numbers would not interfere with livestock forage allocations. 	Same as No Action Alternative, with the following: <ul style="list-style-type: none"> Based on existing permit use, available forage and habitat would be used. If additional habitat or forage were acquired by UDWR, forage allocations would be adjusted to support increased population objectives for wildlife. If forage or habitat values change, BLM would explore opportunities to work with other stakeholders to manipulate forage to improve forage quality and habitat conditions (using methods such as prescribed burns, Dixie harrow, etc.). 	Forage allocations would continue based on existing permitted use. <ul style="list-style-type: none"> If UDWR acquires additional habitat or forage or if studies indicate that additional forage is available naturally, BLM would consider providing forage to support increased population objectives for wildlife. 	Increase or decrease in available forage would be adjusted on a case-by-case basis to support objectives. <ul style="list-style-type: none"> If UDWR acquires additional habitat or forage or if studies indicate that additional forage is available naturally, BLM would consider providing forage to support increased population objectives for wildlife. (Same as Alternative C.)
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.
Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural

FISH AND WILDLIFE Forage Allocation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Resources No significant impacts.	Resources No significant impacts.	Resources No significant impacts.	Resources No significant impacts.	Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species Forage allocation for big game population objectives is not anticipated to adversely impact Special Status Species. Seasonal closures for construction and heavy equipment operation reduce vegetation loss attributed to surface disturbance. Reducing vegetation loss indirectly improves potential and occupied Special Status Species habitat.	Impacts to Special Status Species Forage allocation for big game population objectives is not anticipated to adversely impact Special Status Species. Consistent seasonal closure dates for crucial habitat from surface-disturbing activities reduces vegetation loss associated with surface disturbance. Reducing vegetation loss and decreasing soil erosion indirectly improves potential and occupied Special Status Species habitat.	Impacts to Special Status Species Forage allocation for big game population objectives is not anticipated to adversely impact Special Status Species.	Impacts to Special Status Species Forage allocation for big game population objectives is not anticipated to adversely impact Special Status Species.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands	Impacts to Forest and Woodlands	Impacts to Forest and Woodlands	Impacts to Forest and Woodlands	Impacts to Forest and Woodlands

FISH AND WILDLIFE Forage Allocation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.				
Impacts to Livestock No significant impacts.				
Impacts to Recreation No significant impacts.				
Impacts to Lands and Realty No significant impacts.				
Impacts to Minerals and Energy No significant impacts.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

**FISH AND WILDLIFE
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities**

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>During certain seasons, (i.e. winter), wildlife populations are under stress. Surface-disturbing activities during these critical life periods can cause unsustainable expenditures of energy. Parturition, wintering, breeding, and rearing are all critical life process periods that are vulnerable to surface disturbing areas. Surface-disturbing activities that result in long-term land use changes, fragment habitat and affect habitat integrity and quality.</p>				
Decisions				
<p>Seasonal closures for construction and heavy equipment operation established in the San Rafael RMP and the Price MFP (Appendix 8) would be maintained.</p>	<p>Dates of seasonal closures for surface disturbing activities within all crucial habitats would be revised and implemented to provide consistency across the entire planning area (Appendix 8).</p>	<p>Dates of seasonal closures for surface disturbing activities within all crucial and high-value habitats would be revised and implemented to provide consistency across the entire planning area (Appendix 8).</p>	<p>Same areas as Alternative B.</p>	<p>Dates of seasonal closures for surface disturbing activities within all crucial habitats would be revised and implemented to provide consistency across the entire planning area (Appendix 8). (Same as Alternative A.)</p>
Impact Analysis				
RESOURCES				
<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>
<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>
<p>Impacts to Vegetation Resources Seasonally closing wildlife habitat for construction and heavy equipment operation would indirectly improve vegetation resources by reducing soil erosion.</p>	<p>Impacts to Vegetation Resources Restricting the use of Gray Canyon Wildland Management Area to no surface occupancy for oil and gas leasing would reduce surface disturbances on about 124,061 acres. Reducing surface disturbance maintains existing vegetation resources and connectivity between plant communities. Closing this area to OHV recreation use reduces trampling and removal of vegetation resources by tires tracks. Reducing vegetation trampling improves plant community integrity and</p>	<p>Impacts to Vegetation Resources Restricting the use of Gray Canyon and Range Creek to No Surface Occupancy for oil and gas leasing would reduce surface disturbances on about 167,960 acres. Reducing surface disturbance maintains existing vegetation resources and connectivity between plant communities. Closing this area to OHV recreation use reduces trampling and removal of vegetation by tire tracks. Reducing vegetation trampling improves plant community integrity and potentially would decrease the introduction of</p>	<p>Impacts to Vegetation Resources Restricting the use of Gray Canyon, Range Creek, and Price River South to No Surface Occupancy for oil and gas leasing would reduce surface disturbances on about 171,437 acres. Reducing surface disturbance maintains and improves of vegetation resources by preserving the connectivity between plant communities and reducing opportunities for invasions of noxious weeds and invasive plant species. Closing this area to OHV recreation use reduces trampling of</p>	<p>Impacts to Vegetation Resources Seasonal closures for surface-disturbing activities of crucial habitats for consistency across the PFO potentially would improve vegetation by decreasing surface disturbance by other activities. Reducing surface disturbance can reduce the spread of noxious weeds and invasive plant species.</p>

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>potentially would decrease the introduction of noxious weeds or other invasive plant species.</p> <p>Consistent seasonal closures in crucial habitats to surface-disturbing activities maintain or improve vegetation resources by reducing erosion and the loss of existing vegetation. Reducing erosion and the loss of existing vegetation indirectly reduce the spread of noxious weeds and invasive plant species.</p>	<p>noxious weeds or other invasive plant species.</p>	<p>vegetation by tires. Reducing vegetation trampling maintains and improves plant community integrity and potentially would decrease the spread of noxious weeds or other invasive plant species.</p> <p>A seasonal closure of crucial and high-value habitats for consistency across the PFO potentially improves vegetation by decreasing surface disturbance. Reducing surface disturbance can reduce the spread of noxious weeds and invasive plant species.</p>	
<p>Impacts to Cultural Resources Closures/area avoidances for surface-disturbing actions due to raptors and sage grouse would result in minimal impacts. Area closures for wildlife habitat management would result in cultural resources being preserved in place. Area restrictions would reduce the potential for impact due to surface-disturbing actions, but it would not preclude them.</p>	<p>Impacts to Cultural Resources There would be a change in oil and gas development impacts to cultural resources resulting from reduced fish and wildlife management restrictions. Decisions restricting surface disturbance are limited to special stipulations and usually specify timing restrictions. These seasonal restrictions will not prevent surface disturbance but merely direct it when it may occur. Therefore, the potential for the impacts would not be reduced by fish and wildlife decisions.</p>	<p>Impacts to Cultural Resources Impacts would be similar to those identified in Alternative A.</p>	<p>Impacts to Cultural Resources Impacts would be similar to those identified under Alternative A, except that surface occupancy would not be allowed near raptor cliff nesting complexes, known raptor nests, sage-grouse leks, sage-grouse nesting/bearing complexes, riparian areas/wetlands, fisheries, and white-tailed prairie dog colonies. Preclusion of surface-disturbing actions in these areas would preserve cultural resources in place. This may also preclude scientific data recovery efforts in these areas. This long-term indirect impact would not be significant.</p>	<p>Impacts to Cultural Resources Aside from impacts common to all alternatives, there would be no significant impacts to cultural resources from fish and wildlife management. There would be a change in oil and gas development impacts to cultural resources resulting from reduced fish and wildlife management restrictions. Decisions restricting surface disturbance are limited to special stipulations and usually specify timing restrictions. These seasonal restrictions will not prevent surface disturbance but merely direct it when it may occur. Therefore, the potential for the impacts would not be reduced by fish</p>

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				and wildlife decisions.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species Leaving Gray Canyon Wildlife Management Area partially open to OHV use indirectly affects Special Status Species habitat by increasing surface disturbance, erosion and removing vegetation cover	Impacts to Special Status Species Restricting the Gray Canyon Wildlife Management Area to no surface occupancy for oil and gas leasing and closed for OHV use indirectly affects Special Status Species populations by decreasing surface disturbance and reducing habitat fragmentation in 124,061 acres.	Impacts to Special Status Species Restricting Range Creek and Gray Canyon Wildlife Management Area to no surface occupancy for oil and gas leasing and closed for OHV use indirectly affects Special Status Species populations by decreasing surface disturbance and reducing habitat fragmentation on 167,960 acres. Managing these areas for wildlife, watersheds, and non-motorized recreation indirectly improves Special Status Species populations and habitat. Consistent seasonal closures dates for crucial habitat and high-value habitats from surface-disturbing activities reduce vegetation loss resulting from surface disturbance. Reducing vegetation loss and decreasing soil erosion indirectly improves potential and occupied Special Status Species habitat.	Impacts to Special Status Species Restricting Price River South, Range Creek, and Gray Canyon Wildlife Management Area to no surface occupancy for oil and gas leasing and closed for OHV use indirectly affects Special Status Species populations by decreasing surface disturbance and reducing habitat fragmentation on 171,437 acres. Managing these areas for wildlife, watersheds, and non-motorized recreation indirectly improves Special Status Species populations and habitat. Consistent seasonal closures dates for crucial habitat and high-value habitats from surface-disturbing activities reduce vegetation loss associated with surface disturbance. Reducing vegetation loss and erosion indirectly improves Special Status Species potential and occupied habitat.	Impacts to Special Status Species Restricting Range Creek and Gray Canyon Wildlife Management Area to no surface occupancy for oil and gas leasing and closed for OHV use indirectly affects Special Status Species populations by decreasing surface disturbance and reducing habitat fragmentation in 167,690 acres. Managing these areas for wildlife, watersheds, and non-motorized recreation indirectly improves Special Status Species populations and habitat. Forage allocation for big game population objectives is not anticipated to adversely impact Special Status Species. Seasonal closures for construction and heavy equipment operation reduces vegetation loss associated with surface disturbance. Reducing vegetation loss and decreasing soil erosion indirectly improves potential and occupied Special

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				Status Species habitat.
<p>Impacts to Fish and Wildlife No significant impacts.</p>	<p>Impacts to Fish and Wildlife Continued management of the Gray Canyon Wildland Management Area would benefit fish and wildlife, especially raptor habitat, by limiting human presence in habitat areas and watersheds. In addition, the area would be managed as an NSO for oil and gas and closed to OHV use.</p> <p>Construction and heavy equipment operations would be subject to seasonal closures. In addition, seasonal closures and buffer zones of no surface disturbance around raptor nests would continue. These stipulations would minimize harassment and stress of wildlife during critical life cycles, minimizing wildlife displacement and habitat destruction.</p>	<p>Impacts to Fish and Wildlife Continued management of the Gray Canyon Wildland Management Area would benefit wildlife habitat by limiting human presence in habitat areas and watersheds. In addition, the area would be managed as NSO for oil and gas and closed to OHV use.</p>	<p>Impacts to Fish and Wildlife No significant impacts.</p>	<p>Impacts to Fish and Wildlife Construction and heavy equipment operations would be subject to seasonal closures. Seasonal restrictions would be the same as those identified in the No Action Alternative. In addition, seasonal closures and buffer zones of no surface disturbance around raptor nests would continue. These stipulations would minimize harassment and stress of wildlife during critical periods of their life cycles, cause wildlife displacement, and habitat destruction.</p> <p>Birds: A seasonal closure on deer and elk, fawning and calving areas would also provide protection to high-priority bird breeding and nesting habitats for migratory birds.</p>
<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>
<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Livestock No significant impacts.</p>	<p>Impacts to Livestock Continued exclusion of Gray Canyon WMA from livestock grazing is not anticipated to significantly change permitted use for livestock grazing. Managing this area as No Surface Occupancy for oil and gas leasing reduces surface disturbance and soil erosion. Indirectly, this can increase the quality and quantity of forage available for livestock use.</p>	<p>Impacts to Livestock Maximizing browse production on big game winter range and forb production on pronghorn ranges potentially would increase forage available for livestock. Continued exclusion of Gray Canyon WMA and Range Creek from livestock grazing is not anticipated to significantly change permitted use for livestock grazing. Managing this area as No Surface Occupancy for oil and gas leasing use reduces surface disturbance, erosion, and the loss of vegetation. In addition, managing Gray Canyon WMA as closed to OHV also reduces surface disturbance, erosion, and the loss of vegetation. Indirectly, this can increase the quality and quantity of forage available for livestock use.</p>	<p>Impacts to Livestock Continued exclusion of Gray Canyon WMA and Range Creek from livestock grazing is not anticipated to significantly change permitted use for livestock grazing. Managing this area as No Surface Occupancy for oil and gas leasing use reduces surface disturbance, erosion, and the loss of vegetation. In addition, managing Gray Canyon WMA as closed to OHV also reduces surface disturbance, erosion, and the loss of vegetation. Indirectly, this can increase the quality and quantity of forage available for livestock use.</p>	<p>Impacts to Livestock Continued exclusion of Gray Canyon WMA and Range Creek from livestock grazing is not anticipated to significantly change permitted use for livestock grazing. Managing this area as No Surface Occupancy for oil and gas leasing use reduces surface disturbance, erosion, and the loss of vegetation. In addition, managing Gray Canyon WMA as closed to OHV also reduces surface disturbance, erosion, and the loss of vegetation. Indirectly, this can increase the quality and quantity of forage available for livestock use.</p>
<p>Impacts to Recreation Same as Common to All.</p>	<p>Impacts to Recreation Management of the Gray Canyon WMA (approximately 124,060 acres) enhances the experience of primitive and semi-primitive non-motorized recreation by enhancing natural conditions and wildlife populations. Restrictions for other types of wildlife habitat would be in accordance with OHV designations under this alternative, and they would</p>	<p>Impacts to Recreation Addition of the Range Creek allotment would expand the Gray Canyon WMA by approximately 3,800 acres to total approximately 127,860 acres, which would expand the management of the Gray Canyon WMA enhancing the experience of primitive and semi-primitive non-motorized recreation by improving natural conditions and wildlife populations.</p>	<p>Impacts to Recreation Addition of the Range Creek and Price River South allotments would expand the Gray Canyon WMA by approximately 7,277 acres to total approximately 131,340 acres, which would expand the management of the Gray Canyon WMA, enhancing the experience of primitive and semi-primitive non-motorized recreation by improving natural conditions and wildlife</p>	<p>Impacts to Recreation Addition of the Range Creek allotment would expand the Gray Canyon WMA by approximately 3,800 acres to total approximately 127,860 acres, which would expand the management of the Gray Canyon WMA enhancing the experience of primitive and semi-primitive non-motorized recreation by improving natural conditions and wildlife populations.</p>

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	impose minimal restrictions on motorized recreation.	Restrictions for other types of wildlife habitat would be in accordance with OHV designations under this alternative, and they would impose minimal restrictions on motorized recreation.	populations. Under this alternative, the Gray Canyon WMA, which would include the Range Creek and Price River South allotments (see Map 2-15), would be closed to OHV use. This designation would preclude OHV use in these areas; however, it would also reduce conflicts between user types and could maintain and enhance other recreation opportunities, such as hunting. Restrictions for other types of wildlife habitat would be in accordance with OHV designations under this alternative and would impose minimal restrictions on motorized recreation.	Restrictions for other types of wildlife habitat would be in accordance with OHV designations under this alternative, and they would impose minimal restrictions on motorized recreation.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Timing limitation stipulations to protect wildlife would have long-term, direct impacts on oil and gas exploration and development. Timing limitation stipulations would compress oil and gas exploration and development into specific periods of time and would potentially lead to delays. Approximately 231,400 acres	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Wildlife timing limitation stipulations apply only to areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices), and there would not be such areas under this alternative. Therefore, wildlife timing limitation stipulations would not limit oil and gas exploration and development, which would allow for the greatest amount	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Wildlife timing limitation stipulations would have significant long-term, direct impacts on oil and gas exploration and development and would limit timing of such activities. Wildlife timing limitation stipulations apply only in areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices), and approximately 60 percent	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Wildlife timing limitation stipulations would have significant long-term, direct impacts on oil and gas exploration and development and would limit timing of such activities. Wildlife timing limitation stipulations apply only in areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices), and approximately 52 percent	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Wildlife timing limitation stipulations would have long-term, direct impacts on oil and gas exploration and development and would limit the timing of such activities. Wildlife timing limitation stipulations apply only in areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) and approximately 45 percent of

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>of pronghorn antelope crucial habitat are located near Ferron Fairway North/ Drunkard's Wash (Map 3-9). The crucial habitat in these areas would be seasonally closed from May 15 to June 15, which would preclude oil and gas exploration and development in the area during this time and would potentially lead to delays. Surface disturbance of pronghorn antelope crucial habitat would require 1:1 off-site mitigation that would increase exploration and development costs.</p> <p>Yearlong Rocky Mountain elk habitat in the Castlegate area (Map 3-12) would be closed from December 1 to April 15 and from May 15 to July 5, which would preclude oil and gas exploration and development during these time periods. Rocky Mountain elk crucial winter habitat (243,000 acres) and high-value winter habitat (318,600 acres) in the Nine Mile Canyon, Ferron Fairway, and River Gas areas would be closed from December 1 to April 15, which would preclude oil and gas exploration and development during this time and would potentially lead to delays. Surface disturbance of Rocky Mountain elk crucial habitat</p>	<p>of land available without seasonal restrictions.</p> <p>Coal. No significant impacts.</p> <p>Locatable Minerals No significant impacts.</p> <p>Mineral Materials Wildlife and fish management actions may result in relocating mineral material facilities.</p>	<p>of the oil and gas development area would be subject to minor constraints. This is approximately 54,600 acres more than the No Action Alternative. Oil and gas development and exploration in these areas would be compressed into specific periods of time.</p> <p>Coal. No significant impacts.</p> <p>Locatable Minerals No significant impacts.</p> <p>Mineral Materials Wildlife and fish management actions may result in relocating mineral material activities.</p>	<p>of the oil and gas development area would be subject to minor constraints This is approximately 109,796 acres less than the No Action Alternative. Oil and gas development in these areas would be compressed into specific periods of time.</p> <p>Coal. No significant impacts.</p> <p>Locatable Minerals No significant impacts.</p> <p>Mineral Materials Wildlife and fish management actions may result in relocating mineral material activities.</p>	<p>the oil and gas development area would be subject to minor constraints. When compared to the No Action Alternative, approximately 166,124 fewer acres would have wildlife timing limitation stipulations, which would result in more land available without such stipulations.</p> <p>Coal. No significant impacts.</p> <p>Locatable Minerals No significant impacts.</p> <p>Mineral Materials Seasonal restrictions to protect wildlife would have moderate impacts to mineral material disposals. Seasonal restrictions would compress disposals into specific periods of time, which would not allow operations to occur year-round and would decrease the efficiency of such operations. Wildlife and fish management actions may result in relocating mineral material activities.</p>

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>would require 1:1 off-site mitigation that would increase exploration and development costs.</p> <p>Approximately 376,000 acres of Rocky Mountain Bighorn Sheep habitat in Nine Mile Canyon (Map 3-11) would be closed from April 15 to June 15, which would preclude oil and gas exploration and development during this time and would potentially lead to delays. Surface disturbance of Rocky Mountain Bighorn Sheep habitat would require 1:1 off-site mitigation that would increase exploration and development costs.</p> <p>Mule deer crucial and high-value habitat in the Ferron Fairway and Nine Mile Canyon areas (Map 3-10) would be closed from December 1 to April 15, which would preclude oil and gas exploration and development during this time and would potentially lead to delays. Surface disturbance of mule deer crucial winter habitat would require 1:1 off-site mitigation that would increase exploration and development costs.</p> <p>Coal. No significant impacts.</p> <p>Locatable Minerals No significant impacts.</p>				

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Mineral Materials Impacts to mineral materials from wildlife and fish management actions would not be significant. Wildlife and fish management actions may result in relocating mineral material activities.</p>				
SPECIAL DESIGNATIONS				
<p>Impacts to Wilderness Study Areas No significant impacts.</p>	<p>Impacts to Wilderness Study Areas No significant impacts.</p>	<p>Impacts to Wilderness Study Areas No significant impacts.</p>	<p>Impacts to Wilderness Study Areas No significant impacts.</p>	<p>Impacts to Wilderness Study Areas No significant impacts.</p>
<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>	<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>	<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>	<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>	<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>
<p>Impacts to Wild and Scenic Rivers Program management of fish and wildlife would complement protective management related to river eligibility by protecting and enhancing species habitat in and along eligible rivers, which includes 351 river miles of fish habitat and wildlife habitat on 85,686 acres of BLM lands (along 345 miles of river).</p>	<p>Impacts to Wild and Scenic Rivers Program management of fish and wildlife would complement protective management related to river suitability by protecting and enhancing species habitat in and along suitable rivers, which includes 125 river miles of fish habitat and wildlife habitat on 27,390 acres of BLM lands (along 125 miles of river). Management of fish and wildlife habitat would also apply to eligible rivers not suitable in this alternative. These rivers, which have outstandingly remarkable fish values, are Bear Canyon Creek, Buckskin Canyon Creek, Fish Creek, Price River,</p>	<p>Impacts to Wild and Scenic Rivers Program management of fish and wildlife would complement protective management related to river suitability by protecting and enhancing species habitat in and along suitable rivers, which includes 245 river miles of fish habitat and wildlife habitat on 61,756 acres of BLM lands (along 230 miles of river). Management of fish and wildlife habitat would also apply to eligible rivers not suitable in this alternative. These rivers, which have outstandingly remarkable fish values, are Bear Canyon Creek, Buckskin Canyon Creek, and Fish Creek. North</p>	<p>Impacts to Wild and Scenic Rivers Program management of fish and wildlife would complement protective management related to river suitability by protecting and enhancing species habitat in and along suitable rivers, which includes 351 river miles of fish habitat and wildlife habitat on 85,686 acres of BLM lands (along 345 miles of river).</p>	<p>Impacts to Wild and Scenic Rivers Program management of fish and wildlife would complement protective management related to river suitability by protecting and enhancing species habitat in and along suitable rivers, which includes 223 river miles of fish habitat and wildlife habitat on 66,540 acres of BLM lands (along 223 miles of river). Management of fish and wildlife habitat would also apply to eligible rivers not suitable in this alternative. These rivers, which have outstandingly remarkable fish values, are Bear Canyon Creek, Buckskin Canyon Creek, Fish Creek, Price River,</p>

FISH AND WILDLIFE				
Wildlife Habitat Areas Would Be Protected from Surface-Disturbing Activities				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	Rock Creek, and the San Rafael River. Rivers that have outstandingly remarkable wildlife values include North Salt Wash, Price River, and Range Creek.	Salt has outstandingly remarkable wildlife values.		and Rock Creek. Rivers that have outstandingly remarkable wildlife values include North Salt Wash, Price River, and Range Creek.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE				
Management of Migratory Bird Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following decisions are related to EO 13186 and the Migratory Bird Treaty Act. Impacts to riparian and wetland ecosystems reduces forage, cover, and nesting habitat necessary to support the life cycles of neotropical and migratory birds.				
Decisions				
Efforts to comply with Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, would be integrated into programs for wildlife management and other resource uses, including but not limited to, the management programs for— <ul style="list-style-type: none"> Riparian-wetland 	Same as No Action Alternative. In addition, BLM would continue to conserve habitat for all migratory birds and emphasize management of migratory birds listed on the USFWS current list of “Birds of Conservation Concern” (BCC) (2002, or as updated) and the Partners-in-Flight (PIF) priority species. As specific habitat needs and population distribution to BCC and PIF priority species are identified, BLM would use adaptive management strategies to further conserve and avoid impacts to these species.			

FISH AND WILDLIFE				
Management of Migratory Bird Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> habitat • Rangeland health standards and guidelines • Raptor protection • Fire • Aspen recovery • Special status species • Off-site mitigation • Habitat enhancement. 				

FISH AND WILDLIFE				
Management of Migratory Bird Habitats				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
BLM would recognize and manage priority breeding bird habitat as a unique and limited high-value vegetation type.	Land uses within these priority habitats would be managed to promote regeneration, diverse age class distribution, preservation, or restoration of diverse understory, including forbs, grass, and shrub species.			

FISH AND WILDLIFE				
Raptor Habitat Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Surface-disturbing activities in the vicinity of natural raptor nest sites is disruptive to the life strategies of raptors. Human-built structures and intrusions may provide artificial roosting and perching habitat features to the detriment of native species such as prairie dogs and sage grouse. Wind energy development and power lines creates a hazard for raptors.				
Decisions				
Follow seasonal closures for raptors and buffer zones of No Surface Disturbance around nest sites, as described in the Price RMP and SRRMP.	No special management beyond minimal legal restrictions would be required.	Use best management practices (Appendix 7) to implement raptor guidelines established by the USFWS.	Use best management practices (Appendix 7) to implement raptor guidelines established by the USFWS.	Follow Site Specific Analysis/Raptor Nest Site Buffer Zone Guidelines, as identified in Appendix7.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.

FISH AND WILDLIFE Raptor Habitat Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species Recognizing and managing priority breeding-bird habitat as a high-value vegetative type and integrating Executive Order 13186 indirectly improve Special Status Species populations and habitat. Seasonal closure for raptors and nest site buffer zones improves populations of special status raptor species. UDWR's (with BLM's cooperation) reintroduction of wildlife species is not anticipated to adversely impact Special Status Species. However, introducing non-native fish species, particularly brown trout (<i>Salmo trutta</i>), would adversely impact leatherside chub populations resulting from predation (UDNR 2003).	Impacts to Special Status Species Recognizing and managing priority breeding-bird habitat as a high-value vegetative type and integrating Executive Order 13186 indirectly improves Special Status Species populations and habitat by increasing plant species diversity and structure. Seasonal closures for raptors and nest site buffer zones improve populations of special status raptor species. UDWR's (with BLM's cooperation) reintroduction of native or naturalized wildlife species is not anticipated to adversely impact Special Status Species. Fisheries established with native and non-native species are not anticipated to adversely impact Special Status Species.	Impacts to Special Status Species Seasonal closures for raptors and nest site buffer zones improve populations of special status raptor species. UDWR's (with BLM's cooperation) reintroduction of native or naturalized wildlife species with a priority on restoring native populations is not anticipated to adversely impact Special Status Species. Fisheries established with native fish are not anticipated to impact Special Status Species.	Impacts to Special Status Species Seasonal closures for raptors and nest site buffer zones improve populations of special status raptor species. UDWR's (with BLM's cooperation) reintroduction of native or naturalized wildlife species is not likely to adversely impact Special Status Species. Fisheries established with native and non-native species are not anticipated to adversely affect Special Status Species.
Impacts to Fish and Wildlife Seasonal closures and buffer zones of no surface disturbance around raptor nests would continue. These stipulations would minimize harassment and stress to wildlife during critical life	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife Seasonal closures and buffer zones of no surface disturbance around raptor nests would continue. These stipulations would minimize harassment and stress of wildlife during critical life	Impacts to Fish and Wildlife Raptors: Seasonal closures and buffer zones of no surface disturbance around raptor nests would continue. These stipulations would minimize harassment and stress of wildlife during critical life	Impacts to Fish and Wildlife No significant impacts.

FISH AND WILDLIFE				
Raptor Habitat Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
cycles, minimizing wildlife displacement and habitat destruction.		cycles, minimizing wildlife displacement and habitat destruction.	cycles, minimizing wildlife displacement and habitat destruction.	
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.				
Impacts to Livestock No significant impacts.				
Impacts to Recreation No significant impacts.				
Impacts to Lands and Realty No significant impacts.				
Impacts to Minerals and Energy No significant impacts.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.

FISH AND WILDLIFE Raptor Habitat Management				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE Prairie Dog Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Prairie dogs are a keystone species that provide a multitude of life requirements for other wildlife species.				
Decisions				
Recognize and manage occupied and historic prairie dog colonies under the concept of a key stone species.	Manage land uses within occupied and historic prairie dog colonies to preserve the habitat values of these limited but crucial value habitats.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.
Impacts to Cultural Resources	Impacts to Cultural Resources	Impacts to Cultural Resources	Impacts to Cultural Resources	Impacts to Cultural Resources

FISH AND WILDLIFE Prairie Dog Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife Non-game: BLM would protect the limited habitat of the prairie dog by recognizing and maintaining occupied and historic prairie dog habitat under the concepts of keystone species habitat.	Impacts to Fish and Wildlife Non-game: The prairie dogs is a keystone species that provides an import ecological role in the structure and dynamic relationships within its biotic community. BLM would protect those limited areas of crucial value habitat of the prairie dog by recognizing and maintaining occupied and historic prairie dog habitat.	Impacts to Fish and Wildlife Non-game: BLM would protect the crucial value habitat of the prairie dog by recognizing and maintaining occupied and historic prairie dog habitat.	Impacts to Fish and Wildlife Non-game: BLM would protect the limited and crucial value habitat of the prairie dog by recognizing and maintaining currently occupied and historic prairie dog habitats.	Impacts to Fish and Wildlife Non-game: BLM would protect the crucial value habitat of the prairie dog by recognizing and maintaining occupied and historic prairie dog habitat.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation	Impacts to Recreation	Impacts to Recreation	Impacts to Recreation	Impacts to Recreation

FISH AND WILDLIFE Prairie Dog Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.				
Impacts to Lands and Realty No significant impacts.				
Impacts to Minerals and Energy No significant impacts.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE Introduction, Transplantation, Augmentation, and Reestablishment of Fish and Wildlife Species				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
In order to sustain USFWS and UDWR wildlife population objectives, sufficient quality and quantity of habitat is required. However, there is conflict regarding the introduction of non-native species into native species' habitats. Native fish species are impacted by introduction of and competition with non-native species. There are				

FISH AND WILDLIFE				
Introduction, Transplantation, Augmentation, and Reestablishment of Fish and Wildlife Species				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
opportunities to reintroduce native species within the PFO. There is public interest in maintaining recreational fisheries for some non-native species such as rainbow and brown trout, bluegill and large mouth bass. Introductions of both native and non-native species can pose risks to native species through competition, hybridization, and disease transmission.				
Decisions				
Augmentation of selected established native and nonnative species populations would be allowed.				
BLM would continue to cooperate with UDWR in reintroducing wildlife species into historic or suitable ranges. Supplemental release of game bird and fishes would continue without requiring additional documentation in the RMP or additional NEPA analysis.	BLM would continue to cooperate with and provide support to UDWR in reintroducing wildlife species into historic or occupied ranges, as determined appropriate through NEPA analysis.	BLM would continue to cooperate with and provide support to UDWR in reintroducing wildlife species into historic or suitable ranges, as determined appropriate through NEPA analysis. Reintroductions or introductions of both native and naturalized species would be considered.	BLM would continue to cooperate with and provide support to UDWR in reintroducing wildlife species into historic or suitable ranges, as determined appropriate through NEPA analysis. Reintroductions or introductions of only native and naturalized species would be considered with a management priority of restoration of native populations within suitable habitat.	BLM would continue to cooperate with and provide support to UDWR in reintroducing wildlife species into historic or suitable ranges, as determined appropriate through NEPA analysis. Reintroductions or introductions of both native and naturalized species would be considered. Supplemental release of game bird and fishes would continue without requiring additional documentation in the RMP or additional NEPA analysis.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources Reintroducing only wildlife species and only native fish species into historic and/or occupied ranges is not anticipated to impact	Impacts to Vegetation Resources No significant impacts.

FISH AND WILDLIFE				
Introduction, Transplantation, Augmentation, and Reestablishment of Fish and Wildlife Species				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			vegetation.	
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife BLM would continue to cooperate with UDWR in reintroducing wildlife species into historic and/or suitable range, as determined appropriate through NEPA analysis. Reintroduction of species would ensure adequate population numbers to sustain a healthy and viable population.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife BLM would continue to cooperate with UDWR in reintroducing wildlife species into historic and/or suitable range, as determined appropriate through NEPA analysis. Reintroduction or introductions of both native and naturalized species would be considered. Introductions of naturalized species may have an impact on native fish populations if competition for habitat were to occur.	Impacts to Fish and Wildlife BLM would continue to cooperate with UDWR in reintroducing wildlife species into historic and/or suitable range, as determined appropriate through NEPA analysis. Reintroduction or introductions of native species would be considered. This would ensure healthy populations of native fish and wildlife species in the PFO. Upland game birds: The reintroduction of sage grouse into their historic range, where possible and feasible, would provide significant benefits in preventing these birds from being listed under the Threatened and Endangered Species Act.	Impacts to Fish and Wildlife BLM would continue to cooperate with UDWR in reintroducing wildlife species into historic and/or suitable range, as determined appropriate through NEPA analysis. Reintroduction or introductions of both native and naturalized species would be considered. Introductions of naturalized species may have an impact on native fish populations if competition for habitat were it occurs. However, reintroduction generally would ensure healthy and viable populations of fish and wildlife species.
Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros

FISH AND WILDLIFE				
Introduction, Transplantation, Augmentation, and Reestablishment of Fish and Wildlife Species				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.

FISH AND WILDLIFE				
Introduction, Transplantation, Augmentation, and Reestablishment of Fish and Wildlife Species				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE				
Reintroduction or Introduction and Augmentation of Fish Species into Suitable Fisheries Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
In order to sustain USFWS and UDWR wildlife population objectives, sufficient quality and quantity of habitat is required. However, there is conflict regarding the introduction of non-native species into native species' habitats. Native fish species are impacted by introduction of and competition with non-native species. There are opportunities to reintroduce native species within the PFO. There is public interest in maintaining recreational fisheries for some non-native species such as rainbow and brown trout, bluegill and large mouth bass. Introductions of both native and non-native species can pose risks to native species through competition, hybridization, and disease transmission.				
Decisions				
BLM would continue to cooperate with UDWR in reintroducing fish species into historic habitats.	BLM would continue to cooperate with and provide support to UDWR in reintroducing fish species into occupied habitats, as determined appropriate through NEPA analysis.	BLM would continue to cooperate with and provide support to UDWR in reintroducing fish species into suitable habitats, as determined appropriate through NEPA analysis. Reintroductions or introductions of both native and non-native species would be considered.	BLM would continue to cooperate with and provide support to UDWR in reintroducing fish species into historic habitats, as determined appropriate through NEPA analysis. Reintroductions or introductions of only native species would be considered.	BLM would continue to cooperate with and provide support to UDWR in reintroducing fish species into suitable habitats as determined appropriate through NEPA analysis. Reintroductions or introductions of both native and non-native species would be considered. (Same as Alternative B.)
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian	Impacts to Soil, Water and Riparian	Impacts to Soil, Water and Riparian	Impacts to Soil, Water and Riparian	Impacts to Soil, Water and Riparian

FISH AND WILDLIFE				
Reintroduction or Introduction and Augmentation of Fish Species into Suitable Fisheries Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.	No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources Reintroducing wildlife species into historic and/or occupied ranges is not anticipated to impact vegetation resources.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species Reintroducing wildlife species by UDWR (with BLM's cooperation) into suitable and/or historic ranges is not anticipated to adversely impact most Special Status Species. However, introducing non-native fish species could adversely impact Special Status Species. Predation resulting from the introduction of brown trout (<i>Salmo trutta</i>) reduces leatherside chub populations (UDNR 2003).	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife BLM would protect the limited and crucial value habitat of the prairie dog by recognizing and maintaining occupied and	Impacts to Fish and Wildlife Fish: Allowing only the reintroduction of native fish species would reduce competition for forage from	Impacts to Fish and Wildlife No significant impacts.

FISH AND WILDLIFE				
Reintroduction or Introduction and Augmentation of Fish Species into Suitable Fisheries Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		historic prairie dog habitat.	non-native species. This would also reduce the potential for interbreeding with non-native species. This is especially true for native salmonid populations interbreeding with non-native salmonids.	
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical	Impacts to Areas of Critical	Impacts to Areas of Critical	Impacts to Areas of Critical	Impacts to Areas of Critical

FISH AND WILDLIFE				
Reintroduction or Introduction and Augmentation of Fish Species into Suitable Fisheries Habitat				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Environmental Concern No significant impacts.	Environmental Concern No significant impacts.	Environmental Concern No significant impacts.	Environmental Concern No significant impacts.	Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FISH AND WILDLIFE				
Habitat Manipulation for Fish Population Maintenance, Recovery, and Enhancement				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Native fish species have been adversely affected by habitat alterations including water diversions, altered flow regimes, stream bank manipulation, and changes in water quality. There are opportunities to reintroduce native species and restore their habitats within the PFO.				
Decisions				
BLM would consider the reintroduction of species into native ranges on a case-by-case basis. BLM would coordinate with UDWR to reestablish habitat to support fisheries in suitable perennial historic habitats. Procedures would be consistent with BLM Manual, Sections 1745 and 2943.	BLM would provide habitat for existing populations.	BLM would coordinate with UDWR to implement habitat improvement efforts to establish fisheries with native and nonnative fish species.	BLM would coordinate with UDWR to complete habitat improvement efforts and establish fisheries through reintroductions with native fish species.	BLM would coordinate with UDWR to implement habitat improvement efforts to establish fisheries with native and nonnative fish species. (Same as Alternative B.)

FISH AND WILDLIFE				
Habitat Manipulation for Fish Population Maintenance, Recovery, and Enhancement				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife Stocking of fertile salmonid species in BLM-managed waters containing or having the potential to contain native salmonid populations may impact native populations through interbreeding. The stocking of triploid salmonids in BLM-managed water courses would reduce the possibility of interbreeding with native salmonid populations.	Impacts to Fish and Wildlife No significant impacts.			

FISH AND WILDLIFE				
Habitat Manipulation for Fish Population Maintenance, Recovery, and Enhancement				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.
Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.	Impacts to Livestock No significant impacts.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation	Impacts to Transportation	Impacts to Transportation	Impacts to Transportation	Impacts to Transportation

FISH AND WILDLIFE				
Habitat Manipulation for Fish Population Maintenance, Recovery, and Enhancement				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
and Motorized Access No significant impacts.	and Motorized Access No significant impacts.	and Motorized Access No significant impacts.	and Motorized Access No significant impacts.	and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

WILD HORSES AND BURROS

Assumptions

This analysis is based on the following assumptions:

- The number of wild horses will increase by approximately 20 percent annually.
- Wild horse and burro removals (round-ups or gathers) will occur on each HMA approximately every 3 to 4 years. Gathers could occur within the PFO each year, but in different HMAs.
- A wild horse population of 100 animals is necessary to ensure that it is genetically viable (Cothran, 2001).
- A wild burro population of 50 animals is necessary to ensure that it is genetically viable.
- Maintenance of wild horse and burro populations at AMLs within existing HMAs will be accomplished through removals and selected application of other population control practices.
- Wild horse and burro gathers (round-ups) disturb approximately 2–3 acres per trap site.

Significance Criteria

Impacts to wild horses and burros would be considered significant if the following were to occur:

- Available habitat components (i.e., forage, water, cover, space) are insufficient to achieve or maintain the AML in a given HMA (see Maps 2-6 through 2-9).
- Genetic diversity is not adequate to provide for a self-sustaining population of animals in balance with other uses and the productive capacity of their habitat.
- Disturbances and barriers compromise the natural and free-roaming behavior of the herd on the range.

Methods of Analysis

The following analysis is a discussion of both long- and short-term impacts to wild horses and burros and their predicted severity by alternative. The potential impacts of the alternatives presented in this document will be addressed at the program level. To ensure management of wild horses and burros in a thriving natural ecological balance, further analyses will be required at the implementation level of planning.

Impacts to wild horses and burros include impingements on habitat conditions. Actions resulting in reductions in forage, water, cover, or other habitat requirements, making management at an AML impossible, are the most obvious impacts. Other impacts identified in this analysis include effects of actions that exceed the significance criteria stated above. Impact analyses and conclusions are based on interdisciplinary team knowledge of resources and the project area, spatial analysis, review of existing literature, and information provided by other agencies. Effects are quantified where possible or described in qualitative terms in the absence of quantitative data. Spatial analysis was conducted using ESRI's ArcGIS Desktop 8.x computer software.

WILD HORSES AND BURROS

Common to All Alternatives

Decision Background

The following decisions are policy or regulation for the protection of wild horse and burro resources. These decisions are included to clarify standard operating procedures.

Decisions

WILD HORSES AND BURROS

Common to All Alternatives

Actions Common to All Alternatives:

- Allow introductions of wild horses and burros from other herd areas to maintain genetic viability if the horses being introduced have characteristics similar to the horses in the HMA to which they are being introduced.
- Update and prepare Herd Management Area Plans (HMAP) for each of the designated HMAs.
- Prepare Population Management Plans (PMP) for each HMA.
- Manage populations for appropriate age and sex ratios, genetic viability, adaptability, and adoptability, as well as maintaining AMLs on established HMAs.
- Do not limit wild horse and burro research if other wild horse and burro program goals are met.

WILD HORSES AND BURROS

Adjusting HMA Boundaries

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>Original HMA boundaries were established in the 1970s and incorporated into the existing plans. In the intervening years, better data on horse use has been generated, and horses and burros have shifted their use areas. HMA boundaries must be updated to incorporate new information and better reflect where horses and burros actually use the range. Establishment of AMLs is policy and requires that the proper numbers of horses and burros be established on the range. In establishing AMLs, BLM considers conflict with other forage users, including livestock and wildlife. BLM also considers impact on other resources and resource uses. The following decisions relate to the allocation of areas of use and forage utilization by wild horses and burros.</p>				
Decisions				
<p>Existing management of HMA boundaries would continue for the four designated HMAs: Range Creek, Muddy Creek, Sinbad, and Robbers Roost, as indicated in Map 2-6.</p>	<p>There would be no wild horse HMAs continued or designated.</p> <p>The boundaries of the wild burro portion of the Sinbad HMA would be adjusted to match the natural and manmade barriers that existed when the Wild Horse and Burro Act was passed in 1971 and that separate or restrict burro movement (Map 2-7).</p>	<p>HMA boundaries would be adjusted on the Range Creek, Muddy Creek, and Sinbad HMAs to match the natural and manmade barriers that existed when the Wild Horse and Burro Act was passed in 1971 and that separate or restrict wild horse and burro movement (Map 2-7).</p>	<p>HMA boundaries would be adjusted on the Range Creek, Muddy Creek, and Sinbad HMAs to match the natural and manmade barriers that existed when the Wild Horse and Burro Act was passed in 1971 and that separate or restrict wild horse and burro movement (Map 2-8). (Same as Alternative B)</p>	<p>HMA boundaries would be adjusted on the Range Creek, Muddy Creek, and Sinbad HMAs to match the natural and manmade barriers that existed when the Wild Horse and Burro Act was passed in 1971 and that separate or restrict wild horse and burro movement (Map 2-9). (Same as Alternative B)</p>

WILD HORSES AND BURROS

Combining/Splitting HMAs (Management of Wild Horses and Burro Herds)

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
Wild horses and burros would be managed in four HMAs: Range Creek (horses), Muddy Creek (horses), Sinbad (horses and burros), and Robbers Roost (horses).	The Range Creek, Sinbad, Muddy Creek and Robbers Roost (horses) HMAs would have an Appropriate Management Level set at zero. They would lose their status as HMAs but would maintain Herd Area status, for future management consideration should conditions change. The Sinbad (burro) HMA would remain designated and managed for wild burros only.	Wild horses would be removed from the Sinbad and Muddy Creek HMAs before wild burros are introduced in these HMAs. The AML for wild horses would be zero, and the AML for wild burros would be increased. The AML in the Robbers Roost HMA would be set at zero. The area would lose its status as an HMA but would maintain Herd Area status for future management consideration should conditions change.	Wild horses and burros would be managed in three HMAs: Range Creek (horses), Muddy Creek (horses), and Sinbad (burros). The current portion of the Sinbad HMA that supports horses would be combined with the Muddy Creek HMA. The area of the Sinbad HMA that supports burros would remain the Sinbad HMA. The AML in the Robbers Roost HMA would be set at zero. The area would lose its status as an HMA but would maintain Herd Area status for future management consideration should conditions change.	Wild horses and burros would be managed in three HMAs: Range Creek (horses), Muddy Creek (horses), and Sinbad (burros). The current portion of the Sinbad HMA that supports horses would be combined with the Muddy Creek HMA. The area of the Sinbad HMA that supports burros would remain the Sinbad HMA. The AML in the Robbers Roost HMA would be set at zero. The area would lose its status as an HMA but would maintain Herd Area status for future management consideration should conditions change.

WILD HORSES AND BURROS				
Appropriate Management Levels				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
AMLs would be designated within implementation documents such as Environmental Assessments for gathers, HMAPs, and other applicable plans, but would be subject to adjustment based on monitoring data.	The AML would be periodically evaluated and subject to adjustment in HMA Plans and Environmental Assessments for gathers based on monitoring data and best science methods.			
RANGE CREEK HMA				
75–125 (horses)	0 (horses)	75–125 (horses)	75–125 (horses)	75–125 (horses)

WILD HORSES AND BURROS				
Appropriate Management Levels				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
MUDDY CREEK HMA				
30–50 (horses)	0 (horses)	60–100 (burros)	60–100 (horses)	60–100 (horses)
SINBAD HMA				
30–50 (horses)	0 (horses)	110–170 (burros)	50–70 (burros)	50–70 (burros)
50–70 (burros)	50–70 (burros)			
ROBBERS ROOST HMA				
15–25 (horses)	0 (horses)	0 (horses)	0 (horses)	0 (horses)

WILD HORSES AND BURROS				
Forage Allocation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
No forage would be allocated for wild horses and burros. Existing AML would require 3,000 animal unit months (AUM) for wild horses and 420 AUMs for wild burros.	420 AUMs would be allocated for wild burros.	1,500 AUMs would be allocated for wild horses, and 1,620 AUMs would be allocated for wild burros.	2,700 AUMs would be allocated for wild horses, and 420 AUMs would be allocated for wild burros.	2,700 AUMs would be allocated for wild horses, and 420 AUMs would be allocated for wild burros. (Same as Alternative C)
Forage allocations have not been determined for wild horses/burros in the established HMAs. Allocations would be based on monitoring data, considering the needs of wildlife, wild horses/burros, and livestock.	When monitoring data and best science identify an increase or decrease in available forage in HMAs, allocation of that forage would be emphasized to uses other than wild horses and burros.	When monitoring data and best science identify an increase or decrease in available forage in HMAs, allocations would be adjusted proportionately between wild horses/burros, wildlife, and livestock.	When monitoring data and best science identify additional available forage in HMAs, that forage would be first allocated to wild horses to achieve an AML that is genetically viable, then to other resource uses.	An increase or decrease in available forage would be adjusted on a case-by-case basis to support objectives.

FIRE AND FUELS MANAGEMENT

Assumptions

Impacts to fire and fuels management would be considered significant if the following were to occur:

- Vegetation condition results in wildland fires that are uncharacteristically intense in size or scale.
- Vegetation condition results in uncharacteristically long- or short-return fire intervals.
- Wildland fires present an increased risk to public safety or property.

Significance Criteria

Impact analyses and conclusions are based on interdisciplinary team knowledge of resources and the project area, as well as a review of existing literature. Effects are quantified where possible. In the absence of quantitative data, best professional judgment was used. Impacts are occasionally described using ranges of potential impacts or in qualitative terms, if appropriate.

The analysis is based on the following assumptions:

- A direct relationship exists between fuel loads (standing and down vegetation) and potential fire size and intensity.
- Fire regimes are predominantly in Condition Classes 2 and 3.
- A direct relationship exists between density of human use within the PFO and the frequency of person- or vehicle-caused fires.

Methods of Analysis

Discussion of impacts to fire and fuels management in this section relates only to fire suppression and fuel reduction. Impacts to vegetation due to vegetation treatments (including prescribed burns and mechanical, chemical, and biological treatments) for nonfuel reduction objectives are discussed under the vegetation alternatives.

Impact analyses and conclusions are based on interdisciplinary team knowledge of resources and the project area, as well as a review of existing literature. Effects are quantified where possible. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate.

Table 4-8. Anticipated Treatment Acres/Burn Acres

	1 Year	20 Years
Wildland Fire	1,500	30,000
Fire Use	500	10,000
Rx Fire Treatment	3,000	60,000
Non-Fire Fuels Treatments	3,000	60,000
Total Treatments	8,000	160,000
Post-Fire Rehabilitation	500	10,000

FIRE AND FUELS MANAGEMENT

Common to All Alternatives

Decision Background

The following decisions provide direction for the administration of fire and fuels management. These decisions are included to clarify standard operating procedures.

Decisions

- Wildland Urban Interface (WUI) Fire and Fuels Management:
- Work with partners in the WUI in wildland firefighting, hazardous fuels reduction, fire prevention and education, and technical assistance
- Hazardous Fuels Reduction:
- Use fuel management strategies (e.g., prescribed fire, mechanical, chemical, biological, cultural treatments, and wildland fire) as tools to help meet desired future conditions.

Impact Analysis

RESOURCES

Impacts to Air Quality

No significant impact.

Impacts to Soil, Water and Riparian

Management of wildland fires that would impact riparian zones would be given high priority to protect this valuable resource. Wildland fires normally burn with extreme heat depending on the season, drought and meteorological conditions. In extreme conditions, wildland fires would sterilize and break down soils making them more susceptible to erosion. This would lead to greater runoff of ash and soil increase siltation and sediment loading in local streams impact water quality.

The use of prescribed fires to manage vegetation in selected watersheds would cause some short-term impacts to soil and water resources by allowing for increased erosion o soils and sediment loading of waters where these fires occur. However, these impacts would be more manageable than those created by wildland fires and cause less impacts to soils, water, and riparian/wetland resources.

Impacts to Vegetation Resources

Using fuels management strategies (prescribed fire, mechanical, biological, cultural treatments, wildland fire, etc.) to help meet desired future conditions would result in a short-term loss of vegetation, but would improve vegetation over the longterm. The response of vegetation to fire depends on the size, location, intensity, season, time of day, amount of precipitation, preexisting plant community, and the abundance of weeds in the area. Wildland and prescribed fires would also cause a long-term decrease in fire-sensitive shrubs and trees, a short-term increase in annual weeds, grass and forb species, and a long-term increase in fire resistant grasses, forbs, shrubs, and trees.

FIRE AND FUELS MANAGEMENT

Common to All Alternatives

Impacts to Cultural Resources

Cultural resource inventories/clearances before implementation of fire and fuels management actions or mitigation efforts would result in the identification of new cultural resource sites. Following fire and fuels management actions, the reduction of dense vegetation cover would enhance surface visibility in the short term, allowing otherwise undetected cultural materials to be identified and recorded. There is an increased potential for sites identified following fire and fuels management actions to have been damaged or partially destroyed as a result of the treatment. This analysis assumes public land users will comply with RMP management actions and applicable laws, vandalism and theft of cultural resources is an issue of informing public land users and law/policy enforcement, and will not be addressed further. If these impacts occurred, they could be significant depending on the cultural resource site characteristics. Impacts from fire and fuels management are anticipated to occur on 6,000 acres per year (3,000 acres of prescribed burning and 3,000 acres of non-fire fuels treatments).

Fire and fuels management would minimize the potential for uncharacteristically intense wildfires. Reducing this risk would increase the protection of perishable cultural resources as historic and prehistoric wooden structures that could be lost in such events. Rock art and other cultural resource rock features, either Native American or Euro-American, could be damaged by smoke and soot and by rock exfoliation or spalling caused by extreme heat or chemicals. Fire and fuels management to sustain ecosystem health would allow impacts to cultural resources to be mitigated. These decisions would reduce the likelihood of significant impacts to cultural resources from fire.

The temporary reduction of vegetation following fire and fuels management actions would result in a short-term increase in soil erosion. As mentioned above, increasing soil erosion would accelerate deterioration of cultural properties located in the area of vegetation treatment. The duration of the increased soil erosion would be short term, impacts to cultural resources resulting from the erosion would be long term and potentially significant.

Impacts to Paleontology Resources

Required assessments to identify and mitigate impacts to paleontological resources before surface disturbing activities would result in no significant impacts from fire and fuels management. The most common impact to paleontological resources from fire and fuels management activities would be the potential identification, recordation, and collection of paleontological resources before the implementation of surface disturbing fire and fuels management actions. Most areas throughout the PFO with paleontological resources present at the surface are not conducive to supporting vegetation. As such, impacts from fire and fuels management, if they occur, are not anticipated to be significant.

Impacts to Visual Resources

Visual impacts from hazardous fuels reductions strategies (prescribed fire, mechanical, chemical, biological, cultural treatments, wildland fire) would be short- to mid-term in duration, depending on factors such as the intensity and extent of a given burn, the rate of decay of the dead material, the size and density of vegetation treated, and VRM Class in which the treatment occurred. Wildland and prescribed burns would alter the viewshed in the short term until revegetation occurs.

Impacts to Special Status Species

Prescribed and wildland fire in the PFO potentially affects many different habitats, including some habitats associated with Special Status Species. In general, prescribed fires would have long-term effects on by diversifying plant community composition and age structure, promoting more vigorous vegetation growth, and enhancing habitat. Prescribed fire would be used to help meet the objectives of other programs. Fire would be used to convert shrub to grass and forb-dominated areas, increase habitat diversity, and improve vegetation cover. These effects would serve to maintain and improve Special Status Species populations and habitat.

Chemical and mechanical fire management equipment would potentially result in habitat disruption by the creation of roads for fire control equipment. Use of chemicals and other fire suppression measures potentially impact vegetation and water quality, indirectly causing a short-term impact to Special Status Species by altering the types of food available.

FIRE AND FUELS MANAGEMENT Common to All Alternatives	
Impacts to Fish and Wildlife	<p>Wildland fire could be both beneficial and detrimental to wildlife and their habitats. Periodic random wildland fires would remove vegetation, forage, hiding cover, and thermal cover. Fire also acts as a rejuvenator by returning nutrients to the soil. In vegetative climax communities, fire would return the vegetative community to an earlier stage of succession that would be beneficial to some wildlife species. Historically, fires not of magnitude that affect entire wildlife populations have created mosaics resulting in more variability in vegetation seral stage and species composition height stratification and improved herbaceous understory.</p> <p>Riparian vegetation loss would be detrimental to the habitat requirements of species that relied on those areas, although this would generally cause a short-term impact due to succession of riparian plant communities following wildland fire. Although fire might result in flooding, debris flow, landslides, and increased siltation, vegetative succession and aquatic populations could benefit from increased inputs of carbon that can result from fires.</p> <p>In the short term, some fires would cause the loss of less mobile wildlife that might not be able to avoid the fire path. However, such species normally recolonize burn areas fairly quickly.</p>
Impacts to Wild Horses and Burros	<p>The impacts of wildland fires within HMAs would be both direct and indirect, but short-term and localized in their effect. Wildland and prescribed fires would result in a temporary relocation of wild horses and burros and short-term reduction in available forage. These short-term impacts are not anticipated to be significant the size of the HMAs and the normal size of wildland and prescribed fires in this area. Burned areas would provide improved forage production in the longterm and create a mixture of vegetative communities with diverse species, cover, and age classes.</p> <p>As with wildland fire, implementation of fuels management activities within HMAs would create both short- and long-term impacts to wild horses and burros. In the short term, fuels reduction activities would temporarily displace wild horses from a localized area. In the long term, fuels reduction treatments, including returning fire to its natural role in the ecosystem, would result in improved forage production, reducing competition between wild horses and burros and other grazing mammals.</p>
Impacts to Fire and Fuels Management	<p>Fuels reduction projects, especially in wildland urban interface areas, would have a beneficial impact on fire suppression activities. Removal of fuels would help slow the spread of fire, enabling firefighters to control and contain fires more easily. Allowing the use of a range of fuels management strategies would allow managers to restore fire to its natural role in the ecosystem under controlled sets of parameters. It also would allow managers to decide where and under what conditions sites could be treated to meet the objectives for other resources.</p>
RESOURCE USES	
Impacts to Forest and Woodlands	<p>No significant impact.</p>
Impacts to Livestock	<p>Fire management and suppression alternatives and methods are not anticipated to impact grazing resources. Coordinating the suppression of unauthorized wildland fire ignitions with other partners would potentially reduce response times, limiting the number of acres burned by wildfire under certain conditions. The priority of suppressing wildland fire in WUI areas, major travel corridors, and recreation sites would not impact livestock grazing. Allowing wildland fires in other areas of the PFO would decrease the amount of forage available for a short period of time. Long term this action would improve forage quantity and quality by increasing the areas dominated by grasses and forbs.</p>
Impacts to Recreation	<p>No significant impact.</p>

FIRE AND FUELS MANAGEMENT Common to All Alternatives	
Impacts to Lands and Realty No significant impact.	
Impacts to Minerals and Energy No significant impact.	
SPECIAL DESIGNATIONS	
Impacts to Wilderness Study Areas No significant impact.	
Impacts to Areas of Critical Environmental Concern No significant impact.	
Impacts to Wild and Scenic Rivers No significant impact.	
SUPPORT	
Impacts to Transportation and Motorized Access No significant impact.	
Impacts to Hazardous Materials and Waste No significant impact.	

FIRE AND FUELS MANAGEMENT Desired Condition Class				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
This decision aligns fire and fuels management with the current policy of, "protecting communities, watersheds, and certain other at-risk lands from catastrophic wildfire, [enhancing] efforts to protect watersheds and [addressing] threats to forest and rangeland health, including catastrophic wildfire, across the landscape" (Section 2: Healthy Forests Restoration Act of 2003).				
Decisions				
No Similar Action	Vegetation Condition Class (CC) in non-WUI areas would be moved toward CC 1			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impacts.	Impacts to Air Quality No significant impacts.			

FIRE AND FUELS MANAGEMENT				
Desired Condition Class				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Soil, Water and Riparian No significant impacts.	Impacts to Soil, Water and Riparian No significant impacts.			
Impacts to Vegetation Resources No significant impacts.	Impacts to Vegetation Resources No significant impacts.			
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.			
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.			
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.			
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.			
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.			
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.			
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management Use of prescribed fires would allow the reintroduction of fire into the ecosystem on a preplanned basis. In the short term, the average annual acres burned would increase. As vegetation communities that are functioning beyond their return fire intervals are treated, the intensity and number of these fires would decline and return to a more natural fire cycle.			
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.			

FIRE AND FUELS MANAGEMENT				
Desired Condition Class				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Livestock No significant impacts.	Impacts to Livestock Moving vegetation from Condition Class 1 and 2 toward Condition Class 1 changes vegetative species composition and structure. Indirectly, these changes may increase the mid-seral stage area within the PFO and increase forage available for livestock, which would potentially maintain or improve livestock productivity.			
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.			
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.			
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.			
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.			
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.			
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.			

FIRE AND FUELS MANAGEMENT
Wildland Fire Use Areas

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>Using wildland fires for resource benefit acknowledges that many ecosystems depend on surface disturbance, naturally in the form of fire, to maintain ecosystem health. However, wildland fire use is inappropriate in some areas because of social, economic, political, or resource constraints. This decision establishes direction, based on resource values, on where fire use may not occur. The presence of these features would not completely exclude wildland fire use from an area. For example, although it is inappropriate to use fire in an 8-acre developed recreation site or that of a communications facility, e.g., Cedar Mountain communication facilities, the vegetation in and around these small sites may be treated. Doing so would help ensure that wildland fires, when they burn the surrounding area, would not threaten the site's structures and resource values. Such treatments would reduce wildland fires from occurring in these areas while wildland fire use would become appropriate in the surrounding areas.</p>				
Decisions				
<p>No Similar Action</p>	<p>Using wildland fires would be inappropriate in the following areas:</p> <ul style="list-style-type: none"> • Administrative sites • Developed recreation sites • Designated communication sites • Oil and gas facilities • Mining facilities • Above-ground utility corridors • High-use travel corridors • Wildland Urban Interface • Areas in vegetation Condition Class 3. <p>All other areas would be suitable for wildland fire use for resource benefit.</p>			
Impact Analysis				
RESOURCES				
<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>	<p>Impacts to Air Quality No significant impacts.</p>
<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>	<p>Impacts to Soil, Water and Riparian No significant impacts.</p>
<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>	<p>Impacts to Vegetation Resources No significant impacts.</p>
<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources Significant cultural resource sites and areas would be identified at the implementation level as high-value resources.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>

FIRE AND FUELS MANAGEMENT				
Wildland Fire Use Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	Wildfires threatening these cultural resources would receive elevated suppression priority. Resource Advisors/Archaeologists would be consulted both during fire use and during suppression efforts at or near these high-value cultural resource areas to minimize the potential of impacts from wildfire and wildfire suppression activities. This would help reduce direct impacts from fire.			
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.	Impacts to Fish and Wildlife No significant impacts.
Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.	Impacts to Wild Horses and Burros No significant impacts.
Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.	Impacts to Fire and Fuels Management No significant impacts.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.	Impacts to Forest and Woodlands No significant impacts.

FIRE AND FUELS MANAGEMENT				
Wildland Fire Use Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Livestock No significant impacts.	Impacts to Livestock Full suppression of wildland fire in WUI areas, communications facilities sites, oil and gas fields would continue to convert these areas from mid-seral grass and forb dominated communities to late-seral communities dominated by woody vegetation. Full suppression of wildland fire in recreation areas, areas with high-forage values, crucial wildlife habitat and high value watersheds would increase the percent cover of woody vegetation and subsequently decrease the percent cover of grasses and forbs. Continued modified fire suppression throughout the remainder of the PFO would have short-term impacts by decreasing the amount of forage available. However, forage quantity and quality would improve long term because of restoration, and increased dominance of forbs and grasses in the post-fire early seral stages.	Impacts to Livestock Same as Alternative A.	Impacts to Livestock Same as Alternative A.	Impacts to Livestock Same as Alternative A.
Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.	Impacts to Recreation No significant impacts.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.

FIRE AND FUELS MANAGEMENT				
Wildland Fire Use Areas				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>Changes in fire management planning guidance, contained in BLM-IM-2004-007 (Land Use Plan and Implementation Plan Guidance for Wildland Fire Management), specify that RMP identify restrictions on fire management practices and criteria that will be used for establishing fire management priorities. These restrictions and criteria are then to be documented in implementation plans. In addition to addressing restrictions, these decisions address prioritization criteria for the following fire management practices:</p> <ul style="list-style-type: none"> • Wildland Fire Suppression • Prevention and Mitigation • Emergency Stabilization and Rehabilitation (ESR) • Other Fuels Management Actions 				

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
GENERAL RESTRICTIONS				
Limit motorized suppression in areas closed to ORV use.	No restrictions would be placed on the management of fire, unless identified in the objectives or prescriptions for the management of other resources. Specific restrictions for fire management would be identified in the Fire Management Plan.			
SUPPRESSION				
<p>Wildfires would be suppressed where necessary to protect life, property, and high-risk resource values while ensuring safety and cost-effective fire management.</p> <p>Fires would be suppressed in accordance with the FMP prepared to implement RMP decisions. The FMP will detail prescriptions for or limitations on fire suppression, including areas where fires will be completely suppressed or allowed to burn, equipment and techniques allowed in specific areas, and values at risk to be protected.</p> <p>Full suppression would be applied to areas with high-value resources. In multiple fire situations, fires in these areas would be suppressed as a first priority, consistent with fire spread potential and threat to high-property or resource values.</p> <p>Areas with high-value resources include—</p> <ul style="list-style-type: none"> • WUI areas 	<p>Wildfires would be managed to protect life, firefighter safety, property, and high-risk resource values within the framework of applicable laws, regulations, and agency policies.</p> <p>An appropriate management response (AMR) would be provided on all wildland fires, emphasizing firefighter and public safety and considering suppression costs, benefits, and values to be protected consistent with resource objectives, standards, and guidelines.</p> <p>In multiple fire situations, fires would be suppressed using the following prioritization criteria:</p> <ul style="list-style-type: none"> • Threats to life and property • Potential to impact high-value resources, such as— • Critical habitat (T&E) • Crucial wildlife habitat • Cultural resources • Riparian areas • Potential for social impacts • Threats to other Agency lands (NPS, USFS, SITLA) • Areas with a lower potential to cause undue resource damage. 			

FIRE AND FUELS MANAGEMENT Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> • Areas with high-value recreation resources (e.g., Price Canyon Recreation Site facilities, Desolation Canyon, CLDQ, Goblin Valley State Park) • Areas with communication facilities (e.g., Bruin Point vicinity, Cedar Mountain communication facilities) • Areas with other development values (e.g., Peters Point and Jack Canyon oil and gas fields) • Areas with high-forage values. • Areas with high-productivity potential or high-erosion potential soils • High-value watersheds • Crucial wildlife habitat. <p>Conditional/modified fire suppression would be applied to the remainder of the PFO, allowing naturally occurring fires to burn during periods of low, moderate, or high fire danger. Fires in these areas would be suppressed if they might threaten property or</p>				

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
have significant potential to cause resource damage.				
PREVENTION AND MITIGATION				
Unauthorized wildland fire ignitions would be prevented through coordination with partners and affected groups and individuals. The full range of prevention and mitigation activities (e.g., personal contacts, mass media, signing, defensible space) would be used.	Unauthorized wildland fire ignitions would be prevented through coordination with partners and affected groups and individuals. The full range of prevention and mitigation activities (e.g., personal contacts, mass media, signing, defensible space) would be used. Implementation of fire prevention activities would be prioritized using the following criteria: <ul style="list-style-type: none"> • WUI areas • Major travel corridors • Recreation sites • Public lands as a whole. 			
EMERGENCY STABILIZATION AND REHABILITATION (ESR)				
ESR efforts would be undertaken to protect and sustain ecosystems, public health, and safety and to help communities protect their infrastructure.	ESR efforts would be undertaken to protect and sustain ecosystems, public health, and safety and to help communities protect their infrastructure. Definitions of each ESR program and possible actions to guide each program are in Appendix 9. Implementation of post-fire rehabilitation activities would be prioritized using the following criteria: <ul style="list-style-type: none"> • Areas that without treatment could pose a threat to life and property • Areas with potential for invasive species invasion, significant ecosystem alteration (CC 3 areas), soil stabilization, etc. 			
PRIORITIZATION FOR FUELS MANAGEMENT ACTIONS				
Use prescribed fire to implement or maintain seedings where necessary.	Implementation of fuels management action would be prioritized using the following criteria: <ul style="list-style-type: none"> • WUI areas • Areas with fuel loading that could potentially result in catastrophic wildfires • Resource improvement. 			
Impact Analysis				
RESOURCES				
Impacts to Air Quality Allowing natural fires to burn would cause pollutant emissions and result in a significant impact on air quality	Impacts to Air Quality Same as the No Action Alternative.	Impacts to Air Quality Same as the No Action Alternative.	Impacts to Air Quality Same as the No Action Alternative.	Impacts to Air Quality Same as the No Action Alternative.

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>because of the increased PM10 emissions. The emissions from vehicles used to control wildland fires would also cause an impact to air quality; however, this would be minor.</p>				
<p>Impacts to Soil, Water and Riparian Suppression of wildland fires to protect high-value resources would have short-term impacts from motorized vehicles used during the containment of these fires. However, quick responses to and prioritizing of wildland fires would reduce extensive areal damage. These actions would reduce long-term impacts to soil, water, and riparian resources.</p> <p>Wildland fires normally burn with extreme heat depending on the season, drought, and meteorological conditions. In extreme conditions, wildland fires can sterilize and break down soils. This would lead to greater runoff of ash and soil and in increase siltation and sediment loading in streams, which would impact water quality.</p> <p>In the long term, prescribed fires to reduce fuel loads would protect soil, water, and riparian resources by reducing the potential for a wildland fire to</p>	<p>Impacts to Soil, Water and Riparian Suppression of wildland fire from high-value resources, which includes riparian areas, would be beneficial to the protection of these habitats. However, there also needs to be an established buffer in the upland areas adjacent to the riparian zones to protect them from the effects of wildland fire. Without this buffer, wildland fire would cause extensive damage to the upland areas immediately adjacent to the riparian zones. These upland areas provide a first filter mechanism to protect streams, riparian, and wetlands resources against excessive siltation and sediment loading.</p> <p>If the adjacent upland areas were not used as a buffer to the streams, riparian, and wetland resources, then excessive stream bank erosion, leading to extensive siltation and sedimentation would result from wildland fires and this would have a significant impact to the soils,</p>	<p>Impacts to Soil, Water and Riparian Same as Alternative A.</p>	<p>Impacts to Soil, Water and Riparian Same as Alternative A.</p>	<p>Impacts to Soil, Water and Riparian Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>occur. The short-term impacts would be controlled to prevent soil disturbances and runoff of silt and sediment into streams impacting water quality and riparian/wetland complexes.</p> <p>Reclamation and reseedling of burn areas would be accomplished as soon as possible after the fires to reduce erosion and prevent siltation of streams. Care would be taken to ensure that for the short term quick-growing grasses would be sown to stabilize soils, while forbs and shrub seeds and seedlings would be used to decrease long-term impacts and improve stability of soils in those areas.</p>	<p>water quality, and riparian/wetland resources.</p> <p>Excluding fragile soil, wetland, and riparian resources from protection against wildland fires would lead to major degradation of the vegetative communities associated with riparian and wetland areas. This would result in denuding of these areas of existing vegetation and causing excessive erosion of the soils in these areas, which would result in increased siltation and sediment loading within these areas and in the downstream areas.</p> <p>Reclamation and reseedling of burn areas would be accomplished as soon as possible after the fires to reduce erosion and prevent siltation of streams. Care would be taken to ensure that for the short term quick-growing grasses would be sown to stabilize soils, while forbs and shrub seeds and seedlings would be used to decrease long-term impacts and improve stability of soils in those areas.</p>			
<p>Impacts to Vegetation Resources Full suppression of wildland fires where necessary to protect life, property, or high-</p>	<p>Impacts to Vegetation Resources Concentrating fire suppression in areas containing high resources and/or human</p>	<p>Impacts to Vegetation Resources Same as Alternative A.</p>	<p>Impacts to Vegetation Resources Same as Alternative A.</p>	<p>Impacts to Vegetation Resources Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>risk resource values would change the structure of plant communities in those areas. The continued suppression of fire potentially would allow an increase in fuel loading and could make these areas more vulnerable to disease and certain insect pest populations.</p>	<p>values would lead to concentrated surface disturbance in the short term. Surface disturbance associated with fireline construction, the use of heavy equipment, and other fire suppression activities would remove vegetation and accelerate soil erosion. However, these areas would be rehabilitated following fire suppression efforts to minimize long-term impacts. Mitigation and post-fire restoration reclamation efforts would improve vegetation resources by increasing species diversity, age class, and structure.</p>			
<p>Impacts to Cultural Resources Direct impacts to cultural resources from wildland fires include the loss of combustible cultural resources, soot damage, and the cracking and spalling of rock features. Additionally, heat from wildland fires could change the physical nature of the ground, making it harder to identify cultural resources. Fires may also create illusions of cultural resources, unofficially called “fake-a-finds,” by creating features that resemble prehistoric sites while they are not. Surface disturbances caused</p>	<p>Impacts to Cultural Resources The types of impacts to cultural resources from wildland fires would be the same as those noted in the No Action Alternative. The magnitude of these impacts would be decreased in this alternative, however. Although wildland fire and fire suppression actions can damage cultural resources in specific ways, as addressed in the No Action Alternative, the use of wildland fires in a well-planned manner is preferable to the long-term impacts of continual fire suppression. Allowing wildland fire use throughout the area</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>	<p>Impacts to Cultural Resources No significant impacts.</p>

FIRE AND FUELS MANAGEMENT Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>by suppression activities may also impact cultural resources. While impacts from the construction of fire lines and access roads by bulldozers would be mitigated through avoidance practices, other fire suppression actions such as construction of hand-lines and water or fire retardant drops from aircraft may damage cultural resources. These impacts would be addressed by Resource Advisors/Archaeologists who would be consulted during wildland fire suppression efforts at or near high-value cultural resource areas. Although these areas may not be currently identified, implementation of RMP decisions would enable these areas to be preserved.</p> <p>Following wildland fires, the short-term reduced vegetation cover would improve surface visibility, allowing otherwise undetected cultural materials to be identified and recorded. However, enhanced surface visibility also increases the potential for vandalism or theft of cultural resources, resulting in the loss of cultural resource values (including physical cultural resources and information regarding the context in which the resources</p>	<p>would enable the strategic management of wildland fire for resource benefit. This would allow for high value cultural resources to be protected, while planning for restoration of areas susceptible to uncharacteristic wildland fires. Wildland fire use is anticipated to affect approximately 500 acres annually throughout the PFO. It should be noted that while the use of wildland fire for resource benefit reduces the impacts to cultural resources, the potential for resources to be damaged by fire and fire suppression activities would remain.</p>			

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>are located).</p> <p>The temporary reduction of vegetation following wildland fires would result in a short-term increase in soil erosion that would increase the potential for deterioration of cultural properties located in or adjacent to the burn area. While the duration of the increased soil erosion would be short term, impacts to cultural resources resulting from the erosion would be long term and potentially significant.</p> <p>The intensity of the above impacts would vary based on annual acres burned by wildland fires, acres disturbed by suppression activities, and the location of the fires. Wildland fires are anticipated to affect an average of 1,500 acres annually.</p> <p>The short-term direct impacts of continually suppressing wildland fires would not be significant; cultural resources would be preserved from imminent damage from fire or suppression activities. However, there would be an associated long-term increase in fuel loading. This would increase the potential for uncharacteristically intense, wildfires that could increase the potential for significant</p>				

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
long-term impacts to cultural resources.				
<p>Impacts to Paleontology Resources Direct impacts to paleontological resources could occur as a result of surface disturbances caused by wildland fire suppression activities (e.g., construction of fire lines, bulldozing of access roads, and general movement of heavy equipment). Most areas throughout the PFO with paleontological resources present at the surface are not conducive to wildland fire ignition or spread. As such, impacts from fire and fuels management are not significant.</p>	<p>Impacts to Paleontology Resources Well-planned wildland fire suppression is preferable to allowing wildfires to burn unchecked. Wildland fire use would not be preceded by paleontological assessments. As a result, the potential remains for resources to be damaged by fire suppression activities; however, the damage would be to a lesser degree than in the No Action Alternative. Most areas throughout the PFO with paleontological resources present at the surface are not conducive to wildland fire ignition or spread. As such, impacts from fire and fuels management, if they occur, are not anticipated to be significant.</p>	<p>Impacts to Paleontology Resources Same as Alternative A.</p>	<p>Impacts to Paleontology Resources Same as Alternative A.</p>	<p>Impacts to Paleontology Resources Same as Alternative A.</p>
<p>Impacts to Visual Resources Impacts to visual resources would be minimized by the suppression of catastrophic wildfires. Impacts from wildfire would be greatest near local communities and in proximity to high-use recreation areas. Restricting motorized suppression activities in areas closed to OHV use would maintain visual qualities in</p>	<p>Impacts to Visual Resources Indirect benefits would occur to VRM from an appropriate management response (AMR) to wildfires. Suppression of catastrophic wildfire in areas where high-value resources exist would benefit visual resources in the short term.</p>	<p>Impacts to Visual Resources Same as Alternative A.</p>	<p>Impacts to Visual Resources Same as Alternative A.</p>	<p>Impacts to Visual Resources Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
those areas.				
<p>Impacts to Special Status Species Suppressing wildfires according to prescriptions and in areas with high resource value to protect property and high-risk resource values are not anticipated to adversely impact Special Status Species populations. Managing vegetation to meet the desired future conditions and fuel management objectives in the Wildland Urban Interface is not anticipated to adversely impact potential and occupied Special Status Species habitat. In the long-term, areas managed for desired future conditions indirectly maintain and improve potential and occupied Special Status Species habitat. However, the continued full suppression of wildland fire in areas with high forage values and productivity impacts Special Status Species populations by reducing plant species diversity and structure.</p>	<p>Impacts to Special Status Species Fire management activities are anticipated to occur in Special Status Species habitat. Wildland fire occurring in listed species habitat has the potential for significant impacts and is likely to adversely affect species and habitat. For fuels management actions, mitigation measures such as consultation with US F&WS, and the avoidance of the habitat would reduce but not eliminate impacts to Special Status Species. Implementation of fire and fuels management actions would likely adversely affect Special Status Species and their habitat over both the short and long-term. Consultation will occur with US F&WS on any fire and fuels management activity within Special Status Species habitat.</p>	<p>Impacts to Special Status Species Same as Alternative A.</p>	<p>Impacts to Special Status Species Same as Alternative A.</p>	<p>Impacts to Special Status Species Same as Alternative A.</p>
<p>Impacts to Fish and Wildlife Conditional or modified fire suppression would be applied to the PFO, allowing naturally occurring fires to burn during low, moderate, or high fire danger. Wildland fires in areas with high forage value, high erosion potential, high-value</p>	<p>Impacts to Fish and Wildlife Impacts from fire and fuels would be similar to those discussed in the No Action Alternative, with the additions discussed below. In multiple fire situations, threat to human life and property</p>	<p>Impacts to Fish and Wildlife Same as Alternative A.</p>	<p>Impacts to Fish and Wildlife Same as Alternative A.</p>	<p>Impacts to Fish and Wildlife Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>watersheds, or crucial wildlife habitat would be suppressed if they threatened to cause resource damage.</p> <p>Under the No Action Alternative, an AMR would identify where fire would be completely suppressed or allowed to burn. Fire suppression would reduce the amount of habitat that potentially could be lost. It would also cause short-term displacement of wildlife species resulting from firefighting measures. However, such suppression may result in unnatural fuel loading, and the vegetation community would not receive the long-term benefits, including diversified vegetation and the returning of climax communities to earlier stages of succession.</p> <p>Prescribed fire would be implemented to maintain multiple seral stages and diversity of vegetative communities. Prescribed fire would cause temporary displacement of wildlife; however, reseeding of an area would eventually provide more diverse vegetation for cover and forage.</p> <p>Wildland fires that are managed to impact less than</p>	<p>would be the first priority. This would not impact fish and wildlife because critical habitat and riparian areas would still be protected.</p> <p>This prioritization would provide protection of human life as well as prevent catastrophic wildfires that could result in mortality of wildlife species and degradation of riparian and aquatic habitats. In addition, fuels management for resource improvement would be beneficial to fish and wildlife by providing multi-seral vegetation and diverse forage.</p>			

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>600-acres would have short-term impacts with long-term benefits to wildlife habitats of most species. Large landscape type wildland fires exceeding 600-acres would, in almost every case, have short-term and long-term adverse affects on wildlife habitat.</p> <p>Prescribed fires, because they are typically done with higher soil moisture and lower fire intensity, have shorter-term affects on vegetation and have long-term benefits on wildlife habitat.</p>				
<p>Impacts to Wild Horses and Burros Wildland fires would result in short-term forage losses and temporary displacement of wild horses and burros. However, these impacts would be localized given the limited amount of acreage that is disturbed by these activities annually.</p> <p>The short-term impact of suppressing most wildland fires is the preservation of existing forage resources. However, unless such an action is balanced with an increased vegetation treatment schedule (prescribed fire, mechanical, chemical, biological treatments, etc.), the vegetation in the HMAs will</p>	<p>Impacts to Wild Horses and Burros Impacts from allowing wildland fire use would be a potential for more acres burned annually. In the short-term this would result in decreases in available forage, but long-term impacts from wildland fire use would result in more diverse vegetation. In the long term, wildland fire use would increase forage production. Since wildland fire use is anticipated to occur on approximately 500 acres annually, the potential for this impact to occur is low.</p>	<p>Impacts to Wild Horses and Burros Same as Alternative A.</p>	<p>Impacts to Wild Horses and Burros Same as Alternative A.</p>	<p>Impacts to Wild Horses and Burros Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
advance in seral stage and age class, reduce in diversity, and increase in cover, crowding out understory forage species. Because this alternative suppresses most wildland fires with minimal vegetation treatments anticipated, a long-term reduction in available forage would be possible.				
Impacts to Fire and Fuels Management Allowing naturally occurring fires to burn if they do not threaten property would reduce fuel loading, resulting in fires that burn with less intensity and that are easier to control in the long term. Average annual wildfire numbers and acreage would continue to fluctuate as in the past, but the average annual acres burned would remain consistent.	Impacts to Fire and Fuels Management Considering the suppression costs in light of benefits and values being protected would provide for assessments determining risk to life, property, and resources. Because each wildland fire would receive an AMR based on the program’s goals and objectives contained in the RMP, suppression and fuels costs would be reduced in areas where wildland fire would help meet those goals and objectives.	Impacts to Fire and Fuels Management Same as Alternative A.	Impacts to Fire and Fuels Management Same as Alternative A.	Impacts to Fire and Fuels Management Same as Alternative A.
RESOURCE USES				
Impacts to Forest and Woodlands Suppressing wildfires in areas with high resource values would cause significant decreases in forest and woodland health in large portions of the northeastern part of the PFO. Forested areas in the northeastern	Impacts to Forest and Woodlands Impacts to forests and woodlands would be similar to those of the No Action Alternative, but they would expand long-term increases in forest health and sustainability. Fuels management actions in areas with fuel loading could	Impacts to Forest and Woodlands Same as Alternative A.	Impacts to Forest and Woodlands Same as Alternative A.	Impacts to Forest and Woodlands Same as Alternative A.

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>portion of the PFO contain high-value resources for communication facilities (Bruin Point), oil and gas fields, forage, wildlife habitat, and watershed, in addition to being located in areas with high erosion potential soils. Fire suppression in this area would protect constructed facilities such as oil and gas fields and communication sites. However, suppression in the northeastern portion of the PFO would result in indirect, long-term decreases in forest health and productivity caused by increased forest stand density and decadence because of the suppression of natural fire regimes.</p>	<p>also result in decreased forest density and decadence, in addition to reduced fire hazard. Increased priority for fuels management actions in these areas could lead to catastrophic wildfires.</p>			
<p>Impacts to Livestock Full suppression of wildland fires in WUI areas, communications facilities sites, and oil and gas fields would continue to convert these areas from mid-seral grass and forb-dominated communities to late-seral communities dominated by woody vegetation. Full suppression of wildland fires in recreation areas, areas with high-forage values, crucial wildlife habitats, and high-value watersheds would increase the percent cover of woody vegetation and subsequently decrease the</p>	<p>Impacts to Livestock Emergency Stabilization and Rehabilitation efforts to protect and sustain ecosystems would reduce soil erosion and increase the integrity of vegetative resources. Long term, this results in increasing the amount of forage available for livestock use. Rehabilitation and restoration of burned areas to protect and sustain ecosystems would decrease the recover time of burned areas, which would increase available forage for livestock.</p>	<p>Impacts to Livestock Same as Alternative A.</p>	<p>Impacts to Livestock Same as Alternative A.</p>	<p>Impacts to Livestock Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>percent cover of grasses and forbs. Continued modified fire suppression throughout the remainder of the PFO would have short-term impacts by decreasing the amount of forage available. However, forage quantity and quality would improve long-term due to restoration, and increased dominance of forbs and grasses in the post-fire early seral stages.</p> <p>Limiting the use of motorized fire suppression in areas closed to OHV use may lengthen the amount of time required to suppress fires. Longer suppression times under certain conditions would increase the number of acres burned, decreasing the amount of forage available and may reduce livestock grazing in the short term. Long term this potentially would improve forage quantity and quality by increasing the areas dominated by grasses and forbs.</p>	<p>Prescribed fires would be used to produce commodity benefits such as livestock grazing or wildlife habitat. Prescribed fires would reduce available forage, but generally rangeland recovery time would be shorter due to the cooler, and reduced intensity of the fire. Long-term prescribed fires would increase livestock forage quantity and quality.</p>			
<p>Impacts to Recreation Use of fire suppression for high-value recreation resources would maintain recreation opportunities and protect recreation infrastructure over the long term. Short-term closures of recreation facilities and areas could occur in fire</p>	<p>Impacts to Recreation Management of wildfire using Appropriate Management Response and avoiding wildland fire use in areas with recreation facilities would maintain and protect recreation facilities and opportunities. Implementing fire prevention</p>	<p>Impacts to Recreation Same as Alternative A.</p>	<p>Impacts to Recreation Same as Alternative A.</p>	<p>Impacts to Recreation Same as Alternative A.</p>

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
areas.	activities, such as signing and education efforts, would reduce wildfire risk and enhance recreation opportunities by increasing awareness of wildfire danger. Short-term closures of recreation facilities and areas could occur in fire areas.			
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers Program guidance directs suppression of fire to protect high-risk resource values. These would include outstandingly remarkable values along 641 miles of eligible rivers.	Impacts to Wild and Scenic Rivers Program guidance directs suppression of fire to protect high-risk resource values. These would include outstandingly remarkable values along 125 miles of suitable rivers. Outstandingly remarkable values along 516 miles of eligible rivers not suitable in this alternative would not receive this level of fire	Impacts to Wild and Scenic Rivers Program guidance directs suppression of fire to protect high-risk resource values. These would include outstandingly remarkable values along 277 miles of suitable rivers.	Impacts to Wild and Scenic Rivers Program guidance directs suppression of fire to protect high-risk resource values. These would include outstandingly remarkable values along 641 miles of suitable rivers.	Impacts to Wild and Scenic Rivers Program guidance directs suppression of fire to protect high-risk resource values. These include outstandingly remarkable values along 223 miles of suitable rivers.

FIRE AND FUELS MANAGEMENT				
Other Decisions and Impacts Analysis– By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	suppression priority.			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FOREST AND WOODLANDS

Assumptions

The analysis is based on the following assumptions:

- A Forest and Woodlands Management Plan (FWMP), including a PFO-wide inventory, would occur during the planning horizon.
- A majority of forested areas are located in the Northeastern portion of the PFO above 7,500 feet in elevation. Total forested area in the PFO is roughly 70,000 acres. Forest species are primarily ponderosa pine, mixed conifer (spruce and Douglas-fir), and aspen.
- Woodland areas are located throughout the PFO in stands of several hundred to several thousand acres. The total woodland area in the PFO is roughly 650,000 acres, with pinyon/juniper woodland as the primary component.
- Commercial harvest of timber products would occur in a case-by-case basis in the PFO until development of the FWMP is completed.
- Demand for commercial woodland products would remain at current levels as described in Chapter 3.
- Demand for non-commercial woodland products would remain at current levels as described in Chapter 3.

Significance Criteria

Impacts to Forest and Woodlands would be considered significant if any of the following were to occur:

- Management leads to the occurrence or probability of forest and woodland disturbances or improvements in health and productivity (e.g., planned treatment, wildland fire, or insect infestation) in excess of 500 acres per occurrence
- Management leads to excess demand for the harvest of forest or woodland products.

Methods of Analysis

An analysis of impacts to forest and woodlands was conducted by researching RMP decisions for all actions for any resource or resource use that would occur in forest and woodland areas and could change forest and woodland health, function, or sustainability. Actions were also analyzed for impacts to commercial and non-commercial harvest of forest and woodland products. Data used for analysis was drawn from best available data, including GAP vegetation data, professional judgment, and knowledge of the area.

FOREST AND WOODLANDS

Common to All Alternatives

Decision Background

The following decisions are policy and/or regulation for the management of forest and woodlands. These decisions are included to clarify standard operating procedures.

Decisions

Wildland Urban Interface (WUI) Fire and Fuels Management

- Work with partners in the WUI in wildland firefighting, hazardous fuels reduction, fire prevention and education, and technical assistance

Hazardous Fuels Reduction

- Use fuel management strategies (e.g., prescribed fire, mechanical, chemical, biological, cultural treatments, and wildland fire) as tools to help meet desired future conditions

Impact Analysis

RESOURCES

FOREST AND WOODLANDS				
Common to All Alternatives				
<p>Impacts to Air Quality Prescribed burns associated with improving forest health would result in pollutant emissions and create short-term impacts to Air Quality.</p>	<p>Impacts to Air Quality Impacts same as No Action Alternative, plus the use of prescribed burning to manage forest and woodlands would have a short-term impact on air quality by increasing the amount of PM10 emissions present. These impacts would be limited geographically and spatially.</p>	<p>Impacts to Air Quality Impacts same as No Action Alternative, plus use of prescribed burns to maintain forest health and protection of life and property would result in pollutant emissions and have limited, short-term impacts to air quality from the PM10 emissions associated with prescribed burns.</p>	<p>Impacts to Air Quality Impacts same as the No Action Alternative</p>	<p>Impacts to Air Quality Impacts same as No Action Alternative, plus the use of prescribed burns, on a case-by-case basis, to treat pinyon-juniper encroachments and for the management of aspen and sagebrush would result in pollutant emissions and have limited, short-term impacts on air quality.</p>
<p>Impacts to Soil, Water and Riparian Commercial harvest of forest and woodland products would have an impact on soil, water, and riparian resources in relation to the building of roads and skid trails needed to support the harvest activities. These activities would break down soil stability, leading to increased erosion.</p> <p>Managing forest and woodlands to restore and improve the health of the forests and woodlands would have long-term benefits in reducing the potential for wildland fires by reducing fuel loading of the understory. Better diversity of understory would increase stability of soils, thus reducing erosion and improving water percolation into the ground and reducing runoff. This would result in better water quality and reduced siltation and sediment loading of streams and riparian/wetland</p>	<p>Impacts to Soil, Water and Riparian Same as No Action Alternative.</p>	<p>Impacts to Soil, Water and Riparian Same as No Action Alternative.</p>	<p>Impacts to Soil, Water and Riparian Same as No Action Alternative.</p>	<p>Impacts to Soil, Water and Riparian Same as No Action Alternative.</p>

FOREST AND WOODLANDS				
Common to All Alternatives				
resources. General improvements to vegetation health and diversity of forests and woodlands would improve soil stability, reduce excessive runoff, and increase infiltration of water into the root system of plants, increasing their ability to hold soils better.				
<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until a FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity, altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p> <p>Managing forest condition by monitoring, fire management,</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity, altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity, altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity, altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity, altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p>

FOREST AND WOODLANDS				
Common to All Alternatives				
and harvest for domestic use as well as cooperative agreements with other forest resource management agencies would continue incrementally increasing the amount of vegetation in late-seral stages and increase the percent cover of woody species. Long term, this action would reduce species diversity, age class, and structure of vegetation resources.				
Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources No significant impacts.	Impacts to Cultural Resources Although wildland fire and fire suppression actions can damage cultural resources in specific ways, as addressed in No Action Alternative, the use of wildland fires in a well-planned manner is preferable to the long-term impacts of continual fire suppression. Allowing wildland fire use throughout the area would enable the strategic management of wildland fire for resource benefit. This would allow for high value cultural resources to be protected, while planning for restoration of areas susceptible to uncharacteristic wildland fires. Wildland fire use is anticipated to affect roughly 500 acres annually throughout the PFO. Note that although the use of wildland fire for resource benefit reduces the impacts to cultural resources,

FOREST AND WOODLANDS				
Common to All Alternatives				
				the potential for resources to be damaged by fire and fire suppression activities would remain.
Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.	Impacts to Paleontology Resources No significant impacts.
Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.	Impacts to Visual Resources No significant impacts.
Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.	Impacts to Special Status Species No significant impacts.
Impacts to Fish and Wildlife Multi-seral stages of aspen and associated understory would result from forest and woodland management activities and provide better habitat for the wildlife. Many predaceous birds and wildlife species are adapted to pure aspen forest and their adjacent open brush, meadows, and grasslands that provide a vast array of prey species. This is especially true for ferruginous hawks and goshawks. Maintenance of aspen communities would be beneficial to these species. Indirect habitat loss resulting from disruptive activities could include maintenance of roads used for woodland harvest and increased traffic. An example of indirect habitat loss in areas adjacent to the access roads and woodland harvest area could include elk and deer	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Same as No Action Alternative.

FOREST AND WOODLANDS				
Common to All Alternatives				
<p>because of the associated increase in human activity. Removal of forest vegetation near riparian areas could alter aquatic habitats by changing the time to peak discharge following precipitation events and increasing sediment transport from upland sources to the stream channel.</p> <p>Generally, forest and woodland management would result in an increased level of human-caused disturbances (e.g., roads and vehicles). Depending on the wildlife species and the extent of the fragmentation, animals could be temporarily redistributed into marginal habitats or into areas already occupied by other members of the same species. Because habitats support only a limited number of wildlife populations, the result could be a reduction in population numbers. However, forest and woodland management would result in multi-seral stage vegetation and woodlands, which would result in a more diverse habitat and forage base for wildlife. In addition, once vegetation and woodlands were reestablished, erosion and runoff would return to a slower rate.</p>				
<p>Impacts to Wild Horses and Burros Impacts to wild horses and burros from woodland products</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>

FOREST AND WOODLANDS				
Common to All Alternatives				
harvest would be localized and short term in nature. These impacts would not exceed the significance criteria.				
<p>Impacts to Fire and Fuels Management Managing forest condition to restore forests and woodlands would not only reduce the amount of dead and downed forest fuels attributed to insect, disease, and overgrowth, but also move these vegetation types to condition class 1. This action would reduce the frequency intensity of wildland fire in forests and woodlands.</p>	<p>Impacts to Fire and Fuels Management Using fire management to manipulate forest ecology would result in the strategic application of wildland fire use and fuels treatments to maintain forest health, moving it toward condition class 1 while protecting life and property.</p> <p>Restoring lost or diminishing aspen communities would result in slow moving, low-intensity wildland fires with a low potential for crown fires. It would also allow for reduced direct suppression to all wildland fires in aspen communities.</p>	<p>Impacts to Fire and Fuels Management Using fire as the primary management tool to maintain forest health would result in decreased fire suppression and vegetation manipulation activities. Wildland fires in forest vegetation types would be intense and larger in the short term, but in the long term this wildland fire pattern would adjust to a more natural fire cycle, reducing these impacts. This reduction would occur as impacts from invasive vegetation are minimized in areas affected by wildland fire.</p> <p>Impacts from aspen management would be the same as those identified in Alternative A.</p>	<p>Impacts to Fire and Fuels Management No significant impacts.</p>	<p>Impacts to Fire and Fuels Management Using fire management to manipulate forest ecology would result in the strategic application of wildland fire use and fuels treatments to maintain forest health, moving it toward condition class 1 while protecting life and property.</p> <p>Restoring lost or diminishing aspen communities would move these areas toward condition class 1 and would result in slower moving, lower-intensity wildland fires with a low potential for crown fires. It would also allow for reduced direct suppression to all wildland fires in aspen communities.</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands Continuing to manage forest condition through existing monitoring, fire management, domestic use, and vegetation treatments would further decrease forest health and productivity by increasing forest density and decadence.</p>	<p>Impacts to Forest and Woodlands Using fire to manipulate forest ecology, maintain forest health, and protect life and property could result in moderate, long-term increases in forest health and sustainability by reducing forest density and decadence. Fires that change forest ecology to favor timber production could result in decreases in forest health by</p>	<p>Impacts to Forest and Woodlands Managing forests and woodlands to favor beneficial uses of timber products would result in substantial increases in the long-term production of forest and woodland products. Short-term increases in forest health and productivity would result from a reduction in forest density and decadence in the northeastern portion of the</p>	<p>Impacts to Forest and Woodlands Using fire only to protect life and property could result in significant short- and long-term decreases in forest health and sustainability by increasing forest density and decadence in the northeastern portion of the PFO. Increased forest density would increase the risk of large-scale catastrophic</p>	<p>Impacts to Forest and Woodlands Using fire to manipulate forest ecology, maintain forest health, and protect life and property could result in long-term increases in health and sustainability by reducing forest density and decadence. Fires designed to favor the production of timber could result in decreased forest health by reducing age class</p>

FOREST AND WOODLANDS				
Common to All Alternatives				
	<p>reducing age class diversity of forests in the northeastern portion of the PFO.</p> <p>Allowing a full range of prescriptive treatments designed to restore aspen communities would significantly increase forest health and sustainability by maintaining and increasing early successional aspen communities in existing and new ranges.</p>	<p>PFO. Long-term decreases in forest health and sustainability could result from favoring beneficial uses.</p> <p>Using fire to maintain forest health, and protect life and property could result in substantial, long-term increases in forest health and sustainability by reducing forest density and decadence.</p>	<p>wildfire.</p>	<p>diversity of forests in the northeastern portion of the PFO.</p> <p>Allowing a full range of prescriptive treatments designed to restore aspen communities would significantly increase forest health and sustainability by maintaining and increasing early successional aspen communities in existing and new ranges.</p>
<p>Impacts to Livestock Following timber harvest, by opening the canopy and increasing sunlight reaching the herbaceous vegetation, understory production would increase, which effectively would increase forage available for livestock. Under this alternative, additional forage would be available for livestock grazing, which would often improve distribution of use across an allotment. The use of commercial areas for timber harvest is not anticipated to impact livestock grazing.</p> <p>Development of an FWMP to restore ecosystems might increase the amount of forage available by increasing areas dominated by aspen, sagebrush, or grasses and forbs.</p> <p>Timber harvesting activities, such as skidding and road</p>	<p>Impacts to Livestock Same as No Action Alternative.</p>	<p>Impacts to Livestock Same as No Action Alternative.</p>	<p>Impacts to Livestock Same as No Action Alternative.</p>	<p>Impacts to Livestock Same as No Action Alternative.</p>

FOREST AND WOODLANDS				
Common to All Alternatives				
building, would temporarily displace livestock and remove forage. Noise associated with these activities stress livestock, causing them to move away from these harvest areas. Most roads and skid trails are reclaimed, reestablishing forage. However, a few roads would remain following logging activities, which would cause a minimal permanent loss of forage, along with better access for livestock within an allotment.				
<p>Impacts to Recreation Development of an FWMP would maintain or increase recreational opportunities by avoiding conflict between forest harvest or restoration and recreation uses.</p> <p>Commercial harvest of woodland products would decrease available recreational opportunities in prescribed harvest areas.</p> <p>Efforts to restore woodland ecosystem health would result in long-term benefits to recreation by improving recreational setting in woodland areas.</p>	<p>Impacts to Recreation Same as No Action Alternative.</p>			
<p>Impacts to Lands and Realty No significant impacts.</p>	<p>Impacts to Lands and Realty No significant impacts.</p>	<p>Impacts to Lands and Realty No significant impacts.</p>	<p>Impacts to Lands and Realty No significant impacts.</p>	<p>Impacts to Lands and Realty No significant impacts.</p>
<p>Impacts to Minerals and Energy No significant impacts.</p>	<p>Impacts to Minerals and Energy No significant impacts.</p>	<p>Impacts to Minerals and Energy No significant impacts.</p>	<p>Impacts to Minerals and Energy No significant impacts.</p>	<p>Impacts to Minerals and Energy No significant impacts.</p>

FOREST AND WOODLANDS				
Common to All Alternatives				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.				
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The Healthy Forest Restoration Act of 2003 directed the BLM to initiate a forest and woodland management plan. This plan would address forest condition, resource allocation, ecosystem function, and harvest and fire suppression history. Data collection for the plan would include forest and woodland inventories at a site-specific level. During scoping, there was public concern regarding the potential for commercial saw timber harvest. Past site specific inventories are outdated; however, sustainable commercial harvest of saw timber has not been shown to be available.				
Decisions				
Forest condition would be managed through the use of ongoing forest condition monitoring, fire management, harvest for domestic use, and mechanical, chemical, or	Under all Action Alternatives a PFO FWMP would be developed. <ul style="list-style-type: none"> The direction and intent of the FWMP would be to manage forest and woodlands to maintain or restore ecosystems to a condition in which biodiversity and ecological succession are preserved; desired or natural plant communities are targeted; and occurrences of fire, insects, and disease do not exceed levels normally expected in a healthy forest or woodland. Forest and woodlands would be managed for the long term, including maintenance of healthy habitat for plant and animal species. Forest and woodlands management would provide for the harvest of forest and woodland products (including timber) where 			

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
biological means, as well as cooperative agreements with other forest resource management agencies.	feasible and compatible with restoring, maintaining, or improving ecosystem health as directed by the PFO RMP. <ul style="list-style-type: none"> • The FWMP will be written concurrently and updated as inventory and stand data is collected. • As appropriate, the FWMP would include specific guidance for not only the management of non-commercial and commercial woodlands products but also the commercial harvest of timber products. • The FWMP would include specific direction for the management of forest and woodlands under drought or other temporal or seasonal conditions. • FWMP would include silvicultural practices, including site preparation, regeneration, stand protection, stand maintenance, pre-commercial thinning (density management) and release, commercial thinning (density management), fertilization, pruning, forest and woodland condition restoration treatments, and salvage. • FWMP would include treatments necessary for plan implementation, which would be detailed to the extent possible in the plan, as well as project and site-specific treatments, which would be covered in the environmental assessments for each project. 			
Impact Analysis				
RESOURCES				
Impacts to Air Quality The use of prescribed fires to manage forest and woodlands would cause a short-term, insignificant impact to air quality. This would be in the form of increased pollutant emissions such as PM10 emissions associated with local burning to increase forest health and the burning of slash piles.	Impacts to Air Quality Intensive management of forest and woodlands to maximize timber products would cause increased pollutant emissions such as fugitive dust associated with the number of roads that would need to be developed. Increasing the number of pinyon-juniper treatments to aggressively implement the management of specific forest communities would lead to increased emissions from vehicles associated with the management strategies and also lead to increased PM10 emissions from burning these trees.	Impacts to Air Quality Continued commercial harvest only in designated areas would reduce the number of new roads that would be needed to support these activities. This would result in no significant increase in fugitive dust in these areas.	Impacts to Air Quality Allowing natural processes to take place will result in an excessive buildup of fuels within the PFO. In the event of a wildland fire occurring, this fuels buildup would contribute extensively to pollutant emissions such as PM10 and other emissions.	Impacts to Air Quality No significant impacts.
Impacts to Soil, Water and Riparian Aspen communities are	Impacts to Soil, Water and Riparian Intensive manipulation of	Impacts to Soil, Water and Riparian Beneficial uses of forests	Impacts to Soil, Water and Riparian Natural processes for	Impacts to Soil, Water and Riparian Beneficial uses of forests

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>normally associated with areas of fragile soils, water sources, and complex riparian/wetland areas. Management of aspen communities to promote more distribution of seral stages of these communities would provide long-term benefits to the soils, water, and riparian/wetland complexes associated with aspen. More stabilized soils would reduce runoff and erosion and would allow better percolation and filtration of water.</p> <p>Management of pinyon-juniper communities would provide long-term benefits to soil, water, and riparian resources where these plant communities have invaded these sensitive resources. The invasion of pinyon-juniper into stable soil areas has caused displacement of more desirable vegetation communities and has resulted in increased erosion of soils.</p>	<p>forests to increase timber product production would have direct impacts to local soils, water, and riparian resources. Increased soil disturbances associated with the additional roads needed to accomplish intensive manipulation of forests to increase timber production would have a significant short-term impact on local soils. This would lead to increased erosion, which would result in more siltation and sediment loading of local streams impacting water quality and riparian areas.</p> <p>Using fire as a management tool to manipulate forest ecology and maintain forest health would have short-term impacts to soils, water, and riparian resources. Long-term benefits would be possible if appropriate protection of these areas was provided during the initial fire management (i.e., prescribed burn).</p>	<p>during restoration, maintenance, and improvement of forest condition would have direct benefits to local soils, water, and riparian resources. Decreased soil disturbances would occur as roads and timber harvest areas were reclaimed. This would lead to decreased erosion, which would result in less siltation and sediment loading of local streams and riparian areas.</p> <p>Reclamation and reseeding of timber harvest areas as soon as possible after the area had been harvested would reduce erosion and prevent siltation of streams. Care would be taken to ensure that for the short term, quick-growing grasses are sown to stabilize soils, while forbs and shrub seeds and seedlings would be used to decrease long-term impacts and improve stability of soils in these areas.</p> <p>Using fire as a management tool to manipulate forest ecology and maintain forest health would have short-term impacts to soils, water, and riparian resources. There would be some disturbance to soils that would cause some erosion to take place. However, this would have less of an impact compared with the</p>	<p>management of forest and woodlands would have long-term benefits to soil, water, and riparian/wetland areas. However, there are cases (wildland fire rehabilitation, removal of diseased or insect infested trees) when human intervention would provide immediate short-term benefits that would be needed to protect soil, water, and riparian resources from immediate impacts.</p> <p>Minimizing artificial manipulation of forests would decrease soil disturbances associated with road construction and timber harvest. This would lead to decreased erosion, which would result in less siltation and sediment loading of local streams and riparian areas. Reclamation activities would then have less of an impact on soils, water quality, and riparian/wetland ecosystems because fewer disturbances would occur.</p> <p>Fire management to protect only life and property would result in long-term impacts to soil, water, and riparian resources where fires were left to burn. Not controlling wildland fires would cause excessive damage to these resources. Soils and soil</p>	<p>during restoration, maintenance, and improvement of forest condition would have direct benefits to local soils, water and riparian resources. Decreased soil disturbances would occur as roads and timber harvest areas are reclaimed. This would lead to decreased erosion, which would result in less siltation and sediment loading of local streams and riparian areas.</p> <p>Using fire as a management tool to manipulate forest ecology and maintain forest health would have short-term impacts to soils, water, and riparian resources. Long-term benefits would be possible if appropriate protection of these areas was provided during the initial prescribed fire.</p> <p>Aspen communities are normally associated with areas of fragile soils, water sources, and complex riparian/wetland areas. Management of aspen communities would provide long-term protection to the soils, water and riparian/wetland complexes associated with these resources.</p> <p>The treatment of pinyon-juniper to return their dispersion to their historic range would</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		<p>possible impacts of wildland fires.</p> <p>Long-term benefits would include increased diversity of vegetation species that would retain soil stability better and would improve percolation of water into the soil with less runoff. This would result in less siltation and sediment loading to local streams and riparian/wetland resources.</p> <p>Aspen communities are normally associated with areas of fragile soils, water sources, and complex riparian/wetland areas. Management of aspen communities would provide stability to soils that would result in less erosion from excessive runoff. This would then decrease the amount of siltation and sediment that would have washed into streams.</p> <p>The treatment of pinyon-juniper to return their dispersion to their historic range would provide significant benefits to these resources. Pinyon-juniper invasion is noted for causing loss of grasses and understory as a result of the toxicity of its needles to other vegetation when the needles fall on the ground. This results in increased loss of the ability of the soil to retain moisture</p>	<p>organisms would be sterilized from excessive heat, reducing the ability of natural vegetation to return to the burned areas. In the short term, there would be extensive runoff of ash, loosened soils, and other matter that would lead to increased siltation and sediment loading of streams. In the long term, the increase of carbon in the water would result in a healthier stream and riparian/wetland ecosystem.</p> <p>Aspen communities are normally associated with areas of fragile soils, water sources, and complex riparian/wetland areas. Management of aspen communities through natural processes would provide long-term benefits to the soils, water, and riparian/wetland complexes associated with these resources. However, this would lead to decadent old-growth aspen forests and reduced diversity of the understory.</p> <p>Pinyon-juniper is noted for causing loss of grasses and understory due to the toxicity of its needles to other vegetation when its needles fall on the ground. Loss of these grasses and understory shrubs would lead to excessive runoff impacting soils and leading to increased siltation and</p>	<p>provide significant benefits to these resources. Pinyon-juniper is noted for causing loss of grasses and understory because of the toxicity of its needles to other vegetation when the needles fall on the ground.</p> <p>Commercial and non-commercial harvest of timber and woodland products would have short-term impacts to local soils, water, and riparian resources if measures were not taken to protect these resources. Roads, timber skids, and harvest areas must be rehabilitated as soon as possible to prevent long-term impacts.</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
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		<p>and results in increased runoff. This causes increased erosion of the soil that results in increased siltation and sedimentation of streams impacting water quality and riparian/wetland resources.</p> <p>Commercial and non-commercial harvest of timber and woodland products would have short-term impacts to local soils, water, and riparian resources if measures were not taken to protect these resources. Roads, timber skids, and harvest areas would be rehabilitated as soon as possible to prevent long-term impacts from loss of stable soils.</p>	<p>sediment loading of streams impacting water quality. Not treating pinyon-juniper woodland encroachments would lead to continued invasion of these species into crucial habitat areas and degrade soil, water, and riparian resources. This would cause long-term impacts to soils, water, and riparian resources.</p> <p>Commercial and non-commercial harvest of timber and woodland products would have short-term impacts to local soils, water, and riparian resources measures were not taken to protect these resources. Roads, timber skids, and harvest areas must be rehabilitated as soon as possible to prevent long-term impacts.</p>	
<p>Impacts to Vegetation Resources Non-commercial harvest of forest products (Map 2-10 Forests and Woodlands) reduces the amount of woody vegetation in readily accessible areas. Although special and seasonal restrictions are in place for acres excluded from fuel wood harvest, vegetation resources can be damaged by repeated surface disturbance; vehicle treads remove vegetation to less than desired</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity,</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity,</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until a FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity,</p>	<p>Impacts to Vegetation Resources Permitting commercial harvest of woodland products on a case-by-case basis until an FWMP was adopted would increase forbs and grasses in the short term in those areas.</p> <p>Managing forest and woodlands to sustain forest health objectives would improve vegetation resources. These practices would result in increased vegetation diversity,</p>

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<p>coverage conditions, indirectly increasing soil erosion.</p> <p>Some soil erosion from timber harvest and road construction would occur. No net change in vegetation community composition is anticipated following timber harvest rehabilitation.</p>	<p>altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p> <p>Managing forest resources for timber products while restoring, maintaining, and improving the desired forest condition would return more of these areas to mid-seral stages from late-seral stage. However, because this is occurring with an FWMP, there potentially would be ancillary improvements increasing the vigor, plant diversity and structure of vegetation resources. The long-term impact to vegetation resources would be vegetation more resistant to wildland fire, insect pest infestations, or disease.</p>	<p>altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p> <p>Managing forest resources for timber products while restoring, maintaining, and improving the desired forest condition would return more of these areas to mid-seral stages from late-seral stage. However, because this is occurring with an FWMP, there potentially would be ancillary improvements increasing the vigor, plant diversity and structure of vegetation resources. The long-term impact to vegetation resources would be vegetation more resistant to wildland fire, insect pest infestations, or disease.</p> <p>Some soil erosion from timber harvest and road construction would occur. No net changes in vegetation community species composition are anticipated following timber harvest rehabilitation; however,</p>	<p>altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p> <p>Managing forest resources for timber products while restoring, maintaining, and improving the desired forest condition would return more of these areas to mid-seral stages from late-seral stage. However, because this is occurring with an FWMP, there potentially would be ancillary improvements increasing the vigor, plant diversity and structure of vegetation resources. The long-term impact to vegetation resources would be vegetation more resistant to wildland fire, insect pest infestations, or disease.</p> <p>Some soil erosion from timber harvest and road construction would occur. No net changes in vegetation community species composition are anticipated following timber harvest rehabilitation; however,</p>	<p>altered successional status, increased plant vigor, increased available water for herbaceous vegetation, and improved watershed health.</p> <p>Developing an FWMP would improve vegetation resources by improving ecosystem health, leading to more robust vegetation communities that would be resistant to infestations by insect pests and wildland fire.</p> <p>Managing forest resources for timber products while restoring, maintaining, and improving the desired forest condition would return more of these areas to mid-seral stages from late-seral stage. However, because this is occurring with an FWMP, there potentially would be ancillary improvements increasing the vigor, plant diversity and structure of vegetation resources. The long-term impact to vegetation resources would be vegetation more resistant to wildland fire, insect pest infestations, or disease.</p> <p>Some soil erosion from timber harvest and road construction would occur. No net changes in vegetation community species composition are anticipated following timber harvest rehabilitation; however,</p>

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		the percentage of cover by species might change.	the percentage of cover by species might change.	the percentage of cover by species might change.
<p>Impacts to Cultural Resources Restoration of degraded woodland ecosystems would result in greater ground cover and decreased erosion. Cultural resources would be impacted from vegetation cover and erosion-related impacts, as identified above (see impacts from Vegetation and Soil, Water, and Riparian). Woodlands in the PFO comprise more than 25 percent of total vegetation. Because of the extent of woodlands, impacts could be significant in the short term as a result of impacts from erosion, but in the long term, proper functioning woodland ecosystems would decrease erosion and increase vegetation cover. Although the duration of the increased soil erosion would be short-term, impacts to cultural resources resulting from the erosion would be long-term and potentially significant.</p> <p>Potential impacts from commercial and non-commercial forest and woodland harvest operations would be identified through the permitting process and mitigated before</p>	<p>Impacts to Cultural Resources Restoration of degraded woodland ecosystems would result in greater ground cover and decreased erosion. Cultural resources would be impacted from vegetation cover and erosion-related impacts, as identified above (see impacts from Vegetation and Soil, Water, and Riparian). Woodlands in the PFO comprise more than 25 percent of total vegetation. Because of the extent of woodlands, impacts could be significant in the short term as a result of impacts from erosion; however, in the long term, proper functioning woodland ecosystems would decrease erosion and increase vegetation cover. Although the duration of the increased soil erosion would be short term, impacts to cultural resources resulting from the erosion would be long term and potentially significant.</p> <p>Aggressive and intense manipulation of forest and woodland resources would increase related surface disturbance, as would allowing commercial timber harvest. An increase in cultural inventories</p>	<p>Impacts to Cultural Resources Restoration of degraded woodland ecosystems would result in greater ground cover and decreased erosion. Cultural resources would be impacted from vegetation cover and erosion-related impacts, as identified above (see impacts from Vegetation and Soil, Water, and Riparian). Woodlands in the PFO comprise more than 25 percent of total vegetation. Because of the extent of woodlands, impacts could be significant in the short term as a result of impacts from erosion, but in the long term, proper functioning woodland ecosystems would decrease erosion and increase vegetation cover. Although the duration of the increased soil erosion would be short term, impacts to cultural resources resulting from the erosion would be long term and potentially significant.</p> <p>Impacts would be similar to those identified in Alternative A. Clearances and/or inventories required for some forest products permits would increase the number of known cultural resource sites</p>	<p>Impacts to Cultural Resources Restoration of degraded woodland ecosystems would result in greater ground cover and decreased erosion. Cultural resources would be impacted from vegetation cover and erosion-related impacts, as identified above (see impacts from Vegetation and Soil, Water, and Riparian). Woodlands in the PFO comprise more than 25 percent of total vegetation. Because of the extent of woodlands, impacts could be significant in the short term as a result of impacts from erosion, but in the long term, proper functioning woodland ecosystems would decrease erosion and increase vegetation cover. While the duration of the increased soil erosion would be short term, impacts to cultural resources resulting from the erosion would be long term and potentially significant.</p> <p>The short-term impacts related to vegetation manipulation actions (e.g., vegetation loss and soil erosion) would not impact cultural resources since these treatments would not occur in this alternative.</p>	<p>Impacts to Cultural Resources Restoration of degraded woodland ecosystems would result in greater ground cover and decreased erosion. Cultural resources would be impacted from vegetation cover and erosion-related impacts, as identified above (see impacts from Vegetation and Soil, Water, and Riparian). Woodlands in the PFO comprise more than 25 percent of total vegetation. Because of the extent of woodlands, impacts could be significant in the short term as a result of impacts from erosion, but in the long term, proper functioning woodland ecosystems would decrease erosion and increase vegetation cover. Although the duration of the increased soil erosion would be short term, impacts to cultural resources resulting from the erosion would be long term and potentially significant.</p> <p>Impacts would be similar to those identified in Alternative A. The use of forest products would increase the number of known cultural resource sites identified in relation to permitted projects, as would</p>

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<p>implementation. In areas proposed for harvest, an increased potential would exist for identifying cultural resource sites. Mitigation for impacts would usually be avoidance. Impacts from non-commercial harvest activities not required to obtain permits would be similar to impacts from dispersed recreation.</p> <p>Maintaining aspen communities will maintain reduced soil erosion rates in these areas. Impacts from maintaining pinyon-juniper treatments were identified in the Impacts to Cultural from Vegetation section above.</p>	<p>and clearances and their potential to identify new sites in treatment areas would be coupled with these activities. In addition to the increased potential to identify new sites is the increased possibility of incidentally damaging unidentified sites. Increased forest treatments would also increase short-term soil erosion and surface visibility of previously unidentified cultural sites. Although the duration of these impacts would be short term, impacts to cultural resources would be long term and potentially significant.</p> <p>The long-term impact from aggressive forest treatments would be a reduced threat to uncharacteristically intense forest/woodland fires. These impacts would not be significant as a result of pre-activity inventory/ clearances and mitigation measures.</p>	<p>identified in relation to the actions, as would woodland treatment projects.</p> <p>Maintaining forest health will generally benefit cultural resources by stabilizing the soil matrix in which the cultural resources are found. Impacts from harvest or treatments would be mitigated on a case-by-case basis. There would be no long-term significant impacts to cultural resources.</p>	<p>However, allowing natural processes in the vegetation communities while at the same time protecting high-value resources as directed by fire management decisions would result in a continued buildup of fuels.</p> <p>Impacts from the harvest of forest and woodland products would be addressed during the permitting process. Cultural resource inventories/clearances would identify sites and mitigation measures would be prescribed to preserve cultural resource values.</p>	<p>woodland treatment projects. Woodland treatments would also increase impacts from erosion in the short-term while increasing vegetation understory density and decreasing erosion in the long-term. In relation to impacts from erosion, while the erosion may be short-term, the impacts to cultural resources would be long-term and potentially significant.</p> <p>Maintaining forest health will generally benefit cultural resources by stabilizing the soil matrix in which the cultural resources are found. Impacts from the harvest of or treatments to forests and woodlands would be mitigated on a case-by-case basis. Cultural resource inventories/clearances would identify sites and mitigation measures would be prescribed to preserve cultural resource values.</p>
<p>Impacts to Paleontology Resources Paleontological assessments before surface disturbing activities would increase the potential for identification, recordation, and collection of paleontological resources.</p> <p>Impacts to paleontological resources from commercial</p>	<p>Impacts to Paleontology Resources Impacts same as No Action Alternative, except aggressive woodland treatments in pinyon-juniper woodlands not preceded with a paleontological assessment would increase the potential for significant impacts. However, because of the lack of overlap</p>	<p>Impacts to Paleontology Resources No significant impacts.</p>	<p>Impacts to Paleontology Resources Impacts same as No Action Alternative.</p>	<p>Impacts to Paleontology Resources Impacts same as No Action Alternative.</p>

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and non-commercial woodland operations, if they occurred, would be mitigated through the permitting process. Impacts from non-commercial harvest activities not required to obtain permits would be similar to impacts from dispersed recreation. Because of the lack of overlap between areas with paleontological resource localities and extensive woodland communities, these impacts, if they occur, are not anticipated to be significant.	between areas with paleontological resource localities and extensive woodland communities, these impacts, if they occur, are not anticipated to be significant.			
<p>Impacts to Visual Resources Development of an FWMP would indirectly affect visual resources in forested areas by maintaining or enhancing forest health and visual qualities of these areas.</p> <p>Treatments for specific forest and woodland communities would impact the visual qualities of treated areas. Treatments for aspen and pinyon/juniper communities, such as mechanical, fire, biological, and chemical vegetation manipulation or a change in vegetation type (native perennial vegetation to annual vegetation, native woodland to grassland) would affect the visual characteristics of the landscape. The degree of these impacts would depend on what VRM Class they occur</p>	<p>Impacts to Visual Resources Development of an FWMP would indirectly affect visual resources in forested areas by maintaining or enhancing forest health and visual qualities of these areas.</p> <p>Treatments for specific forest and woodland communities would impact the visual qualities of treated areas. Treatments for aspen and pinyon/juniper communities, such as mechanical, fire, biological, and chemical vegetation manipulation or a change in vegetation type (native perennial vegetation to annual vegetation, native woodland to grassland) would impact the visual characteristics of the landscape. The degree of these impacts would depend</p>	<p>Impacts to Visual Resources Development of an FWMP would indirectly affect visual resources in forested areas by maintaining or enhancing forest health and visual qualities of these areas.</p> <p>Treatments for specific forest and woodland communities would impact the visual qualities of treated areas. Treatments for aspen and pinyon/juniper communities, such as mechanical, fire, biological, and chemical vegetation manipulation or a change in vegetation type (native perennial vegetation to annual vegetation, native woodland to grassland) would impact the visual characteristics of the landscape. The degree of these impacts would depend</p>	<p>Impacts to Visual Resources Development of an FWMP would indirectly affect visual resources in forested areas by maintaining or enhancing forest health and visual qualities of these areas.</p> <p>Treatments for specific forest and woodland communities would impact the visual qualities of treated areas. Treatments for aspen and pinyon/juniper communities, such as mechanical, fire, biological, and chemical vegetation manipulation or a change in vegetation type (native perennial vegetation to annual vegetation, native woodland to grassland) would impact the visual characteristics of the landscape. The degree of these impacts would depend</p>	<p>Impacts to Visual Resources Development of an FWMP would indirectly affect visual resources in forested areas by maintaining or enhancing forest health and visual qualities of these areas.</p> <p>Treatments for specific forest and woodland communities would impact the visual qualities of treated areas. Treatments for aspen and pinyon/juniper communities, such as mechanical, fire, biological, and chemical vegetation manipulation or a change in vegetation type (native perennial vegetation to annual vegetation, native woodland to grassland) would impact the visual characteristics of the landscape. The degree of these impacts would depend</p>

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<p>in; for example, vegetation manipulations, if permitted, in VRM Class I or II would require appropriate mitigation; however, impacts would be minimal in VRM Class III or IV. The proximity of these treatments in relation to high-use recreation areas would increase the impacts based on the sensitivity to the treatments.</p> <p>Harvest of woodland products would impair the visual qualities of harvest areas, particularly in the northeast corner of the field office, within VRM Class I and II areas.</p> <p>Giving priority to the restoration of destroyed or degraded woodland ecosystems would improve visual resources in those areas.</p> <p>Efforts to restore woodland ecosystem health would result in long-term benefits to VRM by improving the visual characteristics of woodland areas.</p>	<p>on what VRM Class they occur in; for example, vegetation manipulations, if permitted, in VRM Class I or II would require appropriate mitigation; however, impacts would be minimal in VRM Class III or IV. The proximity of these treatments in relation to high use recreation areas would increase the impacts based on the sensitivity to the treatments.</p> <p>Harvest of woodland products would impair the visual qualities of harvest areas, particularly in the northeast corner of the field office, within VRM Class I and II areas.</p> <p>Giving priority to the restoration of destroyed or degraded woodland ecosystems would improve visual resources in those areas.</p> <p>Efforts to restore woodland ecosystem health would result in long-term benefits to VRM by improving the visual characteristics of woodland areas.</p>	<p>on what VRM Class they occur in; for example, vegetation manipulations, if permitted, in VRM Class I or II would require appropriate mitigation; however, impacts would be minimal in VRM Class III or IV. The proximity of these treatments in relation to high use recreation areas would increase the impacts based on the sensitivity to the treatments.</p> <p>Harvest of woodland products would impair the visual qualities of harvest areas, particularly in the northeast corner of the Field office, within VRM Class I and II areas.</p> <p>Giving priority to the restoration of destroyed or degraded woodland ecosystems would improve visual resources in those areas.</p> <p>Efforts to restore woodland ecosystem health would result in long-term benefits to VRM by improving the visual characteristics of woodland areas.</p>	<p>on what VRM Class they occur in; for example, vegetation manipulations, if permitted, in VRM Class I or II would require appropriate mitigation; however, impacts would be minimal in VRM Class III or IV. The proximity of these treatments in relation to high use recreation areas would increase the impacts based on the sensitivity to the treatments.</p> <p>Harvest of woodland products would impair the visual qualities of harvest areas, particularly in the northeast corner of the Field office, within VRM Class I and II areas.</p> <p>Giving priority to the restoration of destroyed or degraded woodland ecosystems would improve visual resources in those areas.</p> <p>Efforts to restore woodland ecosystem health would result in long-term benefits to VRM by improving the visual characteristics of woodland areas.</p>	<p>on what VRM Class they occur in; for example, vegetation manipulations, if permitted, in VRM Class I or II would require appropriate mitigation; however, impacts would be minimal in VRM Class III or IV. The proximity of these treatments in relation to high use recreation areas would increase the impacts based on the sensitivity to the treatments.</p> <p>Harvest of woodland products would impair the visual qualities of harvest areas, particularly in the northeast corner of the Field office, within VRM Class I and II areas.</p> <p>Giving priority to the restoration of destroyed or degraded woodland ecosystems would improve visual resources in those areas.</p> <p>Efforts to restore woodland ecosystem health would result in long-term benefits to VRM by improving the visual characteristics of woodland areas.</p>
<p>Impacts to Special Status Species No significant impacts.</p>	<p>Impacts to Special Status Species Developing an FWMP and the commercial harvesting on a case-by-case basis are not anticipated to impact Special Status Species. Requiring permits for the non-commercial</p>	<p>Impacts to Special Status Species Developing an FWMP and the commercial harvesting on a case-by-case basis are not anticipated to impact Special Status Species. Requiring permits for the non-commercial</p>	<p>Impacts to Special Status Species Developing an FWMP and the commercial harvesting on a case-by-case basis are not anticipated to impact Special Status Species. Requiring permits for the non-commercial</p>	<p>Impacts to Special Status Species Developing a Forest and Woodland Management Plan and the commercial harvesting on a case-by-case basis are not anticipated to impact Special Status Species.</p>

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	<p>harvest of forest and woodland products indirectly improves Special Status Species populations by reducing surface disturbance and vegetation removal in known occupied Special Status Species habitat.</p> <p>Developing an FWMP would benefit Special Status Species by improving knowledge throughout the PFO of potential Special Status Species habitat and potentially discovering additional populations. Maintaining desired forest conditions for timber products would not impact Special Status Species populations.</p> <p>Restoring diminishing aspen communities would benefit Special Status Species requiring these areas for critical life processes. Aggressively implementing treatments and maintaining treatments to restrict pinyon-juniper woodlands is not anticipated to impact Federally Listed Special Status Species. However, short-term impacts to BLM Sensitive Special Status Species populations and habitat could occur from the removal of about 16,000 acres of vegetation per year for 20 years. Long term, the implementation of treatments</p>	<p>harvest of forest and woodland products indirectly improves Special Status Species populations by reducing surface disturbance and vegetation removal in known occupied Special Status Species habitat.</p> <p>Developing an FWMP would benefit Special Status Species by improving knowledge throughout the PFO of potential Special Status Species habitat and potentially discovering additional populations. Maintaining desired forest conditions for the beneficial uses of forest products would not impact Special Status Species populations.</p> <p>Restoring diminishing aspen communities would benefit Special Status Species requiring these areas for critical life processes. Implementing limited treatments and maintaining treatments to restrict pinyon-juniper woodlands to their historic range, and restore aspen communities is not anticipated to impact Federally listed Special Status Species. However short-term impacts to BLM Sensitive Special Status Species populations and habitat could occur from the removal of about 4,600 acres</p>	<p>harvest of forest and woodland products indirectly improves Special Status Species populations by reducing surface disturbance and vegetation removal in known occupied Special Status Species habitat.</p> <p>Developing an FWMP would benefit Special Status Species by improving knowledge throughout the PFO of potential Special Status Species habitat and potentially discovering additional populations. Maintaining desired forest conditions for the beneficial uses of forest products would not adversely impact Special Status Species populations.</p> <p>Restoring diminishing aspen communities would benefit Special Status Species requiring these areas for critical life processes. Allowing natural processes in pinyon-juniper, aspen, and sagebrush communities to occur is not anticipated to adversely impact Special Status Species. Long term, the implementation natural processes to pinyon-juniper, aspen, and sagebrush communities would improve Special Status Species populations and habitats by increasing plant species diversity, age class distribution,</p>	<p>Requiring permits for the non-commercial harvest of forest and woodland products indirectly improves Special Status Species populations by reducing surface disturbance and vegetation removal in known occupied Special Status Species habitat.</p> <p>Developing an FWMP would benefit Special Status Species by improving knowledge throughout the PFO of potential Special Status Species. Actions associated with the development of the plan such as the avoidance of Special Status Species habitat and potentially discovering additional populations would indirectly benefit these species. maintaining desired forest conditions for the beneficial uses of forest products is not likely to adversely impact Special Status Species populations because this reflects the desired natural state.</p> <p>Restoring diminishing aspen communities potentially would indirectly over the long-term benefit Special Status Species requiring these areas for critical life processes by increasing the area dominated by aspen. Short-term disturbances associated with aspen stand regeneration may</p>

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	to pinyon-juniper, aspen, and sagebrush communities would improve Special Status Species populations and habitats by increasing species diversity, age class distribution, and structure.	of aspen per year for 20 years. Long term, the implementation of treatments to pinyon-juniper, aspen, and sagebrush communities would improve Special Status Species populations and habitats by increasing species diversity, age class distribution, and structure.	and structure.	adversely affect some Special Status Species by disrupting existing habitat. Implementing limited treatments and maintaining treatments to restrict pinyon-juniper woodlands to their historic range may adversely affect Federally Listed Special Status Species. Short-term impacts to Sensitive Special Status Species populations and habitat could occur from the removal of about 21,000 acres of vegetation per year for 20 years. Long term, the implementation of treatments to pinyon-juniper woodlands, and sagebrush communities would maintain and improve Special Status Species populations and habitats by increasing species diversity, age class distribution, and structure.
<p>Impacts to Fish and Wildlife General Commercial harvest of timber products is not allowed. However, harvest of woodland products for fuel-wood, timber, posts, pinyon nuts, and Christmas trees would be allowed on a sustained yield basis. This would allow for specific forest communities to be managed for diversified plant species composition, plant species structural</p>	<p>Impacts to Fish and Wildlife General The PFO FWMP would be beneficial to fish and wildlife by restoring ecosystem health, providing desired or natural plant communities, and managing fire, insects and disease. Under this alternative, intense manipulation would be favored in managing for timber products. In addition,</p>	<p>Impacts to Fish and Wildlife General The PFO FWMP would be beneficial to fish and wildlife by restoring ecosystems; providing desired or natural plant communities; and managing fire, insects, and disease. Under this alternative, beneficial use of forest products would be favored while restoring, maintaining,</p>	<p>Impacts to Fish and Wildlife General The FWMP would be beneficial to wildlife by restoring ecosystems, providing desired or natural plant communities, and managing fire, insects, and disease. Under this alternative, natural processes would be emphasized for forest management to restore, maintain, and improve forest</p>	<p>Impacts to Fish and Wildlife General The PFO FWMP would be beneficial to fish and wildlife by restoring ecosystems; providing desired or natural plant communities; and managing fire, insects, and disease. Under this alternative, management would allow harvesting of timber products, while restoring, maintaining,</p>

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<p>diversity, and adequate native vegetation cover.</p> <p>Limitations on woodland product harvest would protect wildlife habitat by maintaining its continuity and minimizing use of heavy equipment and human disturbance in the area.</p> <p>Management of aspen communities to improve the diversity of these areas would provide greater long-term benefits to wildlife species.</p> <p>Big Game There would be some impacts to mule deer and elk from the presence of human activities associated with these actions. If these activities occur during certain sensitive life period requisites of these species, this may result in abandonment of crucial habitat areas.</p> <p>Aspen communities are considered to be one of the most beneficial ecosystems for wildlife. It provided food and cover for mule deer, moose and especially elk. Areas of aspen blow-downs are key calving and fawning areas for elk and deer. The vegetation biodiversity normally associated with the understory of aspen provide an abundance of forage.</p> <p>Non-game</p>	<p>commercial harvest of timber and woodland products would be allowed. The intense management of timber products and other harvest activities would result in increased habitat fragmentation from roads, harassment from heavy equipment, and other adverse impacts associated with increased human presence.</p> <p>Big Game Aspen communities are considered to be one of the most beneficial ecosystems for wildlife, providing food and cover for mule deer, moose and especially elk. Areas of aspen blow-downs are key calving and fawning areas for elk and deer. The vegetation biodiversity normally associated with the understory of aspen provide an abundance of forage.</p> <p>Birds Timing stipulations would need to be imposed to ensure that nesting and rearing periods would be avoided.</p> <p>The diversity and species richness of birds in an aspen ecosystem reflects the importance of these ecosystems. Numerous bird species are dependent on the aspen communities at some</p>	<p>and improving desired forest condition. This would benefit fish and wildlife species by improving habitat though improving forest condition.</p> <p>Restoration projects for restoring aspen communities would benefit fish and wildlife, especially raptor species. Multi-seral stages of aspen and associated understory provide multiple benefits to many wildlife species. Many precaceous birds are adapted to aspen forest and the adjacent open brush, meadows, and grasslands that provide a vast array of prey species.</p> <p>Management of pinyon-juniper woodlands to their historic range would benefit wildlife, especially sage grouse. Pinyon-juniper woodlands are an invasive species. The dense canopy cover that occurs in these areas reduces the amount of precipitation that reaches the ground. This reduces the amount of grasses and forbs that would normally be found in these areas.</p> <p>Big Game Aspen communities are considered to be one of the most beneficial ecosystems for wildlife. It provided food and cover for mule deer, moose</p>	<p>condition. Artificial manipulation such as commercial harvest and fire prescription and suppression techniques would be minimized and only used where compatible with ecosystem health. This would benefit wildlife species by limiting heavy equipment associated with harvesting and limiting short-term impacts associated with fire suppression techniques. However, fires in areas that have been suppressed have the potential to burn exceptionally hot, not only destroying vegetation but also sterilizing the soils. Sterilization of the soils may delay any potential for revegetation for many years depending on the severity of the fire. This delay may result in the long-term loss of wildlife habitat.</p> <p>To protect valuable wildlife resources, non-commercial harvest of forest and woodland products would be allowed only in areas identified in the FWMP as compatible with ecosystem health. Limitations on woodland product harvest would protect wildlife habitat by maintaining its continuity and minimizing use of heavy equipment and human disturbance in the area.</p>	<p>and improving desired forest condition. This would benefit fish and wildlife species by improving habitat though improving forest condition. Placing limitations on woodland product harvest would protect wildlife habitat by maintaining its continuity and minimizing use of heavy equipment and human disturbance in the area.</p> <p>Aspen is considered one of the most valuable ecosystems in relation to wildlife uses. Aspen groves provide a greater diversity of understory to a wider variety of wildlife than all other ecosystems except perhaps riparian-wetland ecosystems. Projects related to the restoration of aspen communities would benefit fish and wildlife, especially raptor species. Multi-seral stages of aspen and associated understory provide multiple benefits to many wildlife species.</p> <p>Big Game Aspen communities are considered to be one of the most beneficial ecosystems for wildlife. It provided food and cover for mule deer, moose and especially elk. Areas of aspen blow-downs are key calving and fawning areas for elk and deer. The vegetation</p>

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<p>Slash piles that would result from the harvest of fuel-wood, timber, and posts would be beneficial in providing escape cover for small mammals.</p> <p>Birds Timing stipulations would need to be imposed to ensure that nesting and rearing periods would be avoided.</p> <p>The diversity and species richness of birds in an aspen ecosystem reflects the importance of these ecosystems. Numerous bird species are dependent on the aspen communities at some time during their life cycle.</p> <p>Upland game birds Blue and ruffed grouse are especially adapted to using aspen at all times of the year, especially for survival during the winter by consuming the aspen buds. The lack of healthy aspen ecosystems would impact numerous bird species.</p> <p>Raptors Numerous raptors, especially the northern goshawk, have a direct correlation between quality aspen ecosystems and species life requirements. Prey and its abundance in the form of small mammals and other birds attract raptors to</p>	<p>time during their life cycle. Blue and ruffed grouse are especially adapted to utilizing aspen at all times of the year and especially for survival during the winter by consuming the aspen buds.</p> <p>Upland game birds Management of pinyon-juniper woodlands to their historic range would benefit wildlife, especially sage grouse. Pinyon-juniper woodlands compete with sagebrush and limits the amount of habitat available for grouse and other game birds. Management of these woodlands would relieve the competition. The dense canopy cover associated with pinyon-juniper woodlands reduces the amount of precipitation that reaches the ground. This reduces the amount of grasses and forbs that would normally be found in these areas. This causes loss of more suitable habitats for numerous wildlife species.</p> <p>Raptors Restoration projects for restoring aspen communities would benefit fish and wildlife, especially raptor species. Multi-seral stages of aspen and associated understory provide multiple benefits to many wildlife species. Many</p>	<p>and especially elk. Areas of aspen blow-downs are key calving and fawning areas for elk and deer. The vegetation biodiversity normally associated with the understory of aspen provide an abundance of forage.</p> <p>Birds Timing stipulations would need to be imposed to ensure that nesting and rearing periods would be avoided.</p> <p>The diversity and species richness of birds in an aspen ecosystem reflects the importance of these ecosystems. Numerous bird species are dependent upon the aspen communities at some time during their life cycle. Blue and ruffed grouse are especially adapted to using aspen at all times of the year and especially for survival during the winter by consuming the aspen buds.</p> <p>Upland game birds Management of pinyon-juniper woodlands to their historic range would benefit wildlife, especially sage grouse. Pinyon-juniper woodlands out-compete sagebrush steppe communities and in areas where sage grouse are normally found limits the amount of habitat available to</p>	<p>Upland game birds Pinyon-juniper woodlands compete with sagebrush and limits the amount of habitat available for sage grouse. Management of these woodlands through a natural process would result in increased competition between pinyon-juniper woodlands and sagebrush-steppe. This would result in a loss of sagebrush-steppe ecosystems, which are vital to sage grouse populations. This would result in long-term impacts to sage grouse populations.</p> <p>Raptors Natural processes would be used to treat aspen communities and pinyon/juniper woodlands. This may result in climax communities if natural processes do not provide a multi-seral aspen community. Predaceous birds adapted to aspen forest and the adjacent open brush, meadows, and grasslands may be adversely impacted if diverse habitat and cover are not available for hunting prey species.</p>	<p>biodiversity normally associated with the understory of aspen provides an abundance of forage.</p> <p>Birds Timing stipulations would need to be imposed to ensure that nesting and rearing periods would be avoided.</p> <p>The diversity and species richness of birds in an aspen ecosystem reflects the importance of these ecosystems. Numerous bird species are dependent on the aspen communities at some time during their life cycle. Blue and ruffed grouse are especially adapted to utilizing aspen at all times of the year and especially for survival during the winter by consuming the aspen buds.</p> <p>Upland game birds Management of pinyon-juniper woodlands to their historic range would benefit wildlife, especially sage grouse. Pinyon-juniper woodlands compete with sagebrush and limits the amount of habitat available for sage grouse. Management of these woodlands would relieve the competition. Pinyon/juniper woodlands are an invasive species whose canopy cover reduces moisture availability</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
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<p>aspen communities. Healthy aspen communities attract many raptors to nest in these areas.</p> <p>Harvesting of woodland products such as fuel-wood, timber and posts would be restricted during nesting and rearing periods as outlined in the USFWS "Utah Field Office Guidelines for Raptor Protection From Human and Land Use Disturbances."</p>	<p>predaceous birds are adapted to aspen forest and the adjacent open brush, meadows, and grasslands that provide a vast array of prey species.</p> <p>Harvesting of woodland products such as fuel-wood, timber and posts would be restricted during nesting and rearing periods as outlined in the USFWS "Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances."</p>	<p>them. Management of these woodlands would relieve the competition. Pinion/juniper woodlands in some areas are invasive species. The dense canopy cover that occurs in these areas reduces the amount of precipitation that reaches the ground. This reduces the amount of grasses and forbs that would normally be found in these areas.</p> <p>Raptors Restoration projects for restoring aspen communities would benefit fish and wildlife, especially raptor species. Multi-seral stages of aspen and associated understory provide multiple benefits to many wildlife species. Many predaceous birds are adapted to aspen forest and the adjacent open brush, meadows, and grasslands that provide a vast array of prey species.</p> <p>Harvesting of woodland products such as fuel-wood, timber and posts would be restricted during nesting and rearing periods as outlined in the USFWS "Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances."</p> <p>Limitations on woodland product harvest would protect</p>		<p>that reaches the ground, shading to understory species resulting in these understory species to decline in mature pinion/juniper woodland. The dense canopy cover that occurs in these areas reduces the amount of precipitation that reaches the ground. This reduces the amount of grasses and forbs that would normally be found in these areas. This causes loss of suitable habitat for numerous wildlife species.</p> <p>Raptors Many predaceous birds are adapted to aspen forest and the adjacent open brush, meadows, and grasslands that provide a vast array of prey species.</p> <p>Harvesting of woodland products such as fuel-wood, timber and posts would be restricted during nesting and rearing periods as outlined in the USFWS "Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances."</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		wildlife habitat by maintaining its continuity and minimizing use of heavy equipment and human disturbance in the area.		
<p>Impacts to Wild Horses and Burros Forest and aspen management would impact wild horses in the Range Creek HMA through short-term, localized displacement. Long-term impacts would result from the maintenance of aspen communities. Impacts from timber harvest, if they occur, also would be limited to wild horses in the Range Creek HMA. As with impacts from aspen, impacts would result in short-term localized displacement. Additional impacts to the remainder of the HMAs are not anticipated.</p>	<p>Impacts to Wild Horses and Burros No significant impacts.</p>	<p>Impacts to Wild Horses and Burros Limiting pinyon-juniper woodlands to their historic range would result in an increase in forage in the long term. Short-term impacts would be the same as those identified in No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Without maintenance or enhancement, woodland communities would continue to increase in age and cover, reducing the amount of forage available for wild horses and burros.</p>	<p>Impacts to Wild Horses and Burros Impacts would be the same as those identified in the No Action Alternative.</p>
<p>Impacts to Fire and Fuels Management Managing to preserve and protect aspen communities would result in a reduced demand to suppress wildland fires in these areas. Properly functioning aspen communities would result in slow moving, low-intensity wildland fires with a low potential for crown fires.</p>	<p>Impacts to Fire and Fuels Management Managing for forest timber products through intense manipulation would result in increased wildland fire suppression, as well as increased vegetation manipulation in forest areas. Aggressive implementation of vegetation treatments in pinyon-juniper areas would create firebreaks and reduce fuel loading. This would result in fires that are less intense</p>	<p>Impacts to Fire and Fuels Management Managing for forest products without intense manipulation would result in increased wildland fire suppression, as in Alternative A, but nominal vegetation manipulation in forest areas. This combination would reduce the rate at which forests and woodlands move toward condition class 1. New vegetation treatments in pinyon-juniper would result in slower moving, less intense</p>	<p>Impacts to Fire and Fuels Management Emphasizing natural processes in forest management would result in a short-term increase in the potential for larger, more intense wildland fires as wildland fires occur in condition classes 2 and 3. Suppression beyond protection of life and property would be minimal. To maintain other resource goals and objectives, significant resources would be used to suppress these fires in the short term. The potential size</p>	<p>Impacts to Fire and Fuels Management Managing for forest products without intense manipulation would result in increased wildland fire suppression, as in Alternative A, but nominal vegetation manipulation in forest areas. This combination would reduce the rate at which forests and woodlands move toward condition class 1. New vegetation treatments in pinyon-juniper would result in slower moving, less intense</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
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	and easier to manage. It would also reduce not only the potential for intense, stand-replacing fires, but also the need for suppression of these types of wildland fires.	wildland fires. However, the rate of new treatments is not anticipated to move these vegetation communities toward condition class 1 faster than existing management, therefore retaining the potential for intense, stand-replacing fires.	and intensity of the wildland fires would increase the potential threats to life and property, as well as the potential to lose key ecosystem components. Implementation of ESR measures following the wildland fires would tend to mitigate the impacts from losing the key components, however, it would not eliminate the impact. As a result, the wildland fire pattern of increasingly frequent and intense wildland fires would return to a more natural fire cycle in the long-term, although some areas may have altered fire regimes. This would be a significant impact.	wildland fires. The rate of new treatments would retain the potential for intense, stand-replacing fires.
RESOURCE USES				
<p>Impacts to Forest and Woodlands Implementing actions to support goals of the Healthy Forests Restoration Act of 2003 would increase long-term forest and woodland health and increase forest productivity for commercial and non-commercial harvest of woodland products.</p> <p>Actions to manage aspen to improve, preserve, and protect unique and high value habitat characteristics would increase forest and woodland health by maintaining early successional</p>	<p>Impacts to Forest and Woodlands Implementing actions to support goals of the Healthy Forests Restoration Act of 2003 would increase long-term forest and woodland health and increase forest productivity for commercial and non-commercial harvest of woodland products.</p> <p>Significant long-term increases in forest and woodland health and sustainability would result from implementation of a PFO FWMP. Long-term increases in the amount of forest and</p>	<p>Impacts to Forest and Woodlands Implementing actions to support goals of the Healthy Forests Restoration Act of 2003 would increase long-term forest and woodland health and increase forest productivity for commercial and non-commercial harvest of woodland products.</p> <p>Significant long-term increases in forest and woodland health and sustainability would result from development of a PFO FWMP. Long-term increases in forest and woodland</p>	<p>Impacts to Forest and Woodlands Implementing actions to support goals of the Healthy Forests Restoration Act of 2003 would increase long-term forest and woodland health and increase forest productivity for commercial and non-commercial harvest of woodland products.</p> <p>Significant long-term changes in forest and woodland health and sustainability would result from development of a PFO FWMP. Additional long-term impacts could develop for the</p>	<p>Impacts to Forest and Woodlands Implementing actions to support goals of the Healthy Forests Restoration Act of 2003 would increase long-term forest and woodland health and increase forest productivity for commercial and non-commercial harvest of woodland products.</p> <p>Significant long-term increases in forest and woodland health and sustainability would result from a PFO FWMP. Long-term availability of forest and woodland products would also</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
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<p>aspen communities in existing ranges.</p> <p>Continuing existing pinyon-juniper woodland treatments would decrease forest and woodland productivity by limiting the range of pinyon-juniper to existing areas, which could limit availability of woodland product gathering areas.</p> <p>Continuing to allow commercial harvest of forest and woodland products on a case-by-case basis would have negligible effects on forest health and the use of forest products.</p> <p>Continuing the existing closure to the commercial harvest of timber throughout the PFO would further decrease long-term health and sustainability of forests by increasing forest density and decadence. In addition, the continuing closure would result in decreased harvest of timber products by not responding to limited amounts of demand for commercial timber.</p> <p>Continuing to issue permits for the non-commercial harvest of forest and woodland products would have negligible effects on forest health and the use of forest products.</p>	<p>woodland products could result. Inventory, integrated forest management, and specific direction for the management of commercial and non-commercial forest and woodland products would substantially improve forest and woodland health and management across the entire PFO.</p> <p>Managing forests and woodlands to favor intense manipulation for timber products would result in increases in the long-term production of forest and woodland products. Short-term increases in forest health and sustainability would also result from a reduction in forest density and decadence in the northeastern portion of the PFO. Moderate long-term decreases in forest health and sustainability could result from favoring timber production attributed to the lack of forest types that would support any long-term sustainable timber harvest.</p> <p>Continuing the harvest of forest and woodland products during periods of drought or other environmental conditions would result in short-term decreases in both forest health and forest product harvest. Continuing product harvest</p>	<p>products could be anticipated. Inventory, integrated forest management, and specific direction for the management of commercial and non-commercial forest and woodland products would improve forest and woodland health and management across the entire PFO.</p> <p>Harvesting forest and woodland products in support of forest health during periods of drought or other environmental conditions would result in short-term increases in both forest health and forest product harvest. Continuing product harvest would reduce susceptibility of the forests in the northeastern portion of the PFO to insect infestation and disease. Additionally, limiting harvest of forest and woodland products during periods of environmental stress would decrease short-term availability of forest products without reducing long-term availability of forest and woodland products during subsequent years.</p> <p>Allowing a full range of prescriptive treatments designed to restore aspen communities would significantly increase forest health and sustainability by</p>	<p>harvest of forest and woodland products. Inventory, integrated forest management, and specific direction for the management of commercial and non-commercial forest and woodland products would substantially change forest and woodland health and management across the entire PFO.</p> <p>Managing forests and woodlands to favor natural processes would increase the long-term production of forest and woodland products. Long-term increases in forest health and productivity could result from natural reductions in forest density and decadence due to fire or insect infestation. Decreases in forest health and sustainability could result from favoring beneficial uses.</p> <p>Emphasizing ecosystem health during periods of drought or other environmental conditions would increase both short- and long-term forest health and forest product harvest. Continuing product harvest only in support of ecosystem health would reduce susceptibility of the forests in the northeastern portion of the PFO to insect infestation and disease. In addition, limiting harvest of forest and woodland products during periods of</p>	<p>result from an FWMP. Inventory, integrated forest management, and specific direction for the management of commercial and non-commercial forest and woodland products would substantially improve forest and woodland health and management across the entire PFO.</p> <p>Managing forests and woodlands to favor beneficial uses of timber products would result in increased long-term production of forest and woodland products. Short-term increases in forest health and productivity would result from a reduction in forest density and decadence in the northeastern portion of the PFO. Long-term decreases in forest health and sustainability could result from favoring beneficial uses.</p> <p>Harvesting forest and woodland products in support of forest health during periods of drought or other environmental conditions would result in short-term increases in both forest health and forest product harvest. Continuing product harvest would reduce susceptibility of the forests in the northeastern portion of the PFO to insect infestation and disease.</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
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	<p>would reduce susceptibility of the forests in the northeastern portion of the PFO to insect infestation and disease, but it would simultaneously reduce forest sustainability by decreasing numbers of healthy trees or other woodland species. In addition, continuing harvest of forest and woodland products during periods of environmental stress could reduce availability of these products during subsequent years.</p> <p>Continuing existing pinyon-juniper woodland treatments and aggressively implementing new treatments decreases woodland productivity by limiting the range of pinyon-juniper to existing areas, which could limit availability of woodland products.</p> <p>Allowing commercial harvest of forest and woodland products in accordance with the FWMP and in a manner designed to maintain forest and woodland health would increase both forest health and the use of forest products.</p> <p>Closing or restricting the areas shown in Map 2-11 to non-commercial harvesting of forest and woodland products would substantially increase forest and woodland health and</p>	<p>maintaining and increasing early successional aspen communities in existing and new ranges.</p> <p>Continuing existing pinyon-juniper woodland treatments and implementing new treatments would decrease forest and woodland productivity by limiting the range of pinyon-juniper to existing areas, which could limit availability of woodland products.</p> <p>Allowing commercial harvest of timber products in specified areas, designed to restore, maintain, and enhance forest and woodland health would result in moderate increases in forest health and sustainability by reducing forest density and decadence through the removal of forest products. Moderate increases in the amount forest products would also result.</p>	<p>environmental stress would decrease short-term availability of forest products without reducing long-term availability of forest and woodland products during subsequent years.</p> <p>Allowing only the use of natural processes to restore aspen communities would increase short-term loss of aspen habitat. Long-term increases in forest health and sustainability would occur by maintaining and increasing early successional aspen communities in areas burned by natural ignition fires.</p> <p>No maintenance of existing pinyon-juniper woodland treatments and prohibiting new treatments would increase forest and woodland density and could increase the range of pinyon-juniper, which could also increase the availability of selected woodland products such as pinyon nuts.</p> <p>Allowing commercial and non-commercial harvesting of forest and woodland products only where compatible with ecosystem health would increase forest and woodland health and sustainability in the majority of the PFO.</p>	<p>Additionally, limiting harvest of forest and woodland products during periods of environmental stress would decrease short-term availability of forest products without reducing long-term availability of forest and woodland products during subsequent years.</p> <p>Continuing existing pinyon-juniper woodland treatments and implementing new treatments would decrease forest and woodland productivity by limiting the range of pinyon-juniper to existing areas, which could limit availability of woodland products.</p> <p>Allowing commercial harvest of timber products in specified areas, designed to restore, maintain, and enhance forest and woodland health would result in moderate increases in forest health and sustainability by reducing forest density and decadence through the removal of forest products. Moderate increases in the amount forest products would also result.</p> <p>Closing or restricting the areas shown in Map 2-11 to non-commercial harvesting of forest and woodland products would increase forest and woodland</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	sustainability in the majority of the PFO.			health and sustainability in the majority of the PFO.
<p>Impacts to Livestock Managing forest condition through monitoring, fire management, harvest for domestic use, and cooperative agreements with other forest resource management agencies would not impact livestock grazing. Managing aspen stands and maintaining existing pinyon-juniper woodland treatments would indirectly improve these areas for livestock grazing by increasing forage production.</p>	<p>Impacts to Livestock Development of a FWMP is not anticipated to impact livestock grazing. Commercial timber harvest and fire management would increase areas dominated by grasses and forbs, increasing forage quantity available for livestock grazing.</p> <p>Restoring aspen communities would increase the amount of forage available for livestock grazing, although mechanical methods would remove existing vegetation, and for the short-term reduce the amount of forage available for livestock use.</p> <p>Issuing non-commercial forest product permits for the PFO, except in areas as defined in Section 2.16, the Alternatives Table, is not anticipated to impact livestock grazing.</p>	<p>Impacts to Livestock Development of a FWMP is not anticipated to impact livestock grazing. Commercial timber harvest and fire management would increase areas dominated by grasses and forbs, increasing forage quantity available for livestock grazing.</p> <p>Restoring aspen communities would increase the amount of forage available for livestock grazing, although mechanical methods would remove existing vegetation, and for the short-term reduce the amount of forage available for livestock use.</p> <p>Issuing non-commercial forest product permits for the PFO, except in areas as defined in Section 2.16, the Alternatives Table, is not anticipated to impact livestock grazing.</p>	<p>Impacts to Livestock Development of a FWMP is not anticipated to impact livestock grazing. Commercial timber harvest and fire management would increase areas dominated by grasses and forbs, increasing forage quantity available for livestock grazing.</p> <p>Restoring aspen communities would increase the amount of forage available for livestock grazing, although mechanical methods would remove existing vegetation, and for the short-term reduce the amount of forage available for livestock use.</p> <p>Issuing non-commercial forest product permits for the PFO, except in areas as defined in Section 2.16, the Alternatives Table, is not anticipated to impact livestock grazing.</p>	<p>Impacts to Livestock Development of an FWMP is not anticipated to impact livestock grazing. Commercial timber harvest and fire management would increase areas dominated by grasses and forbs, increasing forage quantity available for livestock grazing.</p> <p>Restoring aspen communities would increase the amount of forage available for livestock grazing, although mechanical methods would remove existing vegetation, and for the short-term reduce the amount of forage available for livestock use.</p> <p>Issuing non-commercial forest product permits for the PFO, except in areas as defined in Section 2.16, the Alternatives Table, is not anticipated to impact livestock grazing.</p>
<p>Impacts to Recreation Development of an FWMP would maintain or increase recreational opportunities by avoiding conflict between forest harvest or restoration and recreation uses.</p> <p>Commercial harvest of woodland products would</p>	<p>Impacts to Recreation Manipulation of forests to favor timber production and implementation of specific forest community treatments would alter forest stand structure and appearance resulting in short-term reductions in opportunities for recreation in the northeastern</p>	<p>Impacts to Recreation Forest management designed to favor beneficial uses of forest and woodland products would alter small areas of forest stand structure and appearance resulting in short-term reductions in opportunities for recreation in the northeastern portion of the</p>	<p>Impacts to Recreation Same as No Action Alternative, plus the following: Natural processes would be emphasized for forest management, which would reduce the area that would potentially displace recreationists during forest</p>	<p>Impacts to Recreation Forest management designed to favor beneficial uses of forest and woodland products would alter small areas of forest stand structure and appearance resulting in short-term reductions in opportunities for recreation in the northeastern portion of the</p>

FOREST AND WOODLANDS				
Forest and Woodlands Management Planning				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
decrease available recreational opportunities in prescribed harvest areas. Efforts to restore woodland ecosystem health would result in long-term benefits to recreation by improving recreational setting in woodland areas.	portion of the field office.	field office. Forest management prescriptions for specific forest communities would cause limited changes to forests and woodlands in high use recreation areas causing limited impacts to recreation use and long-term benefits to potential recreation uses by improving forest structure and sustainability.	manipulation activities. Absence of active forest manipulation would result in changes to the forest stand, which would alter the natural setting for recreation.	field office. Forest management prescriptions for specific forest communities would cause limited changes to forests and woodlands in high-use recreation areas causing limited impacts to recreation use and long-term benefits to potential recreation uses by improving forest structure and sustainability.
Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.	Impacts to Lands and Realty No significant impacts.
Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.	Impacts to Minerals and Energy No significant impacts.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.	Impacts to Wilderness Study Areas No significant impacts.
Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.	Impacts to Areas of Critical Environmental Concern No significant impacts.
Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.	Impacts to Wild and Scenic Rivers No significant impacts.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.	Impacts to Transportation and Motorized Access No significant impacts.
Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.	Impacts to Hazardous Materials and Waste No significant impacts.

FOREST AND WOODLANDS				
Commercial Harvest of Woodland and Timber Products				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
In scoping, comments were received requesting commercial harvest of saw timber in the FO. The following decisions would be implemented after completion of an FWMP to meet the Healthy Forest Initiative of 2003 requirements.				
Decisions				
Limited commercial harvest of forest and woodland resources is permitted on a case-by-case basis. Commercial harvest of timber products is not allowed.	Commercial harvest of timber and woodland products would be allowed while maintaining forest and woodland health.			

LIVESTOCK GRAZING
<p>Assumptions This analysis is based on the following assumptions:</p> <ul style="list-style-type: none"> • There will be no demand to change the type of livestock using an allotment. • Anticipated grazing use will remain within 10 percent of existing permitted use levels. • Continuation of management according to the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah. <p>Significance Criteria Impacts to livestock grazing would be considered significant if actions resulted in a 10 percent change from the 10-year average of permitted use. The average permitted use between 1994 and 2004 is 103, 371 AUMs, with a 43% average use. A 10 percent change in average permitted use is 10,337 AUMs.</p> <p>Methods of Analysis Impact analyses and conclusions are based on inter-disciplinary team knowledge of resources and the PFO, review of existing literature, and professional judgment of experts within BLM or other agencies. Effects are quantified where possible. However in the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate. Spatial analysis was conducted using ESRI's ArcGIS desktop computer software.</p> <p>It is often difficult to discern the potential impacts on special status species resulting from any specific management action from population changes caused by natural factors. Changes or stressors to habitat components such as vegetation, water, soil, or air would most likely cause direct and indirect effects to livestock grazing. Therefore, potential effects to habitats are the principal focus of this assessment.</p>

LIVESTOCK GRAZING

Common to All Alternatives

Decision Background

The following decisions are policy, regulation for the management of livestock grazing. These decisions are included to clarify standard operating procedures.

Decisions

- Manage grazing and rangeland health according to the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah, based on historical use and dependent on the availability of forage and water.
- Require livestock trail permit for any trailing activity that occurs on BLM-administered lands.
- Maintain unallocated lands as unavailable for livestock grazing because of terrain, soils, vegetation, recreation, or manageability characteristics.

LIVESTOCK GRAZING USE ADJUSTED BECAUSE OF CLIMATIC CONDITIONS SUCH AS DROUGHT, FIRE, FLOOD, PEST INFESTATION, OR OTHER CONDITIONS THAT VARY ANNUALLY

The Taylor Grazing Act directs that "During periods of range depletion due to severe drought or other natural causes, or in case of a general epidemic of diseases," grazing allocations may be adjusted for protection of resources on the public lands. Additional guidance is found in the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah.

During times when extreme climatic conditions exist, BLM would manage and adjust grazing practices to maintain and work toward meeting Rangeland Health Standards for Public Lands in the PFO. "On rangelands where a standard is not being met, and conditions are moving toward meeting the standard, grazing may be allowed to continue. On lands where a standard is not being met, conditions are not improving toward meeting the standard or other management objectives, and livestock grazing is deemed responsible, administrative action with regard to livestock will be taken by the Authorized Officer pursuant to CFR 4180.2(c)" (Guideline 11, Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah).

LANDS ALLOCATED FOR GRAZING

- On lands determined through BLM's land use planning process to be appropriate for livestock grazing, grazing would continue to be administered and managed under applicable law, regulation, and policy.
- Removal of grazing would be considered on lands not currently permitted or where the permittee is willing to relinquish the privilege. Allocation would be to other resource uses and could include areas open to annual authorization, prescriptive grazing, wild horses, wildlife, watershed, or other multiple uses.

LIVESTOCK GRAZING Common to All Alternatives	
LANDS NO LONGER AVAILABLE FOR LIVESTOCK GRAZING – PROGRAM SUMMARY UPDATE	
Allotment or Area Buckhorn Draw Wildlife Allotment Gray Canyon Wildland Management Area Horseshoe Canyon South Allotment	Purposes Recreation, cultural resources Wildlife Wildlife habitat and forage; enhancement of wildland values including recreation, riparian, and wildlife Vegetation enhancement; soil stabilization and erosion reduction; additional protection of portions of critical watersheds and critical soils; additional wildlife habitat protection and reduced competition for available food, space, cover, and water; maintenance or enhancement of high-value recreational lands and existing recreational opportunities.
AREAS WHERE GRAZING USE COULD BE CHANGED FOR OTHER RESOURCE PURPOSES	
Range Creek and Buckskin Allotments	
Lands within the Range Creek Allotment were recently acquired by UDWR from BLM (Wilcox Ranch), and forage has not been allocated in current management.	<ul style="list-style-type: none"> • Forage in the Range Creek Allotment would be allocated to other resource uses (refer to wildlife section on combining the Range Creek Allotment with the Grey Canyon WMA). • Forage in the Buckskin Allotment would be allocated to other resource uses (56 AUMs).
CRITERIA FOR VOLUNTARY RELINQUISHMENT AND DISPOSITION OF GRAZING PERMITS OR GRAZING PREFERENCE	
	<p>Provides for the voluntary relinquishment of grazing permits by willing permittees. Upon relinquishment, BLM would consider reallocating livestock AUMs for other uses for the life of the plan after determining that the lands are no longer “chiefly valuable for grazing and raising forage crops.” The following criteria would be considered when making this determination. This list is not all inclusive, and the presence or absence of these criteria are not binding on BLM to make a decision that an area or allotment is no longer “chiefly valuable for grazing and raising forage crops”. Thus additional criteria may be developed during site specific analysis.</p> <ol style="list-style-type: none"> 1. Other uses of the land serving public benefit 2. Adverse terrain characteristics, such as steep slopes 3. Sensitive soil, vegetation, or watershed values 4. Presence of noxious or poisonous weeds and other undesirable vegetation 5. Presence of other resource values which may require special management/ protection 6. Need for establishing grazing reserves 7. Allotments or portions of allotments within the Desolation Canyon River 8. Ability for grazing to be properly managed by BLM and/or the permittee to meet multiple use management objectives 9. Potential for harm to humans, such as elevated fecal coliform bacteria in water sources frequently used by humans.

LIVESTOCK GRAZING
Common to All Alternatives
Impact Analysis

RESOURCES

Impacts to Air Quality

No significant impact.

Impacts to Soil, Water and Riparian

Continuing grazing in those areas where it already occurs at the same AUM rates would cause no significant increase in impacts to soils, water, and riparian/wetland resources.

Livestock grazing would have a short-term impacts to soils, water, and riparian resources. However, long-term trends indicate no significant impacts depending on the availability of forage and water, and the absence of drought conditions. Livestock hoof actions on soils would break down vegetation and the upper crust of soils. This would lead to compaction and breakdown of soils that would result in an increase in erosion.

Livestock grazing in riparian/wetland complexes would cause short-term degradation of these areas not only because of the impact of the grazing but also because of the breakdown of plant and soil structure from trampling of these areas.

Grazing plans that implement restrictions on duration and season of use, and rest/rotation of allotments would improve rangeland health by improving the integrity of soils, water, and riparian/wetland resources.

Impacts to Vegetation Resources

Livestock grazing impacts vegetation by direct removal and through compaction of soil from hooves or concentrated use (e.g., near salt blocks, watering areas, and shade). Grazing affects on vegetation depend on the interaction of several factors: AUMs (the number of animals grazed), intensity (the number of animals per acre), duration (length of the grazing period), and season. Livestock can introduce noxious weed and invasive plant species by transporting them on their hooves, coat, and fecal matter.

The Utah BLM Standards for Rangeland Health would apply under all alternative scenarios. Summarized in the Alternatives Summary table in section 2.16, these management objective guidelines would ensure good site productivity; properly functioning riparian and wetland areas; vegetation communities composed of desired species including native and special status species when applicable; and compliance with state and federal water quality standards. Site-specific monitoring and evaluation strategies would be implemented to measure the success of following the Standards for Rangeland Health. Approved activities that would result in short-term impacts to these objectives would require rehabilitation and reclamation. Managing rangeland to the Utah Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah would reduce the potential for long-term impacts to vegetation.

Requiring a permit for any livestock trailing activity would reduce surface disturbance areas and opportunities for noxious weed and invasive plant species introduction.

Limiting motorized access for existing and future range improvement projects would reduce the spread of noxious weeds and invasive plant species. Areas adjacent to the access routes would be most vulnerable to invasions.

Leaving lands unavailable for livestock grazing unallocated would not impact vegetation resources. Allotments reallocated for wildlife or watershed benefit would not impact vegetation resources.

LIVESTOCK GRAZING**Common to All Alternatives****Impacts to Cultural Resources**

Standard inventory and recordation procedures conducted in conjunction with range improvement actions would serve to protect most cultural resources from significant damage. In addition, inventories would increase the amount of known cultural properties.

Implementing Standards for Healthy Rangelands would contribute to improved range conditions and soil and vegetation stability, thereby reducing the potential for new and continued impacts to cultural resources from erosion and vegetation-related impacts.

Direct impacts to cultural resources from livestock congregation areas (water, mineral location, trailing, etc.) would include the breakage and scattering of resources on or just below the surface. Breaking and scattering cultural resources would be an impact regardless of location and could be significant depending on individual site characteristics. Impacts in these specific areas would be addressed and mitigated through the permitting process. In most cases, impacts to cultural resources from these activities would be mitigated on a case-by-case basis.

Impacts to Paleontology Resources

Paleontological assessments before surface disturbing activities would increase the potential for identification, recordation, and collection of paleontological resources during construction of range improvements.

Impacts to Visual Resources

Development of rangeland projects and livestock grazing practices, and installation of certain range improvements would cause localized direct and indirect visual impacts. Areas designated as VRM Class I and II would be more sensitive to range improvements and grazing. Incorporating rangeland management practices and visual mitigation measures would help reduce the extent of visual impacts on rangeland projects.

Impacts to Special Status Species

Livestock grazing alters vegetation structure and composition. Livestock grazing is not anticipated to impact federally listed special status species. However, continued livestock grazing in sagebrush communities with sage grouse habitat may reduce this species population because of declining habitat quality. Long-term, this indirectly decreases BLM sensitive special status species populations of other sagebrush- and grassland-dependent species.

Adhering to the Utah Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management would apply to all livestock grazing activities on public lands. These standards include considerations for wildlife and their habitats that would indirectly improve special status species populations and habitats.

Livestock grazing could alter vegetation structure and composition by removing some plant species or changing the percentage of cover. Livestock grazing has adversely impacted federally listed plant species by trampling and altering vegetation composition. Sagebrush- and grassland-dependent sensitive special status species populations and habitat could decrease because of livestock-influenced plant communities.

LIVESTOCK GRAZING
Common to All Alternatives

Impacts to Fish and Wildlife

Birds

Many species of birds have a symbiotic relationship with livestock and grazing. Continued grazing activities would have no significant impact on these species.

Big Game

Livestock grazing on crucial winter ranges would result in the reduction of suitable forage for elk and deer. Forage loss potentially would lead to increased competition and force these species onto lower-quality winter range, thereby reducing winter survivability. The use of prescriptive grazing methods, season of use and kind of livestock, and prescription on crucial winter ranges could reduce competition and help sustain mule deer and elk populations.

The use of prescriptive grazing methods, season of use and kind of livestock, and prescription on crucial pronghorn ranges could reduce competition for high-value forbs and help sustain pronghorn populations.

Fish

Livestock grazing in upland habitats that meet or exceed RHS minimizes erosion. Sediment production is compatible to warm- and coldwater fisheries and other aquatic habitats.

The Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah would apply to all livestock grazing activities on public lands. These standards include considerations for wildlife and their habitats. As such, adhering to these guidelines would tend to ensure that range conditions appropriately address wildlife needs.

Livestock grazing could result in loss of stabilizing riparian vegetation, which could lead to stream instability and an associated loss of habitat complexity. The loss of shading vegetation could lead to elevated stream temperatures, increased sedimentation, and loss of stream channel complexity provided by fluvial process and woody debris.

Impacts to Wild Horses and Burros

Because the amount of livestock use on public lands is anticipated to remain stable, impacts to wild horses and burros from livestock use are anticipated to also remain stable. Competition for habitat resources (specifically forage and water) within HMAs would continue. Impacts would be mitigated through monitoring and adjustments in use. Because rangeland health would be maintained as directed by the Standards for Healthy Rangelands, impacts would not be significant.

Impacts to Fire and Fuels Management

Livestock grazing would directly affect fire management by reducing fine fuels, which would reduce the capacity for wildland fire to spread. Decreasing the probability of fire spread through reductions of fine fuels by livestock grazing would provide more time for the accumulation of larger fuel sources (e.g., shrub vegetation) between fires.

RESOURCE USES

Impacts to Forest and Woodlands

No significant impact.

LIVESTOCK GRAZING**Common to All Alternatives****Impacts to Livestock**

The PFO would continue to collect, analyze, and evaluate all available monitoring data to make necessary livestock adjustments to achieve RMP management decisions. Data collected would include but not be limited to utilization, actual use, trend climate, and rangeland health and proper functioning condition assessments. Adjustments in livestock forage when conditions warrant improve or maintain vegetative conditions. Adjustments are made to meet RHS and other resource objectives for each grazing allotment. Subsequently, the number of livestock grazing on the PFO during a given year may change.

Applying appropriate guidelines to grazing operations for the purpose of complying with the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah would improve forage availability and quality. Adjustments within the PFO to meet RHS could include change to the grazing season and forage allocations, implementation of grazing management practices (growing season deferment, riparian pastures, and exclosures), or forage utilization levels. Any adjustments in the yearly actual use would be supported by monitoring data and consultation with the livestock operator.

Impacts resulting from grazing management on the livestock grazing program principally would be the effects of forage removal by grazing animals that might alter the amount, condition, and vigor of the plants being grazed. Pasture and herd rotational grazing practices, including other best management practices, are intended to increase livestock dispersal in pastures and reduce the impacts of grazing management. These practices would often improve the condition of the forage, thereby increasing flexibility in the grazing management program. Other indirect effects to livestock would include increased conception rates, higher weaning weights, lower animal veterinary costs, less stress to livestock, and fewer bulls needed for breeding. These practices could also increase costs to the livestock operator, such as increased herding and improvements maintenance.

Reallocating forage from the Range Creek and Buckskin allotments for wildlife, watersheds, and non-motorized recreation uses would not significantly impact livestock grazing within the PFO.

Impacts to Recreation

No significant impact.

Impacts to Lands and Realty

No significant impact.

Impacts to Minerals and Energy

No significant impact.

SPECIAL DESIGNATIONS**Impacts to Wilderness Study Areas**

No significant impact.

Impacts to Areas of Critical Environmental Concern

No significant impact.

Impacts to Wild and Scenic Rivers

No significant impact.

SUPPORT**Impacts to Transportation and Motorized Access**

No significant impact.

LIVESTOCK GRAZING Common to All Alternatives	
Impacts to Hazardous Materials and Waste No significant impact.	

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>There are a number of resource conflicts associated with cattle grazing in Desolation Canyon along the Green River. There is an asymmetrical conflict between cattle grazing and recreation use. Cattle grazing diminishes the quality of the recreation experience because of the loss of vegetation, accumulations of livestock excrement and its associated odor, insect infestation, and increased exposure to fecal-borne pathogens. Cattle grazing is non-contributing use within the Desolation Canyon NHL. The Green River is the largest riparian system in the PFO. Over the past 20 years, cattle use has declined to complete non-use in Desolation Canyon. When cattle were using the area, cottonwood and willow reproduction were absent. Cottonwood reproduction now occurs regularly and all age classes are present. The green line of the river has changed from a tamarisk aspect to willow-dominated. A major tributary, Rock Creek has moved from a non-functioning to a functioning condition. The Green River Corridor is the most valuable habitat for wildlife in the PFO. It supports multiple T&E Species as well as habitat for neo-tropical birds and nesting for waterfowl and shorebirds.</p>				
Decisions				
DESOLATION CANYON/GREEN RIVER CORRIDOR (SAND WASH TO SWASEY'S RAPID)				

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Grazing (horses & cattle) would continue in this area as presently allocated. (Note that these allotments have not been actively grazed with cattle for 15 years. Portions of Rock Creek Allotment were grazed by horses in 2002.)</p>	<p>Same as No Action.</p>	<p>Cattle and sheep livestock kind would be precluded in the Green River (no change—grazing not currently allowed beneath canyon rim), Rock Creek (20 horses from 11-1:4-15 for 110 AUMs and 110 cattle for same time period for 600 AUMs), and Price River South (40 cattle 4-16:5-16 and 40 AUMs) allotments beneath canyon rim. Grazing would be removed for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational 	<p>Cattle and sheep livestock kind would be precluded in the Green River (horse bench pasture: 1,156 cattle), Rock Creek, and Price River South allotments within the Desolation Canyon SRMA.</p> <p>Grazing would be removed for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational opportunities. 	<p>All voluntarily relinquished AUMs in Desolation and Gray Canyon (Green River, Rock Creek, and Price River South allotments) would be retired. Retirement of AUMs would be for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational opportunities.
LABYRINTH CANYON/GREEN RIVER CORRIDOR (CONFLUENCE OF SAN RAFAEL RIVER TO MINERAL BOTTOM)				

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Grazing would continue in this area as presently allocated.	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)	Livestock grazing would not be authorized in the San Rafael River, Saucer Basin, and Horseshoe North allotments within the Labyrinth Canyon SRMA for the following reasons: <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational opportunities. 	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)
CHIMNEY CANYON/HIDDEN SPLENDOR/MUDDY (HONDO, RED CANYON, AND MCKAY FLAT ALLOTMENTS)				

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Grazing would continue in this area as presently allocated.	Same as No Action Alternative.	<p>Limit grazing to November 1 to March 15 in Hondo (loss of 80 AUMs), Red Canyon, and McKay Flat allotments (season of use is already in place for Red Canyon and McKay Flat allotments) for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational opportunities • Critical riparian area protection. 	<p>Livestock grazing would not be authorized in Hondo, Red Canyon, and McKay Flat allotments for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational opportunities • Critical riparian area protection. 	<p>Limit grazing to November 1 to March 15 in Hondo (loss of 80 AUMs), Red Canyon, and McKay Flat allotments (season of use is already in place for Red Canyon and McKay Flat allotments) for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation enhancement • Soil stabilization and erosion reduction • Additional wildlife habitat protection and reduced competition for available food, space, cover, and water • Maintenance or enhancement of high-value recreational lands and existing recreational opportunities • Critical riparian area protection. (Same as Alternative B.)
PRICE CANYON RECREATION SITE				

LIVESTOCK GRAZING				
Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Grazing would continue in this area as presently allocated.	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)	Livestock grazing would not be authorized from this area (portion of the Price River West allotment) for the following reasons: <ul style="list-style-type: none"> • Recreation • Fencing of the recreation area would be required to keep livestock out. 	Grazing would be removed from this area (portion of the Price River West allotment) for the following reasons: <ul style="list-style-type: none"> • Recreation • Fencing of the recreation area would be required to keep livestock out. (Same as Alternative C.)
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Continued livestock grazing in and near sensitive soil, water, and riparian resource areas would have a continued impact on these resources. The loss of vegetative cover from livestock grazing and the associated compacting of soils would cause erosion, leading to increased siltation and sedimentation loading of local water.	Impacts to Soil, Water and Riparian Continued livestock grazing in and near sensitive soil, water, and riparian resource areas would have a continued impact on these resources. The loss of vegetative cover from livestock grazing and the associated compacting of soils would lead to erosion of soils, resulting in increased siltation and sedimentation loading of local waters.	Impacts to Soil, Water and Riparian Removal of livestock grazing in designated areas would result in long-term benefits to soil, water, and riparian resources. These benefits would include stabilized soils, better vegetation diversity, and less erosion, resulting in decreased siltation and sediment loading of streams. Continuing grazing in those areas where it already occurs at the same AUM rates would cause no significant increase in impacts to soils, water, and riparian/wetland resources.	Impacts to Soil, Water and Riparian Removal of livestock grazing in designated areas would result in long-term benefits to soil, water, and riparian resources. These benefits would include stabilized soils, better vegetation diversity, and less erosion, resulting in decreased siltation and sediment loading of streams.	Impacts to Soil, Water and Riparian Continued livestock grazing in and near sensitive soil, water, and riparian resource areas would have a continued impact on these resources. The loss of vegetative cover from livestock grazing and the associated compacting of soils would lead to erosion of soils, resulting in increased siltation and sedimentation loading of local waters.
Impacts to Vegetation Resources Continuing grazing as presently allocated would not	Impacts to Vegetation Resources Continuing grazing as presently allocated would not	Impacts to Vegetation Resources Removing grazing from Desolation Canyon, and	Impacts to Vegetation Resources Removing grazing from Desolation Canyon, Labyrinth	Impacts to Vegetation Resources Continuing grazing as presently allocated would not

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>impact vegetation resources. Long-term impacts to vegetation resources from livestock grazing when RHS is met are not significant.</p>	<p>impact vegetation resources. Long-term impacts to vegetation resources from livestock grazing when RHS is met are not significant.</p>	<p>continuing grazing as presently allocated would not significantly impact vegetation resources. Wildlife dispersal and feeding behavior can affect portions of vegetation in the area. Long-term impacts to vegetation resources from livestock grazing when RHS is met are not significant.</p>	<p>Canyon, Chimney Canyon/Hidden Splendor/Muddy and continuing grazing as presently allocated would not significantly impact vegetation resources. Wildlife dispersal and feeding behavior can affect portions of vegetation in the area. Long-term impacts to vegetation resources from livestock grazing when RHS is met are not significant.</p>	<p>impact vegetation resources. Long-term impacts to vegetation resources from livestock grazing when RHS is met are not significant.</p>
<p>Impacts to Cultural Resources Allowing cattle grazing in the Desolation Canyon NHL could result in potential impacts to the cultural values for which the NHL was designated. The NHL was designated to preserve the landscape that existed during the John Wesley Powell expedition of 1869. Cattle grazing did not occur in this area until around 1878. Although cattle grazing has not occurred for 15 years, retaining the potential could impact the NHL's cultural values.</p>	<p>Impacts to Cultural Resources Same as No Action Alternative except that the identifying of specific routes for administrative maintenance use would reduce most of the potential for cultural resource impacts. Identifying these routes in the permitting process would allow for cultural resource inventories/clearances to be completed, thereby identifying and mitigating adverse impacts.</p>	<p>Impacts to Cultural Resources Same as Alternative A, but removing livestock grazing from beneath the canyon rim on the Green River, Rock Creek, and Price River South allotments would eliminate grazing-related impacts to cultural resources. Specifically, this would preserve the cultural resource values of the Desolation Canyon NHL.</p>	<p>Impacts to Cultural Resources Same as Alternative A, except removing cattle and sheep livestock grazing from the Horse Bench pasture of the Green River allotment and the portions of the Rock Creek and Price River South allotments within the Desolation Canyon SRMA would preserve the cultural resource values of the Desolation Canyon NHL. This action would result in increased forage production, which retains the soil matrix around cultural resources. In the long term, this preserves the cultural resources in place. This later impact would also occur on the Little Valley, Horseshoe Bench, San Rafael River, Saucer Basin, and Horseshoe Canyon North allotments because livestock grazing is removed from these</p>	<p>Impacts to Cultural Resources Impacts to the cultural resource values within the Desolation Canyon NHL would be the same as those identified in Alternative 1; however, the potential for this impact to be eliminated exists in this alternative through voluntary relinquishments of AUMs in the NHL. If relinquishment occurs, the impacts would be the same as those identified in Alternative B. Reductions in livestock grazing or reallocation of forage on the Range Creek, Buckskin, Hondo, Bunderson, Case, Ferron Mills, and Rim Rock allotments would eliminate the impacts from livestock and livestock congregation areas as identified in the Impacts from Actions Common to All Alternatives on these</p>

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			allotments as well.	allotments.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
<p>Impacts to Special Status Species Allocating forage in the Range Creek allotment would not impact known special status species populations. Continuing grazing in the area as presently allocated would impact special status species populations. Allocating forage for livestock does not impact known special status species populations. Future plan amendments for land acquired after the plan are evaluated for special status species habitat and populations and are not anticipated to impact special status species.</p> <p>Continuing livestock grazing in Desolation Canyon, Labyrinth Canyon, and Chimney Canyon/Hidden Splendor/Muddy can alter riparian habitat condition if RHS standards are not met. Several special status species depend on riparian habitat that has developed to the late-seral stage.</p>	<p>Impacts to Special Status Species Within the Green River Corridor from Sand Wash to Swasey's Rapid, restricting livestock grazing to winter use is not anticipated to adversely impact special status species populations or habitats. However, continuing livestock grazing in Desolation Canyon, Labyrinth Canyon, and Chimney Canyon/Hidden Splendor/Muddy can alter riparian habitat condition if RHS standards are not met. Several special status species depend on riparian habitat that has developed to the late-seral stage.</p>	<p>Impacts to Special Status Species Within Desolation Canyon, removing livestock grazing from three allotments indirectly maintains and improves special status species populations or habitats by enhancing vegetation and wildlife habitat. Continuing to allow livestock grazing in Labyrinth Canyon is not likely to adversely impact special status species. Restricting livestock grazing to winter use allotments within Chimney Canyon/Hidden Splendor/Muddy will also indirectly maintain and improve special status species populations and habitat for the same reason.</p>	<p>Impacts to Special Status Species Removing livestock grazing from allotments along the Green River improves riparian habitat conditions. Mexican Spotted Owl, Southwestern Willow Flycatcher, and other special status species depend on riparian areas in the late-seral stage for critical life processes. Removing livestock grazing Desolation Canyon, portions of Labyrinth Canyon and Chimney Canyon/Hidden Splendor/Muddy will also indirectly maintain and improve special status species populations and habitat for the same reason. Removing grazing from Price Canyon for recreation purposes is not anticipated to impact special status species populations and habitats.</p>	<p>Impacts to Special Status Species Voluntary relinquishment of livestock grazing in Desolation Canyon would indirectly maintain and improve special status species populations or habitats by enhancing vegetation and wildlife habitat. Continuing to allow livestock grazing in Desolation Canyon is not likely to adversely impact special status species. Restricting livestock grazing to winter use allotments within Chimney Canyon/Hidden Splendor/Muddy will also indirectly maintain and improve special status species populations and habitat for the same reason.</p>
Impacts to Fish and Wildlife	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>No significant impact.</p>	<p>Livestock grazing within in the Green River Corridor from Sand Wash to Swasey's Rapid, 1 mile from the river centerline in the Rock Creek allotment, would be limited to winter use only (November 1 to April 15). This would benefit fish and wildlife by reducing competition for forage and minimize degradation to riparian communities.</p> <p>Limiting grazing in the Green River corridor to winter use only would result in competition with big game species that utilize this area. This area contains crucial winter habitat for elk and Rocky Mountain bighorn sheep.</p>	<p>General Under this alternative, grazing would be removed from the portions of the Green River, Rock Creek (400-500 AUMs), and Price River South allotments within the Desolation Canyon SRMA and within 2 miles of the Green River. Removal of these AUMs would benefit fish and wildlife through enhancement of vegetation; stabilization of soil; reduction of erosion; additional wildlife habitat production; and reduction in competition for forage, cover, and water.</p> <p>Grazing would be limited from November 1 to March 15 in Hondo (loss of 80 AUMs), Red Canyon, and McKay Flat allotments (season of use is already in place for Red Canyon and McKay Flat allotments). Stipulations on these AUMs would benefit fish and wildlife through enhancement of vegetation; stabilization of soil; reduction of erosion; additional wildlife habitat production; critical riparian protection; and reduction in competition for forage, cover, and water.</p>	<p>General Under this alternative, grazing would be removed from the portions of Green River, Rock Creek (710 AUMs), and Price River South (40 AUMs) allotments within the Desolation Canyon SRMA. Removal of these AUMs would benefit fish and wildlife through enhancement of vegetation; stabilization of soil; reduction of erosion; additional wildlife habitat production; and reduction in competition for forage, cover, and water.</p>	<p>General Under this alternative, if grazing would be removed from the portions of Green River, Rock Creek, and Price River South allotments within the Desolation Canyon SRMA, the AUMs would then be retired. Retirement of these AUMs would benefit fish and wildlife through enhancement of vegetation; stabilization of soil; reduction of erosion; additional wildlife habitat production; and reduction in competition for forage, cover, and water. If these AUM were not relinquished, however, there would be no significant benefit to wildlife and fish.</p> <p>Livestock grazing would be limited to November 1 to March 15 in Hondo, Red Canyon, and McKay Flat allotments (season of use is already in place for Red Canyon and McKay Flat allotments). These changes in allocation and season of use would benefit fish and wildlife through enhancement of vegetation; stabilization of soil; reduction of erosion; additional wildlife habitat production; critical riparian protection, and reduction in competition for forage, cover, and water.</p>
Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock Continuing grazing on lands appropriate for livestock grazing under applicable law, regulation, and policy as presently allocated in Table 2.16 (Alternatives Summary) is not anticipated to impact livestock grazing.	Impacts to Livestock Limiting grazing within Desolation Canyon to winter use only and continued grazing of other areas, as listed in Table 2.16 (Alternatives Summary), are not anticipated to impact livestock grazing.	Impacts to Livestock Removing 640 AUMs from the Green River, Rock Creek, and Price River South allotments and 80 AUMs from the Hondo allotments is not anticipated to significantly impact livestock grazing. Table 3-25, Licensed Use for Allotments Specifically Addressed in This RMP, shows use of these allotments between grazing years 1992 and 2002. The continued grazing of other areas as listed in Section 2.16, Alternatives Summary Table, are not anticipated to impact livestock grazing.	Impacts to Livestock Removing 963 AUMs from the Desolation Canyon and Labyrinth Canyon allotments, and from three allotments within Chimney Canyon/Hidden Splendor/Muddy, is not anticipated to significantly impact livestock grazing. Table 3-25, Licensed Use for Allotments Specifically Addressed in This RMP, shows use of these allotments between grazing years 1992 and 2002. Fencing the recreation area of the Price River West allotment and the continued grazing of other areas, as listed in Section 2.16, Alternatives Summary Table, are not anticipated to significantly impact livestock grazing.	Impacts to Livestock Table 3-25 discusses the use of the allotments between 1994 and 2003. The voluntary removal of livestock grazing from Green River, Rock Creek, and Price River South allotments within Desolation Canyon, as well as continued grazing of other areas as listed in Section 2.16, Alternatives Summary Table, are not anticipated to impact livestock grazing.
Impacts to Recreation Desolation Canyon/Green River Corridor: Conflicts between	Impacts to Recreation Same as the No Action Alternative.	Impacts to Recreation Desolation Canyon/Green River Corridor: Conflicts between	Impacts to Recreation Desolation Canyon/Green River Corridor: Removal of cattle from the	Impacts to Recreation Desolation Canyon/Green River Corridor: Conflicts between

LIVESTOCK GRAZING				
Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>recreationists in the Desolation portion of the Green River corridor and livestock grazing would continue to occur under current grazing allocations because of impacts to vegetation, soils, water quality, riparian condition, and cultural resources along the Green River and its tributaries.</p> <p>Quality of the recreation experience would be diminished as natural resource conditions are degraded as well as through the presence of livestock manure, odors, and insects.</p> <p>Labyrinth Canyon/Green River Corridor: Conflicts between recreationists in the Labyrinth Canyon portion of the Green River corridor and livestock grazing would continue to occur under current grazing allocations because of impacts to vegetation, soils, water quality, riparian condition, and cultural resources along the Green River and its tributaries.</p> <p>Quality of the recreation experience would be diminished as natural resource conditions are degraded as well as through the presence of livestock manure, odors, and insects.</p>		<p>recreationists in the Desolation Canyon portion of the Green River corridor and livestock grazing would be further reduced (as compared with Alternative 1 and Alternative A) by removing grazing in a 2-mile corridor from Sand Wash to Swasey's Rapid within the Green River, Rock Creek, and Price River South allotments.</p> <p>Labyrinth Canyon/Green River Corridor: Impacts would be the same as identified in Alternative 1.</p> <p>Chimney Canyon/Hidden Splendor/Muddy Creek Area: Conflicts between recreationists and livestock grazing would be reduced by limiting grazing use to the season from November 1 to March 15. Impacts to vegetation and soils in the area and impacts to the riparian zone of Muddy Creek would be reduced, improving the desirability for recreation use of the area during the remainder of the year.</p> <p>Price Canyon Recreation Area: Impacts would be the same as identified in Alternative 1.</p>	<p>Desolation and Gray Canyons (Rock Creek and Price River South allotments) would enhance the recreation experience by improving natural conditions in the riparian zones and eliminating physical impacts from cattle to campsites and cultural sites. Elimination of cattle would also reduce fecal coliform bacteria concentrations in the water, reducing health risks to people consuming or contacting the water.</p> <p>Labyrinth Canyon/Green River Corridor: Beneficial effects would occur to recreation because grazing would be removed from the portions of Little Valley, Horseshoe Bench, San Rafael River, Saucer Basin, and Horseshoe North allotments within the Labyrinth Canyon SRMA for the maintenance and enhancement of high-value recreational resources opportunities. Removal of cattle from the Labyrinth Canyon would enhance the recreation experience by improving natural conditions in the riparian zones and eliminating physical impacts from cattle to campsites and cultural sites.</p> <p>Chimney Canyon/Hidden</p>	<p>recreationists in the Desolation portion of the Green River corridor and livestock grazing would be reduced in all areas where AUMs would be voluntarily retired. Impacts to vegetation, soils, water quality, riparian condition, and cultural resources along the Green River and its tributaries would be reduced through the likely removal of grazing in these areas.</p> <p>Labyrinth Canyon/Green River Corridor: Conflicts between recreationists in the Labyrinth Canyon portion of the Green River corridor and livestock grazing would continue to occur under current grazing allocations because of impacts to vegetation, soils, water quality, riparian condition, and cultural resources along the Green River and its tributaries.</p> <p>Quality of the recreation experience would be diminished as natural resource conditions are degraded as well as through the presence of livestock manure, odors, and insects.</p> <p>Chimney Canyon/Hidden Splendor/Muddy Creek Area: Conflicts between</p>

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Chimney Canyon/Hidden Splendor/Muddy Creek Area: Conflicts between recreationists and livestock grazing would continue to occur under current grazing allocations because of impacts on vegetation and soils within the area and impacts to the riparian zones of Muddy Creek and Chimney Canyon.</p> <p>Quality of the recreation experience would be diminished as natural resource conditions are degraded as well as through the presence of livestock manure, odors, and insects.</p> <p>Price Canyon Recreation Area: Conflicts between recreationists and livestock grazing would continue to occur under current grazing allocations because of the possibility of physical damage to facilities and disruption of recreation activities.</p>			<p>Splendor/Muddy Creek Area: Beneficial effects would occur to recreation because grazing would be removed from the Hondo, Red Canyon, and McKay Flat allotments for the maintenance and enhancement of high-value recreational resources opportunities. Removal of cattle would enhance the recreation experience by improving natural conditions in the riparian zones and eliminating physical impacts from cattle to campsites and cultural sites.</p> <p>Price Canyon Recreation Area: Beneficial effects would occur to recreation through the removal of grazing from the Price Canyon Recreation Site (portion of the Price River West allotment), providing for enhanced recreation opportunities. Fencing the area to restrict livestock from entering would protect the area from potential impacts associated with livestock.</p>	<p>recreationists and livestock grazing would be reduced by limiting grazing use to the season from November 1 to March 15. Impacts to vegetation and soils in the area and impacts to the riparian zone of Muddy Creek would be reduced, improving the desirability of the area for recreation use during the remainder of the year.</p> <p>Price Canyon Recreation Area: Beneficial effects would occur to recreation from the removal of grazing from the Price Canyon Recreation Site (portion of the Price River West allotment), providing enhanced recreation opportunities. Fencing the area to restrict livestock from entering would protect the area from potential impacts associated with livestock.</p>
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.

LIVESTOCK GRAZING Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
<p>Impacts to Wild and Scenic Rivers Management of livestock grazing subject to Standards for Rangeland Health is generally compatible with protective management of outstandingly remarkable values, where 641 miles of eligible rivers flow through grazing allotments.</p> <p>However, maintenance and enhancement of outstandingly remarkable recreational values along segments of the Green River (Desolation Canyon) could be compromised by continued grazing within the river corridor. The presence of livestock could reduce the desirability of certain areas for camping and day use activities, which would detract from the recreational experience. Although the overall quality of the recreational experience could be reduced for some users, the Green River through Desolation Canyon would continue to be an outstandingly</p>	<p>Impacts to Wild and Scenic Rivers Management of livestock grazing, subject to Standards for Rangeland Health, is generally compatible with protective management of outstandingly remarkable values, where 125 miles of suitable rivers flow through grazing allotments.</p> <p>Livestock grazing along the Green River (Desolation Canyon) would be limited to winter use only (November 1 to April 15) and would be compatible with protective management of outstandingly remarkable recreational values along this river.</p> <p>Standards for Rangeland Health would apply to 516 miles of eligible river corridors found not suitable. All these rivers except portions of Price River, Range Creek, and Fish Creek, overlay grazing allotments.</p>	<p>Impacts to Wild and Scenic Rivers Management of livestock grazing subject to Standards for Rangeland Health is generally compatible with protective management of outstandingly remarkable values, where 277 miles of suitable rivers flow through grazing allotments.</p> <p>Standards for Rangeland Health would also apply to 364 miles of eligible river corridors found not suitable. All these rivers, except portions of Fish Creek and Range Creek, overlay grazing allotments.</p>	<p>Impacts to Wild and Scenic Rivers Management of livestock grazing, subject to Standards for Rangeland Health, is generally compatible with protective management of outstandingly remarkable values, where 641 miles of suitable rivers flow through grazing all allotments.</p>	<p>Impacts to Wild and Scenic Rivers Management of livestock grazing subject to Standards for Rangeland Health is generally compatible with protective management of outstandingly remarkable values, where 223 miles of suitable rivers overlay grazing allotments.</p> <p>However, maintenance and enhancement of outstandingly remarkable recreational values along segments of the Green River (Desolation Canyon) could be compromised by continued grazing within the river corridor. The presence of livestock could reduce the desirability of certain areas for camping and day use activities, which would detract from the recreational experience. Although the overall quality of the recreational experience could be reduced for some users, the Green River through Desolation Canyon would continue to be an outstandingly</p>

LIVESTOCK GRAZING				
Desolation Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
remarkable recreational opportunity and would likely maintain its demand for use.				remarkable recreational opportunity and would likely maintain its demand for use. Standards for Rangeland Health would also apply to 417 miles of eligible river corridors not suitable with this alternative. All these rivers, except portions of Price River, Range Creek, and Fish Creek, overlay grazing allotments.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LIVESTOCK GRAZING				
Opportunities to Eliminate Livestock Grazing to Provide More Wildlife Forage				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Opportunities exist to eliminate some livestock grazing to provide more forage and habitat for wildlife species, particularly deer and elk.				
Decisions				
GREEN RIVER ALLOTMENT				
Grazing would continue in this area as presently allocated.	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)	Grazing would continue in this area as presently allocated. (Same as No Action Alternative.)	If a willing permittee relinquishes AUMs in this allotment, forage use would be reallocated to wildlife.	If a willing permittee relinquishes AUMs in this allotment, forage use would be reallocated to wildlife.

LIVESTOCK GRAZING				
Opportunities to Eliminate Livestock Grazing to Provide More Wildlife Forage				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
REALLOCATE AUMS BETWEEN WILDLIFE, WILD HORSES AND BURROS, AND LIVESTOCK OR OTHER RESOURCES				
Adjustments will be made to livestock so as to maintain rangeland health, range conditions, wildlife habitat needs, and other management objectives.	Increases or decreases in available forage would be adjusted to benefit livestock.	Increases or decreases in available forage would be adjusted between livestock, wild horses and burros, and wildlife or other resource uses, as determined on a case-by-case basis.	Increases or decreases in available forage would be adjusted to benefit wildlife and other resource uses.	Increase or decrease in available forage would be adjusted on a case-by-case basis.
FORAGE ALLOCATION WITHIN LANDS ACQUIRED AFTER THE ADOPTION OF THE PFO RMP				
Lands acquired since San Rafael RMP (1991) and Price River MFP (1983), as well as any future acquisitions, would not be allotted for livestock grazing until a plan amendment is completed.	Lands acquired after adoption of this plan would be managed consistent with the historic use or the purposes for which it was acquired.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Reallocating AUMs from livestock to wildlife would result in long-term improvements to soil, water, and riparian resources. This would mainly be due to the transient nature of wildlife when compared with the sedentary nature of livestock.	Impacts to Soil, Water and Riparian Allocating additional forage to selectively benefit livestock would lead to increased grazing of these areas, resulting in increased compacting of soils. This would lead to increased erosion and resulting siltation and sediment loading of local waters.	Impacts to Soil, Water and Riparian Allocating additional forage equally between livestock and wildlife would result in increased grazing of these areas. Because the feeding behavior of wildlife is transitory, this would lead to increased use by livestock. The result would be an increased compacting of soils that would lead to greater soil erosion and more siltation and sediment loading of local waters. All these outcomes would result in	Impacts to Soil, Water and Riparian Allocating additional forage equally between livestock and wildlife would result in decreased grazing of these areas. This would result in decreased compacting of soils, leading to less soil erosion and a resulting decrease in siltation and sediment loading of local waters. All of these outcomes would lead to long-term benefits to soil, water, and riparian resources.	Impacts to Soil, Water and Riparian Allocating additional forage to selectively benefit livestock would result in increased grazing of these areas, resulting in increased compacting of soils that would lead to increased erosion and resulting siltation and sediment loading of local waters.

LIVESTOCK GRAZING				
Opportunities to Eliminate Livestock Grazing to Provide More Wildlife Forage				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		long-term impacts to soil, water, and riparian resources.		
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife General The removal or reduction of livestock AUMs from various allotments for whatever reason would have short- and long-term benefits to many wildlife species and their habitats. The reallocation of forage from livestock to wildlife would provide significant increases in habitat values for all wildlife species occurring within the allotments being proposed for removal or reduction in grazing AUMs. Non-game Reduction in AUMs or reallocating forage to wildlife	Impacts to Fish and Wildlife Big Game Allowing increases in forage to be allocated to benefit livestock would result in significant loss of foraging opportunities for big game species. If the increase in forage results in an increase in AUMs for specific allotments, then the potential for over-grazing the allotments would exist. This would result in less available forage for wildlife during the critical life periods of winter, leading to the possible starvation of many big game herds. Non-game Any increase in forage would	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.impact.	Impacts to Fish and Wildlife No significant impact.

LIVESTOCK GRAZING				
Opportunities to Eliminate Livestock Grazing to Provide More Wildlife Forage				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>would have beneficial impacts to small mammals not only from increased amounts of available food sources but also from providing increased amounts of escape cover from predators and shelter from weather.</p> <p>Raptors The reallocation of livestock forage to wildlife would increase in amount of forage available for small mammals. This would result in an increase in prey base numbers, which would be beneficial to raptors.</p> <p>Fish Reducing or eliminating the amount of livestock grazing in upland areas adjacent to riparian zones would reduce the loss of vegetation due to consumption and/or trampling. This results in increased vegetation and stable soils, and indirectly reduces the amount of siltation and runoff into local streams that would impact the fish and their habitats found in those streams.</p>	<p>benefit small mammals. However if the increase in forage results in an increase in AUMs, there would be more "green" forage taken by the livestock and less left to produce seed that small mammals require for winter storage. This would result in some loss of small mammal populations.</p> <p>Fish Livestock grazing has been identified as a major impact to survival of many native fish species. Allowing the increase in AUMs as a result in increased forage would significantly impact upland areas adjacent to riparian zones, where the loss of vegetation due to consumption and/or trampling would occur. This would result in a significant loss of vegetation and result in more unstable soils. This would increase the amount of siltation and runoff into local streams, which would impact the fish and the aquatic habitats found in those streams.</p>			
<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>
<p>Impacts to Fire and Fuels Management</p>	<p>Impacts to Fire and Fuels Management</p>	<p>Impacts to Fire and Fuels Management</p>	<p>Impacts to Fire and Fuels Management</p>	<p>Impacts to Fire and Fuels Management</p>

LIVESTOCK GRAZING				
Opportunities to Eliminate Livestock Grazing to Provide More Wildlife Forage				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock Adjustments in livestock forage when conditions warrant improve or maintain vegetative conditions. Adjustments are made to meet RHS and other resource objectives for each grazing allotment. Subsequently this may change the number of livestock grazing on the PFO during a given year.	Impacts to Livestock Adjustments in livestock forage when conditions warrant improve or maintain vegetative conditions. Adjustments are made to meet RHS and other resource objectives for each grazing allotment. Subsequently this may change the number of livestock grazing on the PFO during a given year.	Impacts to Livestock Removing 640 AUMs from the Green River, Rock Creek, and Price River South allotments, and 80 AUMs from the Hondo allotments, is not anticipated to significantly impact livestock grazing. Table 3-25, Licensed Use for Allotments Specifically Addressed in This RMP, shows use of these allotments between grazing years 1992 and 2002. The continued grazing of other areas, as listed in Section 2.16, Alternatives Summary Table, is not anticipated to impact livestock grazing.	Impacts to Livestock No significant impact.	Impacts to Livestock Table 3-25 discusses the use of these allotments between 1994 and 2003. The voluntary removal of livestock grazing from Green River, Rock Creek, and Price River South allotments within Desolation Canyon, and continued grazing of other areas as listed in Section 2.16, Alternatives Summary Table, are not anticipated to impact livestock grazing.
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.

LIVESTOCK GRAZING				
Opportunities to Eliminate Livestock Grazing to Provide More Wildlife Forage				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LIVESTOCK GRAZING				
Administrative Access—Maintaining Motorized Vehicle Access for Range Improvement Construction and Maintenance				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Construction and maintenance of range improvement and livestock management facilities is desirable. Administrative access to these facilities may be provided by permit and not regulated by general OHV designations.				
Decisions				
Access for existing and future range projects would continue to be allowed on an allotment basis.	<ul style="list-style-type: none"> • Required motorized access for existing and future range projects would be limited to specified routes as identified in the range improvement permitting process. • Identification of administrative access routes to range improvements would be documented in each specific range improvement file. 			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and	Impacts to Soil, Water and	Impacts to Soil, Water and	Impacts to Soil, Water and	Impacts to Soil, Water and

LIVESTOCK GRAZING				
Administrative Access—Maintaining Motorized Vehicle Access for Range Improvement Construction and Maintenance				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Riparian No significant impact.	Riparian No significant impact.	Riparian No significant impact.	Riparian No significant impact.	Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources The identification of specific routes for administrative maintenance use would eliminate the potential for cultural resource impacts. Identifying these routes in the permitting process would allow for cultural resource inventories/clearances to be completed, identifying and mitigating any adverse impacts.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources The identification of specific routes for administrative maintenance use could reduce the potential for paleontological impacts. Because no paleontological assessment would be required, the potential for disturbance of paleontological resources would remain. It is not anticipated that this would be a significant impact.	Impacts to Paleontology Resources Same as Alternative A.	Impacts to Paleontology Resources Same as Alternative A.	Impacts to Paleontology Resources Same as A. The identification of specific routes for administrative maintenance use could reduce the potential for paleontological impacts. Because no paleontological assessment would be required, the potential for disturbance of paleontological resources would remain. It is not anticipated that this would be a significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species

LIVESTOCK GRAZING				
Administrative Access—Maintaining Motorized Vehicle Access for Range Improvement Construction and Maintenance				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock Allowing and maintaining access for existing and future rangeland improvement projects on an allotment basis and changing allotment boundaries to improve livestock management are not anticipated to impact livestock grazing. Range improvements such as water developments and fences would be planned with multiple use objectives to ensure other resource benefits are not harmed by range improvements. Improvements would enable the implementation of grazing plans, which generally increase distribution and improve forage utilization levels.	Impacts to Livestock Limiting administrative access to specified routes as identified in the rangeland improvement permitting process is not anticipated to impact livestock grazing. Restricting access to specified routes could maintain vegetative resources by limiting the areas vulnerable to invasion by noxious weeds. Range improvements such as water developments and fences would be planned with multiple use objectives to ensure other resource benefits are not harmed by range improvements. Improvements would enable the implementation of grazing plans, which generally increase distribution and improve forage utilization levels.	Impacts to Livestock Allowing and maintaining access for existing and future rangeland improvement projects on an allotment basis, and changing allotment boundaries to improve livestock management, is not anticipated to impact livestock grazing. Range improvements such as water developments and fences would be planned with multiple use objectives to ensure other resource benefits are not harmed by range improvements. Improvements would enable the implementation of grazing plans, which generally increase distribution and improve forage utilization levels.	Impacts to Livestock Limiting administrative access to specified routes as identified in the rangeland improvement permitting process is not anticipated to impact livestock grazing. Restricting access to specified routes could maintain vegetative resources by limiting the areas vulnerable to invasion by noxious weeds. Range improvements such as water developments and fences would be planned with multiple use objectives to ensure other resource benefits are not harmed by range improvements. Improvements would enable the implementation of grazing plans, which generally increase distribution and improve forage utilization levels.	Impacts to Livestock Allowing and maintaining access for existing and future rangeland improvement projects on an allotment basis, and changing allotment boundaries to improve livestock management, is not anticipated to impact livestock grazing. Range improvements such as water developments and fences would be planned with multiple use objectives to ensure other resource benefits are not harmed by range improvements. Improvements would enable the implementation of grazing plans, which generally increase distribution and improve forage utilization levels.

LIVESTOCK GRAZING				
Administrative Access—Maintaining Motorized Vehicle Access for Range Improvement Construction and Maintenance				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
A few permits have been relinquished or removed from grazing that have not been reallocated. The following decisions would provide for the allocation of forage and				

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
the orderly administration of public rangeland. The following allotments have had grazing removed or reduced for the listed reasons.				
Decisions				
Bunderson: Loss of base property (27 AUMs), April 1992	Permit would be reissued for the listed 27 AUMs (subject to range condition) for livestock use.	Permit would be reissued for the listed 27 AUMs (subject to range condition) for livestock use. (Same as Alternative A.)	The listed 27 AUMs would be allocated for watershed benefit.	The listed 27 AUMs would be allocated for watershed benefit. (Same as Alternative C.)
Case: Loss of base property (11 AUMs), March 2000	Permit would be reissued for the listed 11 AUMs (subject to range condition) for livestock use.	Permit would be reissued for the listed 11 AUMs (subject to range condition) for livestock use. (Same as Alternative A.)	The listed 11 AUMs would be allocated for watershed benefit.	The listed 11 AUMs would be allocated for watershed benefit. (Same as Alternative C.)
Ferron Mills: Failure to use (30 AUMs); Decision says to reallocate AUMs to Wildlife in RMP, February 2002	30 AUMs would be reallocated to wildlife as recommended in the decision to remove the grazing from the allotment.			
Peterson: Failure to use (8 AUMs), June 1976; nothing done in MFP to reallocate	Peterson and Washboard allotments would be combined for increased area. Eight AUMs would be allocated to wildlife.	Peterson and Washboard allotments would be combined for increased area. Eight AUMs would be allocated to wildlife. (Same as Alternative A.)	The listed 8 AUMs would be allocated for watershed benefit.	Peterson and Washboard allotments would be combined for increased area. Eight AUMs would be allocated to wildlife. (Same as Alternative A.)
Rim Rock: Loss of base property (45 AUMs)	Permit would be reissued for the listed 45 AUMs (subject to range condition) for livestock use.	Permit would be reissued for the listed 45 AUMs (subject to range condition) for livestock use. (Same as Alternative A.)	The listed 45 AUMs would be allocated for watershed benefit.	The listed 45 AUMs would be allocated for watershed benefit.
Wattis: Loss of base property (50 AUMs), October 1996	50 AUMs would be reallocated to wildlife as recommended in the decision to remove the grazing from the allotment.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Livestock grazing permits that have been relinquished or	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
removed from grazing and have not been reallocated would provide long-term benefits to the soil, water, and riparian resources found in those allotments. This would result from the resting of these areas, which would allow them to return to an ungrazed or more natural environment.				
<p>Impacts to Vegetation Resources The reallocation of AUMs for livestock to adjust for range conditions potentially would alter some plant species percentage cover. Removing AUMs that have not been used because of loss of base property or the failure to use may increase the percentage of cover of forage preferred by livestock. Access to existing and future range improvement projects would continue on an allotment basis. Areas adjacent to the access routes in each allotment would be vulnerable to noxious weed and invasive plant species infestations.</p>	<p>Impacts to Vegetation Resources The reallocation of AUMs for livestock to adjust for range conditions potentially would alter some plant species percentage cover. Removing AUMs that have not been used because of loss of base property or the failure to use may increase the percentage of cover of forage preferred by livestock. Access to existing and future range improvement projects would continue on an allotment basis. Areas adjacent to the access routes in each allotment would be vulnerable to noxious weed and invasive plant species infestations.</p>	<p>Impacts to Vegetation Resources The reallocation of AUMs for between wildlife and livestock to adjust for range conditions potentially would alter some plant species percentage cover. Removing AUMs that have not been used because of loss of base property or the failure to use may increase the percentage of cover of forage preferred by livestock. Access to existing and future range improvement projects would continue on an allotment basis. Areas adjacent to the access routes in each allotment would be vulnerable to noxious weed and invasive plant species infestations.</p>	<p>Impacts to Vegetation Resources The reallocation of AUMs between wildlife and livestock to adjust for range conditions would potentially alter some plant species percentage cover. Removing AUMs that have not been used because of loss of base property or the failure to use may increase the percentage of cover of forage preferred by livestock. Access to existing and future range improvement projects would continue on an allotment basis. Areas adjacent to the access routes in each allotment would be vulnerable to noxious weed and invasive plant species infestations.</p>	<p>Impacts to Vegetation Resources The reallocation of AUMs for livestock to adjust for range conditions potentially would alter some plant species percentage cover. Removing AUMs that have not been used because of loss of base property or the failure to use may increase the percentage of cover of forage preferred by livestock. Access to existing and future range improvement projects would continue on an allotment basis. Areas adjacent to the access routes in each allotment would be vulnerable to noxious weed and invasive plant species infestations.</p>
<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>
<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	<p>Impacts to Fish and Wildlife General</p> <p>Approximately 30 AUMs from Ferron Mills allotment would be reallocated to wildlife as recommended in the decision to remove the grazing from the allotment. In addition, eight AUMs would be reallocated for wildlife as a result of the combination of Peterson and Washboard allotments. Approximately 50 AUMs from the Wattis allotment would be reallocated for wildlife. This would eliminate competition for forage and cover. The reallocation of AUMs to benefit wildlife would provide significant benefits to all wildlife species.</p> <p>Birds</p> <p>Brown-headed cowbirds have adapted well to changes in livestock grazing and management practices. These changes have enabled cowbirds to expand their range and detrimentally increase the effects of their nest parasitism. If increases in forage results in increase in AUMs, there would be increased nesting</p>	<p>Impacts to Fish and Wildlife Big Game</p> <p>Continuing current grazing practices would not benefit wildlife in the PFO. Allowing increases in forage to be allocated between livestock and wildlife would result in no significant loss of foraging opportunities for big game species. If an increase in forage results in an increase in AUMs for specific allotments, the potential for over-grazing the allotments would exist. This would result in less available forage for wildlife during critical life periods of winter. This would lead to possible starvation of many big game herds.</p> <p>Non-game</p> <p>Any increase in forage would benefit small mammals. However, if the increase in forage results in an increase in AUMs, there would be more "green" forage taken by the livestock and less left to produce seed that small mammals require for winter storage. This would result in some loss of small mammal</p>	<p>Impacts to Fish and Wildlife Big Game</p> <p>Removal of livestock grazing from these areas would significantly benefit big game populations by reducing the competition not only for these forage resources but by providing less competition for space, water, and cover.</p> <p>Non-game</p> <p>Numerous small mammals rely specifically on riparian-wetland complexes for their life requirements. The removal of livestock from these identified areas would significantly improve the habitats necessary to these species.</p> <p>Birds</p> <p>Numerous neo-tropical migrants would benefit from removal of grazing within these areas. Over-grazing of riparian-wetland areas has been identified as one of the major impacts to these species. Removal of grazing will ensure that significant amounts of vegetation will become available for these species to meet their life</p>	<p>Impacts to Fish and Wildlife General</p> <p>Increase in available forage that would be allocated equally to all grazing ungulates would be beneficial to wildlife populations.</p> <p>Non-game</p> <p>Any increase in forage would benefit small mammals.</p> <p>Birds</p> <p>Non-game birds and raptors. Managing livestock grazing to meet RHS would ensure sufficient herbaceous and shrub cover to meet minimum life requirements for these species.</p>

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	parasitism on some state sensitive bird species. This would result in reduced populations of these state sensitive species.	populations. Fish Livestock grazing has been identified as a major impact to survival of many native fish species. Allowing the increase in AUMs as a result in increased forage would significantly impact upland areas adjacent to riparian zones, where the loss of vegetation due to consumption and/or trampling would occur. This would result in a significant loss of vegetation, leading to more unstable soils. This would then increase the amount of siltation and runoff into local streams that would impact the fish and the aquatic habitats found in those streams.	requirements. Fish The removal of livestock grazing from riparian-wetland ecosystems would allow significant recovery of vegetation that provides cover, water temperature regulation, and acts to filter silt and sediment from the water.	
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock The loss of base property or the failure to use has resulted in 171 AUMs currently not	Impacts to Livestock The loss of base property or the failure to use has resulted in 171 AUMs currently not	Impacts to Livestock The loss of base property or the failure to use has resulted in 171 AUMs currently not	Impacts to Livestock The loss of base property or the failure to use has resulted in 171 AUMs currently not	Impacts to Livestock The loss of base property or the failure to use has resulted in 171 AUMs currently not

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
allocated on 6 allotments. Retaining 30 AUMs from the Ferron allotment for wildlife use and allocating the remaining 141 AUMS are not anticipated to impact livestock grazing.	allocated on 6 allotments. Reallocating 30 AUMs from the Ferron allotment for livestock use and 58 AUMs for wildlife use is not anticipated to impact livestock grazing. The 83 AUMs from the remaining 3 allotments are not anticipated to significantly impact livestock grazing.	allocated on 6 allotments. Reallocating 91 AUMs for watershed benefit, retaining 30 AUMs from the Ferron allotment for wildlife use, and allocating the remaining 50 AUMS for wildlife use are not anticipated to significantly impact livestock grazing.	allocated on 6 allotments. Reallocating 91 AUMs for watershed benefit, and allocating the remaining 80 AUMS for wildlife use, are not anticipated to significantly impact livestock grazing.	allocated on 6 allotments. Retaining 30 AUMs from the Ferron allotment for wildlife use and allocating remaining 141 AUMS are not anticipated to impact livestock grazing.
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste

LIVESTOCK GRAZING				
Allocation of Forage on Removed or Relinquished Permits				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.

LIVESTOCK GRAZING				
Opportunities to Combine Allotments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Because of land tenure adjustments and changes in administrative boundaries, some grazing allotments or parts of grazing allotments are no longer under the jurisdiction of the PFO. As a result of the previous land use plan, some allotments have been combined or have undergone boundary changes to promote orderly administration of the federal rangeland. There are some opportunities to combine allotments to improve manageability and orderly administration.				
Decisions				
ALLOTMENTS NO LONGER MANAGED BY THE PFO				
Canyon Allotment: Transferred to SITLA in 1998 land exchange				
Max Canyon Allotment: Transferred to Vernal for management of grazing				
Mohrland Allotment: Transferred to SITLA in 1998 land exchange				
Issue: Lands Sold or Permits Combined Since the San Rafael RMP (1991) or Price River MFP (1983)				
Canal Cattle Allotment combined with Desert Allotment in 1986				
Elliot Mountain, Pack Trail, River, Bighorn, and Last Chance allotments combined into Gray Canyon WMA				
Lila Canyon and Little Park allotments combined				
Dugout Allotment transferred to SITLA				
Church Flat, Farnham, and Oil Well Draw South allotments combined into Mounds Allotment				
Justensen and West Orangeville allotments combined				
Brown allotment sold in March 1997				
ISSUE: ALLOTMENTS THAT WERE AFFECTED BY THE 1998 LAND EXCHANGE				

LIVESTOCK GRAZING				
Opportunities to Combine Allotments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
State land Exchange Allotments		AUMs transferred to SITLA		
Canyon Allotment	100			
Consumers Wash Allotment	158			
East Grimes Allotment	50			
Haley Canyon Allotment	37			
Hiawatha Allotment	86			
Miller Creek Allotment	303			
Mohrland Allotment	110			
North Huntington Allotment	1,148			
North Spring Allotment	274			
Pinnacle Bench Allotment	140			
Poison Spring Bench Allotment	690			
Porphyry Bench Allotment	226			
Washboard Allotment	60			
Wattis Allotment	9			
West Huntington Allotment	472			
Wilberg Allotment	202			
Total	4,065 AUMs			
PROPOSED CHANGES IN ALLOTMENTS				
North Herring Flat and South Herring Flat would remain separate allotments	North Herring Flat and South Herring Flat would remain separate allotments. (Same as No Action Alternative.)	Combine North Herring Flat and South Herring Flat allotments. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels.	Combine North Herring Flat and South Herring Flat allotments. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)	Combine North Herring Flat and South Herring Flat allotments. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)

LIVESTOCK GRAZING				
Opportunities to Combine Allotments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Deepwash and Mervin would remain separate allotments	Deepwash and Mervin would remain separate allotments. (Same as No Action Alternative.)	Combine Deepwash and Mervin allotments. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels.	Combine Deepwash and Mervin allotments. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)	Combine Deepwash and Mervin allotments. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)
Peterson with Washboard would remain separate allotments.	Peterson and Washboard would remain separate allotments. (Same as No Action Alternative.)	Peterson and Washboard allotments would be combined. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels.	Peterson and Washboard allotments would be combined. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)	Peterson and Washboard allotments would be combined. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)
Northwest Ferron and Clawson Dairy would remain separate allotments.	Northwest Ferron and Clawson Dairy would remain separate allotments. (Same as No Action Alternative.)	Northwest Ferron and Clawson Dairy allotments would be combined. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels.	Northwest Ferron and Clawson Dairy allotments would be combined. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)	Northwest Ferron and Clawson Dairy allotments would be combined. AUMs would remain the same (combined allotment numbers) unless monitoring indicates a need to change AUM levels. (Same as Alternative B.)
No similar action.	Allotment boundary adjustments would be allowed at the activity plan level as needed to meet management goals and objectives.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural

LIVESTOCK GRAZING				
Opportunities to Combine Allotments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Resources No significant impact.				
Impacts to Paleontology Resources No significant impact.				
Impacts to Visual Resources No significant impact.				
Impacts to Special Status Species No significant impact.				
Impacts to Fish and Wildlife No significant impact.				
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.				
Impacts to Livestock No significant impact.				
Impacts to Recreation No significant impact.				
Impacts to Lands and Realty No significant impact.				
Impacts to Minerals and Energy No significant impact.				

LIVESTOCK GRAZING				
Opportunities to Combine Allotments				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

RECREATION

Assumptions

The analysis is based on the following assumptions:

Common to All

- Within SRMAs, ROS objectives limit recreation activities according to the ROS class definitions.
- Demand for SRPs will remain constant or increase slightly.
- Demand for OHV use will increase more than any other recreation use in PFO. For the purposes of analysis, it should be assumed that OHV use will undergo small but steady annual increases in accordance with the OHV designation under each alternative.
- OHV use will occur consistent with OHV area and route designations.
- OHV use is limited to designated roads and trails in those areas that are in the limited OHV category.
- No significant increase in recreation development, management, or use will result from any scenic byway or backway.

Alternative 1 No Action

- No addition to developed recreation sites will be developed under this alternative.

Alternative A

- Development and use of the four High-Use Areas under Alternative A will lead to increased levels of concentrated recreation use in these areas and to higher levels of resource impacts. Concessionaires will manage use of the areas in accordance with objectives identified under this alternative.
- Development of facilities within the High-Use Areas will occur as described under this alternative during the life of the plan

Alternative B

- Development and use of the five High-Use Areas under Alternative B will lead to increased levels of concentrated recreation use in these areas, and to higher levels of resource impacts. BLM will manage use of the areas in accordance with objectives identified under this alternative.
- Development of facilities within the High-Use Areas will occur as described under this alternative during the life of the plan.

Alternative C

- Same as Alternative 1.

Alternative D

- Development and use of the five High-Use Areas under Alternative D will lead to increased levels of concentrated recreation use in these areas and to higher levels of resource impacts. BLM will manage use of the areas in accordance with objectives identified under this alternative.

Significance Criteria

Impacts to Recreation would be considered significant if any of the following were to occur:

- Management leads to the loss of any recreation experience within the range of recreation opportunities unique to the resources in the PFO.
- Demand for recreation opportunities exceeds the capacity of available facilities and management.
- Management actions result in the need to reclassify any portion of an ROS class.
- Management results in the need for additional or larger SRMAs as a result of an increase to the demand or change in use.

Methods of Analysis

Analysis of impacts to Recreation was conducted by researching the RMP decisions for all actions for any resource or resource use that could cause a change or changes to commercial and noncommercial recreation uses, recreation opportunities, or recreation facilities in the PFO. Recreation Management Information System (RMIS) data used for analysis included the existing recreation situation as presented in Chapter 3, research on regional trends in recreation data, professional judgment, and knowledge of the area.

RECREATION

Common to All Alternatives

Decision Background

The following decisions provide direction for management of recreation use. These decisions are included to clarify standard operating procedures.

Decisions

Actions Common to All Alternatives:

Utah standards would generally guide management of recreation for public land health and provide guidelines for recreation management. The guidelines describe, in a broad sense, the procedures that should be applied to achieve standards for rangeland health within the recreation program. Consistent with existing policies, guidance, and budgetary constraints, the standards recommend that BLM do the following in managing recreation:

- Recognize that various levels of regulations and limits are necessary. Restrictions and limitations on public uses should be as few as possible without compromising the primary goal.
- Use on-the-ground presence as a tool to protect public lands.
- Where long-term damage by recreational uses is observed or anticipated, limit or control activities through specialized management tools such as designated campsites, permits, area closures, and limitations on number of users and duration of use. Revise recreation management plans and management framework plans when they prove to be either overly restrictive or inadequate to maintain public land health.
- Coordinate with federal and state agencies, county and local governments, and tribal nations in recreation planning and managing traffic, search and rescue operations, trash control and removal, and public safety.
- Consider and, where appropriate, implement management methods to protect the resource, as well as maintain the quality of experience of the various user groups. These methods could include limitation of numbers, types, timing, and duration of use.
- Encourage the location of public land recreational activities near population centers and highway corridors by placement of appropriate visitor-use infrastructure. Provide restrooms and other facilities adequate for anticipated uses at designated campgrounds, trail heads, and other areas where there is a concentration of recreational users.
- Emphasize "Leave No Trace" camping and travel techniques throughout the PFO.
- OHV use will be allowed on designated routes in limited areas. It will not be allowed in areas closed to OHV use. OHV use for game retrieval will follow all area and route designations for OHV use.
- Allow mountain biking on all routes designated for OHV use and on June's Bottom and Black Dragon Canyon Routes and other routes or areas designated for mountain bike use. Designation of additional mountain bike areas or routes would occur through activity plans.

Impact Analysis

RESOURCES

Impacts to Air Quality

Recreation use of OHVs associated with short-term extensive use would result in pollutant emissions and cause an increase in fugitive dust. This impact would be limited to specific geographical areas of OHV concentration and duration.

RECREATION

Common to All Alternatives

Impacts to Soil, Water and Riparian

Recreation activities would have geographically limited impacts to soil, water, and riparian resources when those resources were located in the vicinity of highly used recreation areas: campgrounds, parking lots, trailheads, and other recreation-related use areas. Trail use (walking, equestrian, OHV, and mountain biking) would result in soil compaction and loss of vegetative cover, which would lead to increased erosion during wet periods.

Recreation activities, depending on the type (e.g., equestrian, hiking, OHVs) and duration of use, period of use, and number of users, would provide beneficial impacts to these resources. There would be short-term local impacts caused by disturbing surface soils and removing and trampling vegetation; however, dispersed recreation would cause less erosion and indirectly dispersed recreation would reduce impacts to water and riparian/wetland resources.

Impacts to Vegetation Resources

Dispersed camping could cause short-term impacts to vegetation resources by removing and trampling existing vegetation. Limiting camping to 14 days in one location within a 30-mile radius would reduce the frequency of disturbance. However, some areas are highly attractive to dispersed camping use and the frequency of disturbance may remove vegetation from these areas.

Impacts to Cultural Resources

Cultural resource inventories/clearances conducted before construction of developed recreation sites would identify most cultural resources, increasing the database of known cultural properties. Construction of developed recreation sites would increase the potential of impacting cultural resources not identified before the ground-disturbing activity. Impacts to cultural resources identified in discovery situations are often greater than impacts to known cultural properties, because the cultural resources are identified after they have been partially damaged. Damage to discovery sites occurs before recordation and evaluation, complicating mitigation procedures. Mitigating potential damage to cultural resources through data recovery would increase the understanding of cultural resources.

The potential for significant cultural resource impacts would be greater from non-developed recreation sites. Although use would be dispersed over a larger area, reducing the magnitude of impact, non-developed recreation sites usually do not have cultural resource inventories/clearances before being established. Impacts from non-developed recreation would be mitigated on a case-by-case basis when discovered.

Increased public awareness through educational opportunities would emphasize the importance of protecting cultural resources. Interpretive signs and markers identifying cultural resources would inform and educate the public, thereby increasing compliance with RMP actions and increasing preservation of cultural resources.

Vandalism, looting, or non-compliant OHV use could result in the damage, destruction, or loss of cultural resources. Even if these actions were inadvertent or uninformed, their impacts would be significant. However, this analysis process assumes public land users will comply with RMP management actions and applicable laws. Vandalism, looting, or non-compliance with OHV designations, whether willful, inadvertent, or uninformed, is an issue of informing public land users and enforcement and will not be addressed in this analysis.

Impacts to Paleontology Resources

The potential for significant paleontological resource impacts is greater from non-developed recreation sites. While use disperses over a larger area, reducing the magnitude of impact, non-developed recreation sites usually do not have paleontological assessments before being established. As construction of developed recreation sites increases, the potential to significantly impact paleontological resources would increase, as would the opportunity to interpret the sites and educate the public. Impacts from non-developed recreation would be mitigated on a case-by-case basis when discovered.

Impacts to Visual Resources

The development of recreational facilities would be required to meet the objectives for the VRM Class in which they would be constructed. Generally, the type of recreation activity that would take place within with a given VRM Class would coincide with the objective for that Class, thus minimal impacts would occur from recreation. The use of the ROS within SRMAs would assist in meeting the objectives for VRM Classifications.

RECREATION**Common to All Alternatives****Impacts to Special Status Species**

Human activity associated with recreation, equestrians, hiking, boating, biking can adversely affect Special Status Species by disturbing animals during critical life cycles such as breeding, nesting, or rearing.

Managing SRMAs and extensive recreation management areas (ERMA) of the PFO for the ROS is not anticipated to impact Special Status Species. Restricting OHV use to designated roads and trails would reduce potential impacts to Special Status Species. This restriction would eliminate surface disturbance associated with OHV use.

Temporal and spatial restrictions on dispersed camping throughout the PFO would reduce impact to Special Status Species by decreasing impacts to vegetation and lowering the opportunity for negative interactions. Limiting rock climbing to within 300 feet of raptor nests would improve nest success and contribute to maintaining raptor populations.

Designating SRMAs and issuing SRPs indirectly would improve Special Status Species populations and habitats by reducing surface disturbance. Permits would not be issued in areas with occupied or potential habitat for Special Status Species.

RECREATION

Common to All Alternatives

Impacts to Fish and Wildlife

General

Management of recreation as guided by Utah Standards for Public Land Health and Guidelines for Recreation Management allows special management regulations to be placed on recreation activities if long-term damage from recreation use is observed or anticipated. In addition, special management tools can be used, including designating campsites, closing certain areas, and placing limits on the number of persons permitted in an area. This would minimize harassment and displacement of fish and wildlife species, as well as minimize habitat destruction resulting from recreation use.

Impacts resulting from OHV use, even on designated roads and trails, could result in displacement and increased stress for wildlife when they occur in critical habitat or during critical time periods. Several closures and seasonal restrictions exist to minimize this impact.

Recreation management activities that result in increased human presence would have a moderate localized impact on wildlife and fish species. These activities include hiking, biking, camping, fishing, hunting, and sightseeing. Impacts would include increased displacement of wildlife, increased stress during critical time periods, and degradation of habitats. The presence of human activity would lead to behavioral avoidance and abandonment of habitats crucial to the life strategies of wildlife.

Dispersed recreation would lead to more human impacts to local vegetation communities from firewood gathering, trampling, and cutting of brush and trees. This would lead to loss of habitat for many wildlife species. The presence of human activity in these isolated, dispersed areas would lead to behavioral avoidance of these areas by wildlife.

Non-game

Dispersed recreation would lead to a disruption of small mammal populations whose entire range of existence is less than one-quarter mile. Numerous species would be displaced and their habitats fragmented or destroyed by the presence of humans and their associated activities (e.g., firewood gathering, trail pioneering, clearing vegetation).

Birds

Dispersed recreation and its effects on local vegetation communities would lead to fragmentation and loss of critical microhabitats. Increased human activity would lead to abandonment of nests and nesting areas. This would lead to downward population trends.

Raptors

Restricting rock climbing from within 300 feet directly above or directly below raptor nest sites would be of little consequence. This still would allow rock climbers horizontal access to raptor sites. Rock climbing activities should be restricted based on the recommendations of the USFWS "Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances," Table 2, "Nesting Periods and Recommended Buffers for Raptors in Utah."

Fish

Dispersed recreation would potentially impact fish and riparian-aquatic habitats through the loss of soil stabilizing vegetation associated with these habitats. The loss of vegetation would lead to destabilizing of soils, increased runoff, and increased siltation and sediment loading of streams.

Impacts to Wild Horses and Burros

Localized short-term impacts associated with wild equine displacement from direct human disturbance, such as recreational wild horse viewing, hiking, camping, are not anticipated to be significant.

Impacts to Fire and Fuels Management

No significant impact.

RECREATION
Common to All Alternatives

RESOURCE USES

Developed recreation sites identified as high-value resources would result in increased suppression of wildland fires that threaten them. In addition, there would be increased fuels treatments adjacent to developed recreation sites to reduce the needs to expend considerable efforts through suppression. Managing increased recreation use in developed recreation sites would reduce the potential for human-caused wildland fires. This is due to fuel treatments surrounding developed recreation sites and reduced fine fuels within developed recreation sites.

OHV use would directly impact fire management. As density and areas of use increase, the potential for OHV-caused fires (e.g., catalytic converters, OHVs without spark arresters that would start fires when coming in contact with dry vegetation) would increase.

Impacts to Forest and Woodlands

No significant impact.

Impacts to Livestock

No impacts are anticipated to livestock grazing from SRMAs.

Impacts to Recreation

Closing developed recreation sites to livestock grazing and recommending developed sites for withdrawal from mineral entry and NSO or closed to mineral leasing would maintain the recreational experience within these sites by reducing livestock and mineral-related conflicts.

Continuing to manage the Desolation Canyon SRMA according to the Desolation and Gray Canyons of the Green River Management Plan would maintain existing use levels, while protecting high-value recreational, wilderness, cultural, and natural resources within the SRMA.

Issuing SRPs to support recreation management objectives and resource protection would improve human health and safety, access to recreation opportunities, and service to the recreating public. Issuance of SRPs would also reduce potential conflicts between other uses and users.

Enforcement of OHV area and route designations would reduce opportunity for motorized access to some sites. However, limiting OHV use to designated routes would improve other recreational experiences by reducing natural and social impacts from off-trail travel. Also, limiting this type of travel would reduce impacts to soils and vegetation and reduce wildlife disturbance.

Impacts to Lands and Realty

The location of recreation sites may alter location of ROWs. An increase in recreation related-activities may increase demand for land exchanges to consolidate public land ownership.

Impacts to Minerals and Energy

No significant impact.

Oil and Gas

Recreation management actions would have long-term, direct impacts to oil and gas exploration and development. Avoidance of developed recreation sites would relocate oil and gas development and increase costs to the operator. Large recreation sites would potentially require directional drilling to extract hydrocarbon resources.

SPECIAL DESIGNATIONS**Impacts to Wilderness Study Areas**

No significant impact.

RECREATION Common to All Alternatives	
Impacts to Areas of Critical Environmental Concern No significant impact.	
Impacts to Wild and Scenic Rivers No significant impact.	
SUPPORT	
Impacts to Transportation and Motorized Access Increased recreation activity in the PFO would create the demand for additional transportation facilities and motorized access. This anticipated increase would also increase maintenance costs and frequency.	
Impacts to Hazardous Materials and Waste No significant impact.	

RECREATION Recreation Opportunity Spectrum (ROS)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Designation of ROS classes is a common method of categorizing recreation opportunities on a variety of landscapes. ROS describes the natural, social, and managerial settings for various types of recreational activity.				
Decisions				
No Similar Action.	Within SRMAs, manage recreation activities for recreation opportunity settings, as identified on Map 3-16 (ROS inventory map) (See Appendix 15 for description of ROS settings). Recreation facilities would be developed only in response to resource management needs and would be appropriate to the managerial setting identified for each ROS class. Other resource uses would be subject to limitations based on the class designations and associated opportunity types.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.			
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.			

RECREATION				
Recreation Opportunity Spectrum (ROS)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.			
Impacts to Cultural Resources Primitive and Semi-Primitive Non-Motorized (SPNM) ROS designations within SRMAs would preclude most surface developments in these areas. This would preserve cultural resources in place in these areas. It would also restrict the use of motorized vehicles or equipment, making data recovery for scientific purposes more difficult.	Impacts to Cultural Resources Primitive and Semi-Primitive Non-Motorized (SPNM) ROS designations within SRMAs would preclude most surface developments in these areas. This would preserve cultural resources in place in these areas. It would also restrict the use of motorized vehicles or equipment, making data recovery for scientific purposes more difficult. The acreage within SRMAs would increase by more than 125,600 acres compared to the No Action Alternative, specifically the Desolation Canyon, Labyrinth Canyon, and Nine Mile Canyon SRMAs. This increase would result in an increase in the restrictions on surface development.			
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.			
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.			
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.			
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.			
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.			
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.			
RESOURCE USES				

RECREATION				
Recreation Opportunity Spectrum (ROS)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.			
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.			
Impacts to Recreation No significant impact.	Impacts to Recreation Management of all activities using the ROS as a prescriptive management tool within SRMA in the San Rafael area would maintain all types of recreation opportunities within the SRMAs.			
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.			
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.			
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.			
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access Management of recreation opportunities through the ROS within SRMAs would cause long-term, direct impacts to transportation and motorized access by restricting motorized travel to meet the management objectives of the Primitive and SPNM classes and limiting motorized use in the Semi-Primitive Motorized (SPM) class.			
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.			

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Desolation Canyon provides for a wilderness quality recreation experience. Most use is associated with float boating along the 84 miles of the Green River in Desolation and Gray Canyons. The area also provides great opportunity for the enjoyment and viewing of cultural sites including the Desolation Canyon NHL, numerous prehistoric sites, and historic sites. The Green River through Desolation Canyon has been adjudicated as non-navigable.				
Decisions				
The SRMA boundary would be as shown on Map 2-17.	The SRMA boundary would be as shown on Map 2-18.	The SRMA boundary would incorporate the existing SRMA plus the Desolation Canyon WSA as shown on Map 2-19.	The SRMA boundary would incorporate the existing SRMA plus the Desolation Canyon WSA, along with contiguous and SPNM ROS classes as shown in Map 2-20.	The SRMA boundary would incorporate the existing SRMA plus the Desolation Canyon WSA as shown on Map 2-21.
	Minimal visitor facilities would be provided for visitor health and safety and resource protection in the Sand Wash area and the Green River Daily section.			
Motorized boating is restricted to wakeless operation.	No additional restrictions on motorized boating use would be implemented.	Motorized boating use would be limited to flows below 5,000 cfs, and only 4 stroke motors would be allowed. A maximum of 90 motorized boats would be allowed in the SRMA per year.	No motorized boating use would be permitted.	Motorized boating use would be limited to flows below 5,000 cfs, and only 4 stroke motors would be allowed. A maximum of 90 motorized boats would be allowed in the SRMA per year. (Same as Alternative B)
The Range Creek Jeep trail is presently closed by a barricade located approximately 1.25 miles from the Green River.	Primitive and SPNM ROS Class areas of the SRMA would be closed to OHV use, and limited to designated routes in SPM areas. The Range Creek Jeep Trail would be designated for OHV use to the present barricade.	The SRMA would be closed to OHV use, except the Sand Wash, and lower Gray Canyon recreation sites. The Range Creek Jeep trail would be designated for OHV use to the lowest drill hole. Any additional routes constructed on existing leases for oil and gas would be gated and closed to recreational use, unless determined to enhance the SRMA objectives.	The Primitive and SPNM ROS Class areas in the SRMA would be closed to OHV use and limited to designated BLM and county system roads in SPM areas. The Range Creek jeep trail would be closed to motorized use at the confluence of Turtle Canyon. Any additional routes constructed on existing leases for oil and gas would be gated and closed to recreational use.	The SRMA would be closed to OHV use, except the Sand Wash, and lower Gray Canyon recreation sites. The Range Creek Jeep trail would be designated for OHV use to the lowest drill hole. (Same as Alternative B) Any additional routes constructed on existing leases for oil and gas would be gated and closed to recreational use, unless determined to enhance the SRMA objectives. (Same as Alternative B)

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Range Creek ACEC:</p> <p>Current OHV use in Lower Range Creek is causing damage to vegetation and riparian resources and providing easy access to cultural resources. This poses a threat to the R&I for the proposed Range Creek ACEC.</p>	<p>Impacts to Range Creek ACEC:</p> <p>Current OHV use in Lower Range Creek is causing damage to vegetation and riparian resources and providing easy access to cultural resources. This poses a threat to the R&I for the proposed Range Creek ACEC.</p>	<p>Impacts to Range Creek ACEC:</p> <p>Closure of the OHV trail below the drill hole would limit OHV use to only that portion of the trail that was constructed. The primitive 3-mile segment of road from the drill hole to the present barricade would better protect cultural, riparian, and vegetation R&I values.</p>	<p>Impacts to Range Creek ACEC:</p> <p>This alternative would close lower Range Creek to OHV use entirely. This alternative provides the best protection of the ACEC R&I values.</p>	<p>Impacts to Range Creek ACEC:</p> <p>Closure of the OHV trail below the drill hole would limit OHV use to only that portion of the trail that was constructed. The primitive 3-mile segment of road from the drill hole to the present barricade would better protect cultural, riparian, and vegetation R&I values.</p>
	<p>Under this alternative, recreation management of the Lower Gray Canyon High-Use Area, as shown on Map 2-22, focuses on the management of recreation as a commodity and would emphasize commodity value.</p>	<p>Under this alternative, recreation management of the Lower Gray Canyon High-Use Area, as shown on Map 2-23, focuses on the management of recreation to manage activities to sustain natural resources while meeting social and economic needs.</p>	<p>Under this alternative, recreation management of the Lower Gray Canyon High-Use area, as shown on Map 2-24, focuses on the management of recreation to manage resources emphasizing natural processes to achieve self-sustaining systems.</p>	<p>Under this alternative, recreation management of the Lower Gray Canyon High-Use area, as shown on Map 2-25, focuses on the management of recreation to manage activities to sustain natural resources while meeting social and economic needs. (Same as Alternative B)</p>

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>An activity level plan for the Lower Gray Canyon High-Use Area would—</p> <ul style="list-style-type: none"> • Rely on concessionaire leases and the use of outfitters to provide maximum development of recreation opportunities. • BLM would retain overall management • Concessionaires would charge fees for entry, camping, and other uses (boat ramp, hiking, etc.) and services in the area. Fees would be commensurate with lease value, comparable market recreation fees, and cost of services provided. • Concessionaires would also be permitted to vend items in support of resource protection (such as firewood) and to sell interpretive materials. 	<p>An activity level plan for the Lower Gray Canyon High-Use Area would—</p> <ul style="list-style-type: none"> • Rely on BLM management to provide recreation opportunities. • Emphasize facilities development, limiting use to developed sites, and reliance on Special Recreation Permitees to provide certain goods and services. 	<p>An activity level plan for the Lower Gray Canyon High-Use Area would—</p> <ul style="list-style-type: none"> • Under this alternative, recreation management would be limited to existing development, an established carrying capacity, limited designation of dispersed campsites, and a fee-based reservation system for any use of the area during peak use periods (such as summer and high-flow weekends and holidays). 	<p>An activity level plan for the Lower Gray Canyon High-Use Area would—</p> <ul style="list-style-type: none"> • Rely on BLM management to provide recreation opportunities. • Emphasize facilities development, limiting use to developed sites, and reliance on Special Recreation Permitees to provide certain goods and services.

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	BLM would manage recreation and issue rules to support successful concessionaire leases of the Lower Gray Canyon High-Use Area. (For example, areas outside the Lower Gray Canyon High-Use Area could be closed to car camping except in the concessionaire-run facilities.) Concessions would be operated only in response to the following needs: <ul style="list-style-type: none"> • Management of camping use and impacts • Management of livery and shuttle services • Management of river access/egress • Management of solid waste disposal from recreation use • Additional management of outfitted recreation use within the Lower Gray Canyon High-Use Area. 	No Similar Action	No Similar Action	No Similar Action
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation	Impacts to Vegetation	Impacts to Vegetation	Impacts to Vegetation	Impacts to Vegetation

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Resources Maintaining the wild character of Desolation Canyon SRMA indirectly maintains existing vegetation resources by reducing surface disturbance.</p>	<p>Resources No significant impact.</p>	<p>Resources No significant impact.</p>	<p>Resources No significant impact.</p>	<p>Resources No significant impact.</p>
<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources The acreage within SRMAs would decrease by more than 89,000 acres compared to the No Action Alternative, most notably in the Desolation Canyon and Labyrinth Canyon SRMAs. This decrease would result in a decrease in the restrictions on surface development. In these areas there would be an increase in the potential for cultural resources to be preserved through data recovery measures rather than preserved in place, but the increase is not anticipated to be significant.</p>	<p>Impacts to Cultural Resources Same as Alternative A except: The acreage within SRMAs would increase by more than 125,500 acres compared to the No Action Alternative. In addition, the Nine Mile Canyon SRMA would be added in this alternative. This increase would result in an increase in the restrictions on surface development. There would be a negligible increase in the potential for cultural resources to be preserved in place because of the ROS categories in the SRMAs.</p> <p>The designation of the Nine Mile Canyon SRMA would impact cultural resources within the canyon. Direction restricting oil and gas development within 100 feet of inventoried cultural resources would create a buffer zone of no direct impact to sites. This direction would make avoidance the only mitigation alternative for direct impacts to cultural resources within Nine Mile Canyon, regardless of site characteristics. The 100-foot</p>	<p>Impacts to Cultural Resources Impacts would be the same as those identified in Alternative B, except what is identified below. The acreage within SRMAs would increase by approximately 243,700 acres compared to the No Action Alternative. The Nine Mile Canyon SRMA increased in size from 31,606 acres in Alternative B to 58,358 acres in this alternative. This increase would result in an increase in the restrictions on surface development, especially because much of the expanded acreage is managed as a SPNM ROS category. There would be an increase in the potential for cultural resources to be preserved in place because of the ROS categories in the Nine Mile Canyon SRMA; however, this increase would not result in significant impacts.</p>	<p>Impacts to Cultural Resources The designation of the Nine Mile Canyon SRMA would impact cultural resources within the Canyon. Direction restricting oil and gas development within 100 feet of inventoried cultural resources would create a buffer zone of no impacts from surface disturbance related to oil and gas development. Direct impacts such as vibrations and dust could still impact the sites. This direction would make avoidance the only mitigation alternative for direct surface disturbing impacts to cultural resources within Nine Mile Canyon. The 100-foot restriction would not address indirect impacts. These restrictions would tend to preserve cultural resources in place within the canyon.</p> <p>In addition to providing prescriptive management direction, the Nine Mile Canyon SRMA designation acknowledges the trend of increasing heritage recreation. As this continues, sites</p>

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		<p>restriction would not address indirect impacts. These restrictions would tend to preserve cultural resources in place within the canyon.</p> <p>In addition to providing prescriptive management direction, the Nine Mile Canyon SRMA designation acknowledges the trend of increasing heritage recreation. As this continues, sites throughout the canyon would continue to receive visitation. Unmitigated sites that have not had their data recovered may be inadvertently or unknowingly damaged through an increase in dispersed recreation, even if public land users follow the direction in the RMP. While signage and interpretation would reduce the severity of the impacts, without mitigation, the impacts would continue. Fugitive dust from motorized vehicles would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear. The abrasion is not anticipated to result in significant impacts during the life of the plan.</p>		<p>throughout the canyon would continue to receive visitation. Unmitigated sites for which data have not been recovered may be inadvertently or unknowingly damaged through an increase in dispersed recreation, even if public land users follow the direction in the RMP. Fugitive dust from motorized vehicles would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear. The abrasion is not anticipated to result in significant impacts during the life of the plan. While signage and interpretation would reduce the severity of the impacts, without mitigation, the impacts would continue. These impacts would be largely long term in nature. The significance of the impact, however, would vary based on the characteristics of the sites.</p>
<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>
<p>Impacts to Visual Resources</p>	<p>Impacts to Visual Resources</p>	<p>Impacts to Visual Resources</p>	<p>Impacts to Visual Resources</p>	<p>Impacts to Visual Resources</p>

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife General Primitive and SPNM ROS class areas as well as the Range Creek Jeep Trail would be closed to OHV use. In addition, roads created for oil and gas development would be closed to OHV use, unless determined to enhance the SRMA objectives. Closure to OHV use in these areas would minimize habitat degradation, harassment of wildlife, destruction to fragile habitats, and other adverse impacts associated with human presence.	Impacts to Fish and Wildlife General: Management of recreation activities in the Lower Gray Canyon High Use Zone would be managed to sustain natural resources while meeting social and economic needs. Managing the area for natural resources would allow for recreational use but will also mitigate impacts to wildlife habitat from increased human presence.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife Recreation activities in the Desolation Canyon, Gray Canyon, and the Lower Gray Canyon High-Use Area would be managed to sustain natural resources while meeting social and economic needs. Managing the area for natural resources would allow for recreational use through the permitting process and would reduce the level of human presence. Whereas without this permitting process, there would be increased human activity and increased impacts to the natural resources that would affect wildlife habitat.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock Closing Desolation Canyon	Impacts to Livestock No significant impact.

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			<p>SRMA to OHV use except for Sand Wash and Lower Gray Canyon recreation sites to would reduce surface disturbance in these areas. Over the long term, reducing surface disturbance increases the amount of vegetative cover and limits the opportunity for noxious weed infestations. Indirectly these actions increase forage quantity available for other resources and livestock use, increasing productivity. Restricting OHV use in the SRMA to the Range Creek Jeep trail to the lowest drill hole may change the location or type of new rangeland improvement project. Restricting the use of roads for existing leases and new oil and gas developments from recreation use is not anticipated to significantly impact livestock grazing.</p>	
<p>Impacts to Recreation No significant impact.</p>	<p>Impacts to Recreation Designating the Range Creek Jeep trail for OHV use to the existing barricade would maintain current opportunities for motorized recreation in the area.</p> <p>Creation of the Lower Gray Canyon High-Use Area as indicated on Map 2-22 and activity plan would enhance recreation management and experiences in the area by</p>	<p>Impacts to Recreation Increase of the SRMA area (Map 2-19) to include the Desolation Canyon WSA would increase manageability of recreation in the Desolation Canyon area (approximately 224,673 acres).</p> <p>Restricting the use of motorized boating to only 4-stroke motors, at flows less than 5,000 cfs, and limiting the number of motorized trips to 90</p>	<p>Impacts to Recreation Increase of the SRMA area (Map 2-20) to include the Desolation Canyon WSA would increase manageability of recreation in the Desolation Canyon area (approximately 270,470 acres).</p> <p>Closing the Range Creek Jeep trail for OHV use at Turtle Canyon would cause a small reduction in motorized recreation opportunities as</p>	<p>Impacts to Recreation Increase of the SRMA area (Map 2-21) to include the Desolation Canyon WSA would increase manageability of recreation in the Desolation Canyon area (approximately 224,684 acres).</p> <p>Restricting the use of motorized boating to only 4-stroke motors, at flows less than 5,000 cfs, and limiting the number of motorized trips to 90</p>

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>providing facilities to support existing and future levels of recreation use along the river corridor. Use of concessionaire leases to provide services and vend items in support of resource protection would reduce user conflict and natural resource impacts in the area. Management designed to support successful concessionaire leases of the area would ensure ongoing management of recreation use and impacts in addition to supporting private enterprise.</p>	<p>per year would enhance primitive recreation experiences on the Green River while allowing some motorized use during periods of lower river flow. This would provide for periods of time when the river corridor would be free of motors. Use of 4-stroke engines would reduce noise and odors associated with the use of motors and reduce hydrocarbon deposition in the river.</p> <p>Designating the Range Creek Jeep trail for OHV use to the lowest drill hole would cause a small reduction in motorized recreation opportunities as compared to the No Action Alternative. Approximately 3 miles of OHV route would be closed. Closure of any new routes constructed for mineral development, unless consistent with recreation management objectives, would minimize adverse impacts to recreational opportunities in and near the SRMA.</p> <p>Creation of the Lower Gray Canyon High-Use Area (as indicated on Map 2-23) and activity plan would enhance recreation management and experiences in the area by providing facilities to support existing and future levels of recreation use along the river</p>	<p>compared to the No Action Alternative. Approximately 4 miles of OHV route would be closed. Closure of any new routes constructed for mineral development unless consistent with recreation management objectives would minimize adverse impacts to recreational opportunities in and near the SRMA.</p> <p>Eliminating the use of motorized boats would enhance primitive recreation experiences on the Green River. This restriction on the use of motors would eliminate noise and odors associated with the use of motors and reduce hydrocarbon deposition in the river.</p> <p>The Lower Gray Canyon High-Use Area as indicated on Map 2-24 would be managed to emphasize natural processes to achieve self-sustaining systems. Limitations on the amount of use and facilities available would be established, which would restrict some recreation opportunities in the area.</p> <p>However, these actions would protect natural resources important to recreation and enhance primitive recreation opportunities.</p>	<p>per year would enhance primitive recreation experiences on the Green River while allowing some motorized use during periods of lower river flow.</p> <p>Designating the Range Creek Jeep trail for OHV use to the lowest drill hole would cause a small reduction in motorized recreation opportunities as compared to the No Action Alternative. Approximately 3 miles of OHV route would be closed. Closure of any new routes constructed for mineral development, unless consistent with recreation management objectives, would maintain and enhance recreational opportunities in and near the SRMA.</p> <p>Creation of the Lower Gray Canyon High-Use Area (see Map 2-25) and activity plan would enhance recreation management and experiences in the area by providing facilities to support existing and future levels of recreation use along the river corridor. Implementing BLM management for the provision of services and vending items in support of resource protection would reduce user conflict and natural resource impacts in the area.</p>

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		corridor. Implementing BLM management for the provision of services and vending items in support of resource protection would reduce user conflict and natural resource impacts in the area.		
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy Same as No Action, Alternative.	Impacts to Minerals and Energy Same as No Action, Alternative.	Impacts to Minerals and Energy Same as No Action, Alternative.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers Desolation Canyon SRMA and Labyrinth Canyon SRMA provide special management of recreation along the Green River. These areas are managed to maintain the natural character of the canyon environment, while emphasizing river-based recreational opportunities. This management is consistent with protection of the outstandingly remarkable recreational values within the	Impacts to Wild and Scenic Rivers Desolation Canyon SRMA provides special management of recreation along 80 miles of the 125 miles Green River found suitable in this alternative. This river area is managed to maintain the natural character of the canyon environment, while emphasizing river-based recreational opportunities. This management is consistent with protection of the outstandingly remarkable	Impacts to Wild and Scenic Rivers Desolation Canyon SRMA and Labyrinth Canyon SRMA provide special management of recreation along the Green River. These areas are managed to maintain the natural character of the canyon environment, while emphasizing river-based recreational opportunities. This management is consistent with protection of the outstandingly remarkable recreational values within the	Impacts to Wild and Scenic Rivers Desolation Canyon SRMA and Labyrinth Canyon SRMA provide special management of recreation along the Green River. These areas are managed to maintain the natural character of the canyon environment, while emphasizing river-based recreational opportunities. This management is consistent with protection of the outstandingly remarkable recreational values within the	Impacts to Wild and Scenic Rivers Desolation Canyon SRMA and Labyrinth Canyon SRMA provide special management of recreation along the Green River. These areas are managed to maintain the natural character of the canyon environment, while emphasizing river-based recreational opportunities. This management is consistent with protection of the outstandingly remarkable recreational values within the

RECREATION				
Desolation Canyon Special Recreation Management Area				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
river corridor.	recreational values within the river corridor.	river corridor. The lower segment of the Price River and Rock Creek are also within Desolation Canyon SRMA, while the San Rafael River is within the San Rafael Swell SRMA.	river corridor.	river corridor.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

RECREATION				
Cleveland-Lloyd Dinosaur Quarry SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The Cleveland-Lloyd Dinosaur Quarry (CLDQ) is a world-renowned site for the discovery of Jurassic-aged dinosaur bones. It provides recreation users the unique opportunity to visit an active paleontological site and discover the history and evolution of the science of paleontology.				
Decisions				
The Price River Management Framework Plan provides for the management of the CLDQ. CLDQ is an 80-acre National Natural Landmark (NNL) and also an SRMA.	The SRMA boundary would be aligned with the boundaries of the ACEC, as shown on Map 2-18 (767 acres).	The SRMA boundary would be expanded to include approximately 2,800 acres, (767-acre ACEC is wholly contained within this area) adjoining private land to the east, as shown on Map 2-19.	The SRMA boundary would be expanded to include approximately 2,800 acres, (767-acre ACEC is wholly contained within this area) adjoining private land to the east, as shown on Map 2-20.	The SRMA boundary would be expanded to include approximately 2,800 acres, (ACEC is wholly contained within this area) adjoining private land to the east, as shown on Map 2-21.
The CLDQ SRMA would be closed to collection of natural products, except by permit. (NNL designation)				
Recreation facilities would be developed for visitor safety, convenience, and comfort and to enhance viewing of paleontological resources and understanding of the				

RECREATION				
Cleveland-Lloyd Dinosaur Quarry SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
scientific processes.				
Fires would be permitted only in BLM-provided fire pits.				
CLDQ is day-use only and closed to dispersed camping.				
CLDQ would be closed to disposal of mineral materials.				
OHV use in CLDQ SRMA would be allowed for permitted scientific or research purposes only.	Recreation OHV use in CLDQ SRMA would be closed. OHV use in CLDQ SRMA would be allowed for permitted scientific or research purposes only.			
Impacts of CLDQ SRMA on CLDQ ACEC: The existing SRMA and NNL are of insufficient size to adequately protect R&I values for the proposed CLDQ ACEC. The current NNL covers the well-known bone deposit, the lands proposed for the ACEC containing minimum of 15 track sites, and a minimum of 32 sites with dinosaur bone exposure.	Impacts of CLDQ SRMA on CLDQ ACEC: The SRMA size and recreation management for the area would help contribute to the protection of R&I values.	Impacts of CLDQ SRMA on CLDQ ACEC: The SRMA size and recreation management for the area would help contribute to the protection of R&I values.	Impacts of CLDQ SRMA on CLDQ ACEC: The SRMA size and recreation management for the area would help contribute to the protection of R&I values.	Impacts of CLDQ SRMA on CLDQ ACEC: The SRMA size and recreation management for the area would help contribute to the protection of R&I values.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Management of 80-acre SRMA would continue to include the following: <ul style="list-style-type: none"> • Closure to collection of natural products without a permit • Addition of visitor 	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.

RECREATION				
Cleveland-Lloyd Dinosaur Quarry SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
facilities <ul style="list-style-type: none"> • Limits on use of campfire • Closure to camping • OHV use for scientific or research purposes only • Closure to disposal of mineral materials. • These actions would maintain and protect the unique paleontological resources and associated recreation opportunities.				

RECREATION				
Cleveland-Lloyd Dinosaur Quarry SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources Designation and management of Cleveland-Lloyd Dinosaur Quarry SRMA (80 acres) would provide opportunities for public education, interpretation, and scientific research.	Impacts to Paleontology Resources Designation and management of CLDQ SRMA (765 acres) would provide increased opportunities for public education, interpretation, and scientific research.	Impacts to Paleontology Resources CLDQ SRMA would be expanded to 2,770 acres to provide added recreational, educational, and interpretive opportunities around the quarry.	Impacts to Paleontology Resources Impacts from OHV use and management of CLDQ SRMA would be the same as those in Alternative B.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.

RECREATION				
Cleveland-Lloyd Dinosaur Quarry SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Recreation No significant impact.	Impacts to Recreation Same as the No Action Alternative except that the alignment of the SRMA boundary with the ACEC boundary (approximately 765 acres) would improve manageability and consistency of regulations for recreation users.	Impacts to Recreation In addition to the impacts identified in the No Action Alternative, the expansion of the SRMA boundary to include 2,800 acres would improve manageability of the SRMA and provide opportunities for expanded recreation facilities and use of the area.	Impacts to Recreation In addition to the impacts identified in the No Action Alternative, the expansion of the SRMA boundary to include 2,800 acres would improve manageability of the SRMA and provide opportunities for expanded recreation facilities and use of the area.	Impacts to Recreation In addition to the impacts identified in the No Action Alternative, the expansion of the SRMA boundary to include 2,800 acres would improve manageability of the SRMA and provide opportunities for expanded recreation facilities and use of the area.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy The CLDQ SRMA (80 acres) would be closed to disposal of mineral materials, which would prohibit mineral material activity on these 80 acres.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy Same as the No Action Alternative.	Impacts to Minerals and Energy Same as the No Action Alternative.	Impacts to Minerals and Energy Same as the No Action Alternative.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous

RECREATION Cleveland-Lloyd Dinosaur Quarry SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Materials and Waste No significant impact.	Materials and Waste No significant impact.	Materials and Waste No significant impact.	Materials and Waste No significant impact.	Materials and Waste No significant impact.

RECREATION Labyrinth Canyon SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Labyrinth Canyon is jointly held and managed by BLM and the Utah Division of Forestry, Fire, and State Lands. The Green River through Labyrinth Canyon has been adjudicated as a navigable river. The river corridor provides an outstanding flat-water river boating experience. Side canyons provide opportunity for hiking and canyoneering. Labyrinth Canyon is especially popular for canoeing and attracts many novice boaters.				
Decisions				
Labyrinth Canyon is jointly held and managed by BLM and the Utah Division of Forestry, Fire, and State Lands. River recreation is operated under an MOU with the state. BLM serves as the official public contact point for information and permits. The San Rafael Resource Area RMP directs the management of Labyrinth Canyon SRMA. Permits are required to float the river and are issued as discussed in the Special Recreation Permits section.	The SRMA boundary would extend from Green River State Park to the Emery County line and would be one-quarter-mile wide on either side of the centerline of the Green River, as shown on Map 2-18.	The SRMA boundary would match the Wild and Scenic River corridor from Green River State Park to the Emery County line and would extend to the top of the canyon rim as shown on Map 2-19.	The SRMA boundary would match the Wild and Scenic River corridor from Green River State Park to the Emery County line and would extend from the river centerline to the Antelope Valley Road, as shown on Map 2-20.	The SRMA boundary would match the Wild and Scenic River corridor from Green River State Park to the Emery County line and would extend to the top of the canyon rim as shown on Map 2-21.
	An activity plan for the Labyrinth SRMA would be developed to address prescriptions for— <ul style="list-style-type: none"> • SRPs • Camping regulations • Travel planning to include road and trail designations for <u>all</u> uses (OHV*, foot, horse, mountain bike, etc.) * see San Rafael Route Designation Plan. • Carrying capacity. 			

RECREATION				
Labyrinth Canyon SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	SRPs would be required for all recreational users within the SRMA. SRPs would be available for commercial tours, shuttle and livery services, organized groups including the Friendship Cruise, and competitive events.			
	No facilities would be constructed in Primitive class areas; minimal facilities would be used in SPNM and SPM class areas and used only to protect critical resources.			
	Management facilities and presence would be maintained at the Mineral Bottom takeout.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.

RECREATION Labyrinth Canyon SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock Developing an activity plan for Labyrinth Canyon that could change the amount livestock grazing for those allotments. The number of active AUMs might increase or decrease in these allotments depending on monitoring and best scientific data available. However, the potential change is not anticipated to be significant.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation Management of the Labyrinth Canyon SRMA, including requiring permits for recreational use of this section of the Green River, would maintain existing levels of recreation opportunities without additional impacts to recreation or natural resources in the area.	Impacts to Recreation Decreasing the size of the Labyrinth Canyon SRMA as indicated on Map 2-18 (approximately 8,721 acres) would decrease manageability of recreation use in and near the Green River corridor. Development of an activity plan for the SRMA to address recreation use of the area would enhance recreation management by reducing user conflict and maintaining the quality of natural resources in the area. Requiring SRPs for any use of the SRMA would enhance recreation	Impacts to Recreation Increasing the size of the Labyrinth Canyon SRMA to approximately 37,202 acres would improve manageability of recreation use in and near the Green River corridor as compared with the No Action Alternative and Alternative A. Development of an activity plan for the SRMA to address recreation use of the area would enhance recreation management by reducing user conflict and maintaining the quality of natural resources in the area. Requiring SRPs for any use of the SRMA would	Impacts to Recreation Increasing the size of the Labyrinth Canyon SRMA to approximately 82,841 acres would improve manageability of recreation use in and near the Green River corridor as compared to the No Action Alternative. Development of an activity plan for the SRMA to address recreation use of the area would enhance recreation management by reducing user conflict and maintaining the quality of natural resources in the area. Requiring SRPs for any use of the SRMA would enhance	Impacts to Recreation Increasing the size of the Labyrinth Canyon SRMA to approximately 37,202 acres would improve manageability of recreation use in and near the Green River corridor as compared to the No Action Alternative and Alternative A. Development of an activity plan for the SRMA to address recreation use of the area would enhance recreation management by reducing user conflict and maintaining the quality of natural resources in the area. Requiring SRPs for any use of the SRMA would

RECREATION Labyrinth Canyon SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	opportunities without additional impacts to recreation or natural resources in the area. Restricting the development of facilities to areas outside of the Primitive ROS class and only to protect critical resources would enhance recreation opportunities by retaining the natural and undeveloped character of the SRMA.	enhance recreation experience without additional impacts to recreation or natural resources in the area. Restricting the development of facilities to areas outside of the primitive ROS class and only to protect critical resources would enhance recreation opportunities by retaining the natural and undeveloped character of the SRMA.	recreation opportunities without additional impacts to recreation or natural resources in the area. Restricting the development of facilities to areas outside of the Primitive ROS class and only to protect critical resources would enhance recreation opportunities by retaining the natural and undeveloped character of the SRMA.	enhance recreation opportunities without additional impacts to recreation or natural resources in the area. The development of facilities would be restricted to areas outside of the Primitive ROS class and only to protect critical resources. These actions would enhance recreation opportunities by retaining the natural and undeveloped character of the SRMA.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste	Impacts to Hazardous Materials and Waste

RECREATION				
Labyrinth Canyon SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.

RECREATION				
San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D

Decision Background

San Rafael Swell is becoming increasingly popular as a destination recreation area. The area provides a variety of recreation opportunities from the scenic drive of I-70 to the most challenging and primitive canyoneering routes, and boating on the Muddy and San Rafael rivers.

Decisions

	The boundaries of the San Rafael SRMA would be realigned to include Mexican Mountain WSA, the Cedar Mountain area, and the area surrounding the cut-off road, as indicated on Map 2-18.	The boundaries of the SRMA would be the same as indicated on Alternative A, Map 2-19.	The boundaries of the SRMA would be the same as indicated on Alternative A, Map 2-20.	The boundaries of the San Rafael SRMA would be realigned to include Mexican Mountain WSA, the Cedar Mountain area, and the area surrounding the cut-off road, as indicated on Map 2-21.
	Groups larger than the numbers identified (in the SRP section) for the ROS class in the area of use would require an SRP, unless using a designated large group area. (From the SRP section) For organized groups occupying an area for more than 2 hours, maximum group size without a permit would be— Primitive—15 people SPNM—25 people SPM—25 people	Groups larger than the numbers identified (in the SRP section) for the ROS class in the area of use would require an SRP, unless using a designated large group area. (From the SRP section) For organized groups occupying an area for more than 2 hours, maximum group size without a permit would be— Primitive—12 people SPNM—20 people SPM—20 people	Outside of designated large group areas, SRPs would not be available for groups larger than the numbers identified (in the SRP section) for the ROS class in the area of use. (From the SRP section) For organized groups occupying an area for more than 2 hours, maximum group size without a permit would be as follows— Primitive—10 people SPNM—15 people SPM—15 people	Groups larger than the numbers identified (in the SRP section) for the ROS class in the area of use would require an SRP, unless using a designated large group area. (From the SRP section) For organized groups occupying an area for more than 2 hours, maximum group size without a permit would be— Primitive—15 people SPNM—25 people SPM—25 people

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>RN and others—50, except in designated large group sites.</p> <p>Groups larger than these limits would be required to obtain an SRP.</p> <p>Group size limits may be adjusted through plan maintenance or activity-level planning.</p>	<p>RN and others—30, except in designated large group sites</p> <p>Groups larger than these limits would be required to obtain an SRP.</p> <p>Group size limits may be adjusted through plan maintenance or activity-level planning.</p>	<p>RN and others—20, except in designated large group sites.</p> <p>Groups larger than these limits would be required to obtain an SRP.</p> <p>Group size limits may be adjusted through plan maintenance or activity-level planning.</p>	<p>RN and others—50, except in designated large group sites.</p> <p>Groups larger than these limits would be required to obtain an SRP.</p> <p>Group size limits may be adjusted through plan maintenance or activity-level planning.</p> <p>(Same as Alternative A)</p>
	<p>Large group areas would be designated in the San Rafael Swell, developed, and made available through concessionaire-issued recreation use permit.</p>	<p>Large group areas would be designated in the San Rafael Swell, developed, and made available through reservation. Large groups using these sites would receive a recreation use permit through their reservation.</p>	<p>Large group areas would be designated in the San Rafael Swell, developed, and made available through reservation. Large groups using these sites would receive a recreation use permit through their reservation.</p>	<p>Large group areas would be designated in the San Rafael Swell, developed, and made available through reservation. Large groups using these sites would receive a recreation use permit through their reservation. (Same as Alternative B)</p>
	<p>The large group areas would include—</p> <ul style="list-style-type: none"> • Temple Mountain • Hidden Splendor • Buckmaster Draw (near I-70/SR-24) • South Salt Wash (I-70 Exit 105) • Juniper (near exit 129) • Staker Spring Area • Others as necessary to meet recreation demand. 	<p>The large group areas would include—</p> <ul style="list-style-type: none"> • Temple Mountain • Hidden Splendor • Buckmaster Draw (near I-70/SR-24) • South Salt Wash (I-70 Exit 105) • Juniper (near exit 129) • Staker Spring Area • Others as necessary to meet recreation demand and protect resources. 	<p>The large group areas would include—</p> <ul style="list-style-type: none"> • Temple Mountain • Hidden Splendor • Buckmaster Draw (near I-70/SR-24) • South Salt Wash (I-70 Exit 105) • Juniper (near exit 129) • Staker Spring Area • Others as necessary to protect resources. 	<p>The large group areas would include—</p> <ul style="list-style-type: none"> • Temple Mountain • Hidden Splendor • Buckmaster Draw (near I-70/SR-24) • South Salt Wash (I-70 Exit 105) • Juniper (near exit 129) • Staker Spring Area • Others as necessary to meet recreation demand and protect resources.
<p>The San Rafael Swell would be managed according to the San</p>	<p>A San Rafael SRMA activity plan would be completed within</p>	<p>5 years. The San Rafael SRMA activity plan would</p>	<p>A San Rafael SRMA activity plan would be completed within</p>	<p>A San Rafael SRMA activity plan would be completed within</p>

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Rafael Resource Area RMP.</p> <p>The following areas would be closed to dispersed camping—</p> <ul style="list-style-type: none"> • Wedge Overlook • Developed Interpretive sites • Black Dragon Canyon <p>Intermittent river recreation use on the Muddy and San Rafael rivers would be managed as a dispersed recreation activity.</p>	<p>5 years.</p> <p>The San Rafael SRMA activity plan would include special rules for—</p> <ul style="list-style-type: none"> • Fire—Limited fuel-wood gathering would be allowed in specified areas, and ground fires would be allowed. • Vehicle Camping—Except where closed around High-Use Areas, vehicle camping would be allowed throughout the SRMA. Backcountry camping would be allowed throughout the SRMA. • Pack stock use would be allowed throughout the SRMA. 	<p>include special rules for—</p> <ul style="list-style-type: none"> • Fire—Limited fuel-wood gathering would be allowed in specified areas, and fires would be allowed only in designated fire pits. • Vehicle Camping—In the High-Use Areas, vehicle camping would be allowed only in developed and designated sites. Vehicle camping outside the High-Use Areas would be allowed in developed, previously impacted, or resistant/resilient sites, except where critical resources exist. Backcountry camping would be allowed throughout the SRMA. • Pack stock use would be limited to designated areas (subject to standard recreation guidelines for stock use). 	<p>5 years. The San Rafael SRMA activity plan would include special rules for—</p> <ul style="list-style-type: none"> • Fire—Fires would be allowed only in fire pans with wood or charcoal brought in from off-site and all combusted materials would be carried out/removed by the user. • Vehicle Camping—Vehicle camping would be limited to developed or designated sites only; toilets would be required at designated sites. Backcountry camping would be allowed by permit only. • Pack stock use would be by permit only (subject to standard recreation guidelines for stock use). • Buckhorn Draw would be day-use only, except where authorized by a SRP. 	<p>5 years. The San Rafael SRMA activity plan would include special rules for—</p> <ul style="list-style-type: none"> • Fire—Limited fuel-wood gathering would be allowed in specified areas, and ground fires would be allowed. • Vehicle Camping—In the High-Use Areas, vehicle camping would be allowed only in developed and designated sites. Vehicle camping outside the High-Use Areas would be allowed in developed, previously impacted, or resistant/resilient sites, except where critical resources exist. Backcountry camping would be allowed throughout the SRMA. • Pack stock use would be allowed throughout the SRMA. • Travel planning to include road and trail designations for <u>all</u> uses (OHV*, foot, horse, mountain bike, etc.) * see SRMRDP <p>The following areas would be</p>

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				closed to dispersed camping: <ul style="list-style-type: none"> • Developed Interpretive Sites • Black Dragon Canyon
HIGH-USE AREAS FOR RECREATION MANAGEMENT IN THE SAN RAFAEL SWELL SRMA				
	Any user fees paid for a recreation use permit within the San Rafael SRMA would be valid for any area within the SRMA for the duration of the permit.			
	<ul style="list-style-type: none"> • Camping would be permitted only in developed or designated sites. • No firewood gathering would be permitted in the High-Use Areas. • Fires would be permitted only in fire pans or BLM-provided fire grills. • Portable toilets would be required at designated campsites that do not provide toilet facilities. 			
	Recreation management would focus on the provision of recreation amenities. High-Use Recreation Areas (Map 2-22) would be established to facilitate the provision of recreation amenities. The High-Use Recreation Areas would include— <ul style="list-style-type: none"> • Temple Mountain/Little Wild Horse/Behind the Reef • Buckhorn/The Wedge/ Mexican Mountain • Head of Sinbad/Swasey Cabin/ Sid’s Mountain and the trail system. 	Recreation management would focus on sustaining natural resources while meeting social and economic needs. Three High-Use Recreation Areas in the San Rafael Swell SRMA (and one in Desolation Canyon SRMA) (Map 2-23) would be established to facilitate the provision of recreation amenities. The following areas would be BLM operated and maintained High-Use Areas: <ul style="list-style-type: none"> • Temple Mountain/Little Wild Horse/Behind the Reef • Buckhorn/The Wedge/ Mexican Mountain • Head of Sinbad/Swasey Cabin/ Sid’s Mountain and the trail system. 	Recreation management would focus on emphasizing natural processes to achieve self-sustaining systems. All recreation use and recreation access in the San Rafael SRMA would be managed through a permit/reservation system.	Recreation management would focus on sustaining natural resources while meeting social and economic needs. Three High-Use Recreation areas in the San Rafael Swell SRMA (Map 2-25) would be established to facilitate the provision of recreation amenities. The following areas would be BLM operated and maintained High-Use Areas: <ul style="list-style-type: none"> • Temple Mountain/Little Wild Horse/Behind the Reef • Buckhorn/The Wedge/ Mexican Mountain • Head of Sinbad/Swasey Cabin/Sid’s Mountain and the trail system.
	An activity-level plan for the	An activity-level plan for the		An activity-level plan for the

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>High-Use Areas would—</p> <ul style="list-style-type: none"> • Rely on concessionaire leases and the use of outfitters to provide maximum development of recreation opportunities • Allow BLM to retain overall management • Allow concessionaires to charge fees for use, camping and other uses (hiking, etc.), and services in the area. Fees would be commensurate with lease value, comparable-market recreation fees and cost of services provided, or the OHV trail system. • Permit concessionaires to vend items in support of resource protection (such as firewood) and to sell interpretive materials. 	<p>High-Use Areas would—</p> <ul style="list-style-type: none"> • Allow BLM to retain overall management and rely on BLM management to provide maximum development of recreation opportunities. 		<p>High-Use Areas would—</p> <ul style="list-style-type: none"> • Allow BLM to retain overall management and rely on BLM management to provide maximum development of recreation opportunities.
	<ul style="list-style-type: none"> • Allow BLM to manage recreation and issue rules to support successful concessionaire leases of the High-Use Areas. (For example, areas outside the 			

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>High-Use Areas could be closed to car camping except in the concessionaire-run facilities.)</p> <ul style="list-style-type: none"> • Concessions would be operated only in response to the following needs: <ul style="list-style-type: none"> – Management of camping use and impacts – Management of solid waste disposal from recreation use 			

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>Temple Mountain/Little Wild Horse/Behind the Reef High-Use Area (Map 2-22).</p> <p>Area management would include—</p> <ul style="list-style-type: none"> • 1 new 50-unit campground • 1 large 50-unit day-use area • 1 communal camp lot • 30 designated dispersed campsites 	<p>Temple Mountain/Little Wild Horse/Behind the Reef High-Use Area (Map 2-23).</p> <p>Area management would include—</p> <ul style="list-style-type: none"> • 1 new 50-unit campground • 1 large communal camp lot • 30 designated dispersed campsites 		<p>Temple Mountain/Little Wild Horse/Behind the Reef High-Use Area (Map 2-25).</p> <p>Area management would include—</p> <ul style="list-style-type: none"> • 1 new 50-unit campground • 1 large communal camp lot • 30 designated dispersed campsites
	<p>Head of Sinbad/Swasey Cabin/Sid's Mountain and Trails System</p> <p>Changes to area management would include—</p> <ul style="list-style-type: none"> • 1 15-unit campground • 30 designated dispersed campsites 	<p>Head of Sinbad/Swasey Cabin/Sid's Mountain and Trails System</p> <p>Changes to area management would include—</p> <ul style="list-style-type: none"> • 1 15-unit campground • 30 designated dispersed campsites 		<p>Head of Sinbad/Swasey Cabin/Sid's Mountain and Trails System</p> <p>Changes to area management would include—</p> <ul style="list-style-type: none"> • 1 15-unit campground • 30 designated dispersed campsites
	<p>Buckhorn/The Wedge/Mexican Mountain</p> <p>Area management would include—</p> <ul style="list-style-type: none"> • Expansion of the San Rafael Bridge Recreation Site to include a maximum of 50 camping units • 1 large 50-unit day use area • 1 communal camp lot • 40 designated dispersed campsites • The Wedge Overlook would be day-use 	<p>Buckhorn/The Wedge/Mexican Mountain</p> <p>Area management would include—</p> <ul style="list-style-type: none"> • Expansion of the San Rafael Bridge Recreation Site to include a maximum of 50 camping units • 1 large 50-unit day use area • 1 communal camp lot • 40 designated dispersed campsites • The Wedge Overlook would be day-use 		<p>Buckhorn/The Wedge/Mexican Mountain</p> <p>Area management would include—</p> <ul style="list-style-type: none"> • Expansion of the San Rafael Bridge Recreation Site to include a maximum of 50 camping units • 1 large 50-unit day-use area • 1 communal camp lot • 40 designated dispersed campsites • Additional campsites may be designated

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	only and closed to campfires.	only and closed to campfires. <ul style="list-style-type: none"> • Only street-licensed vehicles would be permitted on BLM roads in the Wedge Overlook area. 		based upon monitoring of use-level demands through activity-level planning. <ul style="list-style-type: none"> • The Wedge Overlook (area immediately adjacent to rim) would be day-use only and closed to campfires. • Only street-licensed vehicles would be permitted on BLM roads in the Wedge Overlook area. (Same as Alternative B)

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian Development of High-Use Recreation Areas would increase human activity in these areas. In the short term, there would be increased soil compaction that would increase runoff leading to increased erosion. This would result in a long-term increase in siltation and sediment loading of waters and resulting impacts to riparian/wetland resources.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources Allowing pack stock to use all areas of the San Rafael Swell SRMA removes vegetation resources by grazing and trampling. Pack stock used in the PFO is required to use certified weed-free feed to reduce the introduction of noxious weeds and invasive plant species.	Impacts to Vegetation Resources Restricting the use of pack stock to designated areas in the San Rafael Swell SRMA would maintain vegetation resources and reduce the direct removal of vegetation by grazing and trampling. Pack stock used in the PFO is required to use certified weed-free feed to reduce the introduction of noxious weeds and invasive plant species.	Impacts to Vegetation Resources Same as the No Action Alternative.	Impacts to Vegetation Resources Same as the No Action Alternative, except managing recreation to sustain natural resources through natural processes to attain self-sustaining ecosystems in Upper and Lower Gray Canyon High- Use Areas improves the integrity of vegetation in the long term. This objective may also increase species diversity, age, class distribution, and structure.	Impacts to Vegetation Resources Same as the No Action Alternative. Restricting the use of pack stock to designated areas in the San Rafael Swell SRMA maintains vegetation resources and reduces the direct removal of vegetation by grazing and trampling. Pack stock used in the PFO is required to use certified weed-free feed to reduce the introduction of noxious weeds and invasive plant species.
Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural	Impacts to Cultural

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Resources Increases in developed recreation sites in High-Use Areas would increase the potential for identification of cultural resources while focusing recreation-related impacts to areas where cultural resources have been mitigated. The use of signs, trails, and facilities to facilitate use would reduce inadvertent damage to cultural resources by uninformed users.</p>	<p>Resources Same as No Action Alternative.</p>	<p>Resources Same as No Action Alternative.</p>	<p>Resources Same as No Action Alternative.</p>	<p>Resources Increases in developed recreation sites in High-Use Areas would increase the potential for identification of cultural resources while focusing recreation-related impacts to areas where cultural resources have been mitigated. The use of signs, trails, and facilities to facilitate use would reduce inadvertent damage to cultural resources by uninformed users.</p>
<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources Increases in developed recreation sites in High-Use Areas would increase the potential for significant impacts to paleontological resources because of the lack of preconstruction assessments. Impacts from uninformed users would be reduced by the use of signs, trails, and facilities to facilitate use and educate users.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>
<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources No significant impact.</p>
<p>Impacts to Special Status Species No significant impact.</p>	<p>Impacts to Special Status Species No significant impact.</p>	<p>Impacts to Special Status Species No significant impact.</p>	<p>Impacts to Special Status Species No significant impact.</p>	<p>Impacts to Special Status Species No significant impact.</p>
<p>Impacts to Fish and Wildlife No significant impact.</p>	<p>Impacts to Fish and Wildlife The San Rafael Swell would be considered a High-Use Area in the PFO. Under Alternative A,</p>	<p>Impacts to Fish and Wildlife The San Rafael Swell would be considered a High-Use Area in the PFO. Under Alternative B</p>	<p>Impacts to Fish and Wildlife General The San Rafael Swell would be considered a High-Use Area in</p>	<p>Impacts to Fish and Wildlife The San Rafael Swell would be considered a High-Use Area in the PFO. Recreation</p>

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	recreation management would focus on provision of recreation amenities. Increased human presence may lead to wildlife harassment and possible displacement. Under this alternative, provision of recreation amenities may involve construction of facilities, which would increase human presence, construction of temporary roads, habitat fragmentation, and destruction of some habitats.	recreation management would focus on sustaining natural resources while meeting social and economic needs. Therefore, consideration would be given to natural resources and wildlife habitat, while allowing for recreation activity.	the PFO. Under Alternative C, recreation management would focus on sustaining natural processes to achieve self-sustaining ecosystems. All recreation use and recreation access in the San Rafael SRMA would be managed through a permit and reservation system. Therefore, consideration would be given to natural resources and wildlife habitat, while allowing for recreation activity. Under this alternative, provision of recreation activities would be controlled through the permitting process, and the number of visitors would be limited. This would benefit fish and wildlife species by limiting human presence and its associated impacts, as well as the amount of activities that may result in habitat destruction.	management would focus on sustaining natural resources while meeting social and economic needs. Therefore, consideration would be given to natural resources and wildlife habitat, while allowing for recreation activity. Any development targeted to increase visitor use would increase human disturbance into these areas and would potentially displace big horn sheep and other wildlife from these High-Use Areas.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros The development and use of the three High-Use Recreation Areas in the San Rafael Swell would increase the concentration of use in these areas. The frequency of short-term temporary displacement would result in the long-term habituation to displacement and changes in wild burro use patterns. An indirect impact to	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros Same as Alternative A. The development and use of the three High-Use Recreation Areas in the San Rafael Swell would increase the concentration of use in these areas. The frequency of short-term temporary displacement would result in the long-term habituation to displacement and changes in wild burro use

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	concentrated use in the High-Use Areas in the San Rafael Swell would be a decrease in dispersed use in the remainder of the HMA, decreasing associated temporary displacement impacts.			patterns. An indirect impact to concentrated use in the High-Use Areas in the San Rafael Swell would be a decrease in dispersed use in the remainder of the HMA, decreasing associated temporary displacement impacts.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation Continued management of the San Rafael Swell SRMA according to the San Rafael Resource Area RMP, including closure of the Wedge Overlook, developed interpretive sites, and Black Dragon Canyon to dispersed camping and management of dispersed recreation activities, would constrain opportunities for dispersed camping but would enhance the quality of the recreation experience by reducing impacts as follows: <ul style="list-style-type: none"> • Natural resource impacts such as— <ul style="list-style-type: none"> – Devegetation in 	Impacts to Recreation Expansion of the San Rafael Swell SRMA as indicated on Map 2-18 (approximately 935,725 acres) would improve manageability of recreation in the San Rafael Region by connecting similar geographic and recreational resources for the purposes of user data collection, activity management, and provision of visitor facilities. Requiring SRPs for groups larger than the numbers specified for each ROS class in Chapter 2 would decrease natural and social impacts associated with large group	Impacts to Recreation Expansion of the San Rafael Swell SRMA as indicated on Map 2-19 (approximately 936,324 acres) would improve manageability of recreation in the San Rafael Region by connecting similar geographic and recreational resources for the purposes of user data collection, activity management, and provision of visitor facilities. Requiring SRPs for groups larger than the numbers specified for each ROS class in Chapter 2 would decrease natural and social impacts associated with large group	Impacts to Recreation Expansion of the San Rafael Swell SRMA as indicated on Map 2-20 (approximately 936,324 acres) would improve manageability of recreation in the San Rafael region by connecting similar geographic and recreational resources for the purposes of user data collection, activity management, and provision of visitor facilities. Requiring SRPs for groups larger than the numbers specified for each ROS class in Chapter 2 would decrease natural and social impacts associated with large group	Impacts to Recreation Expansion of the San Rafael Swell SRMA as indicated on Map 2-21 to include approximately 936,476 acres would improve manageability of recreation in the San Rafael Region by connecting similar geographic and recreational resources for the purposes of user data collection, activity management, and provision of visitor facilities. Requiring SRPs for groups larger than the numbers specified for each ROS class in Chapter 2 would decrease natural and social impacts associated with large group

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>and around dispersed campsites and other areas of concentrated use</p> <ul style="list-style-type: none"> - Creation of redundant social trails accessing the same resource - Multiple fire rings - Inappropriate disposal of human waste. - • Social impacts such as— <ul style="list-style-type: none"> - Crowding during peak use such as Easter weekend, Memorial Day weekend, and Labor Day weekend - Excess demand for popular dispersed camp sites - Group size that exceeds site and area-carrying capacity. Carrying capacity for an area will be determined through activity-level plans. • Facilities-related impacts such as— 	<p>recreation in the San Rafael Swell. Issuance of permits would improve management control of areas being heavily used and assist in communicating Leave No Trace principles to large groups.</p> <p>Designation of the large group areas listed in Chapter 2 and shown on Map 2-26 would increase availability of sites suitable for large group camping and dispersed recreation. Impacts associated with large group use of other inappropriate sites within the San Rafael Swell would decrease.</p> <p>Development of a San Rafael Swell Activity Plan to address wood gathering for fuel, vehicle camping, and pack stock use in the SRMA would reduce natural and social impacts associated with areas of concentrated recreation use.</p> <p>Establishment of the High- Use Recreation Areas described in Chapter 2 and shown on Map 2-22 would enhance manageability, facilities, and maintenance of heavily used portions of the San Rafael SRMA.</p> <p>Restricting camping to developed or designated sites, prohibiting firewood gathering,</p>	<p>recreation in the San Rafael Swell by increasing management control of large group use in the area. Reducing group sizes as specified in Alternative B would decrease impacts to the social setting of primitive and semi-primitive recreation opportunities by ensuring small groups in sensitive areas. Large group recreation would be accommodated in the Roaded Natural ROS class and through the issuance of SPRs.</p> <p>Designation of the large group areas listed in Chapter 2 and shown on Map 2-26 would increase availability of sites suitable for large group camping and dispersed recreation. Impacts associated with large group use of other inappropriate sites within the San Rafael Swell would decrease.</p> <p>Development of a San Rafael Swell Activity Plan to address wood gathering for fuel, vehicle camping, and pack stock use in the SRMA would reduce natural and social impacts associated with areas of concentrated recreation use. Limiting dispersed camping and pack stock use to designated portions of the SRMA would decrease natural</p>	<p>recreation in the San Rafael Swell by increasing management control of large group use. Reducing group sizes as specified in Alternative C would decrease impacts to social setting of primitive and semi-primitive recreation opportunities by ensuring small groups in sensitive areas. Large group recreation would be accommodated in the Roaded Natural ROS class and through the issuance of SRPs.</p> <p>Designation of the large group areas listed in Chapter 2 and shown on Map 2-26 would increase availability of sites suitable for large group camping and dispersed recreation. Impacts associated with large group use of other inappropriate sites within the San Rafael Swell would decrease.</p> <p>Development of a San Rafael Swell Activity Plan to address restriction of fires to fire pans, vehicle camping, human waste, and pack stock use in the SRMA would reduce natural and social impacts associated with areas of concentrated recreation use. Limiting dispersed camping and pack stock use to designated portions of the SRMA would decrease natural</p>	<p>recreation in the San Rafael Swell.</p> <p>Designation of the large group areas listed in Chapter 2 and shown on Map 2-26 would increase availability of sites suitable for large group camping and dispersed recreation. Impacts associated with large group use of inappropriate sites within the San Rafael Swell would decrease.</p> <p>Development of a San Rafael Swell Activity Plan to address wood gathering for fuel, vehicle camping, and pack stock use in the SRMA would reduce natural and social impacts associated with areas of concentrated recreation use. Limiting dispersed camping and pack stock use to designated portions of the SRMA would decrease natural resource impacts associated with these activities such as devegetation and soil compaction.</p> <p>Establishment of the High-Use Recreation Areas described in Chapter 2 and shown on Map 2-25 would enhance manageability, facilities, and maintenance of heavily used portions of the San Rafael SRMA.</p> <p>Restricting camping to</p>

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> – Demand for different types and locations of developed recreation facilities – Continued high use of areas outside the SRMA boundary leading to inaccurate recreation use estimates and resource impacts. <p>Large numbers of users in casual and organized groups continuing to affect user experiences, natural resources, and facility capacities.</p>	<p>limiting the use of fires, and requiring the use of toilets would substantially reduce site impacts caused by concentrated use of select dispersed camping sites in the High-Use Areas.</p> <p>Use of concessionaire leases and outfitters to maximize recreation opportunities in the High-Use Areas would meet existing and future demands for recreation facilities and experiences. Allowing vending of goods in support of resource protection and interpretation would decrease concentrated impacts to natural resources in the High-Use Areas.</p> <p>Management prescriptions in areas adjacent to the High-Use Areas designed to support successful concessions would decrease inappropriate displacement of concentrated recreation use and ensure appropriate High-Use Area management.</p> <p>Creation of the Temple Mountain/Little Wild Horse/Behind the Reef High-Use Area and associated facilities would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with unmanaged</p>	<p>resource impacts associated with these activities such as devegetation and soil compaction.</p> <p>Establishment of the High-Use Recreation Areas described in Chapter 2 and shown on Map 2-23 would enhance manageability, facilities, and maintenance of heavily used portions of the San Rafael SRMA.</p> <p>Restricting camping to developed or designated sites, prohibiting firewood gathering, limiting the use of fires, and requiring the use of toilets would substantially reduce site impacts caused by concentrated use of select dispersed camping sites in the High-Use Areas.</p> <p>Retaining BLM management of recreation opportunities in the High-Use Areas would meet existing demands for recreation facilities and experiences. Allowing vending of goods in support of resource protection and interpretation would decrease concentrated impacts to natural resources in the High-Use Areas.</p> <p>Creation of the Temple Mountain/Little Wild Horse/Behind the Reef High-Use Area and associated facilities would accommodate</p>	<p>resource impacts associated with these activities such as devegetation and soil compaction.</p> <p>Instead of designating High-Use Areas, as described in other action alternatives, recreation management would focus on emphasizing natural processes to achieve self-sustaining systems. To accomplish this, all recreation use and recreation access in the San Rafael Swell SRMA would be managed through a permit and reservation system. Permits issued to manage travel and camping use of the SRMA could limit some types of use in selected areas, to accomplish resource management objectives.</p>	<p>developed or designated sites, prohibiting firewood gathering, limiting the use of fires, and requiring the use of toilets would substantially reduce site impacts caused by concentrated use of select dispersed camping sites in the High-Use Areas.</p> <p>Retaining BLM management of recreation opportunities in the High-Use Areas would meet existing demands for recreation facilities and experiences. Allowing vending of goods in support of resource protection and interpretation would decrease concentrated impacts to natural resources in the High-Use Areas.</p> <p>Creation of the Temple Mountain/Little Wild Horse/Behind the Reef High-Use Area and associated facilities would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use in this popular area.</p> <p>Creation of the Head of Sinbad/Swasey’s Cabin/Sid’s Mountain, and Trails System High-Use Area with the facilities listed in Chapter 2 would accommodate existing and future levels of recreation</p>

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>recreation use in this popular area.</p> <p>Creation of the Head of Sinbad/Swasey Cabin/Sid's Mountain, and Trails System High-Use Area with the facilities listed in Chapter 2 would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use.</p> <p>Creation of the Buckhorn/The Wedge/Mexican Mountain High-Use Area with the facilities listed in Chapter 2 would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use. In addition, changes to the existing San Rafael Bridge Recreation Site would better manage impacts associated with concentrated use of areas adjacent to, but outside of, the developed camping area.</p>	<p>existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use in this popular area.</p> <p>Creation of the Head of Sinbad/Swasey's Cabin/Sid's Mountain, and Trails System High-Use Area with the facilities listed in Chapter 2 would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use.</p> <p>Creation of the Buckhorn/The Wedge/Mexican Mountain High-Use Area with the facilities listed in Chapter 2 would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use. In addition, changes to the existing San Rafael Bridge Recreation Site would better manage impacts associated with concentrated use of areas adjacent to, but outside of, the developed camping area.</p>		<p>demand and reduce natural resource, social, and facilities-related impacts associated with recreation use.</p> <p>Creation of the Buckhorn/The Wedge/Mexican Mountain High-Use Area with the facilities listed in Chapter 2 would accommodate existing and future levels of recreation demand and reduce natural resource, social, and facilities-related impacts associated with recreation use. In addition, changes to the existing San Rafael Bridge Recreation Site would better manage impacts associated with concentrated use of areas adjacent to, but outside of, the developed camping area.</p>
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy	Impacts to Minerals and Energy	Impacts to Minerals and Energy	Impacts to Minerals and Energy	Impacts to Minerals and Energy

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers All other eligible river segments that have outstandingly remarkable recreational values are also within SRMAs, primarily the San Rafael Swell SRMA, which provides special management and protection of recreational values.	Impacts to Wild and Scenic Rivers Other eligible river segments with outstandingly remarkable recreational values that are not suitable or within SRMAs with this alternative include segments of Price River, Barrier Canyon, Keg Spring Canyon, and Rock Creek. These river segments would not receive special management and protection of recreational values.	Impacts to Wild and Scenic Rivers However, much of the Green River, including that portion flowing through Labyrinth Canyon, would not be within an SRMA area receiving special management attention for protection of recreational values.	Impacts to Wild and Scenic Rivers All other suitable river segments that have outstandingly remarkable recreational values are also within SRMAs, primarily the San Rafael Swell SRMA, which provides special management and protection of recreational values.	Impacts to Wild and Scenic Rivers All other suitable river segments that have outstandingly remarkable recreational values are also within SRMAs, primarily the San Rafael Swell SRMA, which provides special management and protection of recreational values. Other eligible river segments with outstandingly remarkable recreational values that are not suitable with this alternative are within SRMAs, primarily the San Rafael Swell SRMA. Special management and protection of recreational values would be provided for these river segments as well. One exception, however, is one segment of the Price River, which would not receive special management and protection of recreational values.

RECREATION San Rafael Swell SRMA				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Nine Mile Canyon is managed under the 1995 Recreation and Cultural Area Management Plan. The area is seeing increased visitation and is popular for the viewing of cultural sites (see Cultural section for cultural values). Nine Mile Canyon is also under increasing pressure for oil and gas development.				
Decisions				
The Nine Mile Area/SRMA would be managed according to the 1995 Recreation and Cultural Area Management Plan except as modified by the management alternatives listed below. Such changes include VRM classification.				
Management of the Nine Mile Canyon Area would coincide with the Vernal FO SRMA management and would continue to be managed according to the existing 1995 Nine Mile Canyon Cultural Resource Management Plan as updated and amended.	No SRMA would be created for the Nine Mile Canyon area. (Under Alternative A Management prescriptions for the "Nine Mile Canyon Area" would pertain to the 1995 Special Recreation and Cultural Resources Management Plan boundary.) Nine Mile Canyon would continue to be part of the Price ERMA.	The Nine Mile Canyon SRMA would be created as indicated in Map 2-19. The purpose of the Nine Mile Canyon SRMA would be to protect, preserve, and enhance the prehistoric and historic cultural resources, natural character, solitude, inspirational value, and scenic quality of the area, while optimizing recreation and interpretive opportunities, including the provision of a safe recreation environment.	The Nine Mile Canyon SRMA would be created as indicated in Map 2-20. The purpose of the Nine Mile Canyon SRMA would be to protect, preserve, and enhance the prehistoric and historic cultural resources, natural character, solitude, inspirational value, and scenic quality of the area, while optimizing recreation and interpretive opportunities, including the provision of a safe recreation environment.	The Nine Mile Canyon SRMA would be created as indicated in Map 2-21. The purpose of the Nine Mile Canyon SRMA would be to manage recreation and interpretive activities related to the cultural and historic resources in the area.

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Oil and gas leasing is a combination of open to leasing and open to leasing with minor constraints.		Oil and gas leasing would be Areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use; Lease Notices) in the SRMA.	Oil and gas leasing would be No Surface Occupancy in the SRMA.	Oil and gas leasing would be Areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use; Lease Notices) in the SRMA. (Same as Alternative B.)
Development would be required to meet VRM Class II.	Development would be required to meet VRM Class IV restrictions.	Development would be required to meet VRM Class II and III restrictions.	Development would be required to meet VRM Class II and III restrictions.	Development would be required to meet VRM Class III restrictions.
SPNM class areas would be limited to designated routes.	SPNM class areas would be in the OHV closed category. No facilities would be located in these areas.	SPNM class areas would be in the OHV closed category. No facilities would be located in these areas.	SPNM class areas would be in the OHV closed category. No facilities would be located in these areas.	SPNM class areas would be in the OHV closed category. No facilities would be located in these areas. (Same as Alternative B)
	The remainder of the area would be limited to designated routes, including all BLM and county system roads. RN class areas would contain visitor facilities, directional signage, interpretive materials, and infrastructure to support visitor health and safety, visitor appreciation of cultural resources, and resource protection. Private enterprise on private lands in support of public visitation within RN class areas would be encouraged by the BLM. The Nine Mile Canyon area would be closed to camping on public lands.			
Impacts to Nine Mile Canyon ACEC: Existing mineral development activity and infrastructure and unregulated recreation use is a threat to the proposed ACEC R&I values. Failure to fully implement the 1995 SRCMA and subsequent Interpretive Plan has contributed to threats to R&I.	Impacts to Nine Mile Canyon ACEC: Implementation of the 1995 SRCMA and subsequent Interpretive Plan would reduce threats to R&I from recreation. Requiring management to meet VRM IV requirements would threaten the R&I values of the area. Reducing VRM from Class II to Class IV reduces protections available for the R&I values of the proposed Nine Mile Canyon ACEC.	Impacts to Nine Mile Canyon ACEC: Implementation of the 1995 SRCMA and subsequent Interpretive Plan would reduce threats to R&I from recreation. Requiring management to meet VRM Class II or VRM Class III (depending on specific location, see Map 2-3) requirements would threaten the R&I values of the area. Reducing VRM from Class II to Class III reduces protections available for the R&I values of the proposed Nine Mile Canyon ACEC.	Impacts to Nine Mile Canyon ACEC: Implementation of the 1995 SRCMA and subsequent Interpretive Plan would reduce threats to R&I from recreation. Requiring management to meet VRM Class II or VRM Class III (depending on specific location, see Map 2-4) requirements would threaten the R&I values of the area. Reducing VRM from Class II to Class III reduces protections available for the R&I values of the proposed Nine Mile Canyon ACEC.	Impacts to Nine Mile Canyon ACEC: Implementation of the 1995 SRCMA and subsequent Interpretive Plan would reduce threats to R&I from recreation. Requiring management to meet VRM Class III requirements would threaten the R&I values of the area. Reducing VRM from Class II to Class III reduces protections available for the R&I values of the proposed Nine Mile Canyon ACEC. Continued leasing with minor constraints would continue to

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		Continued leasing with minor constraints would continue to threaten R&I as discussed under the No Action Alternative.	Managing the SRMA as No Surface Occupancy for oil and gas would increase protection and reduce threats to R&I from mineral leasing activities and its associated infrastructure.	threaten R&I as discussed under the No Action Alternative.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources The designation of the Nine Mile Canyon SRMA would impact cultural resources within the canyon. Direction restricting oil and gas development within 100 feet of inventoried cultural resources would create a buffer zone of no direct impact to sites. This direction would make avoidance the only mitigation alternative for direct impacts to cultural resources within Nine Mile Canyon, regardless of site characteristics. The 100-foot restriction would not address indirect impacts. These restrictions would tend to	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources The designation of the Nine Mile Canyon SRMA would impact cultural resources within the canyon. Direction restricting oil and gas development within 100 feet of inventoried cultural resources would create a buffer zone of no impacts from surface disturbance related to oil and gas development. Direct impacts such as vibrations, dust, etc. could potentially still impact the sites. This direction would make avoidance the only mitigation alternative for direct surface disturbing impacts to cultural resources

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		<p>preserve cultural resources in place within the canyon.</p> <p>In addition to providing prescriptive management direction, the Nine Mile Canyon SRMA designation acknowledges the trend of increasing heritage recreation. As this continues, sites throughout the canyon would continue to receive visitation. Unmitigated sites that have not had their data recovered may be inadvertently or unknowingly damaged through an increase in dispersed recreation, even if public land users follow the direction in the RMP. Although signage and interpretation would reduce the severity of the impacts, without mitigation the impacts would continue. Fugitive dust from motorized vehicles would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear. The abrasion is not anticipated to result in significant impacts during the life of the plan.</p>		<p>within Nine Mile Canyon. The 100-foot restriction would not address indirect impacts. These restrictions would tend to preserve cultural resources in place within the canyon.</p> <p>In addition to providing prescriptive management direction, the Nine Mile Canyon SRMA designation acknowledges the trend of increasing heritage recreation. As this continues, sites throughout the canyon would continue to receive visitation. Unmitigated sites that have not had their data recovered may be inadvertently or unknowingly damaged through an increase in dispersed recreation, even if public land users follow the direction in the RMP. Fugitive dust from motorized vehicles would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear. The abrasion is not anticipated to result in significant impacts during the life of the plan. While signage and interpretation would reduce the severity of the impacts, without mitigation the impacts would continue. These impacts would be largely long term in nature. The significance of the impact, however, would vary based on</p>

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				the characteristics of the sites.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation Recreational use in the Nine Mile Canyon area would continue to be managed without SRMA designation and according to those provisions of the 1995 Special Recreation and Cultural Management Plan currently being implemented. Lack of interpretive and	Impacts to Recreation Recreational use in the Nine Mile Canyon area would continue to be managed without SRMA designation and according to those provisions of the 1995 Special Recreation and Cultural Management Plan currently being implemented. Lack of interpretive and	Impacts to Recreation Creation of the Nine Mile Canyon SRMA to protect, preserve, and enhance the area's resources would enhance management of recreation in the area (approximately 31,605 acres). Closing those portions of the SRMA within the SPMN ROS class to OHV use and facility	Impacts to Recreation The designation of the Nine Mile Canyon SRMA (approximately 58,358 acres), in conjunction with managing the area according to the 1995 Recreation and Cultural Area Management Plan, would protect and enhance the prehistoric and historic cultural resources, natural character,	Impacts to Recreation Creation of the Nine Mile Canyon SRMA (approximately 31,605 acres) to manage recreation and interpretive activities related to the cultural and historic resources in the area would enhance the recreation experience in the area. Closing those portions of the SRMA within the SPMN

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
directional information would continue to cause direct impacts to soils, vegetation, and cultural resources, reducing opportunities for future recreational use.	directional information would continue to cause direct impacts to soils, vegetation, and cultural resources, reducing opportunities for future recreational use.	<p>development would decrease impacts to vegetation and cultural resource sites associated with OHV and concentrated recreation use.</p> <p>Installation of interpretive and directional information along the Nine Mile Canyon road corridor would reduce direct impacts to soils, vegetation, and cultural resources, and maintain opportunities for future recreational use.</p>	<p>solitude, inspirational value, and scenic quality of the area, while optimizing recreation and interpretive opportunities. Other actions, based on the following ROS categories, that would affect recreation include—</p> <p>Semi-primitive, Non-motorized (SPNM) Closing the area to OHV use would restrict motorized access to these areas; however, it would also protect natural resources important to recreation and enhance primitive recreation opportunities. The remainder of the SRMA would limit OHV use to designated routes, including all BLM and county system roads. Based on the amount of area available for OHV use, no impacts to motorized recreation are anticipated.</p> <p>Roaded Natural (RN) Development of visitor facilities, directional signage, interpretive materials, and infrastructure to support visitor health and safety, visitor appreciation of cultural resources, and resource protection would reduce direct impacts to soils, vegetation, and cultural resources and maintain opportunities for</p>	<p>ROS class to OHV use and facility development would decrease impacts to vegetation and cultural resource sites associated with OHV and concentrated recreation use.</p> <p>Installation of interpretive and directional information along the Nine Mile Canyon road corridor would reduce direct impacts to soils, vegetation, and cultural resources, and maintain opportunities for future recreational use.</p>

RECREATION Nine Mile Canyon				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			future recreational use. Closing the SRMA to camping would maintain and protect the unique cultural resources and associated recreation opportunities.	
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.			
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.			
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

**RECREATION
Price Field Office Extensive Recreation Management Area (ERMA)**

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The PFO ERMA is an extensive area that, while it is used for recreation, does not require any specialized management for recreation use.				
Decisions				
	Signs, trails, and facilities would be used to facilitate use and enjoyment in the ERMA.	The use of signs, trails, and facilities would be limited and used if resource damage occurs.	Signs, trails, and facilities would be used sparingly and only to prevent resource damage.	Signs, trails, and facilities would be used to facilitate use and enjoyment in the ERMA. (Same as Alternative A.)
	Summerville/Chimney Rock Trail System Trails system management would include— <ul style="list-style-type: none"> • Concessionaire operated and maintained site • Limited entry off Highway 6 and the Castle Dale to Woodside Road • One staging area off Highway 6 and one near the Rock House/Humbug Road • Fees charged for facility access and use. 	Summerville/Chimney Rock Trail System Arapeen Trail Trails system management would include— <ul style="list-style-type: none"> • BLM operated and maintained site • Limited entry off Highway 6 and the Castle Dale to Woodside Road • One staging area off Highway 6 and one near the Rock House/Humbug Road • When facilities (restrooms, enhanced parking areas, loading ramps, etc.) are developed, fees would be charged for facility access and use. 	Summerville/Chimney Rock Trail System <ul style="list-style-type: none"> • Not designated. 	Summerville/Chimney Rock Trail System/ Arapeen Trail Trails System management would include— <ul style="list-style-type: none"> • BLM operated and maintained site • Limited entry off Highway 6 and the Castle Dale to Woodside Road • One staging area off Highway 6 and one near the Rock House/Humbug Road • When facilities (restrooms, enhanced parking areas, loading ramps, etc.) are developed, fees would be charged for facility access and use. (Same as Alternative B.)
	Sites appropriate for large group events and camping would be designated. Large group areas included— <ul style="list-style-type: none"> • Mounds Bridge • Price Recreation Area • Consumers • Saleratus 	Sites appropriate for large group events and camping would be designated. Large group areas included— <ul style="list-style-type: none"> • Mounds Bridge • Price Recreation Area • Consumers • Saleratus 	Sites appropriate for large group events and camping would be designated. Large group areas included— <ul style="list-style-type: none"> • Mounds Bridge • Price Recreation Area • Consumers • Saleratus 	Sites appropriate for large group events and camping would be designated. Large group areas included— <ul style="list-style-type: none"> • Mounds Bridge • Price Recreation Area • Consumers • Saleratus

RECREATION				
Price Field Office Extensive Recreation Management Area (ERMA)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<ul style="list-style-type: none"> • Hornsilver Gulch Road near Crown Point • Others as necessary to meet recreation demand • Groups larger than the numbers identified for the ROS class in the area of use would require a Special Recreation Permit, unless they were using a designated large group area. 	<ul style="list-style-type: none"> • Hornsilver Gulch Road near Crown Point • Others as necessary to meet recreation demand and protect resources. 	<ul style="list-style-type: none"> • Hornsilver Gulch Road near Crown Point • Others as necessary to protect resources. 	<ul style="list-style-type: none"> • Hornsilver Gulch Road near Crown Point • Others as necessary to meet recreation demand and protect resources. <p>(Same as Alternative B.)</p>

RECREATION				
Price Field Office Extensive Recreation Management Area (ERMA)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Because there are no management controls for ERMAs, especially dispersed camping in non-designated camping areas, there would be impacts to local soil, water, and riparian resources from uncontrolled recreation activities.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros	Impacts to Wild Horses and Burros

RECREATION				
Price Field Office Extensive Recreation Management Area (ERMA)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation No significant impact.	Impacts to Recreation Demand for trail-based OHV recreation would be accommodated by the development of the Summerville/Chimney Rock Trail System. Natural resource impacts associated with OHV use of the area would be reduced by installation of appropriate trails and facilities. Designation of large group areas in the ERMA would address natural and social impacts associated with camping and other forms of concentrated large group recreation.	Impacts to Recreation Dispersed recreation in the ERMA would be maintained by placement of signs, trails, and facilities in response to resource damage. Demand for trail-based OHV recreation would be accommodated by the development of the Summerville/Chimney Rock/Arapeen Trail System. Natural resource impacts associated with OHV use of the area would be reduced by installation of appropriate trails and facilities. Designation of large group areas in the ERMA would address natural and social impacts associated with camping and other forms of concentrated large group recreation.	Impacts to Recreation Impacts would be similar to those of the No Action Alternative, except signs, trails, and facilities would be used sparingly to prevent damage to resources important to recreation. Designation of large group areas in the ERMA) would address natural and social impacts associated with camping and other forms of concentrated large group recreation. Demand for trail-based OHV recreation in the Summerville/Chimney Rock area would not be addressed by creation of a trail system. Natural resource and social impacts would occur from the continuation of these activities without additional appropriate management actions and facilities.	Impacts to Recreation Dispersed recreation in the ERMA would be enhanced by the as-needed placement of signs, trails, and facilities. Demand for trail-based OHV recreation would be accommodated by the development of the Summerville/Chimney Rock/Arapeen Trail System. Natural resource impacts associated with OHV use of the area would be reduced by installation of appropriate trails and facilities. Designation of large group areas in the ERMA would address natural and social impacts associated with camping and other forms of concentrated large group recreation.
Impacts to Lands and Realty	Impacts to Lands and Realty	Impacts to Lands and Realty	Impacts to Lands and Realty	Impacts to Lands and Realty

RECREATION				
Price Field Office Extensive Recreation Management Area (ERMA)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.				
Impacts to Minerals and Energy No significant impact.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

RECREATION
Developed Recreation Sites
Decision Background
The following decisions are direction for the management of recreation use. These decisions are included to clarify standard operating procedures.
Decisions

RECREATION

Developed Recreation Sites

Developed recreation sites listed below will continue to be managed and maintained. Sites administered by the PFO are Daddy Canyon, Price Canyon Recreation Site, CLDQ, Cedar Mountain, Buckhorn Pictograph Panel, San Rafael Bridge Campground, Swasey Cabin, Little Wild Horse Canyon, Wedge Overlook, and Temple Mountain Recreation Site (proposed). Sites located in other field office areas and maintained by the PFO are Nefertiti Rapid, Butler Rapid, Stone Cabin, Swasey Beach, Swasey Boat Ramp, Mineral Bottom Boat Ramp, and Sand Wash.

Existing developed recreation sites would be maintained. New sites would be developed in response to user demand, amenity value, and critical resource protection needs.

Impact Analysis

RESOURCES

Impacts to Air Quality

No significant impacts.

Impacts to Soil, Water and Riparian

No significant impacts.

Impacts to Vegetation Resources

No significant impacts.

Impacts to Cultural Resources

No significant impacts.

Impacts to Paleontology Resources

No significant impacts.

Impacts to Visual Resources

No significant impacts.

Impacts to Special Status Species

No significant impacts.

Impacts to Fish and Wildlife

No significant impacts.

Impacts to Wild Horses and Burros

No significant impacts.

Impacts to Fire and Fuels Management

No significant impacts.

RESOURCE USES

Impacts to Forest and Woodlands

No significant impacts.

RECREATION
Developed Recreation Sites

Impacts to Livestock

No significant impacts.

Impacts to Recreation

Continuing to manage the existing developed recreation sites would meet the current level of recreational demand in some portions of the PFO. Under this alternative, additional site development work would be implemented in response to resource protection needs and user demand.

Impacts to Lands and Realty

No significant impacts.

Impacts to Minerals and Energy**Leasable Minerals**

Oil and Gas. Developed recreation sites would be open to leasing, subject to major constraints (no surface occupancy) or closed to leasing, which would limit or not allow oil and gas exploration and development and limit the lands available for development. Directional drilling would be required to extract hydrocarbon resources under no surface occupancy areas, which would increase costs to the operator. Hydrocarbon resources under areas closed to leasing would be rendered unrecoverable.

The existing 1979 Desolation and Gray Canyons of the Green River Management Plan would continue to be used as the activity plan for the Desolation Canyon SRMA. Prescriptions of the plan include an area within 1-mile of the Green River that would be open to leasing, subject to major constraints (no surface occupancy), which would potentially require directional drilling to extract hydrocarbon resources under this area. Developed recreation sites would be recommended for withdrawal, which would not allow for locatable mineral entry and would limit the lands available for development.

SPECIAL DESIGNATIONS**Impacts to Wilderness Study Areas**

No significant impacts.

Impacts to Areas of Critical Environmental Concern

No significant impacts.

Impacts to Wild and Scenic Rivers

No significant impacts.

SUPPORT**Impacts to Transportation and Motorized Access**

No significant impacts.

Impacts to Hazardous Materials and Waste

No significant impacts.

RECREATION
Special Recreation Permitting

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
<p>The following decisions are policy or regulation for the administration of special recreation permits. These decisions are included to clarify standard operating procedures. Since the preparation of the previous plans, BLM has issued new SRP regulations, codified at 43 CFR 2930. This new guidance anticipates using the land use plan to establish criteria for the issuance of SRPs.</p>				
Decisions				
<p>Manage active SRPs through compliance and evaluation.</p>	<p>Common to All Action Alternatives</p> <ul style="list-style-type: none"> • SRPs would be issued according to the established evaluation factors described in Appendix 14. The factors identified would primarily examine the sensitivity of the proposed site and the nature of the proposed use. • The evaluation would indicate relative time required for permit application review, the likelihood of cost recovery being imposed, and the likelihood of permit appropriateness and approval in a given area. • Cost recovery is required on all SRPs involving more than 50 hours of BLM staff time for permit review, approval, and monitoring. • Competitive events would not be permitted in WSAs. • BLM may require permits and charge fees in all Special Areas. 			
COMMERCIAL				
	<p>Commercial use permits would be authorized in conjunction with organized events when the use supports resource protection and management or to enhance recreational experiences and provide recreational opportunities to the public.</p>	<p>Commercial use permits would be authorized in conjunction with organized events or when the use supports resource protection and management.</p>	<p>Commercial use permits would be authorized in conjunction with organized events or when the use supports resource protection and management.</p>	<p>Commercial use permits would be authorized in conjunction with organized events or when the use supports resource protection and management. (Same as Alternative B.)</p>
	<p>Competitive events would not be permitted on BLM-administered lands in Desolation Canyon, Nine Mile Canyon, or CLDQ SRMAs.</p>	<p>Competitive events would not be permitted on BLM-administered lands in Desolation Canyon, Nine Mile Canyon, or CLDQ SRMAs.</p>	<p>Competitive events would not be permitted on BLM-administered lands in Desolation Canyon, Nine Mile Canyon, or CLDQ SRMAs. Motorized competitive events would be permitted only in the Price ERMA.</p>	<p>Competitive events would not be permitted on BLM-administered lands in Desolation Canyon, Nine Mile Canyon, or CLDQ SRMAs. (Same as Alternative B.)</p>
ORGANIZED GROUP				
	<p>Special Recreation Permits would be required for organized groups occupying an area for more than 2 hours, composed of more than 25 participants, or using more than 8 vehicles outside of designated large group areas.</p>			

RECREATION				
Special Recreation Permitting				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
VENDING				
	Vending would be authorized in conjunction with organized events or when the vending was necessary to support resource protection or appropriate recreation use. Vending permits could also be authorized to enhance recreational experience.	Vending would be authorized in conjunction with organized events or when the vending was necessary to support resource protection or appropriate recreation use.	Vending would be authorized in conjunction with organized events or when the vending was necessary to support resource protection or appropriate recreation use.	Vending would be authorized in conjunction with organized events or when the vending was necessary to support resource protection or appropriate recreation use. Vending permits could also be authorized to enhance recreational experience.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Special Recreation Permits would have limited short-term impacts to soils, water, and riparian resources because of the management stipulations that would be placed on commercial, competitive, and organized group functions.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources	Impacts to Visual Resources	Impacts to Visual Resources	Impacts to Visual Resources	Impacts to Visual Resources

RECREATION				
Special Recreation Permitting				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife Designation of Large Group Areas throughout SRMAs in the PFO would allow for recreation to occur in areas that would not be detrimental to fish and wildlife species and habitat. This would localize any potential impacts that would result from recreational activities in the area.	Impacts to Fish and Wildlife Designation of Large Group Areas throughout SRMAs in the PFO would allow for recreation to occur in areas that would not be detrimental to wildlife species and habitat.	Impacts to Fish and Wildlife Same as Alternative B.	Impacts to Fish and Wildlife Designation of Large Group Areas throughout SRMAs in the PFO would allow for recreation to occur in areas that would not be detrimental to wildlife species and habitat. This would reduce human impacts to wildlife through dispersed use, but would increase impacts to wildlife at the designated large group areas.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation Continuing to manage SRPs on a case-by-case basis would increase the time required for permit application review; it would also decrease	Impacts to Recreation Issuance of SRPs in accordance with the evaluation factors described in Appendix 14 would decrease the time required for permit application	Impacts to Recreation Issuance of SRPs in accordance with the evaluation factors described in Appendix 14 would decrease the time required for permit application	Impacts to Recreation Issuance of SRPs in accordance with the evaluation factors described in Appendix 14 would decrease the time required for permit application	Impacts to Recreation Issuance of SRPs in accordance with the evaluation factors described in Appendix 14 would decrease the time required for permit application

RECREATION				
Special Recreation Permitting				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>effectiveness of the SRP program through unintentional impacts to resources, inconsistency of permit evaluation standards, and lack of public information regarding SRP application guidelines.</p>	<p>review, increase effectiveness of the SRP program by reducing impacts to resources, enhance consistency of permit evaluation standards, and increase availability of public information regarding SRP application guidelines.</p> <p>Issuance of commercial SRPs to support resource protection, enhance recreation experiences, or provide recreation opportunities to the public, would expand and enhance recreation opportunities and experiences throughout the PFO, while providing resource protection in areas where commercial events would occur.</p> <p>Prohibiting competitive events in the Desolation Canyon, Nine Mile Canyon, or the CLDQ SRMAs would maintain opportunities for primitive recreation and protect resources critical for existing types and amounts of non-competitive recreation use.</p> <p>Requiring Organized Group SRPs for groups occupying an area for more than 2 hours, composed of more than 25 participants, or using more than 8 vehicles outside of designated large group areas would improve the protection of natural resources and social</p>	<p>review, increase effectiveness of the SRP program by reducing impacts to resources, enhance consistency of permit evaluation standards, and increase availability of public information regarding SRP application guidelines.</p> <p>Issuance of commercial SRPs to support resource protection, or in conjunction with an organized event, would maintain existing recreation opportunities and experiences throughout the PFO, while providing resource protection in areas where organized events would occur.</p> <p>Prohibiting competitive events in the Desolation Canyon, Nine Mile Canyon, or the CLDQ SRMAs would maintain opportunities for primitive recreation and protect resources critical for existing types and amounts of non-competitive recreation use. SRMA objectives are better met by not issuing SRPs for competitive events.</p> <p>Requiring Organized Group SRPs for groups occupying an area for more than 2 hours, composed of more than 25 participants, or using more than 8 vehicles outside of designated large group areas would improve the protection of</p>	<p>review, increase effectiveness of the SRP program by reducing impacts to resources, enhance consistency of permit evaluation standards, and increase availability of public information regarding SRP application guidelines.</p> <p>Issuance of commercial SRPs to support resource protection, or in conjunction with an organized event, would maintain existing recreation opportunities and experiences throughout the PFO, while providing resource protection in areas where organized events would occur.</p> <p>Prohibiting competitive events in the Desolation Canyon, Nine Mile Canyon, or the CLDQ SRMAs would maintain opportunities for primitive recreation and protect resources critical for existing types and amounts of non-competitive recreation use.</p> <p>Requiring Organized Group SRPs for groups occupying an area for more than 2 hours, composed of more than 25 participants, or using more than 8 vehicles outside of designated large group areas would improve the protection of natural resources and social settings throughout the PFO. Allowing larger groups by</p>	<p>review, increase effectiveness of the SRP program by reducing impacts to resources, enhance consistency of permit evaluation standards, and increase availability of public information regarding SRP application guidelines.</p> <p>Issuance of commercial SRPs to support resource protection, or in conjunction with an organized event, would maintain existing recreation opportunities and experiences throughout the PFO, while providing resource protection in areas where organized events would occur.</p> <p>Prohibiting competitive events in the Desolation Canyon, Nine Mile Canyon, or the CLDQ SRMAs would maintain opportunities for primitive recreation and protect resources critical for existing types and amounts of non-competitive recreation use. SRMA objectives are better met by not issuing SRPs for competitive events.</p> <p>Requiring Organized Group SRPs for groups occupying an area for more than 2 hours, composed of more than 25 participants, or using more than 8 vehicles outside of designated large group areas would improve the protection of</p>

RECREATION				
Special Recreation Permitting				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>settings throughout the PFO. Allowing larger groups by SRPs would accommodate motorized and large group recreation opportunities.</p> <p>Allowing vending in support of resource protection or appropriate recreation use, or to enhance recreation experiences, would increase and enhance types and amounts of recreation vending and associated recreation experiences in the PFO.</p>	<p>natural resources and social settings throughout the PFO. Allowing larger groups by SRPs would accommodate motorized and large group recreation opportunities.</p> <p>Allowing vending in support of resource protection, or in conjunction with organized events, would create entrepreneurial opportunities, while supporting BLM recreation management program in the PFO.</p>	<p>SRPs would accommodate motorized and large group recreation opportunities.</p> <p>Allowing vending in support of resource protection, or in conjunction with organized events, would maintain existing types and amounts of recreation vending and associated recreation experiences in the PFO.</p>	<p>natural resources and social settings throughout the PFO. Allowing larger groups by SRPs would accommodate motorized and large group recreation opportunities.</p> <p>Issuance of SRPs in accordance with the evaluation factors described in Appendix 14 would decrease the time required for permit application review, increase effectiveness of the SRP program by reducing impacts to resources, enhance consistency of permit evaluation standards, and increase availability of public information regarding SRP application guidelines.</p> <p>Issuance of commercial SRPs to support resource protection, or in conjunction with an organized event, would maintain existing recreation opportunities and experiences throughout the PFO, while providing resource protection in areas where organized events would occur.</p> <p>Prohibiting competitive events in the Desolation Canyon, Nine Mile Canyon, or the CLDQ SRMAs would maintain opportunities for primitive recreation and protect resources critical for existing types and amounts of non-competitive recreation use.</p>

RECREATION				
Special Recreation Permitting				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
				Allowing vending in support of resource protection or appropriate recreation use, or to enhance recreation experiences, would increase and enhance types and amounts of recreation vending and associated recreation experiences in the PFO.
Impacts to Lands and Realty No significant impact.				
Impacts to Minerals and Energy No significant impact.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Designation of OHV use areas is required by regulation at 43 CFR 8340 or 8240(?). All public lands must be designated as open, limited, or closed to OHV use. OHV use has been increasing throughout the area causing resource conflicts that were not identified in previous plans.				
Decisions				
OHV recreation would be managed according to the 2003 San Rafael Motorized Route Designation Plan and the 1990 Price River ORV Plan (Map 2-12).	OHV recreation would be managed according to the open, closed, and limited to designated route categories shown on Maps 2-13 and 2-54.	OHV recreation would be managed according to the open, closed, and limited to designated route categories shown on Maps 2-14 and 2-54.	OHV recreation would be managed according to the open, closed, and limited to designated route categories shown on Maps 2-15 and 2-55.	OHV recreation would be managed according to the open, closed, and limited to designated route categories shown on Map 2-16 and 2-56.
	Small open areas for OHV use would be considered near local communities and managed by BLM.	Small open areas for OHV use would be considered for R&PP leases to local communities. It is anticipated that open areas considered for R&PP lease would be adjacent to or near incorporated towns, previously disturbed areas (existing surface disturbance), and generally smaller than 2,500 acres. Requests would require review under NEPA and would be considered on a case-by-case basis.	No open areas for OHV use would be available on public lands in the field office.	Small open areas for OHV use would be considered for R&PP leases to local communities. It is anticipated that open areas considered for R&PP lease would be adjacent to or near incorporated towns, previously disturbed areas (existing surface disturbance), and generally smaller than 2,500 acres. Requests would require review under NEPA and would be considered on a case-by-case basis.
OHV USE AND ROUTE DESIGNATIONS				
	Additional motorized and non-motorized trail systems will be considered on a case by case basis.	Additional motorized and non-motorized trail systems will be considered on a case by case basis.		Additional motorized and non-motorized trail systems will be considered on a case by case basis.
	All recreational OHV use will be subject to OHV route designations.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Soil, Water and Riparian OHV activities would have impacts to soils, water, and riparian resources due to soil compaction and breakdown, and the erosion that would occur. This would lead to excess runoff and increased siltation and sedimentation in local streams impacting water quality.</p>	<p>Impacts to Soil, Water and Riparian Opening small areas near local communities for OHV recreational use would cause impacts to local soil resources. These impacts would be long term, but would only have localized effects. Management by the BLM would lead to better design of these facilities to reduce impacts to soils from OHV use. Trails would be established to avoid sensitive vegetative areas, which would protect their associated soils.</p>	<p>Impacts to Soil, Water and Riparian Same as Alternative A.</p>	<p>Impacts to Soil, Water and Riparian Same as Alternative A.</p>	<p>Impacts to Soil, Water and Riparian Same as Alternative A.</p>
<p>Impacts to Vegetation Resources Managing OHV recreation as open and limited use and limiting mountain bikes to designated routes reduces the spread of noxious weeds and invasive plant species to plant communities adjacent to these routes. Under this Alternative, approximately 85 percent of the PFO allows OHV recreation use and mountain biking on designated roads and routes including the use of OHVs for retrieval of game. Noxious weed and invasive plant species can be transported on vehicle tires, and other equipment. About 14 percent of the PFO is closed to OHV recreation use. Areas closed to OHV</p>	<p>Impacts to Vegetation Resources Managing OHV recreation as open and limited use and limiting mountain bikes to designated routes reduces the spread of noxious weeds and invasive plant species to plant communities adjacent to these routes. Under this Alternative, approximately 83 percent of the PFO allows OHV recreation use and mountain biking on designated roads and routes including the use of OHVs for retrieval of game. Noxious weed and invasive plant species can be transported on vehicle tires, and other equipment. About 16 percent of the PFO is closed to OHV recreation use. Areas closed to OHV</p>	<p>Impacts to Vegetation Resources Managing OHV recreation as open and limited use and limiting mountain bikes to designated routes reduces the spread of noxious weeds and invasive plant species to plant communities adjacent to these routes. Under this Alternative, approximately 77 percent of the PFO allows OHV recreation use and mountain biking on designated roads and routes including the use of OHVs for retrieval of game. Noxious weed and invasive plant species can be transported on vehicle tires, and other equipment. About 22 percent of the PFO is closed to OHV recreation use. Areas closed to OHV</p>	<p>Impacts to Vegetation Resources Managing OHV recreation as open and limited use and limiting mountain bikes to designated routes reduces the spread of noxious weeds and invasive plant species to plant communities adjacent to these routes. Under this Alternative, approximately 77 percent of the PFO allows OHV recreation use and mountain biking on designated roads and routes including the use of OHVs for retrieval of game. Noxious weed and invasive plant species can be transported on vehicle tires, and other equipment. About 22 percent of the PFO is closed to OHV recreation use. Areas closed to OHV</p>	<p>Impacts to Vegetation Resources Managing OHV recreation as open and limited use and limiting mountain bikes to designated routes reduces the spread of noxious weeds and invasive plant species to plant communities adjacent to these routes. Under this Alternative, approximately 83 percent of the PFO allows OHV recreation use and mountain biking on designated roads and routes including the use of OHVs for retrieval of game. Noxious weed and invasive plant species can be transported on vehicle tires, and other equipment. About 16 percent of the PFO is closed to OHV recreation use. Areas closed to OHV</p>

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
recreation use maintain vegetative resources and can reduce the spread of noxious weeds and invasive plant species infestations.	recreation use maintain vegetative resources and can reduce the spread of noxious weeds and invasive plant species infestations.	recreation use maintain vegetative resources and can reduce the spread of noxious weeds and invasive plant species infestations.	recreation use maintain vegetative resources and can reduce the spread of noxious weeds and invasive plant species infestations.	recreation use maintain vegetative resources and can reduce the spread of noxious weeds and invasive plant species infestations.
<p>Impacts to Cultural Resources Cross-country OHV travel is available on approximately 754,200 acres (32 percent of total) throughout the PFO. Cross-country OHV use usually decreases vegetation density; increases erosion; and generally breaks, spreads, and otherwise disturbs cultural resources at the surface. The potential for these impacts would increase dramatically under this alternative. Unlike other permitted uses, cultural resource inventories and clearances were not completed prior to designating these large "open" areas. Mitigation of cultural resource damage would be accomplished through data recovery efforts implemented on a case-by-case basis after the damage has occurred.</p> <p>Impacts from OHV use in areas limited to designated routes (1,590,540 acres) would continue (see Map 2-12). This includes surface disturbance from route widening, route braiding, and route pioneering. Use on existing routes would</p>	<p>Impacts to Cultural Resources The identification of small "open" areas (areas available for cross-country OHV travel) would allow for cultural resource inventories and clearances prior to use. Cultural resources in these areas would be preserved through data recovery.</p> <p>Impacts from OHV use would continue on approximately 2,119,000 acres limited to designated routes (see Map 2-13). This includes surface disturbance from route widening, route braiding, and route pioneering. Use on existing routes would result in amplified erosion impacts. The potential for impacts to cultural resources from this erosion and surface disturbance would continue on the areas limited to designated routes. As stated in the general assumptions, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed further here because it is an education and enforcement issue. No cultural</p>	<p>Impacts to Cultural Resources Impacts from OHV use would continue on approximately 2,076,000 acres limited to designated routes (see Map 2-14). This includes surface disturbance from route widening, route braiding, and route pioneering. Use on existing routes would result in amplified erosion impacts. The potential for impacts to cultural resources from this erosion and surface disturbance would continue on the areas limited to designated routes. As stated in the general assumptions, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed further here because it is an education and enforcement issue. No cultural resources impacts are anticipated from OHV use in areas closed to OHV use.</p>	<p>Impacts to Cultural Resources Impacts from OHV use would continue on approximately 1,911,600 acres limited to designated routes (see Map 2-15). This includes surface disturbance from route widening, route braiding, and route pioneering. Use on existing routes would result in amplified erosion impacts. The potential for impacts to cultural resources from this erosion and surface disturbance would continue on the areas limited to designated routes. As stated in the general assumptions, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed further here because it is an education and enforcement issue. No cultural resources impacts are anticipated from OHV use in areas closed to OHV use.</p>	<p>Impacts to Cultural Resources The identification of small "open" areas (areas available for cross-country OHV travel) would allow for cultural resource inventories and clearances prior to use. Cultural resources in these areas would be preserved through data recovery.</p> <p>Impacts from OHV use would continue on approximately 2,076,000 acres limited to designated routes (see Map 2-16). This includes surface disturbance from route widening, route braiding, and route pioneering. Use on existing routes would result in amplified erosion impacts. The potential for impacts to cultural resources from this erosion and surface disturbance would continue on the areas limited to designated routes. As stated in the general assumptions, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed further here because it is an education and enforcement issue. No cultural</p>

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>result in amplified erosion impacts. The potential for impacts to cultural resources from this erosion and surface disturbance would continue on the areas limited to designated routes. As stated in the general assumptions, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed further here because it is an education and enforcement issue.</p>	<p>resources impacts are anticipated from OHV use in areas closed to OHV use.</p>			<p>resources impacts are anticipated from OHV use in areas closed to OHV use.</p>
<p>Impacts to Paleontology Resources Cross-country OHV travel is available on approximately 754,200 acres (32 percent of total) throughout the PFO. Cross-country OHV use would decrease vegetative cover and increase erosion, leading to potential exposure, damage, and/or destruction of paleontological resources. In addition, cross-country use may directly damage paleontological resources at or near the surface. The potential for these impacts would increase dramatically under this alternative. Unlike most other permitted uses, paleontological resource assessments were not completed prior to designating these "open" areas. Mitigation</p>	<p>Impacts to Paleontology Resources Limited cross-country OHV travel is available in this alternative. Identification of these small "open" areas would reduce the potential for significant paleontological impacts simply because a smaller area would be disturbed. Because OHV use in the remainder of PFO is either limited to designated routes or closed, no new paleontological resource impacts would occur due to OHV use in this alternative. As stated above, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed here because it is an education and enforcement issue.</p>	<p>Impacts to Paleontology Resources Limited cross-country OHV travel is available in this alternative. Identification of these small "open" areas would allow for paleontological assessments prior to use. Paleontological values in these areas would usually be protected through data recovery. Because OHV use in the remainder of PFO is either limited to designated routes or closed, no new paleontological resource impacts would occur due to OHV use in this alternative. As stated above, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed here because it is an education and</p>	<p>Impacts to Paleontology Resources No significant impacts.</p>	<p>Impacts to Paleontology Resources Limited cross-country OHV travel is available in this alternative. Identification of these small "open" areas would allow for paleontological assessments prior to use. Fossil resources in these areas would usually be protected through data recovery. Because OHV use in the remainder of PFO is either limited to designated routes or closed, no new paleontological resource impacts would occur due to OHV use in this alternative. As stated above, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed here because it is an education and enforcement</p>

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>to paleontological resource damage is usually through data recovery efforts implemented on a case-by-case basis after the damage has occurred.</p> <p>There would be no new impacts from OHV areas limited to designated routes (1,590,540 acres) because the surface has already been disturbed. As stated above, this analysis assumes public land users will follow the decisions in the plan. Impacts from route pioneering will not be analyzed here because it is an education and enforcement issue.</p>		enforcement issue.		issue.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife Big Game Closing crucial and high-value winter range to OHV activity would reduce stress on deer and elk during this most critical life history period.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife Big Game Controlling the seasonal and spatial activities of OHV in winter range will reduce the amount of human-wildlife conflicts that would result in stressing these animals during their most stressed periods of their life histories.	Impacts to Fish and Wildlife Limiting OHV use to designated roads and trails would reduce overland travel by OHVs and reduce human related impacts to wildlife populations.
Impacts to Wild Horses and Burros Impacts from OHV use in the Muddy Creek and Sinbad	Impacts to Wild Horses and Burros The presence of OHV users on designated routes would	Impacts to Wild Horses and Burros Impacts to wild burros in the Sinbad and Muddy HMAs	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros The presence of OHV users on designated routes would

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>HMA's are not anticipated to be significant. The presence of OHV users on designated routes would temporarily displace equines from areas near routes. Wild horses in the Robbers Roost and Range Creek HMA's would experience these impacts. In addition, there would be an increased potential for vegetation loss resulting from cross-country travel. Large portions of these HMA's are open to cross-country OHV use. As OHV use continues to increase, impacts on vegetation from OHV recreation use decrease forage. Because of the size of these HMA's, this impact is not anticipated to be significant.</p>	<p>temporarily displace equines from proximity to the routes. Impacts from this use in the Sinbad HMA would be not be significant.</p>	<p>would be the same as those identified for Sinbad burros in Alternative A. Impacts of OHV use to wild horses in the Range Creek HMA would be much less than in the No Action Alternative. There would be no potential vegetation loss from cross-country OHV use. Instead, wild horses would be displaced as a result of OHV use on designated routes. This short-term impact would not be significant, and it will be of less intensity than impacts from the No Action Alternative.</p>		<p>temporarily displace wild horses and burros from proximity to the routes. Impacts of OHV use to wild horses in the Range Creek HMA would be much less than in the No Action Alternative. There would be no potential vegetation loss from cross-country OHV use. Instead, wild horses would be displaced as a result of OHV use on designated routes. Impacts to wild horses and burros would be short term, but not significant.</p>
<p>Impacts to Fire and Fuels Management As a result of 32 percent of the PFO being open to cross-country OHV use, the potential for wildland fire caused by OHV use is high, especially because many of the open areas are in grass and brush vegetation types. In addition, this alternative does not provide for an increase in developed recreation sites. Because dispersed recreation will increase, the potential for human-caused wildland fires will increase.</p>	<p>Impacts to Fire and Fuels Management No areas are open to cross-country OHV use, resulting in a reduction in the potential for OHV-caused wildland fire. In addition, designation and management of four High-Use Recreation Areas will result in increased density of recreation users, increasing the potential for human-caused fires. This impact will be mitigated by the development of recreation sites, resulting in an increase in the need for hazardous fuels treatments and a reduction in human-caused wildland fires.</p>	<p>Impacts to Fire and Fuels Management Same as Alternative A, except there will be a reduction in the size of the High-Use Recreation Areas, resulting in an increase in potential for human-caused wildland fires.</p>	<p>Impacts to Fire and Fuels Management Same as Alternative A. However, the lack of High-Use Recreation Areas in the San Rafael Swell would result in an increase in dispersed recreation. This would result in an increase in the potential for human-caused wildland fires.</p>	<p>Impacts to Fire and Fuels Management Impacts would be the same as those identified in Alternative A, but there would be a reduction in the size of the High-Use Recreation Areas, resulting in an increase in potential for human-caused wildland fires.</p>

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
<p>Impacts to Recreation Continuing to manage OHV recreation according to the 2003 San Rafael Motorized Route Designation Plan and the 1990 Price River ORV Plan (see Map 2-12) would continue to provide opportunity for unrestricted cross-country OHV travel and route proliferation in the open portion of the Price River resource area. Approximate acres of OHV designations in the PFO under this alternative includes—</p> <p>Open: 754,193 acres Limited: 1,590,540 acres Closed: 9,689 acres.</p>	<p>Impacts to Recreation Managing OHV recreation according to the area designation identified on Map 2-13 would limit OHV use to designated trails in the majority of the PFO. None of the large open areas identified in the No Action Alternative would remain open to cross-country OHV use. OHV recreation experiences would be maintained and enhanced by the designation of OHV trails. Natural resources important to OHV recreation would be protected, and eliminating most open OHV use would reduce resource damage and conflicts with other land uses. Allowing OHV use on designated routes throughout most of the PFO would accommodate demand for the trail, based type of OHV recreation most suitable for the terrain of the PFO. Allowing small open OHV areas managed by BLM near local communities would accommodate demand for confined OHV recreation accessible from communities.</p>	<p>Impacts to Recreation Managing OHV recreation according to the area designation identified on Map 2-14 would limit OHV use to designated trails in the majority of the PFO. None of the large open areas identified in the No Action Alternative would remain open to cross country OHV use. OHV recreation experiences would be maintained and enhanced by the designation of OHV trails. Natural resources important to OHV recreation would be protected, and eliminating open OHV use would reduce resource damage and conflicts with other land uses. Allowing OHV use on designated routes throughout most of the PFO would accommodate demand for the trail-based type of OHV recreation most suitable for the terrain of the PFO. Expanding areas closed to OHV use to include portions of additional ACECs and WSAs would cause a limited decrease in trail-based recreation; however, conflicts with non-</p>	<p>Impacts to Recreation Managing OHV recreation according to the area designation identified on Map 2-15 would limit OHV use to designated trails in the PFO. None of the large open areas identified in the No Action Alternative would remain open to cross-country OHV use. OHV recreation experiences would be maintained and enhanced by the designation of OHV trails. Natural resources important to OHV recreation would be protected, and eliminating open OHV use would reduce resource damage and conflicts with other land uses. Allowing OHV use on designated routes throughout most of the PFO would accommodate demand for the trail-based type of OHV recreation most suitable for the terrain of the PFO. Expanding areas closed to OHV use to include portions of additional ACECs and WSAs would cause a limited decrease in trail-based recreation; however, conflicts with non-</p>	<p>Impacts to Recreation Managing OHV recreation according to the area designation identified on Map 2-16 would limit OHV use to designated trails in the majority of the PFO. None of the large open areas identified in the No Action Alternative would remain open to cross country OHV use. OHV recreation experiences would be maintained and enhanced by the designation of OHV trails. Natural resources important to OHV recreation would be protected, and eliminating open OHV use would reduce resource damage and conflicts with other land uses. Allowing OHV use on designated routes throughout most of the PFO would accommodate demand for the trail-based type of OHV recreation most suitable for the terrain of the PFO. Expanding areas closed to OHV use to include portions of additional ACECs and WSAs would cause a limited decrease in trail-based recreation; however, conflicts with non-</p>

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>Approximate acres of OHV designations in the PFO under this alternative includes—</p> <p>Limited: 2,118,980 acres</p> <p>Closed: 360,264 acres</p>	<p>motorized recreation would be reduced and natural resources would receive enhanced protection. Approximate acres of OHV designations in the PFO under this alternative includes—</p> <p>Limited: 2,076,096 acres</p> <p>Closed: 403,181 acres.</p> <p>Allowing small open OHV areas (no more than 2,500 acres) located adjacent to or near incorporated towns and in previously disturbed areas (existing surface disturbance) under Recreation and Public Purposes leases would maintain opportunities for cross country OHV travel and enhance management of the OHV areas through active community involvement and oversight.</p>	<p>motorized recreation would be reduced, and natural resources would receive enhanced protection. No open areas would be available on public lands in the PFO, which would preserve and enhance natural resources important to other forms of recreation and reduce road proliferation; however, it would be unlikely to meet the demand for OHV use areas. Approximate acres of OHV designations in the PFO under this alternative includes—</p> <p>Limited: 1,911,621 acres</p> <p>Closed: 568,099 acres.</p>	<p>motorized recreation would be reduced and natural resources would receive enhanced protection. Approximate acres of OHV designations in the PFO under this alternative includes—</p> <p>Limited: 2,076,096 acres</p> <p>Closed: 403,181 acres.</p> <p>Allowing small open OHV areas (no more than 2,500 acres) located adjacent to or near incorporated towns and in previously disturbed areas (existing surface disturbance) under Recreation and Public Purposes leases would maintain opportunities for cross country OHV travel and enhance management of the OHV areas through active community involvement and oversight.</p>
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern OHV designations would tend	Impacts to Areas of Critical Environmental Concern Same as the No Action	Impacts to Areas of Critical Environmental Concern	Impacts to Areas of Critical Environmental Concern	Impacts to Areas of Critical Environmental Concern

RECREATION				
Off-Highway Vehicle (OHV) Recreation				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
to protect R&I values in ACECs.	Alternative.	No significant impact.	No significant impact.	No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

Table 4-9 Developed Recreation Sites

Sites Administered by PFO	Sites Located in Other Field Office Areas Administered by PFO
Daddy Canyon	Nefertiti Rapid
Price Canyon Recreation Area	Butler Rapid
Cleveland Lloyd Dinosaur Quarry	Stone Cabin
Cedar Mountain	Swasey Beach
Buckhorn Pictograph Panel	Swasey Boat Ramp
San Rafael Bridge Campground	Mineral Bottom Boat Ramp
Swasey Cabin	Sand Wash
Little Wild Horse Canyon	
Wedge Overlook	
Temple Mountain Recreation Site (proposed)	

LANDS AND REALTY

Assumptions

The analysis is based on the following assumptions:

- The Lands and Realty Program is a service program rather than an environmental component. Discussion of effects on the Lands and Realty Program under each alternative will include the effects on minerals and energy development, community expansion opportunities, and utility and transportation systems.
- Certain public lands have been identified for disposal. The disposal method would include direct sale, competitive sale, or exchange. Before any disposals occur, lands would be examined for the presence of high-value resources. Lands that contain high surface values would not be disposed of or the disposal would provide for those values to be preserved. The BLM PFO Land Exchange Criteria would be used to screen potential land exchanges for possible resource conflicts. Therefore land disposals would not substantially affect other resource programs.
- The effects of development of utility and transportation systems would be mitigated individually. Generally this would be accomplished by consolidation of new developments along existing routes or by innovative construction techniques that disturb less land and improve reclamation success.
- Disposal of small, isolated parcels of public land would decrease the cost of public land administration in the PFO and enhance efficient management of remaining public lands. In addition, the disposal of these small parcels would decrease conflicts between public land users and private landowners.

Significance Criteria

Impacts to lands and realty management would be considered significant if any of the following were to occur:

- Inability to accommodate major utility corridors and transportation systems
- Inability of private landowners to access their lands
- Any action that would impair public access to public lands.

Methods of Analysis

Analysis of the potential impacts on lands and realty management involved close collaboration among BLM resource specialists to compile information based on expertise and knowledge within BLM PFO. Impact analyses and conclusions are therefore based on the interdisciplinary team's knowledge of resources, review of existing literature, and information provided by experts in BLM or other agencies. Effects are quantified when possible. Spatial analysis was conducted using ESRI's ArcGIS Desktop 8.x computer software. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms if appropriate.

LANDS AND REALTY

Common to All Alternatives

Decision Background

The following decisions provide direction for the administration of lands and realty resources. These decisions are included to clarify standard operating procedures.

Decisions

LANDS AND REALTY

Common to All Alternatives

Actions Common to All Alternatives

- Transfer lands out of federal ownership or acquire nonfederal lands when necessary to accomplish important resource management goals or to meet essential community needs.
- Consider land ownership changes on lands not specifically identified in the RMP for disposal or acquisition if the changes are in accordance with resource management objectives and other RMP decisions and would meet one or more of the following criteria:
 - Such changes are determined to be in the public interest and would accommodate the needs of local and state governments, including needs for the economy, public purposes, and community growth.
 - Such changes result in a net gain of important and manageable resources on public lands such as crucial wildlife habitat, significant cultural sites, quality riparian areas, live water, listed species habitat, or areas key to productive ecosystems.
 - Such changes ensure public access to lands in areas where access is necessary and cannot be otherwise obtained.
 - Such changes would promote more effective management and meet essential resource objectives by land ownership consolidation.
 - Such changes result in acquisition of lands that serve regional or national priorities identified in applicable policy directives.
 - Such changes have been identified in existing activity plans (e.g., habitat management plans).
- If the above criteria are not met, prohibit approval of proposed land ownership changes outside designated transfer areas unless a plan amendment is implemented.
- Use access or conservation easements to better manage public lands.
- Recognize the mission, goals, and objectives of the State of Utah as they relate to the values and resources of state-owned lands. The PFO would work cooperatively with the State of Utah to identify opportunities for land tenure adjustments (LTA) that may assist the state to further its mission. They must—
 - Comply with applicable law and policy
 - Consider fair market values
 - Consider LTA criteria
 - Comply with goals and objectives for resource management prescribed in the RMP
 - Be processed case by case with consideration given to the goals, objectives, and decisions of this RMP.
- Permit commercial filming case by case subject to a NEPA process.
- Review major land leases case by case.
- All recreation and public purposes (R&PP) lease areas would be closed to leasing or no surface occupancy for oil and gas leasing.
- Work to acquire lands within specially managed areas, including WSAs and ACEC.
- Exchanges with the State of Utah would be given a priority consideration.
 - A significant number of state land sections are administered by the School and Institutional Trust Lands Administration (SITLA) scattered throughout the RMP area. Many of these state lands are in-holdings located within designated resource management areas identified in this RMP.
 - SITLA has indicated its desire to exchange SITLA lands within these BLM management areas for BLM-administered lands elsewhere in the RMP area.
 - BLM recognizes the opportunity for mutually beneficial LTAs and would apply the RMP LTA criteria.
 - For legislative LTAs, all appropriate procedures would be followed consistent with the authorizing legislation.
- The Resource Management Plan will not address RS-2477 rights of way (ROW) assertions. These will be settled as determined by the Administration.

Land Tenure Adjustments

- Land ownership changes would be considered on lands not specifically identified in the RMP for disposal or acquisition if the changes are in accordance with resource management objectives and other RMP decisions, determined to be in the public interest, and would accomplish one or more of the following criteria:
 - 1) The changes are determined to be in the public interest. The public would benefit from land resources coming into public ownership while accommodating the needs of local and state governments, including the needs for public purposes, community growth, and the economy.

4-386 The changes result in a gain of important manageable resources on public lands such as crucial wildlife habitat, significant cultural sites, mineral resources, water sources, listed species by habitat, or areas key to productive ecosystems. Draft RMP/EIS

- 3) The changes ensure public access to lands in areas where access is necessary and cannot otherwise be obtained.
- 4) The changes would promote more effective management and meet essential resource objectives by land ownership consolidation.

LANDS AND REALTY
Common to All Alternatives
Impact Analysis

RESOURCES**Impacts to Air Quality**

No significant impacts.

Impacts to Soil, Water and Riparian

No significant impacts.

Impacts to Vegetation Resources

Managing all lands for the purpose they were acquired would not impact vegetation resources. However, acquiring access to facilitate the use of public lands and road construction disturbs surfaces and vegetation and may spread noxious weeds and other invasive plant species.

Acquisition and disposal of lands that support the management of other resources indirectly impacts vegetation resources. Depending on the area exchanged, short-term impacts to vegetation could require high-priority vegetation treatment to prevent impacts to other resources. In the long term, these land exchanges create areas with similar management goals, which improves future vegetation conditions.

Impacts to Cultural Resources

No significant impact.

Impacts to Paleontology Resources

Paleontologic assessments made before surface-disturbing activities were conducted would increase the potential for identification, recordation, and collection of paleontological resources during construction of range improvements.

Impacts to Visual Resources

No significant impact.

Impacts to Special Status Species

No significant impact.

Impacts to Fish and Wildlife

Land ownership changes would be considered if such changes result in a net gain of important and manageable resources on public lands. These resources would include, but are not limited to, crucial wildlife habitat, quality riparian areas, live water, or areas key to productive ecosystems. This would ensure no loss of fish and wildlife habitat functionality, quality, or quantity as a result of lands and realty actions.

Impacts that would occur on wildlife and fish species and associated habitat could include minor loss and degradation of habitat and mortality from linear features (e.g., roads and pipelines) and other permitted facilities.

Impacts to Wild Horses and Burros

No impact to wild horses and burros would result from the disposal of public land because land that contains high-value resources would not be disposed or the disposal would provide for those values to be preserved.

Impacts to Fire and Fuels Management

No significant impacts.

RESOURCE USES

LANDS AND REALTY
Common to All Alternatives

Impacts to Forest and Woodlands

No significant impacts.

Impacts to Livestock

Transferring land from or to federal ownership could change the amount of available forage. If land were transferred to nonfederal status, the new parcel owner might either restrict grazing or select a use incompatible with grazing.

If large blocks of land were disposed to the public, or if the land exchange was not in the same area as a specific allotment, there could be a reduction in the amount available forage. Most land disposals and land exchanges are on isolated tracts; therefore forage loss would be minimal.

Road construction authorized under ROW would affect livestock grazing operations by removing vegetation and disturbing surfaces and livestock or wildlife. Land clearing and grading activities necessary for road construction would remove vegetation and cause a short-term reduction in available forage. Construction activities for which fugitive dust abatement measures are not required would generate dust deposits on vegetation, potentially reducing the overall quality of the affected forage.

Impacts to Recreation

Acquisition, exchange, and disposal of lands according to criteria outlined in Chapter 2 would enhance recreation opportunities and management when LTAs were made to accommodate or improve recreation access.

Disposal for R&PP would expand and diversify recreation opportunities in the field office by encouraging third-party entities to provide recreation facilities and services.

Withdrawal of the areas identified in the Lands and Realty section of Table 2.16 and in Appendix 12 would maintain or enhance recreation opportunities at several of the areas identified, including the Carbon County Recreation Complex, Price River Recreation Area, Cedar Mountain Recreation Area, Interstate 70 ACEC, and Scofield and Olsen reservoirs.

LTAs and the use of access agreements would facilitate greater access to recreation areas and reduce conflicts between recreationists within the PFO.

Use of conservation easements would improve and increase recreation access where easements were applied to support recreation opportunities.

Impacts to Lands and Realty

LTAs would occur to benefit the overall management of the Lands and Realty Program and to improve and protect future management of all resources and associated resource values. If impacts occurred that were not beneficial or could not be mitigated appropriately, an LTA would not be considered.

The ability to sell or exchange land and to issue R&PP leases would benefit communities and industry both by allowing for needed community and economic expansion. The sale or exchange of isolated tracts would result in the disposal of lands that are difficult to manage thereby improving management of the program and the area.

BLM lands with significant cultural resources may not be disposed, exchanged, or have other land tenure actions that would impact the cultural resource. This would limit BLM's ability to conduct land tenure actions that might impact these resources.

LANDS AND REALTY Common to All Alternatives	
Impacts to Minerals and Energy	
Leasable Minerals No significant impact. Oil and Gas. All R&PP lease areas would either be closed to or open to leasing subject to major constraints (no surface occupancy). This action would preclude oil and gas development exploration and development and limit the lands available for development. Directional drilling would be required to extract hydrocarbon resources under no-surface-occupancy areas, which would increase operator costs. Coal. No impacts to coal activities would be anticipated from lands and realty management actions.	
Locatable Minerals No impacts to locatable minerals would be anticipated from lands and realty management actions.	
Mineral Materials No impacts to mineral materials would be anticipated from lands and realty management actions.	
SPECIAL DESIGNATIONS	
Impacts to Wilderness Study Areas No significant impacts.	
Impacts to Areas of Critical Environmental Concern No significant impacts.	
Impacts to Wild and Scenic Rivers Currently no proposed actions would affect the outstandingly remarkable values (ORV), tentative classification, or free-flowing nature of the eligible river segments. However, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on nonpublic lands. Any future development of private lands could affect the ORVs, free-flowing nature, and tentative classification of those eligible segments with non-BLM lands.	
SUPPORT	
Impacts to Transportation and Motorized Access Acquisition of easements to ensure access to public lands would benefit transportation and motorized access in those areas.	
Impacts to Hazardous Materials and Waste No significant impacts.	

LANDS AND REALTY Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
MANAGEMENT OF ACQUIRED LANDS				
Decision Background				
Usually when BLM acquires land parcels it is for a specific program purpose outlined in a planning document. There is concern that lands acquired by BLM are not being managed for the purpose for which they were acquired. Sometimes lands are acquired without a specific program purpose or as part of a larger exchange package. In these instances, acquired lands must be managed and should be managed in a manner similar to adjacent public lands.				
Decisions				
Manage all lands acquired for the purpose for which the acquisition was completed.	Manage all lands acquired for the purpose for which the acquisition was completed. If specific management prescriptions are not outlined in the acquisition, manage acquisitions in a manner similar to the least restrictively managed adjacent parcel.	(Same as Alternative A)	If specific management prescriptions are not outlined in the acquisition, manage acquisitions in a manner similar to the most restrictively managed adjacent parcel.	Manage all lands acquired for the purpose for which the acquisition was completed. If specific management prescriptions are not outlined in the acquisition, manage acquisitions in a manner similar to the least restrictively managed adjacent parcel. (Same as Alternative A)
DISPOSAL OF LANDS				
Decision Background				
The BLM has the authority to dispose of lands when such action is in the public interest. Land disposal can occur by exchange, sale, or lease. Land exchanges may be initiated by the BLM or other landowners. Lands to be exchanged must be appraised to determine that the exchange is of approximately equal value. Sale of lands to private entities must be of fair market value and in the public interest. Certain criteria must be evaluated to ensure that certain protected lands are not disposed of and that the exchange is in the public interest.				
Decisions				
BLM would pursue exchange of lands before considering disposal of lands through sale.	BLM would consider the exchange of lands. Public lands in the field office may be disposed of if <ul style="list-style-type: none"> • The lands meet disposal criteria as outlined in Sections 203 and 206 of the FLPMA. • Exchange of the land is not precluded by federal mandate, such as the Endangered Species Act (ESA) or the National Historic Preservation Act. • The land is not more suitable for other resource management and development, such as wilderness, grazing, and recreation, and sensitive species habitats as identified in the RMP. • Acquired lands in the exchange should enhance the ability of BLM to manage resources in the field office. • Criteria-based land exchange does not require identification of parcels in the RMP. Therefore, a plan amendment is not required if all criteria as described are met. 			
Dispose of specific lands as	Dispose of lands as specifically identified for lease or disposal under various authorities (203, 206, R&PP) as indicated in Appendix			

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
specifically identified for lease or disposal under various authorities (203, 206, R&PP)(Appendix 11).	11.			
Lands identified for potential disposal by sale are identified in Appendix 11. Sale of lands not identified in the RMP would require a plan amendment. The lands are deemed suitable for public sale because (1) the lands are difficult and uneconomical to manage and are not suitable for another federal agency, (2) the lands are no longer required for a specific purpose, or (3) the disposal would serve important public objectives.				
PROPOSED WITHDRAWAL AREAS				
Decision Background				
Certain BLM lands have unique or vital resources that must be protected from damage that could occur pursuant to resource development under general land laws. Withdrawals are used to prohibit use and occupancy under general land laws.				
Decisions				
No additional lands would be recommended by BLM for withdrawal.	Review and potentially propose revocation of inappropriate or unnecessary withdrawals previously identified (Appendix 12).	Review and potentially propose revocation of inappropriate or unnecessary withdrawals previously identified (Appendix 12). (Same as Alternative A)	<ul style="list-style-type: none"> Consider additional areas for withdrawals, including—WSAs Wild, classified, suitable river segments Three Rivers proposed withdrawal (coordinate between Price-Richfield-Moab) 	Review and potentially propose revocation of inappropriate or unnecessary withdrawals previously identified (Appendix 12). (Same as Alternative A)
Areas currently closed or proposed for withdrawal from locatable mineral development in the Price MFP are— <ul style="list-style-type: none"> Cleveland-Lloyd Dinosaur Quarry Proposed Green River Withdrawal 	Same as No Action, plus the following areas would be recommended for withdrawal from locatable mineral development: <ul style="list-style-type: none"> Incorporated municipalities Cemeteries Carbon County Airport Carbon County Recreation Complex Carbon County Sanitary Landfill/Transfer Station East Carbon Sewage Lagoons Swinging Bridge Campground Emery County School Complex Green River Airport Price Canyon Recreation Site 			

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<ul style="list-style-type: none">• Cedar Mountain Recreation Area• Interstate 70 Scenic ACEC• Scofield Reservoir• Olsen Reservoir.			

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts From Lands and Realty From ACECs: The Cleveland-Lloyd Dinosaur Quarry ACEC would continue to have its relevant and important values better protected with the withdrawals in place.	Impacts From Lands and Realty from ACECs: The I-70 Scenic ACEC and the Cleveland-Lloyd Dinosaur Quarry ACECs would have their relevant and important values better protected with the withdrawals in place.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources Withdrawal of areas from development would maintain existing visual qualities of surrounding areas.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife	Impacts to Fish and Wildlife

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation Withdrawals from locatable or other minerals would maintain or enhance recreation opportunities in and around CLDQ and the proposed Green River withdrawal area.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Lands and realty management actions would have a long-term, indirect impact on oil and gas exploration and development. ROWs authorized by lands and realty actions could increase delays in exploration and development and require mitigation that results from the	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Same as in No Action Alternative. Coal. Impacts to coal development from lands and realty management actions would not be significant. Locatable Minerals Impacts from lands and realty	Impacts to Minerals and Energy Leasable Minerals Oil and Gas Same as in No Action Alternative. Coal. Impacts to coal activities from lands and realty management actions would not be significant. Locatable Minerals Impacts from lands and realty	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Same as in No Action Alternative. Coal. Impacts to coal activities from lands and realty management actions would not be significant. Locatable Minerals Impacts from lands and realty	Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Same as in No Action Alternative. Coal. Impacts to coal activities from lands and realty management would not be significant. Locatable Minerals Impacts from lands and realty

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>requirements of other resources by and through the realty authorization.</p> <p>Coal. Impacts to coal activities from lands and realty management actions would not be significant.</p> <p>Locatable Minerals The Cleveland-Lloyd Dinosaur Quarry (767 acres) and the proposed Green River withdrawals would be recommended for withdrawal from locatable mineral development, which would not allow locatable mineral development in these two areas.</p> <p>Mineral Materials Impacts from lands and realty management actions on the development of mineral materials would have a , direct, long-term impact on locatable mineral development. In many instances, conflicts between lands and realty management actions and development of mineral material resources would result in relocation of these operations. Often relocation can be accomplished because of the relatively small area of surface disturbance typically involved with development of these resources.</p>	<p>management actions on the development of mineral materials would have a long-term, direct impact on locatable mineral development. The Cleveland-Lloyd Dinosaur Quarry (767 acres) and the proposed Green River withdrawals would be recommended for withdrawal from locatable mineral development. In addition, the following areas would be recommended for withdrawal: incorporated municipalities, cemeteries, Carbon County Airport, Carbon County Recreation Complex, Carbon County Sanitary Landfill/Transfer Station, East Carbon Sewage Lagoons, Emery County School Complex, Green River Airport, Price Canyon Recreation Area, Cedar Mountain Recreation Area, Interstate 70 Scenic Corridor ACEC, Scofield Reservoir, and Olsen Reservoir. These lands and realty management actions would close areas and reduce the amount of land available for locatable mineral development.</p> <p>Management action to review and potentially propose revocation of inappropriate or unnecessary withdrawals previously identified (see</p>	<p>management actions on the development of mineral materials would have a long-term, direct impact on locatable mineral development. The Cleveland-Lloyd Dinosaur Quarry (767 acres) and the proposed Green River withdrawals would be from locatable mineral development. In addition, the following areas would be recommended for withdrawal: incorporated municipalities, cemeteries, Carbon County Airport, Carbon County Recreation Complex, Carbon County Sanitary Landfill/Transfer Station, East Carbon Sewage Lagoons, Emery County School Complex, Green River Airport, Price Canyon Recreation Area, Cedar Mountain Recreation Area, Interstate 70 Scenic Corridor ACEC, Scofield Reservoir, and Olsen Reservoir. These lands and realty management actions would close areas and reduce the amount of land available for locatable mineral development.</p> <p>The management action to review and potentially propose revocation of inappropriate or unnecessary withdrawals previously identified (Section 2.7, the Alternatives Summary Table) would have a direct,</p>	<p>management actions on the development of mineral materials would have a long-term, direct impact on locatable mineral development. The Cleveland-Lloyd Dinosaur Quarry (767 acres) and the proposed Green River withdrawals would be from locatable mineral development. In addition, the following areas would be recommended for withdrawal: WSAs, wild classified suitable river segments, Three Rivers proposed withdrawal, incorporated municipalities, cemeteries, Carbon County Airport, Carbon County Recreation Complex, Carbon County Sanitary Landfill/Transfer Station, East Carbon Sewage Lagoons, Emery County School Complex, Green River Airport, Price Canyon Recreation Area, Interstate 70 Scenic Corridor ACEC, Scofield Reservoir, and Olsen Reservoir. These lands and realty management actions would close areas and reduce the amount of land available for locatable mineral development.</p> <p>Mineral Materials In many instances, conflicts between lands and realty</p>	<p>management actions on the development of mineral materials would have a long-term, direct impact on locatable mineral development. The Cleveland-Lloyd Dinosaur Quarry (767 acres) and the proposed Green River withdrawals would be from locatable mineral development. In addition, the following areas would be proposed for withdrawal: incorporated municipalities, cemeteries, Carbon County Airport, Carbon County Recreation Complex, Carbon County Sanitary Landfill/Transfer Station, East Carbon Sewage Lagoons, Emery County School Complex, Green River Airport, Price Canyon Recreation Area, Cedar Mountain Recreation Area, Interstate 70 Scenic Corridor ACEC, Scofield Reservoir, and Olsen Reservoir. These lands and realty management actions would close areas and reduce the amount of land available for locatable mineral development.</p> <p>The management action to review and potentially propose revocation of inappropriate or unnecessary withdrawals previously identified (Section 2.7 the Alternatives Summary Table) would have a direct,</p>

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>Section 2.7, the Alternatives Summary Table) would have a direct, long-term impact on locatable mineral development.</p> <p>Mineral Materials In many instances, conflicts between lands and realty management actions and development of mineral material resources would result in relocation of these operations. Often relocation can be accomplished because of the relatively small area of surface disturbance typically involved with development of these resources.</p>	<p>long-term impact on locatable mineral development. If the revocation of unnecessary withdrawals were revoked, it would increase the amount of land available for locatable mineral development.</p> <p>Mineral Materials In many instances, conflicts between lands and realty management actions and development of mineral material resources would result in relocation of these operations. Often relocation can be accomplished because of the relatively small area of surface disturbance typically involved with development of these resources.</p>	<p>management actions and development of mineral material resources would result in relocation of these operations. Often relocation can be accomplished because of the relatively small area of surface disturbance typically involved with development of these resources.</p>	<p>long-term impact on locatable mineral development. If the revocation of unnecessary withdrawals were revoked, it would increase the amount of land available for locatable mineral development.</p> <p>Mineral Materials In many instances, conflicts between lands and realty management actions and development of mineral material resources would result in relocation of these operations. Often relocation can be accomplished because of the relatively small area of surface disturbance typically involved with development of these resources.</p>
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous

LANDS AND REALTY				
Decisions Considered – By Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Materials and Waste No significant impact.				

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Interest exists in having major pipelines, highways, and utility routes be confined to ROW corridors to protect other resources in adjacent areas.				
Decisions				
<p>Lands available for ROW would fall into four major categories:</p> <ul style="list-style-type: none"> Lands in designated ROW corridors where standard operating procedures (as listed for the corridor) apply Lands outside designated corridors where standard conditions apply Areas to be avoided and where special conditions may apply after site-specific NEPA analysis Areas to be excluded. 	<p>This RMP recognizes existing ROW corridors including the Western Utility Group (WUG) updates to the Western Regional Corridor Study and would designate additional corridors subject to physical barriers and sensitive resource values.</p> <p>These approved corridors are the preferred location for future major linear ROWs that meet the following criteria:</p> <ul style="list-style-type: none"> Pipelines with a diameter greater than 16 inches Transmission lines (not distribution) with a voltage capacity of 69 kV or greater Paved roads or roads consisting of more than two lanes Significant canals, ditches, or conduits 	<p>This RMP recognizes existing ROW corridors including the WUG updates to the Western Regional Corridor Study and would designate additional corridors subject to physical barriers and sensitive resource values.</p> <p>These approved corridors are the preferred location for future major linear ROWs which meet the following criteria:</p> <ul style="list-style-type: none"> Pipelines with a diameter greater than 16 inches Transmission lines (not distribution) with a voltage capacity of 69 kV or greater Paved roads or roads consisting of more than two lanes Significant canals, ditches, or conduits that require a 	<p>Designate existing corridors in Price River and San Rafael areas.</p> <p>Consider only existing corridors.</p>	<p>This RMP recognizes existing ROW corridors including the WUG updates to the Western Regional Corridor Study and would designate additional corridors subject to physical barriers and sensitive resource values.</p> <p>These approved corridors are the preferred location for future major linear ROWs which meet the following criteria:</p> <ul style="list-style-type: none"> Pipelines with a diameter greater than 16 inches Transmission lines (not distribution) with a voltage capacity of 69 kV or greater Paved roads or roads consisting of more than two lanes Significant canals, ditches, or conduits that require a

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>that require a permanent width greater than 50 ft.</p> <p>Major linear ROWs that meet the above thresholds that are proposed outside the designated corridors would require a plan amendment.</p> <p>In development of new utility corridors, avoidance areas would include—</p> <ul style="list-style-type: none"> • ACECs, when outlined in ACEC management and necessary for protection of resource values • Areas closed to leasing for oil and gas • Areas classified as VRM Class I • On or within 1 mile of sage-grouse leks. <p>In development of new utility corridors, exclusion areas would include—</p> <ul style="list-style-type: none"> • WSAs • ACECs, when outlined in ACEC management and necessary for protection of resource values. 	<p>permanent width greater than 50 ft.</p> <p>Major linear ROWs that meet the above thresholds that are proposed outside the designated corridors would require a plan amendment.</p> <p>In development of new utility corridors, avoidance areas would include—</p> <ul style="list-style-type: none"> • ACECs, when outlined in ACEC management and necessary for protection of resource values • Areas closed to leasing for oil and gas • Areas classified as VRM Class I. <p>In development of new utility corridors, exclusion areas would include—</p> <ul style="list-style-type: none"> • WSAs • ACECs, when outlined in ACEC management and necessary for protection of resource values. • On or within 1 mile of sage-grouse leks. 		<p>permanent width greater than 50 ft.</p> <p>Major linear ROWs that meet the above thresholds that are proposed outside the designated corridors would require a plan amendment.</p> <p>In development of new utility corridors, avoidance areas would include—</p> <ul style="list-style-type: none"> • ACECs, when outlined in ACEC management and necessary for protection of resource values • Areas closed to leasing for oil and gas • Areas classified as VRM Class I • On or within 1 mile of sage-grouse leks. <p>In development of new utility corridors, exclusion areas would include—</p> <ul style="list-style-type: none"> • WSAs • ACECs, when outlined in ACEC management and necessary for protection of resource values. <p>(Same as Alternative A)</p>
Impact Analysis				
RESOURCES				

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Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Air Quality Continued disposal of land which results in that land being used for development of power plants, refineries, or other commercial use, would increase pollutant emissions in PFO and result in continued impact on air quality.</p> <p>In addition, an increased number of ROWs necessary to support development of oil and gas and coal bed natural gas would cause locally significant increases in fugitive and nuisance dust and an increase in vehicular emissions from increased traffic associated with well development activities.</p>	<p>Impacts to Air Quality The increase in the number of roads that would be necessary to support the development of oil and gas and coal bed natural gas would cause a locally significant increase in pollutant emissions, including fugitive and nuisance dust, and in vehicular emissions from the extensive traffic associated with well development activities.</p>	<p>Impacts to Air Quality Same as Alternative A.</p>	<p>Impacts to Air Quality Same as Alternative A.</p>	<p>Impacts to Air Quality Same as Alternative A.</p>
<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>
<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>
<p>Impacts to Cultural Resources Cultural resource inventory/clearances would be required for ROWs actions. This would protect most known cultural resources from significant damage and increase the amount of known cultural properties. In addition, some cultural sites could possibly benefit from</p>	<p>Impacts to Cultural Resources The impacts from land and realty actions would be the same as identified in Alternative 1. In addition, ROW restrictions for wind and solar energy development in areas closed to development or surface occupancy for oil and gas leasing and in VRM I and II areas would ensure that</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources Same as Alternative A.</p>	<p>Impacts to Cultural Resources Same as Alternative A. The impacts from land and realty actions would be the same as identified in Alternative 1. In addition, ROW restrictions for wind and solar energy development in areas closed to development or surface occupancy for oil and gas leasing and in VRM I and II</p>

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>acquisition or conservation easement.</p> <p>Unmitigated surface-disturbing ROW construction activities could impact cultural resources directly, particularly if the resources were not identified prior to the activity.</p> <p>Unanticipated discoveries (cultural resources found during and not before ground-disturbing activities) could occur during road and pipeline construction via culturally sensitive sediments.</p> <p>Unanticipated discoveries could result in damage to or loss of the cultural resource involved. If these sites are identified, the impacts are mitigated by data recovery excavations. Most of the time these sites (cultural resources sites) are inadvertently damaged because they were not identified in the initial inventories and are not even identified.</p>	<p>cultural resources in these areas are preserved in place.</p>			<p>areas would ensure that cultural resources in these areas are preserved in place.</p>
<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>
<p>Impacts to Visual Resources Surface disturbances associated with the construction of facilities and ROW for pipelines, transmission lines, communication lines and</p>	<p>Impacts to Visual Resources Impacts to VRM would be similar to those of Alternative 1 except for the following:</p> <ul style="list-style-type: none"> • WSAs would be exclusion areas for new utility 	<p>Impacts to Visual Resources Impacts to VRM would be similar to those of Alternative 1 except for the following:</p> <ul style="list-style-type: none"> • WSAs would be exclusion areas for new utility 	<p>Impacts to Visual Resources Impacts to VRM would be similar to those of Alternative 1 except for the following:</p> <ul style="list-style-type: none"> • Only existing utility corridors would be designated 	<p>Impacts to Visual Resources Impacts to VRM would be similar to those of Alternative 1 except for the following:</p> <ul style="list-style-type: none"> • Only existing utility corridors would be designated

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
towers, and other developments would impact scenic quality to meet other resource objectives and VRM class objectives.	<ul style="list-style-type: none"> development corridors VRM Class I areas outside WSAs would be avoidance areas for new utility development corridors New ROW would not be granted in WSAs; Wind and solar energy development would not be permitted in VRM Class I or II areas. Depending on scale, wind energy development could also be excluded from VRM Class III areas. <p>These actions would maintain the visual qualities in VRM Class I and II areas.</p>	<ul style="list-style-type: none"> development corridors and for the development of new discretionary ROW VRM Class I areas outside the WSAs would be avoidance areas for new utility development corridors and for the development of new discretionary ROW Wind and solar energy development would not be permitted in VRM Class I or II areas. Depending on scale, wind energy development could also be excluded from VRM Class III areas. <p>These actions would maintain and enhance the visual qualities in VRM Class I and II areas.</p>	<ul style="list-style-type: none"> WSAs would be exclusion areas for the development of new discretionary ROW VRM Class I areas outside the WSAs would be avoidance areas for the development of new discretionary ROW Wind and solar energy development would not be permitted in VRM Class I or II areas. Depending on scale, wind energy development could also be excluded from VRM Class III areas. <p>These actions would protect and enhance visual qualities in VRM Class I and II areas.</p>	<ul style="list-style-type: none"> WSAs would be exclusion areas for the development of new discretionary ROW VRM Class I areas outside the WSAs would be avoidance areas for the development of new discretionary ROW Wind and solar energy development would not be permitted in VRM Class I or II areas. Depending on scale, wind energy development could also be excluded from VRM Class III areas. <p>These actions would protect and enhance visual qualities in VRM Class I and II areas.</p>
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife General Discretionary ROWs for specific projects would continue to be processed by request and managed by permitting. Additional impacts that result from ROW-approved	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife Same as No Action Alternative, except that additional impacts that result from ROW-approved actions for power lines or wind energy development would include impacts to raptors, bat species, and neotropical	Impacts to Fish and Wildlife Same as No Action Alternative.	Impacts to Fish and Wildlife Discretionary ROWs for specific projects would continue to be processed by request and managed by permitting. Additional impacts that result from ROW-approved actions for power lines or wind

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>actions for power lines or wind energy development would include impacts to raptors, sage grouse, bat species, and neotropical migratory bird species. Land tenure activities should not be addressed if they would result in loss of significant crucial or high-value wildlife habitat, riparian and wetland zones, or live water.</p> <p>Big game ROWs through crucial or high-value habitats would significantly impact these resources. The average width of a ROW for a road is 16– 24 feet of direct surface disturbance; this would result in an average disturbance of 2–5 acres per mile of road. This does not include disruption of the edge effect from reduction in vegetation along the roads by chemical treatment and mowing of the vegetation. This would affect another 2–5 acres per mile of road.</p> <p>ROWs for pipelines would be replanted and reseeded as part of a voluntary mitigation plan. However, unless this is 100 percent successful, there would be major impacts to habitat. These would be short-term impacts with some long-term benefits depending on the</p>		<p>migratory bird species.</p> <p>Raptors: Structures would provide perching sites for raptors so that they can scan wider areas for prey. Some of these structures may be adapted for use as nesting sites with appropriate placement of cross members.</p>		<p>energy development would include impacts to raptors, sage grouse, bat species, and neotropical migratory bird species.</p> <p>Linear ROWs such as roads and pipelines contribute to the fragmentation or continuity of habitats and adversely affect wildlife populations.</p> <p>Big game ROWs through crucial and high-value habitats may significantly impact these resources. The average width of a ROW for a road is 16–24 feet of direct surface disturbance; this would result in an average habitat loss of 2–5 acres per mile of road. This does not include disruption of the edge effect from reduction in vegetation along the roads through chemical treatment and mowing of the vegetation. This would affect another 2–5 acres per mile of road. There is also a loss of habitat value in undisturbed lands adjacent to the road and the ROW. These activities would also provide suitable conditions for invasive weed species to become established.</p> <p>Nongame Many small mammals adapt readily to revegetation associated with ROWs. The</p>

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>success of the revegetation.</p> <p>Nongame Many small mammals use the revegetated areas associated with ROWs. The edge effects between the disturbed and undisturbed areas provide a vast area of food sources such as seeds and insects. Because of potential impacts with motor vehicles, ROWs for roads cause hazards for small mammals that try to cross these areas.</p> <p>Birds The increase in edge effect caused by ROWs development indirectly benefits certain birds assemblages (e.g., insectivores: larks, flycatchers, swallows, and bluebirds) by changing vegetation cover type and increasing the amount of available food. The biodiversity of insect life that these birds feed upon is normally greater along roads and pipelines.</p> <p>Raptors Tall structures would provide perch sites for raptors so that they could scan wider areas for prey. Some of these structures may be adapted for use as nesting sites with appropriate placement of cross members.</p> <p>Power lines and wind turbines</p>				<p>edge effects between the disturbed and undisturbed areas provide areas of food sources such as seeds and insects. Even with habitat restoration there will be an overall loss of habitat for wildlife. Because of potential impacts with motor vehicles, ROWs for roads cause hazards for small mammals that try to cross these areas.</p> <p>Birds The increase in edge effect of some ROWs benefits certain guilds or assemblages of birds (e.g., insectivores: larks, flycatchers, swallows, and bluebirds) by opening tracts of land that would normally provide cover for their prey species. The biodiversity of insect life that these birds feed upon is normally greater along roads and pipelines. Likewise there is a negative impact to those species adapted to large, unfragmented tracts of habitat.</p> <p>Power lines and wind turbines are known to be a collision and electrocution hazard to raptors. Construction of these structures in raptor concentration areas and migration routes would result in increased mortality to these species.</p> <p>Reptiles and Amphibians</p>

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>are known to be major collision hazards to raptors. These structures would not be allowed in raptor concentration areas or winter use areas.</p> <p>Fish ROWs that result in roads that cross riparian areas can impact fish populations. Review of road design criteria and incorporation of fish passage needs would minimize this impact.</p> <p>Reptiles and Amphibians ROWs associated with roads would attract reptiles at night when these species seek the warmth the roads absorbed from daytime heat. Vehicles that use these roads at night would impact these species by running over and killing or severely injuring them.</p>				<p>Road ROWs attract reptiles at night when the roads absorb daytime heat.</p>
<p>Impacts to Wild Horses and Burros Direct impacts to wild horses and burros from new utility and transportation system development actions would be short term and localized to the development area. Horses and burros would be displaced during the development and maintenance actions, but there would be no long-term forage loss because effects of utility and transportation development would be</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Impacts related to ROWs would be the same as those identified in Alternative 1. No impacts would result if ROW corridors are designated.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros Same as No Action Alternative. Direct impacts to wild horses and burros from new utility and transportation system development actions would be short term and localized to the area of development. Horses and burros would be displaced during the development and maintenance actions, but there would be no long-term loss in forage because effects of utility and transportation</p>

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
mitigated individually.				development would be mitigated individually.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock Depending on the activity, impacts that result from land and realty management on livestock grazing are either long term or short term. Short-term impacts would include construction of power lines, pipelines, and other construction activities, which would temporarily remove forage thus reduce the quantity available. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing. Road construction and ROWs associated with oil and gas development would increase surface disturbance and erosion and remove existing vegetation. In the short term,	Impacts to Livestock Depending on the activity, impacts that result from land and realty management on livestock grazing are either long term or short term. Short-term impacts would include construction of power lines, pipelines, and other construction activities, that would temporarily remove forage, thus reduce the available quantity. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing. Road construction and ROW associated with oil and gas development would increase surface disturbance and erosion and remove existing vegetation. In the short term,	Impacts to Livestock Depending on the activity, impacts that result from land and realty management on livestock grazing are either long term or short term. Short-term impacts include construction of power lines, pipelines, and other construction activities, which would temporarily remove forage, thus reduce the available quantity. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing. Road construction and ROW associated with oil and gas development would increase surface disturbance and	Impacts to Livestock Depending on the activity, impacts that result from land and realty management on livestock grazing are either long term or short term. Short-term impacts include construction of power lines, pipelines, and other construction activities, which would temporarily remove forage, thus reduce the available quantity. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing. Road construction and ROW associated with oil and gas development would increase surface disturbance and erosion and remove existing vegetation. In the short term,	Impacts to Livestock Depending on the activity, impacts that result from land and realty management on livestock grazing are either long-term or short-term. Short-term impacts would include construction of power lines, pipelines, and other construction activities, which would temporarily remove forage reducing the quantity available. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing. Road construction and ROW associated with oil and gas development would increase surface disturbance and erosion and remove existing vegetation. In the short term,

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>this reduces available forage for livestock by about 500 acres per year, approximately 9,900 acres through the life of the plan. Long-term disturbance from road and pipeline construction over the life of the plan permanently removes vegetation from about 2,800 acres, which decreases available forage.</p>	<p>this reduces available forage for livestock by about 600 acres per year. In the long term, road and pipeline construction-related surface disturbance permanently removes vegetation from about 3,420 acres over the life of the plan. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing.</p>	<p>erosion and remove existing vegetation. In the short term, this reduces available forage for livestock by about 450 acres per year. In the long term, road and pipeline construction-related surface disturbance permanently removes vegetation from about 2,520 acres over the life of the plan. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing.</p>	<p>this reduces available forage for livestock by about 350 acres per year. In the long term, road and pipeline construction-related surface disturbance permanently removes vegetation from about 2,000 acres over the life of the plan. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing.</p>	<p>this reduces available forage for livestock by about 460 acres per year. In the long term, road and pipeline construction-related surface disturbance permanently removes vegetation from about 2,300 acres over the life of the plan. Long-term impacts are the permanent loss of vegetation because of road or facilities construction or land exchanges that change the amount of land available for livestock grazing. Land exchanges can either increase or decrease the amount of land available for livestock grazing.</p>
<p>Impacts to Recreation Designation of ROW corridors in the identified categories (see Section 2.16, the Alternatives Summary Table) would centralize transmission facilities outside sensitive and high-value recreation areas.</p>	<p>Impacts to Recreation Designation of existing corridors, corridors recommended from the WUG, and new ROW corridors in the identified categories (see Section 2.16, the Alternatives Summary Table) would centralize transmission facilities outside sensitive, high-value recreation areas.</p>	<p>Impacts to Recreation Designation of existing corridors and those consistent with goals and objectives of the RMP outside avoidance areas (see Section 2.16, the Alternatives Summary Table) would centralize transmission facilities outside of sensitive and high value recreation areas.</p>	<p>Impacts to Recreation No significant impact.</p>	<p>Impacts to Recreation No significant impact.</p>
<p>Impacts to Lands and Realty No significant impact.</p>	<p>Impacts to Lands and Realty No significant impact.</p>	<p>Impacts to Lands and Realty No significant impact.</p>	<p>Impacts to Lands and Realty No significant impact.</p>	<p>Impacts to Lands and Realty No significant impact.</p>
<p>Impacts to Minerals and Energy No significant impact.</p>	<p>Impacts to Minerals and Energy No significant impact.</p>	<p>Impacts to Minerals and Energy No significant impact.</p>	<p>Impacts to Minerals and Energy No significant impact.</p>	<p>Impacts to Minerals and Energy No significant impact.</p>
<p>SPECIAL DESIGNATIONS</p>				

LANDS AND REALTY				
Transportation and Utility ROW Corridors				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LANDS AND REALTY				
Nine Mile Canyon Pipeline ROW				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Nine Mile Canyon contains many archeological and historic cultural sites and unique natural resources. Proposed expansion of the utility corridor through Nine Mile Canyon would cause loss or damage to these unique resources.				
Decisions				
Currently only the Questar pipeline is authorized. No further authorizations would be allowed.	Continue with the Vernal Field Office proposal of an ROW 1 mile on either side of the existing Questar pipeline through Nine Mile Canyon.	Use the width of the bottom of Nine Mile Canyon as the ROW.	Use the Ruby Pipeline proposal as the ROW (Note: This will entail coordination between the state office and Vernal and Price FOs).	Use the center line of Nine Mile Canyon Road and buffer 75 feet on either side for ROW.

LANDS AND REALTY				
Nine Mile Canyon Pipeline ROW				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The existing line threatens relevant and important values for the proposed Nine Mile Canyon ACEC.</p>	<p>Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The proposal of a 1-mile ROW on either side of the existing pipeline would further threaten relevant and important values for the proposed Nine Mile Canyon ACEC.</p>	<p>Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The proposal to use the entire width of Nine Mile Canyon as a ROW would put all cultural resources in the canyon at risk and threaten relevant and important values for the proposed Nine Mile Canyon ACEC.</p>	<p>Impacts to the Nine Mile Canyon ACEC The existing line would continue to threaten some of the R&I values in the Nine Mile Canyon ACEC. The remaining R&I values in the Nine Mile Canyon ACEC would be better protected by selection of the Ruby route which is outside the ACEC.</p>	<p>Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The proposal of a 75-ft. buffer on either side of the existing pipeline would further threaten relevant and important values for the proposed Nine Mile Canyon ACEC.</p>
Impact Analysis				
RESOURCES				
<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>
<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>	<p>Impacts to Soil, Water and Riparian No significant impact.</p>
<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>	<p>Impacts to Vegetation Resources No significant impact.</p>
<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>	<p>Impacts to Cultural Resources No significant impact.</p>
<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>
<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources Continuation of the Vernal Field Office proposal of a 1-mile ROW on either side of the proposed pipeline through Nine</p>	<p>Impacts to Visual Resources A ROW as wide as the bottom of Nine Mile Canyon would impact visual quality through Nine Mile Canyon; however,</p>	<p>Impacts to Visual Resources Rerouting the Nine Mile Pipeline corridor ROW to follow the Ruby Pipeline proposal would maintain visual qualities</p>	<p>Impacts to Visual Resources No significant impact.</p>

LANDS AND REALTY				
Nine Mile Canyon Pipeline ROW				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	Mile Canyon and the VRM Class IV objective in the area would significantly impact the visual quality of the Nine Mile Canyon area. The viewshed would be impacted by the presence of facility and pipeline development and increased traffic in and around the pipeline corridor.	the development of this pipeline would be required to meet VRM Class III objectives in the lower portion of the canyon and VRM Class II objectives in the upper portion of the canyon. Based on these VRM Class objectives, minimal impacts are anticipated.	of the Nine Mile Canyon area.	
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation No significant impact.	Impacts to Recreation Continuation of the Vernal Field Office proposal of a ROW 1 mile on either side of the proposed pipeline through Nine Mile Canyon would significantly reduce the quality of a recreation experience unique to the resources of the PFO.	Impacts to Recreation A ROW as wide as the bottom of Nine Mile Canyon would significantly reduce the quality of a recreation experience unique to the resources of the PFO. Viewing of cultural resources <i>in situ</i> would be	Impacts to Recreation Designation of existing corridors only (see Section 2.16, the Alternatives Summary Table) would centralize transmission facilities outside sensitive and	Impacts to Recreation Designation of existing corridors, corridors recommended from the WUG, and new ROW corridors in the identified categories (see Section 2.16, the Alternatives Summary Table) would

LANDS AND REALTY				
Nine Mile Canyon Pipeline ROW				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	to the resources of the PFO. Viewing of cultural resources <i>in situ</i> would be impacted by the presence of development, increased noise and traffic, and health and safety concerns associated with use in and around the pipeline corridor.	impacted by the presence of development, increased noise and traffic, and health and safety concerns associated with use in and around the pipeline corridor.	high-value recreation areas.	centralize transmission facilities outside sensitive and high-value recreation areas.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LANDS AND REALTY

Issuance of ROWs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The BLM issues ROWs to support a variety of valid uses of public and private lands. Criteria are established in the RMP to ascertain needs, types, and locations of ROWs that would be authorized.				
Decisions				
<p>Discretionary ROWs for specific projects would continue to be processed by request and managed by permitting. Other ROWs would be processed upon request.</p> <p>Existing, designated communication sites include Cedar Mountain and Bruin Point.</p>	<p>New ROWs would not be granted in WSAs.</p> <p>Additional ROWs may be granted consistent with goals and objectives of the RMP.</p> <p>New ROWs for aboveground structures would not be permitted on or within 1 mile of sage-grouse leks.</p> <p>Preference for communication ROWs would be given to applications that use existing, designated communication sites (e.g., Cedar Mountain and Bruin Point).</p>	<p>New ROWs would not be granted in WSAs.</p> <p>In development of discretionary ROWs, avoidance areas would include—</p> <ul style="list-style-type: none"> • ACECs, when outlined in ACEC management and necessary for protection of resource values • Areas closed to leasing for oil and gas • Areas classified as VRM Class I. <p>In development of new discretionary ROWs, exclusion areas would include—</p> <ul style="list-style-type: none"> • WSAs • ACECs, when outlined in ACEC management and necessary for protection of resource values • On or within 1 mile of sage-grouse leks. <p>BLM would consider issuance of additional ROWs for communication sites only when existing communication site ROWs (e.g., Cedar Mountain</p>	<p>Same as Alternative B except use of existing designated communication sites (e.g., Cedar Mountain and Bruin Point) would be required for all new communication ROWs.</p>	<p>New ROWs would not be granted in WSAs.</p> <p>Additional ROWs may be granted consistent with goals and objectives of the RMP.</p> <p>New ROWs for aboveground structures would not be permitted on or within 1 mile of sage-grouse leks.</p> <p>Preference for communication ROWs would be given to applications that use existing, designated communication sites (e.g., Cedar Mountain and Bruin Point).</p> <p>(Same as Alternative A)</p>

LANDS AND REALTY				
Issuance of ROWs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		and Bruin Point) are built out.		
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.				
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.				
Impacts to Cultural Resources No significant impact.				
Impacts to Paleontology Resources No significant impact.				
Impacts to Visual Resources No significant impact.				
Impacts to Special Status Species No significant impact.				
Impacts to Fish and Wildlife No significant impact.				
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				

LANDS AND REALTY				
Issuance of ROWs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.			
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.			
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation Rerouting the Nine Mile Pipeline corridor ROW to follow the Ruby Pipeline proposal would maintain existing recreation opportunities in the area.	Impacts to Recreation A ROW issued for the Nine Mile Canyon pipeline proposal, a 75-foot buffer on either side of the canyon road, would moderately reduce the quality of the recreation experience unique to the resources of the PFO. Viewing of cultural resources <i>in situ</i> would be impacted by the presence of development, increased noise and traffic, and health and safety concerns associated with use in and around the pipeline corridor.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.			
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.			
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers	Impacts to Wild and Scenic Rivers			

LANDS AND REALTY				
Issuance of ROWs				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.				
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LANDS AND REALTY				
Wind and Solar Energy Development				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
A national interest exists in the development of renewable energy resources including wind and solar energy. The PFO has not been extensively inventoried for optimal alternative energy sites. The following decisions reflect regulation, policy, and operating procedures that would be used to authorize such projects.				
Decisions				
WIND ENERGY DEVELOPMENT				
Any wind energy exploration and development would be subject to a site-specific NEPA analysis. Wind energy development is granted under an ROW.	BLM would consider proposals case by case for ROWs for wind energy exploration and development. BLM would encourage wind energy development in areas where impacts on vegetation coverage and other resources would be minimized. BLM would not permit wind energy development in areas of no surface occupancy, areas closed to leasing for oil and gas, VRM Class I and II areas, migratory bird breeding habitat, or raptor nesting complexes.			
SOLAR ENERGY DEVELOPMENT				
Any solar energy exploration and development would be subject to a site-specific NEPA analysis. Solar energy development is granted under an ROW.	BLM would consider proposals case by case for ROWs for solar energy exploration and development. BLM would encourage solar energy development in areas where impacts on vegetation and other resources would be minimized because of inherent site properties and because of appropriate mitigation measures. BLM would not permit solar energy development in areas of no surface occupancy, areas closed to leasing for oil and gas, or VRM Class I and II areas.			

LANDS AND REALTY				
Wind and Solar Energy Development				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources Surface-disturbing ROW construction activities could impact paleontological resources directly, particularly if the resources were not identified prior to the activity. Unanticipated discoveries (fossil resources found during and not before ground-disturbing activities) could occur during road and pipeline construction in areas with high probability to contain fossil material. Unanticipated discoveries often result in damage to or loss of the paleontological resource involved. However, mitigation of impacts to discoveries is often accomplished by data recovery excavations that	Impacts to Paleontology Resources Identification of specific routes for administrative maintenance use could reduce the potential for paleontological impacts. Because no paleontological assessment would be required, the potential for disturbance of paleontological resources would remain. It is not anticipated that this would be a significant impact.	Impacts to Paleontology Resources The impacts from land and realty actions would be the same as in Alternative 1, with the addition that ROWs for wind and solar energy development would not be allowed in areas closed to development or surface occupancy for oil and gas leasing and VRM I and II areas. These restrictions would ensure that paleontological resources in these areas are protected in place.	Impacts to Paleontology Resources Same as Alternative B.	Impacts to Paleontology Resources Same as Alternative B.

LANDS AND REALTY				
Wind and Solar Energy Development				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
increase understanding of paleontological resources.				
Impacts to Visual Resources Belowground utilities and some aboveground facilities would be compatible with VRM Class II designations if properly mitigated. Management actions for lands and realty would be approved within Class II designations only if adequate mitigation were possible. When properly mitigated, development of aboveground and belowground facilities and access roads within VRM Class III and Class IV areas would create long-term visual impacts to scenic quality but would be compatible with these VRM classes.	Impacts to Visual Resources No significant impact.			
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and	Impacts to Forest and	Impacts to Forest and	Impacts to Forest and	Impacts to Forest and

LANDS AND REALTY				
Wind and Solar Energy Development				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Woodlands No significant impact.				
Impacts to Livestock No significant impact.				
Impacts to Recreation No significant impact.				
Impacts to Lands and Realty No significant impact.				
Impacts to Minerals and Energy No significant impact.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

LANDS AND REALTY

Areas for Special Consideration – Woodside Cemetery				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The Woodside Cemetery is an unauthorized occupancy of public land and a historic resource. Currently BLM is the agency with authority to determine its use and occupancy.				
Decisions				
Woodside Cemetery is closed to additional burials as per BLM policy for burial on public lands.	Woodside Cemetery is closed to additional burials as per BLM policy for burial on public lands. BLM would seek transfer of Woodside Cemetery by sale, exchange, or R&PP to a qualified entity that would manage and maintain it. No significant impacts would result from this action.			

MINERALS

Assumptions

The analysis is based on the following assumptions:

- Valid existing leases would be managed under the stipulations in effect when the leases were issued, and new stipulations proposed under this RMP may not apply.
- Leasing and drilling would occur throughout the entire PFO, except where restricted by management actions described in Chapter 2.
- The number of wells for each alternative that would be drilled during the next 20 years is shown in Table 4-10.
- Well spacing would continue at one well per 160 acres.
- The majority of oil and gas development would reasonably occur in the area northwest of State Route 10 and north of U.S. Highway 6 (approximately 717,000 acres).
- Two additional subsurface coal mines (Lila Canyon and North Horn) would be reasonably developed during the next 20 years.
- One locatable mineral mine (gypsum) would be reasonably developed during the next 20 years.
- One saleable mineral mine (humate) would be reasonably developed during the next 20 years.
- Demand for mineral materials would occur during the next 20 years at historic trends.
- The number of carbon dioxide (CO₂) wells that could be reasonably drilled would be 10 wells during the next 20 years.

Significance Criteria

Impacts to minerals would be considered significant if any of the following were to occur:

- Management actions cause a reduction of greater than 15 percent of land available for lease in known oil and gas reserves.
- Management actions cause a reduction of greater than 15 percent of land available for lease in known recoverable coal resource areas (KRCRA).
- Management actions prohibit the development of locatable minerals within the PFO.
- Management actions prohibit the development of mineral materials within the PFO.

Methods of Analysis

Impact analysis and conclusions are based on interdisciplinary team knowledge of resources and the project area, review of existing literature, and information provided by other agencies. Effects are quantified where possible. Spatial analysis was conducted using ESRI's ArcGIS Desktop 8.x computer software. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or are described in qualitative terms, if appropriate.

Table 4-10. Total Number of Wells by Alternative

Total Number of Wells by Alternative	Total Number of Wells per Year	Total Number of Wells Over 20 Years
No Action Alternative	77	1,540
Alternative A	95	1,900
Alternative B	70	1,400
Alternative C	55	1,100
Alternative D	72	1,440

MINERALS
Common to All Alternatives
Decisions

Actions Common to All Alternatives

- No new mineral leases inside WSAs
- Acknowledge future development potential for coal resources in areas where coal bed natural gas (CBNG) development is taking place.
- Consider withdrawal of areas as follows:
 - All areas recommended for withdrawal in the San Rafael RMP and Price MFP would be recommended for withdrawal in this RMP.
 - Gordon Creek Wildlife Management Area (WMA) would be recommended for withdrawal from entry under the General Land and Mining Laws.
- Oil and gas leases would be managed under the stipulations that were in effect when the leases were issued (RMP, MFP, Combined Hydrocarbon EIS (1984), EA on Oil and Gas Leasing (1988), three EISs addressing coal bed natural gas development ([1992, 1997, and 2001], FLPMA, etc.).
- BLM recognizes the merit of off-site mitigation strategies for the purposes of habitat enhancement. BLM would encourage willing partners to participate in off-site mitigation strategies.
- Consider any geothermal leasing, plan of operation for exploration, or application for development on a case-by-case basis.
- Any geothermal leasing, plan of operation for exploration, or application for development will be considered on a case-by-case basis.

In conformance with BLM's long-term strategies and national policies regarding Abandoned Mined Lands (AML), this RMP recognizes the need to work with our partners toward identifying and addressing physical safety and environmental hazards at all AML sites on public lands. To accomplish this long-term goal, the following criteria have been established to assist in determining priorities for site and area mitigation and reclamation, including the establishment of physical safety hazard program priorities:

- 1) The AML physical safety program's highest priority is cleaning up those AML sites (a) where a death or injury has occurred, (b) when the site is situated on or in immediate proximity to developed recreation sites and areas with high visitor use, and (c) when a high or extremely high risk level is indicated upon formal risk assessment.
- 2) AML is factored into future recreation management area designations, land use planning assessments, and all applicable use authorizations.
- 3) The site is presently listed or is eligible for listing in the Abandoned Mined Land Inventory System (AMLIS).
- 4) AML hazards should be, to the extent practicable, mitigated or remediated on the ground during site development.

The criteria used to establish water quality-based AML program priorities are as follows:

- 1) The State has identified the watershed as a priority based on (a) one or more water laws or regulations, (b) threat to public health or safety, and (c) threat to the environment.
- 2) The project reflects a collaborative effort with other land managing agencies.
- 3) The project would be funded by contributions from collaborating agencies.

These priorities would be maintained and updated as needed in the state AML strategy.

Decisions for Wind and Solar Energy Resources can be found in the Lands and Realty section.

Impact Analysis

RESOURCES
<p>Impacts to Air Quality No significant impacts.</p>
<p>Impacts to Soil, Water and Riparian The withdrawal of sensitive soil, water, and riparian resources from entry to mineral and energy development would protect these resources from degradation. There would be both short-term and long-term impacts associated with road development resulting from breaking down the soil structure and removing vegetative cover. This would lead to soil compaction and increased erosion from surface runoff.</p> <p>Water required for mineral and energy development would produce short-term impacts to water resources by depleting groundwater when encountered. Runoff from mineral and energy developments would increase siltation and sediment loading of local streams, impacting water quality.</p>
<p>Impacts to Vegetation Resources Withdrawal of areas from mineral entry and relinquishing leases for wildlife habitat or watershed benefit potentially would improve vegetation resources.</p>
<p>Impacts to Cultural Resources Surface disturbing mineral activities would result in direct impacts to cultural resources. Cultural resource inventories/clearances would increase the database of known cultural properties. Mitigation through data recovery, if necessary, would result in an increased understanding of cultural resources. Discovery of cultural resources not documented during inventories/clearances may result in inadvertent damage to or loss of the cultural resource involved. These sites might be partially damaged through their identification. If sites are identified, impacts are usually accomplished through data recovery measures, which would increase understanding of cultural resources. Most often cultural resource sites are inadvertently damaged because they had not been identified in the initial inventories or at any stage.</p>
<p>Impacts to Paleontology Resources Paleontological assessments would be required before the occurrence of surface disturbing actions related to mineral development. These assessments would determine what mitigation measures would be necessary to protecting significant fossils from damage related to mineral development. Surface disturbing mineral activities could result in direct impacts to paleontological resources. Paleontological resource assessments would increase the database of known fossil locations. Mitigation through data recovery, if necessary, would result in an increased understanding of the fossil record.</p> <p>Sub-surface paleontological discoveries resulting from surface disturbing activities would be possible in areas with a high probability of paleontological resources occurrence. The standard stipulation developed to protect paleontological resources would be applied to all surface disturbing activity. The above impacts would be similar for coal, locatable, and salable minerals management activities.</p>
<p>Impacts to Visual Resources Development of mineral facilities would be required to meet VRM class objectives for the area where developments are to occur. Development within VRM Class II areas would be permitted only if appropriate mitigation measures are completed (e.g., appropriate facility location, painting, screening, reseeding with indigenous species) to reduce visual effects. The addition of structures, particularly wells, tanks, and power lines, to the landscape would be allowed in VRM Class III and IV areas and would create long-term visual impacts to scenic quality but would be compatible with these VRM classes. The visual effect of structures would be localized and only would affect observers inside the viewsheds, except where facilities are located on ridgelines or in open landscapes. Facilities placed in such areas would have a greater propensity to degrade multiple viewsheds because the structure could extend above the visual horizon. Best Management Practices (BMP) would reduce intrusions to the landscape.</p> <p>No new mineral leases would be issued in WSAs, which would maintain and enhance VRM Class I areas.</p> <p>Withdrawing areas from development would maintain existing visual qualities of surrounding areas.</p>
<p>Impacts to Special Status Species No significant impacts.</p>

Impacts to Fish and Wildlife

Generally, gas and CBNG development would occur in the area north of Highways 10 and 6. This area contains crucial winter and yearlong habitat for elk, mule deer, sage grouse, and desert and Rocky Mountain bighorn sheep. In areas where CBNG development occurs, there would be greater densities of roads and human presence. This condition would fragment habitats, lead to behavioral avoidance by wildlife, and could disrupt migration corridors.

Short-term impacts from mineral and energy management would include but are not limited to displacement of wildlife due to human activities and heavy equipment operations.

Long-term impacts from increased human activity would result in modifications to population distribution and numbers, or possible habitat abandonment. Because winter habitats are considered the "limiting factor" to wildlife populations, significant modifications to the usefulness of these habitats could impact population numbers (e.g., through higher winter mortality and/or reduced reproductive success).

The impact of mineral activities on wildlife habitat should consider the acreage that would be reclaimed. Of the projected 6.5 acres initially impacted, approximately 3.8 acres would be reclaimed per well. However, not all impacted acres should be considered as suitable wildlife habitat but rather as potential wildlife habitat. Likewise, some rehabilitation efforts have been unsuccessful or have established habitat types of little value for wildlife. It would be necessary to evaluate on a case-by-case basis which species should be targeted and which vegetative species would be used to achieve suitable habitat for wildlife.

Seasonal restrictions would minimize stress to wildlife by limiting construction, drilling, and other activities potentially disruptive to raptor nest sites, sage grouse leks, as well as wintering, calving, and lambing wildlife species. Migration/transition ranges and winter concentration areas for raptors would be intensively managed to prevent the loss and/or to reduce stress.

Impacts to Wild Horses and Burros

There would be no impacts to wild horses from coal development activities. The impact of leasable mineral development other than oil and gas would be similar to those related to oil and gas development, mentioned below.

Impacts to wild horses from oil and gas exploration, development, and maintenance of developments within HMAs include both long- and short-term impacts. Long-term impacts include the loss of vegetation to land clearing and grading activities. Activities would include construction of roads and well pads that would exist throughout the life of the plan. Short-term vegetation loss due to these activities would be mitigated within the life of the plan.

Development of oil and gas facilities (well pads and roads) within HMAs would increase the amount of human disturbance in the HMAs. Increased human disturbance in HMAs would increase the short-term displacement of wild horses from preferred foraging areas; increase the loss of wild, free roaming nature; and potentially would increase the stress resulting from vehicular traffic, noise, and human presence. Fugitive dust from the use of unpaved roads might also produce a localized indirect impact as the dust settles on forage adjacent to roads, making the forage unpalatable for consumption.

Impacts to wild horses from the development of locatable and salable mineral resources within HMAs would be similar to those of oil and gas development, although the extent of the impacts would be less. Development of locatable and salable mineral areas would result in the short-term displacement of wild horses and the long-term loss of a minimal amount of forage.

Impacts to Fire and Fuels Management

Fluid mineral resource development would increase management requirements for fire suppression. Fluid mineral development would introduce additional sources of ignition and subsequent increased potential for wildland fires. In addition, roads associated with mineral development would increase access for dispersed recreation users. This would lead to an increased potential for human-caused wildland fires.

Mineral developments would also require a greater emphasis on fuels management adjacent to areas of industrial interface. These impacts would generally be the same for leasable, locatable, and salable minerals.

These impacts would occur in the area of high potential for oil and gas development, north of Highways 10 and 6.

RESOURCE USES

Impacts to Forest and Woodlands

Development of roads, drill pads, and pipelines would cause removal of woodland resources in high oil and gas potential areas of the PFO. Removal of forest resource would occur from mineral development in some portions of the Range Creek drainage.

Impacts to Livestock

Actions resulting from different aspects of the minerals leasing program (leasable, locatable, and salable minerals) would result in impacts to livestock grazing management. Each mineral program has unique impacts. In general mineral and energy management would impact livestock grazing by disturbing soil, removing vegetation, and complicating livestock management.

The withdrawal of the Gordon Creek watershed from mineral and energy management potentially would increase the amount of forage available for grazing. BLM manages 13,637 acres within the Gordon Creek watershed as a wildlife management unit. Season and duration of use restrictions to livestock grazing could occur in this area.

Surface disturbance associated with all activities for the development of oil and gas resources would decrease the amount of forage available. This development would occur over a 20-year period, therefore forage losses would be spread incrementally over the planning period. However, reclamation of short-term disturbances would replace most of the forage. The PFO does not anticipate any permanent loss of AUMs as a result of oil and gas development; however, temporary adjustments of active use may be warranted.

Allowing development of areas within the San Rafael RMP, and mining of other leasable, salable, and locatable minerals would result in surface disturbance that would result in forage loss and stress to livestock. Reclamation of these lands would usually return the grazing lands to the production levels found before development.

Impacts to Recreation

Closing WSAs to oil and gas leasing would protect primitive and unconfined recreational opportunities and the opportunity for solitude in these areas.

Withdrawal of the Gordon Creek WMA would protect wildlife habitat and ensure ongoing opportunities for hunting and non-consumptive use of wildlife.

Impacts to Lands and Realty

The presence of existing mineral and energy leases might preclude the ability to exchange or sell public land parcels. Mineral and energy development activities potentially would affect the location of subsequent ROWs.

Impacts to Minerals and Energy

No new mineral leases would be granted inside WSAs (527,782 acres) as directed in the IMP for wilderness management. Jack Canyon WSA (7,050 acres), Turtle Canyon WSA (33,262 acres), and Desolation Canyon WSA (212,847 acres) are located within the oil and gas development area. A total of 253,159 acres would be closed within the known oil and gas reserve area, which would reduce the amount of land available for mineral leasing. Valid existing leases would be managed under the stipulations in effect when the leases were issued, and new stipulations proposed under this RMP may not apply.

Impacts to coal activities from minerals and energy development actions would not be significant.

Continuing to implement recommendations to withdraw 66,880 acres identified in the San Rafael RMP (Big Flat Tops ACEC, Bowknot Bend ACEC, Copper Globe ACEC, and Pictographs ACEC) and 6,900 acres in the Gordon Creek WMA from locatable mineral entry would limit approximately 73,780 total acres within the PFO to locatable mineral development.

Impacts to coal activities from minerals and energy development actions would not be significant.

SPECIAL DESIGNATIONS**Impacts to Wilderness Study Areas**

No significant impacts.

<p>Impacts to Areas of Critical Environmental Concern No significant impacts.</p>
<p>Impacts to Wild and Scenic Rivers No significant impacts.</p>
<p>SUPPORT</p>
<p>Impacts to Transportation and Motorized Access No significant impacts.</p>
<p>Impacts to Hazardous Materials and Waste No significant impacts.</p>

MINERALS				
Coal				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following decisions provide direction for the management of coal resources.				
Decisions				
<p>Lands acceptable for further consideration for coal leasing and development:</p> <ul style="list-style-type: none"> • These would be areas identified in the San Rafael RMP as suitable for leasing in the Wasatch and Emery KRCRAs. • BLM will consider for leasing those coal lands within the field office that have been found acceptable for further consideration for leasing through previous planning amendments. Lands were identified in the following 	<p>Areas identified in Appendix 27—Coal Unsuitability Report, would be acceptable for further consideration for coal leasing and development, subject to the resource objectives outlined in the RMP.</p>			

MINERALS				
Coal				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
amendments: – Wattis Underground Mining, 1979 – Price River/Range Creek Coal Area, 1981 – Wattis Surface Mining, 1983.				

MINERALS				
Coal				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Identify Areas Unsuitable for Surface Mining of Coal (43 CFR 1610.7-1) Under the Criteria Set Forth in 43 CFR 3461.5.				
Continue to use the coal unsuitability determinations for the San Rafael planning unit as found in the San Rafael RMP. Determine coal unsuitability for the Price planning unit on a case-by-case basis.	Coal Unsuitability for the Price Field Office is included in Appendix 27 – Coal Unsuitability Report.			
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.			
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.			
Impacts to Vegetation Resources Land considered for coal, CBNG, and conventional oil and gas development could result in significant impacts to vegetation in these areas (Map 3-22). However, all areas will be reclaimed following completion of mining (Final Mineral Potential Report, 2002), reducing long-term impacts to vegetation.	Impacts to Vegetation Resources No significant impact.			

MINERALS				
Coal				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Cultural Resources Impacts from coal development would be the same as those identified above but limited to those areas identified on Map 3-19, and more precisely to the two areas identified in the Minerals assumptions. Anticipated impacts from coal development are not anticipated to be significant because of required mitigation measures.</p>	<p>Impacts to Cultural Resources Impacts from coal development would be the same as those identified in No Action Alternative.</p>			
<p>Impacts to Paleontology Resources Impacts from coal development would be the same as those identified above. Anticipated impacts from coal development are not anticipated to be significant because of mitigation measures.</p>	<p>Impacts to Paleontology Resources No significant impact.</p>			
<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources No significant impact.</p>			
<p>Impacts to Special Status Species No significant impact.</p>	<p>Impacts to Special Status Species No significant impact.</p>			

MINERALS				
Coal				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Fish and Wildlife Generally, BLM would consider leasing lands identified in the San Rafael RMP and as identified by the PFO as acceptable for further consideration for leasing. In addition, two new coal mining sites for use over the next 20 years have been identified in the PFO in Lila Canyon and North Horn. Currently, existing coal leases are located in and adjacent to sage grouse habitat and Rocky Mountain elk habitat, and in mule deer habitat (see Maps 3-9 through 3-13). Coal development and its associated infrastructure would result in temporary displacement of wildlife, possible permanent habitat abandonment, habitat fragmentation, and harassment due to increased human presence.</p>	<p>Impacts to Fish and Wildlife Two new coal mining sites for use over the next 20 years have been identified in the PFO in Lila Canyon and North Horn. Currently, existing coal leases are located in and adjacent to sage grouse habitat and Rocky Mountain elk habitat, and in mule deer habitat (see Maps 3-9 through 3-13). Coal development and its associated infrastructure would result in temporary displacement of wildlife, possible permanent habitat abandonment, habitat fragmentation, and harassment due to increased human presence.</p>			
<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>			
<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>			
RESOURCE USES				
<p>Impacts to Forest and Woodlands No significant impact.</p>	<p>Impacts to Forest and Woodlands No significant impact.</p>			

MINERALS				
Coal				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.			
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.			
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.			
Impacts to Minerals and Energy Coal. Impacts to coal activities from minerals and energy development actions would not be significant.	Impacts to Minerals and Energy Coal. Impacts to coal activities from minerals and energy development actions would not be significant.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.			
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.			
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.			
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.			

MINERALS				
Conflicts in areas with oil, gas, or CBNG, as well as coal resource potential				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
There is an issue of resource conflict between the production of CBNG drilling from the surface and underground mining of the same coal seams.				
Decisions				
BLM would examine potential conflicts with oil and gas, and coal leasing, in areas where methane may occur, to promote safe and efficient extraction of energy resources.	BLM would require dual resource leasing and development in the same areas.	BLM would identify priority energy resource in conflict areas to promote safe and efficient extraction of energy resources.	BLM would permit single-resource leasing and development in a given area.	BLM would identify priority energy resource in conflict areas to promote safe and efficient extraction of energy resources (same as Alternative B).
Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The existing line is threatening the relevant and important values for the proposed Nine Mile Canyon ACEC.	Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The proposal of a 1-mile ROW on either side of the existing pipeline would further threaten the relevant and important values for the proposed Nine Mile Canyon ACEC.	Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The proposal to use the entire width of the Nine Mile Canyon as a ROW would put all cultural resources in the canyon at risk, threatening the relevant and important values for the proposed Nine Mile Canyon ACEC.	Impacts to the Nine Mile Canyon ACEC The existing line would continue to threaten some of the R&I values in the Nine Mile Canyon ACEC. The remaining R&I values in the Nine Mile Canyon ACEC would be better protected by selection of the Ruby route, which is outside the ACEC.	Impacts to the Nine Mile Canyon ACEC The existing Questar Pipeline runs through multiple cultural sites that have not been adequately inventoried or mitigated. The proposal of a 75-foot ROW on either side of the existing pipeline would further threaten the relevant and important values for the proposed Nine Mile Canyon ACEC.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian Where possible, the combination of leases where conflicts occur between oil and gas, and coal leasing in areas where methane occurs would reduce impact to soil, water, and riparian resources. This	Impacts to Soil, Water and Riparian Where possible, the combination of leases where conflicts occur between oil and gas, and coal leasing in areas where methane occurs would reduce impact to soil, water, and riparian resources. This	Impacts to Soil, Water and Riparian Prioritizing energy resources to determine which energy resource would be granted a lease would lead to a greater number of surface acres being disturbed. This would increase impacts by distributing	Impacts to Soil, Water and Riparian Permitting only single-resource leasing/development in a given area would lead to restricting the number and types of projects allowed. This would reduce impacts to soil, water, and riparian resources by	Impacts to Soil, Water and Riparian Prioritizing energy resources to determine which energy resource would be granted a lease would lead to a greater number of surface acres being disturbed. This would increase impacts by distributing well

MINERALS				
Conflicts in areas with oil, gas, or CBNG, as well as coal resource potential				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
would reduce impacts by concentrating the supporting facilities and infrastructure locally instead of spreading them over a larger area. See chapter 2 for a list of total acres impacted by this alternative.	would reduce impacts by concentrating the supporting facilities and infrastructure locally instead of spreading them over a larger area.	additional well pads and their supporting facilities and infrastructure over a greater area instead of concentrating them in one localized area. This would result in greater impacts to soil, water quality, and riparian/wetland resources.	limiting the number and type of supporting infrastructure and facilities to each location.	pads and their supporting facilities and infrastructure over a greater area instead of concentrating them in one localized area. This would result in greater impacts to soil, water, and riparian resources. Identifying areas for closure to mineral and energy exploration and development would offer long-term benefits to soil, water, and riparian/wetland resources because of the prevention of surface occupancy in these areas.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources No significant impact.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.

MINERALS				
Conflicts in areas with oil, gas, or CBNG, as well as coal resource potential				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous	Impacts to Hazardous

MINERALS				
Conflicts in areas with oil, gas, or CBNG, as well as coal resource potential				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Materials and Waste No significant impact.	Materials and Waste No significant impact.	Materials and Waste No significant impact.	Materials and Waste No significant impact.	Materials and Waste No significant impact.

MINERALS				
Oil Shale				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The oil shale withdrawal is a congressional withdrawal outside the purview of the RMP.				
Decisions				
300,000 Acres of the PFO would remain within an oil shale withdrawal.				
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.				
Impacts to Soil, Water and Riparian No significant impact.				
Impacts to Vegetation Resources No significant impact.				
Impacts to Cultural Resources No significant impact.				
Impacts to Paleontology Resources No significant impact.				
Impacts to Visual Resources No significant impact.				
Impacts to Special Status Species No significant impact.				
Impacts to Fish and Wildlife No significant impact.				

MINERALS				
Oil Shale				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Wild Horses and Burros No significant impact.				
Impacts to Fire and Fuels Management No significant impact.				
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.				
Impacts to Livestock No significant impact.				
Impacts to Recreation No significant impact.				
Impacts to Lands and Realty No significant impact.				
Impacts to Minerals and Energy No significant impact.				
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.				
Impacts to Wild and Scenic Rivers No significant impact.				
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.				
Impacts to Hazardous Materials and Waste No significant impact.				

MINERALS

Oil, Gas, CBNG, Combined Hydrocarbon Leasing				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Existing development is managed according to combined hydrocarbon EIS (1984), EA on Oil and Gas Leasing (1988), and three EISs addressing CBNG development (1992, 1997, and 2001). Development of oil and gas, and CBNG may conflict with other resource values including cultural resources, visual resources, recreation resources, water resources, and wildlife and riparian resources.				
Decisions				
Mineral Leasing management is shown on Map 2-27. <ul style="list-style-type: none"> • Areas open to leasing subject to the terms and conditions of the lease form (958,015 acres) • Areas open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (894,399 acres) • Areas open to leasing subject to major constraints (No Surface Occupancy) (86,000 acres) • Areas closed to leasing (540,786 acres). 	Mineral Leasing management is shown on Map 2-28. <ul style="list-style-type: none"> • Areas open to leasing subject to the terms and conditions of the lease form (1,870,999 acres) • Areas open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (0 acres) • Areas open to leasing subject to major constraints (No Surface Occupancy) (73,043 Acres) • Areas closed to leasing (535,185 acres). 	Mineral Leasing management is shown on Map 2-29. <ul style="list-style-type: none"> • Areas open to leasing subject to the terms and conditions of the lease form (0 acres) • Areas open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (1,693,861 acres) • Areas open to leasing subject to major constraints (No Surface Occupancy) (235,069 acres) • Areas closed to leasing (550,496 acres). 	Mineral Leasing management is shown on Map 2-30. <ul style="list-style-type: none"> • Areas open to leasing subject to the terms and conditions of the lease form (0 acres) • Areas open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (1,531,000 acres) • Areas open to leasing subject to major constraints (No Surface Occupancy) (340,738 acres) • Areas closed to leasing (608,238 acres). 	Mineral Leasing management is shown on Map 2-31. <ul style="list-style-type: none"> • Areas open to leasing subject to the terms and conditions of the lease form (1,183,476 acres) • Areas open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (574,335 acres) • Areas open to leasing subject to major constraints (No Surface Occupancy) (149,306 acres) • Areas closed to leasing (583,128 acres).
Impact Analysis				
RESOURCES				
Impacts to Air Quality Continuing with current leasing of minerals would not cause a significant impact on air quality.	Impacts to Air Quality The increase in the number of roads needed to support increased development of oil and gas, and CBNG would cause a locally significant increase in pollutant emissions, including fugitive and nuisance	Impacts to Air Quality Same as Alternative A.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.

MINERALS				
Oil, Gas, CBNG, Combined Hydrocarbon Leasing				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	dust, and vehicular emissions from the extensive traffic associated with well development activities.			
<p>Impacts to Soil, Water and Riparian Actual extraction of mineral and energy resources has insignificant, short-term impacts on these resources. However, the supporting infrastructure (roads, pipelines, etc.) needed in the development and production of mineral and energy resources would have impacts to soils in the form of grading for new roads, and ditches for pipelines would have long-term impacts. Runoff from these roads would cause increased erosion that would lead to increase siltation and sedimentation in local streams, impacting water quality.</p>	<p>Impacts to Soil, Water and Riparian Actual extraction of mineral and energy resources has insignificant, short-term impacts on these resources. However, the supporting infrastructure (roads, pipelines, etc.) that is needed in the development and production of mineral and energy resources would have impacts to soils in the form of grading for new roads; ditches for pipelines would have long-term impacts. Runoff from these roads would cause increased erosion that would lead to increase siltation and sedimentation in local streams impacting water quality.</p> <p>Areas identified for closure to mineral and energy exploration and development would have long-term benefits to soil, water, and riparian/wetland resources. This would be due to the lack of surface-disturbing activities (i.e., well pads and roads) that would break down the soil resources that would lead to erosion and increased siltation and sediment loading of streams impacting water quality and riparian/wetland</p>	<p>Impacts to Soil, Water and Riparian Actual extraction of mineral and energy resources has insignificant short-term impacts on these resources. However, the supporting infrastructure (roads, pipelines, etc.) needed in the development and production of mineral and energy resources would have impacts to soils in the form of grading for new roads; ditches for pipelines would have long-term impacts. Runoff from these roads would cause increased erosion that would lead to increase siltation and sedimentation in local streams, impacting water quality.</p> <p>Identifying areas for closure to mineral and energy exploration and development would offer long-term benefits to soil, water, and riparian/wetland resources because of the prevention of surface disturbing occupancy in these areas.</p> <p>Identifying areas to be open for mineral and energy exploration and development would have significant short-term impacts to soils, water, and riparian</p>	<p>Impacts to Soil, Water and Riparian Actual extraction of mineral and energy resources has insignificant short-term impacts on these resources. However the supporting infrastructure (roads, pipelines, etc.) needed in the development and production of mineral and energy resources would have impacts to soils in the form of grading for new roads; ditches for pipelines would have long-term impacts. Runoff from these roads would cause increased erosion that would lead to increase siltation and sedimentation in local streams, impacting water quality.</p> <p>Identifying areas for closure to mineral and energy exploration and development would offer long-term benefits to soil, water, and riparian/wetland resources because of the prevention of surface occupancy in the areas that would have disrupted soil structure and lead to increased erosion.</p> <p>Identifying areas to be open for mineral and energy exploration and development would have</p>	<p>Impacts to Soil, Water and Riparian Actual extraction of mineral and energy resources has insignificant short-term impacts on these resources. However the supporting infrastructure (roads, pipelines, etc.) needed in the development and production of mineral and energy resources would have impacts to soils in the form of grading for new roads; ditches for pipelines would have long-term impacts. Runoff from these roads would cause increased erosion that would lead to increase siltation and sedimentation in local streams, impacting water quality.</p> <p>Identifying areas to be open for mineral and energy exploration and development would have significant short-term impacts to soils, water, and riparian resources, which would occur during the development of the mineral and energy extraction facilities.</p> <p>See Chapter 2 for a list of total acres impacted by this alternative.</p>

MINERALS				
Oil, Gas, CBNG, Combined Hydrocarbon Leasing				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>resources.</p> <p>Areas identified to be open for mineral and energy exploration and development would experience significant short-term impacts from road and site development to soils, water, and riparian resources. These impacts would normally be addressed in the permitting process and appropriate mitigation would be required.</p>	<p>resources, which would occur during the development of the mineral and energy extraction facilities. Reclamation of these areas is necessary for the reestablishment of stable soils and plant communities in these areas, necessary to prevent increases in erosion and siltation impacts to streams and riparian/wetland resources.</p> <p>See chapter 2 for a list of total acres impacted by this alternative.</p>	<p>significant short-term impacts to soils, water, and riparian resources from the actions necessary to build roads and other infrastructure, which would occur during the development of the mineral and energy extraction facilities.</p> <p>See Chapter 2 for a list of total acres impacted by this alternative.</p>	
<p>Impacts to Vegetation Resources</p> <p>Development of oil and gas wells would result in an initial disturbance of about 620 acres per year, or about 12,300 acres through the life of the plan. The total amount of disturbed acres is estimated to be about 4,500 acres (36 percent) at the end of 20 years if reclamation is achieved within 3 years.</p> <p>An estimated 1,500 wells would be drilled in the PFO during the 20-year planning period. Each well initially disturbs an average of 7.9 acres per well, for a total of about 12,300 acres of disturbance over the planning period. However, reclamation procedures would restore</p>	<p>Impacts to Vegetation Resources</p> <p>Construction of CBNG infrastructure, gas wells, and pipelines would result in disturbance of about 760 acres per year, or about 15,200 acres over the planning period. The net disturbed acreage is estimated to be 5,520 acres (about 36 percent) at the end of 20 years, considering that reclamation is achieved within 3 years.</p> <p>An estimated 1,900 wells would be drilled in the PFO during the planning period at a rate of about 95 wells per year. Each well would account for an average of 7.9 acres of initial disturbance per well, with a permanent land use change to an average of 2.1 acres per</p>	<p>Impacts to Vegetation Resources</p> <p>Construction of CBNG infrastructure, gas wells, and pipelines would result in disturbance of about 560 acres per year, or about 11,300 acres over the planning period. The net disturbed acreage is estimated to be 4,100 acres (about 36 percent) at the end of 20 years, considering that reclamation is achieved within 3 years.</p> <p>An estimated 1,400 wells would be drilled in the PFO during the planning period at a rate of about 70 wells per year. Each well would account for an average of 7.9 acres of initial disturbance per well, with a permanent land use change to an average of 2.1 acres per</p>	<p>Impacts to Vegetation Resources</p> <p>Construction of CBNG infrastructure, gas wells, and pipelines would result in disturbance of about 450 acres per year, or about 8,900 acres over the planning period. The net disturbed acreage is estimated to be 3,300 acres (about 37 percent) at the end of 20 years, considering that reclamation is achieved within 3 years.</p> <p>An estimated 1,000 wells would be drilled in the PFO during the planning period at a rate of about 55 wells per year. Each well would account for an average of 7.9 acres of initial disturbance per well, with a permanent land use change to an average of 2.1 acres per</p>	<p>Impacts to Vegetation Resources</p> <p>Construction of CBNG infrastructure, gas wells, and pipelines would result in disturbance of about 580 acres per year, or about 11,600 acres over the planning period. The net disturbed acreage is estimated to be 4,200 acres (about 36 percent) at the end of 20 years, considering that reclamation is achieved within 3 years.</p> <p>An estimated 1,440 wells would be drilled in the PFO during the planning period at a rate of about 72 wells per year. Each well would account for an average of 7.9 acres of initial disturbance per well, with a permanent land use change to an average of 2.1 acres per</p>

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<p>approximately 7,800 acres (about 60 percent) of the areas. Reclamation is necessary to reestablish vegetation in these areas. Proper reclamation provides adequate plant species diversity and returns reclaimed areas to mid-seral grasses and forbs plant communities. Closing 128,277 acres to fluid mineral leasing and limiting 220,972 acres to No Surface Occupancy (Map 2-27) indirectly maintains vegetation resources on about 349,250 acres of BLM land within the PFO.</p>	<p>well. However, reclamation procedures would restore approximately 9,690 acres (about 63 percent) of vegetation. Reclamation of these areas is necessary for the reestablishment of plants in these areas. Proper reclamation would provide for adequate plant species diversity and would lower the seral stage of the community by replacing shrubs with grasses and forbs.</p> <p>Closing 546,765 acres (about 22 percent of BLM lands within the PFO) to Fluid Mineral Leasing and limiting 73,972 acres (about 3 percent of BLM lands within the PFO) to No Surface Occupancy (Map 2-28) indirectly maintains vegetation resources on about 619,808 acres of BLM land within the PFO. Continuing to recommend withdrawing areas from locatable mineral entry and closing other areas to mineral materials disposal (Maps 2-33 and 2-38) indirectly benefits vegetation by eliminating surface disturbing activities associated with the recovery of locatable and mineral materials in those areas. Limiting surface disturbance reduces erosion and the removal of existing vegetation, decreasing the</p>	<p>well. However, reclamation procedures would restore approximately 7,140 acres (about 63 percent) of vegetation. Reclamation of these areas is necessary for the reestablishment of plants in these areas. Proper reclamation would provide for adequate plant species diversity and would lower the seral stage of the community by replacing shrubs with grasses and forbs.</p> <p>Closing 546,690 acres (about 22 percent of BLM lands within the PFO) to fluid mineral leasing and limiting 233,641 acres (about 9 percent of BLM lands within the PFO) to No Surface Occupancy (Map 2-29) indirectly maintains vegetation resources on about 780,331 acres of BLM land within the PFO. Continuing to recommend withdrawing areas from locatable mineral entry and closing other areas to mineral materials disposal (Map 2-34 and 2-39) indirectly benefits vegetation by eliminating surface disturbing activities associated with the recovery of locatable and mineral materials in those areas. Limiting surface disturbance reduces erosion and the removal of existing vegetation, decreasing the</p>	<p>well. However, reclamation procedures would restore approximately 5,610 acres (about 63 percent) of vegetation. Reclamation of these areas is necessary for the reestablishment of plants in these areas. Proper reclamation would provide for adequate plant species diversity and would lower the seral stage of the community by replacing shrubs with grasses and forbs.</p> <p>Closing 619,818 acres (about 24 percent of BLM lands within the PFO) to fluid mineral leasing and limiting 340,738 acres (about 13 percent of BLM lands within the PFO) to No Surface Occupancy (Map 2-30) indirectly maintains vegetation resources on about 960,556 acres of BLM land within the PFO. Continuing to recommend withdrawing areas from locatable mineral entry and closing other areas to mineral materials disposal (Maps 2-35 and 2-40) indirectly benefits vegetation by eliminating surface disturbing activities associated with the recovery of locatable and mineral materials in those areas. Limiting surface disturbance reduces erosion and the removal of existing vegetation, decreasing the</p>	<p>well. However, reclamation procedures would restore approximately 7,344 acres (about 63 percent) of vegetation. Reclamation of these areas is necessary for the reestablishment of plants in these areas. Proper reclamation would provide for adequate plant species diversity and would lower the seral stage of the community by replacing shrubs with grasses and forbs.</p> <p>Closing 584,128 acres (about 23 percent of BLM lands within the PFO) to fluid mineral leasing and limiting 117,775 acres (about 4 percent of BLM lands within the PFO) to No Surface Occupancy (Map 2-31) indirectly maintains vegetation resources on about 701,901 acres of BLM land within the PFO. Continuing to recommend withdrawing areas from locatable mineral entry and closing other areas to mineral materials disposal (Maps 2-36 and 2-41) indirectly benefits vegetation by eliminating surface disturbing activities associated with the recovery of locatable and mineral materials in those areas. Limiting surface disturbance reduces erosion and the removal of existing vegetation, decreasing the</p>

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	vulnerability of these areas to noxious weed and invasive plant species infestations.	vulnerability of these areas to noxious weed and invasive plant species infestations.	vulnerability of these areas to noxious weed and invasive plant species infestations.	vulnerability of these areas to noxious weed and invasive plant species infestations.
<p>Impacts to Cultural Resources</p> <p>There would be no impacts to cultural resources from oil and gas development on over 349,200 acres (14 percent) of the PFO. In these areas, cultural resources would be preserved in place through closures or No Surface Occupancy stipulations. There would also be a reduced need for data recovery efforts and an associated reduction in the potential for site identification and recordation associated with development, compared to areas open for oil and gas development.</p> <p>Cultural resource values on the remaining 2,130,000 acres (86 percent) of the PFO would be preserved from damage from surface disturbance related to oil and gas development through mitigation methods such as avoidance and data recovery. While data recovery would increase knowledge of cultural resources in the areas of development, it would also eliminate the potential for future study by other, potentially more precise data recovery methods. In addition, increased development in</p>	<p>Impacts to Cultural Resources</p> <p>There would be no impacts to cultural resources from oil and gas development on over 619,800 acres (24.9 percent) of the PFO. This is over 270,000 acres more than in The No Action Alternative. In these areas, cultural resources would be preserved in place through closures or No Surface Occupancy stipulations. There would also be a reduced need for data recovery efforts and an associated reduction in the potential for site identification and recordation associated with development, compared to areas open for oil and gas development.</p> <p>Cultural resource values on the remaining 1,871,000 acres (75.1 percent) of the PFO would be preserved from damage from surface disturbance related to oil and gas development through mitigation methods such as avoidance and data recovery. Although data recovery would increase knowledge of cultural resources in the areas of development, it would also eliminate the potential for future study by other,</p>	<p>Impacts to Cultural Resources</p> <p>There would be no impacts to cultural resources from oil and gas development on over 780,300 acres (31.5 percent) of the PFO. This is over 431,000 acres more than in The No Action Alternative. In these areas, cultural resources would be preserved in place through closures or No Surface Occupancy stipulations. There would also be a reduced need for data recovery efforts and an associated reduction in the potential for site identification and recordation associated with development, compared to areas open for oil and gas development.</p> <p>Cultural resource values on the remaining approximately 1,693,800 acres (68.5 percent) of the PFO would be preserved from damage from surface disturbance related to oil and gas development through mitigation methods such as avoidance and data recovery. Although data recovery would increase knowledge of cultural resources in the areas of development, it would also eliminate the potential for future study by other,</p>	<p>Impacts to Cultural Resources</p> <p>There would be no impacts to cultural resources from oil and gas development on over 960,000 acres (38 percent) of the PFO. This is over 611,000 acres more than in The No Action Alternative. In these areas, cultural resources would be preserved in place through closures or No Surface Occupancy stipulations. There would also be a reduced need for data recovery efforts and an associated reduction in the potential for site identification and recordation associated with development, compared to areas open for oil and gas development.</p> <p>Cultural resource values on the remaining 1,531,000 acres (62 percent) of the PFO would be preserved from damage from surface disturbance related to oil and gas development through mitigation methods such as avoidance and data recovery. Although data recovery would increase knowledge of cultural resources in the areas of development, it would also eliminate the potential for future study by other,</p>	<p>Impacts to Cultural Resources</p> <p>There would be no impacts to cultural resources from oil and gas development on over 701,900 acres (28 percent) of the PFO. This is over 352,600 acres more than in The No Action Alternative. In these areas, cultural resources would be preserved in place through closures or No Surface Occupancy stipulations. There would also be a reduced need for data recovery efforts and an associated reduction in the potential for site identification and recordation associated with development, compared to areas open for oil and gas development.</p> <p>Cultural resource values on the remaining 1,789,400 acres (72 percent) of the PFO would be preserved from damage from surface disturbance related to oil and gas development through mitigation methods such as avoidance and data recovery. Although data recovery would increase knowledge of cultural resources in the areas of development, it would also eliminate the potential for future study by other,</p>

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<p>these areas would increase the potential for inadvertent damage to cultural resources (cultural resources found during and not prior to ground disturbing activities). Inadvertent damage to cultural resources would generally result in significant impacts. All the above impacts, although a potential on the above stated acreage, are anticipated to occur on 4,820 acres in the Tavaputs Plateau area, on 5,610 acres in the Emery/Book Cliffs oil and gas play, and on only 1,936 acres throughout the remainder of the PFO over the life of the plan (Maps 3-20 and 3-21).</p> <p>Roads constructed to facilitate oil and gas development would increase access to these areas, resulting in an increased potential for vandalism through non-permitted collecting. In addition, the use of roads adjacent to rock art sites, specifically within Nine Mile Canyon, for maintenance would result in increased fugitive dust that would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear.</p> <p>Other impacts from oil and gas development include short-term disruption from visual or</p>	<p>potentially more precise data recovery methods. In addition, increased development in these areas would increase the potential for inadvertent damage to cultural resources (cultural resources found during and not prior to ground disturbing activities). Inadvertent damage to cultural resources would generally result in significant impacts. All the above impacts, although a potential on the above stated acreage, are anticipated to occur on 5,610 acres in the Tavaputs Plateau area, on 7,190 acres in the Emery/Book Cliffs oil and gas play, and on only 2,410 acres throughout the remainder of the PFO over the life of the plan (Maps 3-20 and 3-21).</p> <p>Roads constructed to facilitate oil and gas development would increase access to these areas, resulting in an increased potential for vandalism through non-permitted collecting. In addition, the use of roads adjacent to rock art sites, specifically within Nine Mile Canyon, for maintenance would result in increased fugitive dust that would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear.</p>	<p>potentially more precise data recovery methods. In addition, increased development in these areas would increase the potential for inadvertent damage to cultural resources (cultural resources found during and not prior to ground disturbing activities). Inadvertent damage to cultural resources would generally result in significant impacts. All the above impacts, while a potential on the above stated acreage, are anticipated to occur on 3,240 acres in the Tavaputs Plateau area, on 6,400 acres in the Emery/Book Cliffs oil and gas play, and on only 1,620 acres throughout the remainder of the PFO over the life of the plan (Maps 3-20 and 3-21).</p> <p>Roads constructed to facilitate oil and gas development would increase access to these areas, resulting in an increased potential for vandalism through non-permitted collecting. In addition, the use of roads adjacent to rock art sites, specifically within Nine Mile Canyon, for maintenance would result in increased fugitive dust that would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear.</p>	<p>potentially more precise data recovery methods. In addition, increased development in these areas would increase the potential for inadvertent damage to cultural resources. Inadvertent damage to cultural resources would generally result in significant impacts; however, the potential for inadvertent damage to cultural resources would be lowest in this alternative. All the above impacts, while a potential on the above stated acreage, are anticipated to occur on 2,450 acres in the Tavaputs Plateau area, on 5,610 acres in the Emery/Book Cliffs oil and gas play, and on only 830 acres throughout the remainder of the PFO over the life of the plan (Maps 3-20 and 3-21).</p> <p>Roads constructed to facilitate oil and gas development would increase access to these areas, resulting in an increased potential for vandalism through non-permitted collecting. In addition, the use of roads adjacent to rock art sites, specifically within Nine Mile Canyon, for maintenance would result in increased fugitive dust that would settle on pictographs and in petroglyphs, obscuring them from view and increasing abrasive wear.</p>	<p>potentially more precise data recovery methods. In addition, increased development in these areas would increase the potential for inadvertent damage to cultural resources. Inadvertent damage to cultural resources would generally result in significant impacts; however, the potential for inadvertent damage to cultural resources would be neither as high as in Alternative A nor as low as in Alternative C. All the above impacts, while a potential on the above stated acreage, are anticipated to occur on 3,240 acres in the Tavaputs Plateau area, on 6,400 acres in the Emery/Book Cliffs oil and gas play, and on only 1,936 acres throughout the remainder of the PFO over the life of the plan (Maps 3-20 and 3-21).</p> <p>Roads constructed to facilitate oil and gas development would increase access to these areas, resulting in an increased potential for vandalism through non-permitted collecting. In addition, the use of roads adjacent to rock art sites, specifically within Nine Mile Canyon, for maintenance would result in increased fugitive dust that would settle on pictographs and in petroglyphs, obscuring them</p>

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<p>auditory effects such as drilling and automobile traffic. These impacts usually affect landscapes or traditional uses in an area and can often be mitigated or accommodated through adjustments in timing.</p>	<p>Other impacts from oil and gas development include short-term disruption from visual or auditory effects such as drilling and automobile traffic. These impacts usually affect landscapes or traditional uses in an area and can often be mitigated or accommodated through adjustments in timing. The likelihood of these impacts occurring would be greater than in The No Action Alternative because of increased oil and gas development.</p>	<p>Other impacts from oil and gas development include short-term disruption from visual or auditory effects such as drilling and automobile traffic. These impacts usually affect landscapes or traditional uses in an area and can often be mitigated or accommodated through adjustments in timing. The likelihood of these impacts occurring would be less than in The No Action Alternative because of decreased oil and gas development.</p>	<p>Other impacts from oil and gas development include short-term disruption from visual or auditory effects such as drilling and automobile traffic. These impacts usually affect landscapes or traditional uses in an area and can often be mitigated or accommodated through adjustments in timing. The likelihood of these impacts occurring would be smallest in this alternative than in any of the others.</p>	<p>from view and increasing abrasive wear.</p> <p>Other impacts from oil and gas development include short-term disruption from visual or auditory effects such as drilling and automobile traffic. These impacts usually affect landscapes or traditional uses in an area and can often be mitigated or accommodated through adjustments in timing. The likelihood of these impacts occurring would be the same as in Alternative B.</p>
<p>Impacts to Paleontology Resources There would be no impacts to paleontological resources from oil and gas development on over 349,200 acres (14 percent) of the PFO. In these areas, paleontological resources would be protected from disturbance through closures or No Surface Occupancy stipulations. There would also be a reduced need for data recovery efforts and an associated reduction in the potential for locality identification and recordation associated with development. Fossil resources on the remaining 2,130,000 acres (86 percent) of the PFO would be protected through mitigation methods. The potential for</p>	<p>Impacts to Paleontology Resources There would be no impacts to paleontological resources from oil and gas development on over 619,800 acres (24.9 percent) of the PFO. This is over 270,000 acres more than in The No Action Alternative. Fossil resources on the remaining 1,871,000 acres (75.1 percent) of the PFO would be vulnerable to significant impact during the initial stages of construction. When paleontological resources are discovered, mitigation measures would be implemented to salvage the fossil resource. The potential for inadvertent significant damage to paleontological resources would be highest in</p>	<p>Impacts to Paleontology Resources Impacts from minerals development would be similar to those identified in The No Action Alternative. There would be no impacts to paleontological resources from oil and gas development on over 780,000 acres (31.5 percent) of the PFO. This is over 431,000 acres more than in The No Action Alternative. Paleontological resources in these areas would be protected from surface disturbance related to mineral development. Paleontological values on the remaining 1,693,800 acres (68.5 percent) of the PFO would be protected through mitigation methods. The potential for inadvertent</p>	<p>Impacts to Paleontology Resources Impacts from minerals management would be similar to those identified in The No Action Alternative. There would be no impacts to paleontological resources from oil and gas development on nearly 960,000 acres (38 percent) of the PFO. This is over 611,000 acres more than in The No Action Alternative. Paleontological resources in these areas would be protected from surface disturbance related to mineral development. Paleontological values on the remaining 1,531,000 acres (62 percent) of the PFO would be protected through mitigation methods. The potential for inadvertent</p>	<p>Impacts to Paleontology Resources Impacts from minerals management would be similar to those identified in the No Action alternative. There would be no impacts to paleontological resources from oil and gas development on over 701,900 acres (28 percent) of the PFO. This is over 352,600 acres more than in The No Action Alternative. Paleontological resources in these areas would be protected from surface disturbance related to mineral development. Paleontological resources on the remaining 1,789,400 acres (72 percent) of the PFO would be protected through mitigation methods. The potential for inadvertent</p>

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inadvertent damage to paleontological resources would increase as development actions increase.	this alternative. This is due to the lack of requiring paleontological assessments prior to surface disturbance as well as the fact that this alternative has the most acres open to surface disturbing activities.	damage to fossil resources (fossils found during and not prior to ground disturbing activities) would be moderate in this alternative. The potential for inadvertent damage would neither be as high as in Alternative A nor as low as in Alternative C.	damage to fossil resources (fossil resources found during and not prior to ground disturbing activities) would be lowest in this alternative.	damage to fossil resources (fossil resources found during and not prior to ground disturbing activities) would be moderate in this alternative. The potential for inadvertent damage would not be as high as in Alternative A nor as low as in Alternative C. The potential for other impacts, such as visual or auditory disruptions, would be lower in this alternative than in The No Action Alternative.
<p>Impacts to Visual Resources The RFD would be 1,540 wells over the next 20 years. Initial disturbance from the development of roads, drill pads, pipelines, and ancillary facilities construction would create an initial disturbance of approximately 618 acres per year. Therefore disturbance from drill pads over 20 years will total 12,366 acres. Disturbance of 1.5 acres would occur per drill pad construction. The severity of an impact would depend on the degree of development and the success of mitigation (e.g., facility location, painting, screening, and reseeding with indigenous species) to reduce visual effects.</p>	<p>Impacts to Visual Resources The RFD would be 1,900 wells over the next 20 years. Initial disturbance from the development of roads, drill pads, pipelines, and ancillary facilities construction would create an initial disturbance of approximately 761 acres per year. Therefore, disturbance from drill pads over 20 years will total 15,210 acres. Disturbance of 1.5 acres would occur per drill pad construction. The severity of an impact would depend on the degree of development and the success of mitigation (e.g., facility location, painting, screening, and reseeding with indigenous species) to reduce visual effects.</p>	<p>Impacts to Visual Resources The RFD would be 1,400 wells over the next 20 years. Initial disturbance from the development of roads, drill pads, pipelines, and ancillary facilities construction would create an initial disturbance of approximately 563 acres per year. Therefore, disturbance from drill pads over 20 years will total 11,260 acres. Disturbance of 1.5 acres would occur per drill pad construction. The severity of an impact would depend on the degree of development and the success of mitigation (e.g., facility location, painting, screening, and reseeding with indigenous species) to reduce visual effects.</p>	<p>Impacts to Visual Resources The RFD would be 1,100 wells over the next 20 years. Initial disturbance from the development of roads, drill pads, pipelines, and ancillary facilities construction would create an initial disturbance of approximately 445 acres per year. Therefore, disturbance from drill pads over 20 years will total 8,890 acres. Disturbance of 1.5 acres would occur per drill pad construction. The severity of an impact would depend on the degree of development and the success of mitigation (e.g., facility location, painting, screening, and reseeding with indigenous species) to reduce visual effects.</p>	<p>Impacts to Visual Resources The RFD would be 1,440 wells over the next 20 years. Initial disturbance from the development of roads, drill pads, pipelines, and ancillary facilities construction would create an initial disturbance of approximately 579 acres per year. Therefore, disturbance from drill pads over 20 years will total 11,576 acres. Disturbance of 1.5 acres would occur per drill pad construction. The severity of an impact would depend on the degree of development and the success of mitigation (e.g., facility location, painting, screening, and reseeding with indigenous species) to reduce visual effects.</p>
Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species	Impacts to Special Status Species

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No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
<p>Impacts to Fish and Wildlife It is anticipated that 1,500 gas and CBNG wells would be drilled over the next 20 years. This would result in approximately 9,950 acres of initial surface disturbance and 4,050 acres of long-term surface disturbance. Approximately 80 to 90 percent of disturbance resulting from oil and gas development would result in the area west and northwest of Highway 10 and east and northeast of Highway 6. This area contains habitat for Rocky Mountain bighorn sheep, sage grouse, mule deer, elk, and pronghorn antelope (see Special Status Species section for further details). Wildlife would be directly impacted through the loss and fragmentation of crucial winter habitats, potentially causing redistribution or avoidance of some areas.</p> <p>Approximately 958,015 acres would be considered open to leasing subject to the terms and conditions of the lease form (Map 2-27). This would allow more wells to be developed without mitigative constraints and would directly impact wildlife through the loss and fragmentation of crucial</p>	<p>Impacts to Fish and Wildlife It is anticipated that 1,500 gas and CBNG wells would be drilled over the next 20 years. This would result in approximately 9,300 acres of initial surface disturbance and 3,780 acres of long-term surface disturbance. Approximately 80 to 90 percent of disturbance resulting from oil and gas development would result in the area west and northwest of Highway 10 and east and northeast of Highway 6. This area contains habitat for Rocky Mountain bighorn sheep, sage grouse, mule deer, elk, and pronghorn antelope. Wildlife would be directly impacted through the loss and fragmentation of crucial winter habitats, potentially causing redistribution or avoidance of some areas. Without the appropriate habitat protection measures, these additional wells would impact fisheries through increased surface runoff, causing stream siltation and sediment loading.</p> <p>Approximately 1,870,999 acres would be considered open to leasing subject to the terms and conditions of the lease (Map 2-28). This would allow more wells to be developed</p>	<p>Impacts to Fish and Wildlife It is anticipated that 1,400 gas and CBNG wells would be drilled over the next 20 years. This would result in approximately 9,300 acres of initial surface disturbance and 3,780 acres of long-term surface disturbance. Approximately 80 to 90 percent of disturbance resulting from oil and gas development would result in the area west and northwest of Highway 10 and east and northeast of Highway 6. This area contains habitat for Rocky Mountain bighorn sheep, sage grouse, mule deer, elk, and pronghorn antelope. Wildlife would be directly impacted through the loss and fragmentation of crucial winter habitats, potentially causing redistribution or avoidance of some areas.</p> <p>No land would be designated open to leasing. This would benefit wildlife and fish species and habitat because oil and gas development land would not be open to this activity.</p> <p>Approximately 1,693,861 acres would be designated as open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease</p>	<p>Impacts to Fish and Wildlife It is anticipated that 1,300 gas and CBNG wells would be drilled over the next 20 years. This would result in approximately 8,000 acres of initial surface disturbance and 3,060 acres of long-term surface disturbance. Approximately 80 to 90 percent of disturbance resulting from oil and gas development would result in the area west and northwest of Highway 10 and east and northeast of Highway 6. This area contains habitat for Rocky Mountain bighorn sheep, sage grouse, mule deer, elk, and pronghorn antelope (see Special Status Species section for further detail). Wildlife would be directly impacted through the loss and fragmentation of crucial winter habitats, potentially causing redistribution or avoidance of some areas.</p> <p>No land would be designated open to leasing, subject to the terms and conditions of the lease form for oil and gas development. This would minimize impacts associated with oil and gas development because land would not be open to this activity.</p>	<p>Impacts to Fish and Wildlife It is anticipated that 1,400 gas and CBNG wells would be drilled over the next 20 years. This would result in approximately 9,300 acres of initial surface disturbance and 3,780 acres of long-term surface disturbance. Approximately 80 to 90 percent of disturbance resulting from oil and gas development would result in the area west and northwest of Highway 10 and east and northeast of Highway 6. This area contains crucial and high-value habitats for Rocky Mountain bighorn sheep, sage grouse, mule deer, elk, and pronghorn antelope. Wildlife would be directly impacted through the loss and fragmentation of crucial and high-value winter habitats, potentially causing displacement, avoidance of some areas, and reduction of habitat-carrying capacity, resulting in population declines in many wildlife species.</p> <p>Approximately 574,335 acres would be designated as open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (Map 2-31). This would provide for moderately restrictive lease stipulations to</p>

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<p>winter habitats, potentially causing redistribution or avoidance of some areas.</p> <p>In addition, 894,399 acres would be considered open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (Map 2-27). This would provide for moderately restrictive lease stipulations to mitigate impacts to wildlife and fish. Seasonal use restrictions during breeding and parturition periods would help to ensure reproductive success and survival of young, reduce winter mortality associated with increased stresses brought on by human-induced disturbances, and reduce private landowner conflicts caused by displaced animals.</p> <p>Approximately 86,000 acres would be considered would be open to leasing subject to major constraints (No Surface Occupancy) (Map 2-27). This would allow for more restrictive lease stipulations to mitigate impacts of conflicting resource use, including wildlife and fish species and habitat.</p> <p>Leasing would be closed on 540,786 acres (Map 2-27). Wildlife and fish species and their habitats would be protected from surface</p>	<p>without mitigative constraints and would directly impact wildlife through the loss and fragmentation of crucial winter habitats, potentially causing redistribution or avoidance of some areas. Without the appropriate habitat protection measures, these additional wells would impact fisheries through increased surface runoff, causing stream siltation and sediment loading.</p> <p>No land would be designated as open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) under this alternative.</p> <p>Approximately 73,043 acres would be considered open to leasing subject to major constraints (No Surface Occupancy) (Map 2-28). This would allow for more restrictive lease stipulations to mitigate impacts of conflicting resource use, including wildlife and fish species and habitat.</p> <p>Leasing would be closed on 535,185 acres (Map 2-28). Wildlife and fish species and their habitats would be protected from surface disturbing activities associated with oil and gas development.</p> <p>To minimize and mitigate impacts to wildlife species and</p>	<p>notices) (Map 2-29). This would provide for moderately restrictive lease stipulations to mitigate impacts to wildlife and fish. Seasonal use restrictions during breeding and parturition periods would help to ensure reproductive success and survival of young, reduce winter mortality associated with increased stresses brought on by human-induced disturbances, and reduce private landowner conflicts caused by displaced animals.</p> <p>To minimize and mitigate impacts to wildlife species and their habitat, seasonal restrictions would be implemented (Appendix 8). These restrictions would protect crucial fish and wildlife habitat and allow for historical life cycles to take place without stress and harassment associated with human presence.</p> <p>Approximately 253,069 acres would be considered open to leasing subject to major constraints (No Surface Occupancy) (Map 2-29). This would allow for more restrictive lease stipulations to mitigate impacts of conflicting resource use, including wildlife and fish species and habitat.</p> <p>Leasing would be closed on</p>	<p>Approximately 1,531,000 acres would be designated as open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) (Map 2-30). This would provide for moderately restrictive lease stipulations to mitigate impacts to wildlife and fish. Seasonal use restrictions during breeding and parturition periods would help to ensure reproductive success and survival of young, reduce winter mortality associated with increased stresses brought on by human-induced disturbances, and reduce private landowner conflicts caused by displaced animals.</p> <p>Approximately 340,738 acres would be considered, open to leasing subject to major constraints (No Surface Occupancy) (Map 2-30). This would allow for more restrictive lease stipulations to mitigate impacts of conflicting resource use, including wildlife and fish species and habitat.</p> <p>Leasing would be closed on 608,238 acres (Map 2-30). Wildlife and fish species and their habitats would be protected from surface disturbing activities associated with oil and gas development.</p> <p>To minimize and mitigate</p>	<p>mitigate impacts to wildlife and fish. Seasonal use restrictions (during breeding, winter range occupation, and parturition periods) are intended to reduce impacts during the drill-construction phase of oil and gas development. Maintenance and operation of these facilities would have an adverse affect on wildlife populations over the life of the fields and would negatively affect the reproductive success and survival of young, reduce winter survivability associated with increased stresses brought on by human-induced disturbances, and increase private landowner conflicts caused by displaced animals.</p> <p>Approximately 149,306 acres would be considered open to leasing subject to major constraints (No Surface Occupancy) (Map 2-31). This would allow for more restrictive lease stipulations to mitigate impacts of conflicting resource use, including wildlife and fish species and habitat. Sage grouse leks and nesting/brooding areas need to be included in these leasing areas.</p> <p>Leasing would be closed on 584,128 acres (Map 2-31). Wildlife and fish species and their habitats would be</p>

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<p>disturbing activities associated with oil and gas development.</p> <p>To minimize and mitigate impacts to wildlife species and their habitat, seasonal restrictions would be implemented (Appendix 8). These restrictions would protect crucial fish and wildlife habitat and allow for historical life cycles to take place without stress and harassment associated with human presence.</p> <p>Fish Much of the water removed in the CBNG extraction process is very high in sodium and calcium. Although these elements do not directly affect fish populations, their presence in riparian and wetland communities does impact aquatic vegetation and macroinvertebrate populations found in these areas. The loss of these ecosystem parameters would significantly impact fish population through loss of prey base and cover.</p>	<p>their habitat, seasonal restrictions would be implemented (see the Alternatives Summary table in Section 2.16). These restrictions would protect crucial fish and wildlife habitat and allow for historical life cycles to take place without stress and harassment associated with human presence.</p>	<p>550,496 acres (Map 2-29). Wildlife and fish species and their habitats would be protected from surface disturbing activities associated with oil and gas development.</p>	<p>impacts to wildlife species and their habitat, seasonal restrictions would be implemented (Appendix 8). These restrictions would protect crucial fish and wildlife habitat and allow for life history cycles to take place without stress and harassment associated with human presence.</p> <p>Big Game Under this scenario there would be less fragmentation of habitat because fewer wells would be allowed in crucial winter range areas. This would result in less habitat fragmentation and better linkage between crucial habitat areas. There would also be less chance that migration corridors would be disrupted because of the presence of humans and human-related activities. This would result in less behavioral avoidance and habitat abandonment by these species.</p> <p>Fish The fewer number of CBNG wells associated with this scenario would reduce the amount of water needed for extraction of these reserves. This would result in less opportunity for loss of ground water flows that feed springs,</p>	<p>protected from surface disturbing activities associated with oil and gas development.</p> <p>GENERAL The Gordon Creek WMA is closed to leasing and provides security and protection from development for mule deer, elk, sage grouse and other wildlife species. WSAs provide the same protection (areas closed to leasing) from oil and gas development for these species. WSAs provide further protection to the winter range of both species of bighorn sheep, mule deer, and elk , and to a wide variety of wildlife species that use the Green River corridor.</p>

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			<p>and seeps that provide water to local streams.</p> <p>There would also be a reduction in the amount of water that could potentially be discharged back into the ecosystem. This would result in a significant reduction in the amount of dissolved minerals that potentially would be deposited in streams.</p>	
<p>Impacts to Wild Horses and Burros</p> <p>Impacts from oil and gas development would largely be limited to the Range Creek HMA. Although development of these resources would result in a short-term loss of vegetation on less than 4,820 acres during the entire planning period, mitigation requirements would result in a reduced long-term impact (vegetation affected on less than 1,760 acres over the life of the plan). Approximately 60 percent of the initial vegetation loss would be reclaimed within 5 years. Habitat mitigation or enhancement would provide forage resources. Long-term impact of mineral development on forage is not anticipated to be significant.</p> <p>Increased mineral development, whether oil and gas in the Range Creek HMA</p>	<p>Impacts to Wild Horses and Burros</p> <p>The potential for mineral development in the Sinbad HMA is low. Only 97 acres of surface disturbance per year are anticipated east and south of Highway 10 and south and west of Highway 6. Impacts to wild burros in the Sinbad HMA are not anticipated.</p>	<p>Impacts to Wild Horses and Burros</p> <p>Approximately 40 percent of the Range Creek HMA would be closed to oil and gas leasing. In these areas the impacts identified as Common to All Alternatives would not occur. The remaining 60 percent would be open to leasing, but the intensity of the impacts would be less than in The No Action Alternative because of restrictions on the timing, location, and placement of oil and gas developments from other resources (such as special status species, wildlife, or recreation).</p> <p>Impacts to wild burros in the Muddy Creek and Sinbad HMAs would be the same as those identified for those HMAs in The No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros</p> <p>Approximately 50 percent of the Range Creek HMA would be closed to oil and gas leasing. In these areas, the impacts identified as Common to All Alternatives would not occur. The remaining 50 percent would be open to leasing, but the intensity of the impacts would be less than in Alternative B because of restrictions on the timing, location, and placement of oil and gas developments from other resources (such as special status species, wildlife, or recreation).</p> <p>Impacts to wild horses in the Muddy Creek HMA and to wild burros in the Sinbad HMA would be the same as those identified for the HMAs of The No Action Alternative.</p>	<p>Impacts to Wild Horses and Burros</p> <p>Approximately 40 percent of the Range Creek HMA would be closed to oil and gas leasing. In these areas, impacts identified as Common to All Alternatives would not occur. The remaining 60 percent would be open to leasing, but the intensity of the impacts would be less than in Alternative B because of restrictions on the timing, location, and placement of oil and gas developments from other resources (such as special status species, wildlife, or recreation).</p> <p>Impacts to wild horses in the Muddy Creek HMA and to wild burros in the Sinbad HMA would be the same as those identified for the HMAs of The No Action Alternative.</p>

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<p>or salable and locatable development in the Muddy Creek and Sinbad HMAs, would result in small losses in forage vegetation. In addition, operational and maintenance activities at the development sites would increase the frequency of short-term displacement.</p> <p>The potential for mineral development in the Robbers Roost HMA is low. Impacts to wild horses are not anticipated.</p>				
<p>Impacts to Fire and Fuels Management This alternative would result in the anticipated development of approximately 1,500 oil and gas wells and related infrastructure during the planning period. (See Impacts from Actions Common to All Alternatives.)</p>	<p>Impacts to Fire and Fuels Management This alternative would result in the anticipated development of approximately 1,900 oil and gas wells and related infrastructure during the planning period. (See Impacts from Actions Common to All Alternatives.)</p>	<p>Impacts to Fire and Fuels Management This alternative would result in the anticipated development of approximately 1,400 oil and gas wells and related infrastructure during the planning period. (See Impacts from Actions Common to All Alternatives.)</p>	<p>Impacts to Fire and Fuels Management This alternative would result in the anticipated development of approximately 1,100 oil and gas wells and related infrastructure during the planning period. (See Impacts from Actions Common to All Alternatives.)</p>	<p>Impacts to Fire and Fuels Management This alternative would result in the anticipated development of approximately 1,440 oil and gas wells and related infrastructure during the planning period. (See Impacts from Actions Common to All Alternatives.)</p>
RESOURCE USES				
<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>	<p>Impacts to Forest and Woodlands No significant impacts.</p>
<p>Impacts to Livestock Mineral and energy development initially disturbs the surface of about 600 acres per year (approximately 12,000 acres through the life of the plan), creating a short-term reduction in the area available for forage production.</p>	<p>Impacts to Livestock Mineral and energy development initially disturbs the surface of about 760 acres per year (approximately 15,200 acres through the life of the plan), creating a short-term reduction in the area available for forage production.</p>	<p>Impacts to Livestock Mineral and energy development initially disturbs the surface of about 560 acres per year (approximately 11,200 acres through the life of the plan), creating a short-term reduction in the area available for forage production.</p>	<p>Impacts to Livestock Mineral and energy development initially disturbs the surface of about 450 acres per year (approximately 8,900 acres through the life of the plan), creating a short-term reduction in the area available for forage production.</p>	<p>Impacts to Livestock Mineral and energy development initially disturbs the surface of about 580 acres per year (approximately 11,600 acres through the life of the plan), creating a short-term reduction in the area available for forage production.</p>

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<p>However, through reclamation surface disturbance is expected to be around 230 acres per year, or about 4,500 acres over the life of the plan, permanently reducing the area available for forage production and subsequently changing the amount of forage available for livestock grazing and other resources.</p> <p>Oil and gas development on BLM-administered lands would create a network of access roads, pipelines, and other related facilities and structures. The improved roads potentially would improve access to allotments and indirectly reduce stress on livestock during transportation. Conversely, vehicle traffic on access roads could increase deposition of dust on forage near roadsides, reducing palatability for livestock. Reducing the palatability of forage may change livestock management within allotments.</p>	<p>However, through reclamation surface disturbance is expected to be around 280 acres per year, or about 5,500 acres over the life of the plan, permanently reducing the areas available for forage production and subsequently changing the amount of forage available for livestock grazing and other resources.</p> <p>Oil and gas development on BLM-administered lands would create a network of access roads, pipelines, and other related facilities and structures. The improved roads potentially would improve access to allotments and indirectly reduce stress on livestock during transportation. Conversely, vehicle traffic on access roads could increase deposition of dust on forage near roadsides, reducing palatability for livestock. Reducing the palatability of forage may change livestock management within allotments.</p>	<p>However, through reclamation surface disturbance is expected to be around 200 acres per year, or about 4,100 acres over the life of the plan, permanently reducing the areas available for forage production and subsequently changing the amount of forage available for livestock grazing and other resources.</p> <p>Oil and gas development on BLM-administered lands would create a network of access roads, pipelines, and other related facilities and structures. The improved roads potentially would improve access to allotments and indirectly reduce stress on livestock during transportation. Conversely, vehicle traffic on access roads could increase deposition of dust on forage near roadsides, reducing palatability for livestock. Reducing the palatability of forage may change livestock management within allotments.</p>	<p>However, through reclamation surface disturbance is expected to be around 160 acres per year, or about 3,300 acres over the life of the plan, permanently reducing the areas available for forage production and subsequently changing the amount of forage available for livestock grazing and other resources.</p> <p>Oil and gas development on BLM-administered lands would create a network of access roads, pipelines, and other related facilities and structures. The improved roads potentially would improve access to allotments and indirectly reduce stress on livestock during transportation. Conversely, vehicle traffic on access roads could increase deposition of dust on forage near roadsides, reducing palatability for livestock. Reducing the palatability of forage may change livestock management within allotments.</p>	<p>However, through reclamation surface disturbance is expected to be around 200 acres per year or about 4,200 acres over the life of the plan, permanently reducing the areas available for forage production and subsequently changing the amount of forage available for livestock grazing and other resources.</p> <p>Oil and gas development on BLM-administered lands would create a network of access roads, pipelines, and other related facilities and structures. The improved roads potentially would improve access to allotments and indirectly reduce stress on livestock during transportation. Conversely, vehicle traffic on access roads could increase deposition of dust on forage near roadsides, reducing palatability for livestock. Reducing the palatability of forage may change livestock management within allotments.</p>
<p>Impacts to Recreation Under the RFD scenario for the PFO, development of 1,540 wells in known oil and gas areas would cause initial surface disturbance associated with well pads, roads, pipelines, and ancillary facilities of approximately 12,366 acres. Long-term</p>	<p>Impacts to Recreation Under the RFD scenario for the PFO, development of 1,900 wells in known oil and gas areas would cause initial surface disturbance associated with well pads, roads, pipelines, and ancillary facilities of approximately 15,210 acres. Long-term</p>	<p>Impacts to Recreation Under the RFD scenario for the PFO, development of 1,400 wells in known oil and gas areas would cause initial surface disturbance associated with well pads, roads, pipelines, and ancillary facilities of approximately 11,260 acres. Long-term</p>	<p>Impacts to Recreation Impacts to recreation from minerals and energy development would be similar to those in The No Action Alternative, except that under the RFD scenario for the PFO, development of 1,100 wells in known oil and gas areas would cause initial surface</p>	<p>Impacts to Recreation Under the RFD scenario for the PFO, development of 1,440 wells in known oil and gas areas would cause initial surface disturbance associated with well pads, roads, pipelines, and ancillary facilities of approximately 11,576 acres. Long-term</p>

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<p>disturbance would decrease to approximately 4,512 acres. This level of development and surface disturbance would have moderate impacts to recreation in areas northeast of Highway 6 and northwest of Highway 10. Roads restricted to administrative use would limit motorized recreational access to some areas. Opportunities for semi-primitive recreation would be decreased because of the presence of mineral extraction facilities, especially for Class III gravel roads. Increased traffic from mineral development personnel would add to conflicts with recreational uses of these areas. The quality of the recreation experience would be degraded because of intrusions and loss of scenic quality.</p> <p>Any roads created for mineral development purposes and left open for recreational OHV use would increase access to some previously inaccessible areas, however motorized recreational experiences would be diminished because of increased dust and traffic from mineral development.</p> <p>Allocation of lands to the four mineral leasing categories would result in varying levels of impact to recreation use, as</p>	<p>disturbance would decrease to approximately 5,520 acres. This level of development and surface disturbance would have moderate impacts to recreation in areas northeast of Highway 6 and northwest of Highway 10. Roads restricted to administrative use would limit recreational access to some areas. Opportunities for primitive recreation would be decreased because of the presence of mineral extraction facilities. Increased traffic from mineral development personnel would conflict with recreational uses of these areas.</p> <p>Any roads created for mineral development purposes and left open for recreational OHV use would increase access to some previously inaccessible areas, however short-term effects would occur to motorized recreational experiences during the development stage because of increased dust and traffic from mineral development personnel.</p> <p>Allocation of lands to the four mineral leasing categories would result in varying levels of impact to recreation use, as described below:</p> <p>In Areas Open to Leasing with Standard Terms and</p>	<p>disturbance would decrease to approximately 4,120 acres. This level of development and surface disturbance would have moderate impacts to recreation in areas northeast of Highway 6 and northwest of Highway 10. Roads restricted to administrative use would limit recreational access to some areas, opportunities for primitive recreation would be decreased due to presence of mineral extraction facilities, and increased traffic from mineral development personnel would conflict with recreational use of these areas.</p> <p>Any roads created for mineral development purposes and left open for recreational OHV use would increase access to some previously inaccessible areas, however short-term effects would occur to motorized recreational experiences during the development stage because of increased dust and traffic from mineral development personnel.</p> <p>Allocation of lands to the four mineral leasing categories would result in varying levels of impact to recreation use, as described below:</p> <p>There are no Areas Open to Leasing with Standard Terms</p>	<p>disturbance associated with well pads, roads, pipelines, and ancillary facilities of approximately 8,890 acres. Long-term disturbance would decrease to approximately 3,280 acres. This level of development and surface disturbance would have fewer impacts to recreation than under The No Action Alternative. The majority of mineral development activity would occur in areas northeast of Highway 6 and northwest of Highway 10. Opportunities for primitive recreation would also increase, and less traffic from mineral development personnel would reduce conflicts with recreational use of these areas.</p> <p>Allocation of lands to the four mineral leasing categories would result in varying levels of impact to recreation use, as described below:</p> <p>There are no Areas Open to Leasing with Standard Terms and Conditions under this alternative.</p> <p>In Areas of CSU (1,531,000 acres), levels of surface disturbance would be similar to those of open leasing areas, but development could be mitigated in some high-value recreation areas. Stipulations</p>	<p>disturbance would decrease to approximately 4,232 acres. This level of development and surface disturbance would have moderate impacts to recreation in areas northeast of Highway 6 and northwest of Highway 10. Roads restricted to administrative use would limit recreational access to some areas, opportunities for primitive recreation would be decreased because of the presence of mineral extraction facilities, and increased traffic from mineral development personnel would conflict with recreational use of these areas.</p> <p>Any roads created for mineral development purposes and left open for recreational OHV use would increase access to some previously inaccessible areas, however short-term effects would occur to motorized recreational experiences during the development stage because of increased dust and traffic from mineral development personnel.</p> <p>Allocation of lands to the four mineral leasing categories would result in varying levels of impact to recreation use, as described below:</p> <p>In Areas Open to Leasing with Standard Terms and</p>

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<p>described below:</p> <p>In Areas Open to Leasing with Standard Terms and Conditions (992,521 acres), surface disturbance caused by well pads and roads created for mineral exploration and development could reduce the quality of recreational experiences; displace recreation users to other, less-developed areas; or eliminate some recreation opportunities. Likely areas of development in the Ferron and Helper field and the Book Cliffs play would have the greatest potential to impact recreation, including OHV use near local communities, river recreation in the Price Canyon area, and recreation in and around the Range Creek area.</p> <p>In Areas of Controlled Surface Use (CSU) (1,137,557 acres), levels of surface disturbance would be similar to those of open leasing areas, but development could be mitigated in some high-value recreation areas. Stipulations could be used to modify amounts and types of mineral development infrastructure and access to accommodate multiple uses of the area, including recreation. Motorized and mechanized forms of recreation activities would be most compatible with the level</p>	<p>Conditions (1,870,999 acres), surface disturbance caused by well pads and roads created for mineral exploration and development could reduce the quality of recreational experiences; displace recreation users to other, less developed areas; or eliminate some recreation opportunities. Likely areas of development in the Ferron and Helper gas field and the Book Cliffs gas play would have the greatest potential to impact recreation, including OHV use near local communities and recreation in and around the Range Creek area. Allocating more than 60 percent of the field office as Open to Leasing would potentially expand recreation impacts by allowing development in areas where management of oil and gas leasing was previously more restrictive.</p> <p>There are no areas of CSU under this alternative.</p> <p>In NSO (73,043 acres), prohibiting surface occupancy would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p> <p>In No Lease areas (546,765 acres), closing these areas to mineral leasing would preserve</p>	<p>and Conditions under this alternative.</p> <p>In Areas of CSU (1,693,861 acres), allocating approximately 70 percent of the PFO to these areas for oil and gas leasing would permit surface disturbance associated with the RFD scenario in many high-value recreation areas of the PFO.</p> <p>Well pads and roads created for mineral exploration and development could reduce the quality of recreational experiences; displace recreation users to other, less-developed areas; or eliminate some recreation opportunities, but development could be mitigated in some high-value recreation areas. Stipulations could be used to modify amounts and types of mineral development infrastructure and access to accommodate multiple uses of the area, including recreation. Motorized and mechanized forms of recreation activities would be most compatible with the level of development in these areas. Likely areas of development in the Ferron and Helper field and the Book Cliffs play would have the greatest potential to impact recreation, including OHV use near local communities, river recreation in the Price Canyon</p>	<p>could be used to modify amounts and types of mineral development infrastructure and access to accommodate multiple uses of the area, including recreation. Motorized and mechanized forms of recreation activities would be most compatible with the level of development in these areas.</p> <p>In NSO areas (340,738 acres), prohibiting surface occupancy would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p> <p>In No Lease areas (619,818 acres), closing these areas to mineral leasing would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p>	<p>Conditions (1,183,476 acres, or approximately 48 percent of the PFO), surface disturbance caused by well pads and roads created for mineral exploration and development could reduce the quality of recreational experiences; displace recreation users to other, less developed areas; or eliminate some recreation opportunities. Likely areas of development in the Ferron and Helper gas field and the Book Cliffs gas play would have the greatest potential to impact recreation, including OHV use near local communities and recreation in and around the Range Creek area. Allocating more than 50 percent of the field office as Open to Leasing would potentially expand recreation impacts by allowing development in areas where management of oil and gas leasing was previously more restrictive.</p> <p>In Areas of CSU (574,335 acres), allocating over 24 percent of the PFO to these areas for oil and gas leasing would permit surface disturbance associated with the RFD scenario in many high-value recreation areas of the PFO.</p> <p>Well pads and roads created for mineral exploration and</p>

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<p>of development in these areas. Development in CSU areas that would most likely affect recreation include the Nine Mile Canyon and Gordon Creek areas. Mineral development in the Nine Mile Canyon area would impact scenic driving and cultural resource viewing. Development in the Gordon Creek area would impact OHV and wildlife-related recreation.</p> <p>In No Surface Occupancy areas (NSO) (220,972 acres), prohibiting surface occupancy would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p> <p>In No Lease areas (128,277 acres), closing these areas to mineral leasing would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p>	<p>the natural character of the landscape while maintaining existing recreation opportunities.</p>	<p>area, and recreation in and around the Nine Mile Canyon area.</p> <p>In NSO areas (233,641 acres), prohibiting surface occupancy would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p> <p>In No Lease areas (546,690 acres), closing these areas to mineral leasing would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p>		<p>development could reduce the quality of recreational experiences; displace recreation users to other, less developed areas; or eliminate some recreation opportunities, but development could be mitigated in some high-value recreation areas. Stipulations could be used to modify amounts and types of mineral development infrastructure and access to accommodate multiple uses of the area, including recreation. Motorized and mechanized forms of recreation activities would be most compatible with the level of development in these areas. Likely areas of development in the Ferron and Helper field and the Book Cliffs play would have the greatest potential to impact recreation, including OHV use near local communities, river recreation in the Price Canyon area, and recreation in and around the Nine Mile Canyon area.</p> <p>In NSO areas (149,306 acres), prohibiting surface occupancy on approximately 5 percent of the PFO would preserve the natural character of the landscape while maintaining existing recreation opportunities.</p> <p>In No Lease areas (584,128 acres), closing approximately</p>

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				24 percent of the PFO to mineral leasing would preserve the natural character of the landscape while maintaining existing recreation opportunities.
<p>Impacts to Lands and Realty Existing leases for mineral and energy development activity and supporting facilities may preclude the ability to sell or exchange public land parcels.</p>	<p>Impacts to Lands and Realty Restrictions and conflicts associated with ROWs granted in the event that dual-resource leasing/development were implemented would cause some impacts to the lands and realty program. If one company had an existing ROW for its roads and pipelines, another company could be issued a ROW for the same road, and its pipeline ROW could overlap that of the first company.</p> <p>BLM lands within WSAs are exempt from any land tenure activities until they are released from Congress. BLM would pursue the acquisition and/or exchange of state and private in-holdings upon release of the WSA by Congress. (See section 3 for a list of WSAs and their associated acreages.)</p>	<p>Impacts to Lands and Realty Prioritizing energy resources in conflict with each other would restrict the ability of the lands and realty program to issue ROWs to other energy resource developers. If one company had a priority ROW for its roads and pipelines, another company could be issued a ROW for the same road, and its pipeline ROW could overlap that of the first company.</p>	<p>Impacts to Lands and Realty Permitting only single-resource leasing or development of mineral and energy resources in an area would limit the number of land tenure activities that would be allowed in these areas. One company leasing only one energy or mineral resource would limit the ability of BLM to conduct multiple use activities on those leases and would restrict other land tenure activities. If one company has a ROW for its roads and pipelines, another company could be issued a ROW for the same road, and its pipeline ROW could overlap that of the first company.</p>	<p>Impacts to Lands and Realty Prioritizing energy resources in conflict with each other would restrict the ability of the lands and realty program to issue ROWs to other energy resource developers. If one company had a priority ROW for its roads and pipelines, another company could be issued a ROW for the same road, and its pipeline ROW could overlap that of the first company.</p>
<p>Impacts to Minerals and Energy Oil and Gas. Minerals and energy development actions would classify the PFO into four mineral leasing categories.</p>	<p>Impacts to Minerals and Energy Oil and Gas. Table 4-12 and Map 2-28 show the acres associated with the four mineral leasing categories</p>	<p>Impacts to Minerals and Energy Oil and Gas. Table 4-13 and Map 2-29 show the acres associated with the four mineral leasing categories</p>	<p>Impacts to Minerals and Energy Oil and Gas. Table 4-14 and Map 2-30 show the acres associated with the four mineral leasing categories</p>	<p>Impacts to Minerals and Energy Oil and Gas. Table 4-15 and Map 2-31 show the acres associated with the four mineral leasing categories</p>

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<p>Table 4-11 and Map 2-27 show the acres associated with the four categories within the PFO and within the area north of State Route 10 and U.S. Highway 6, and south of the PFO boundary.</p> <p>Mineral Leasing Oil and gas production would result in an irreversible and irretrievable loss of the resources that would be produced. Approximately 40 percent (992,521 acres) of the PFO and 25 percent (176,770 acres) of the oil and gas development area would be open to leasing subject to the terms and conditions of the lease form. Approximately 5 percent (128,277 acres) of the PFO and 6 percent (45,385 acres) of the oil and gas development area would be closed to oil and gas leasing. Closing these acres to leasing would preclude oil and gas exploration and development in this area and would limit the land available for development. Hydrocarbon resources under areas closed to leasing would be rendered unrecoverable. Approximately 46 percent (1,137,557 acres) of the PFO and 69 percent (492,557 acres) of the oil and gas development area would be open to leasing subject to</p>	<p>within the PFO.</p> <p>Mineral Leasing Oil and gas production would result in an irreversible and irretrievable loss of the resources that would be produced. Approximately 75 percent (1870,999 acres) of the PFO and 64 percent (463,708 acres) of the oil and gas development area would be open to leasing subject to the terms and conditions of the lease form. Approximately 22 percent (546,765 acres) of the PFO and 36 percent (264,943 acres) of the oil and gas development area would be closed to leasing. Closing these areas to leasing would preclude oil and gas exploration and development in these areas and would limit the land available for development. Hydrocarbon resources under areas closed to leasing would be rendered unrecoverable. Approximately 3 percent (73,043 acres) of the PFO and less than 1 percent of the oil and gas development area would be open to leasing subject to major constraints (no surface occupancy). Oil and gas development in this area would require directional drilling to extract hydrocarbon resources. Should the avoidance areas be wider than</p>	<p>within the PFO.</p> <p>Mineral Leasing Oil and gas production would result in irreversible and irretrievable loss of the resources that would be produced. No areas of the oil and gas development area would be open to leasing subject to the terms and conditions of the lease form, which significantly limits the land available for leasing with standard terms and conditions. Approximately 22 percent (546,690 acres) of the PFO and 39 percent (281,859 acres) of the oil and gas development area would be closed to leasing. Closing these areas to leasing would preclude oil and gas exploration and development and would limit the land available for development. Hydrocarbon resources under areas closed to leasing would be rendered unrecoverable. Approximately 68 percent (1,693,861 acres) of the PFO and 60 percent (437,954 acres) of the oil and gas development area would be open to leasing consideration subject to minor constraints (timing limitations, controlled surface use, lease notices), which would limit oil and gas exploration and development</p>	<p>within the PFO.</p> <p>Mineral Leasing Oil and gas production would result in an irreversible and irretrievable loss of the resources that would be produced. No areas of the oil and gas development area would be open to leasing subject to the terms and conditions of the lease form, which significantly limits the land available for leasing and oil and gas development. Approximately 25 percent (619,818 acres) of the PFO and 46 percent (333,073 acres) of the oil and gas development area would be closed to leasing. Closing these acres to leasing would preclude oil and gas exploration and development in this area and would limit the land available for development. Hydrocarbon resources under closed areas would be rendered unrecoverable. Approximately 61 percent (1,531,000 acres) of the PFO and 52 percent (382,761 acres) of the oil and gas development area would be open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices), which would limit oil and gas exploration and development</p>	<p>within the PFO.</p> <p>Mineral Leasing Oil and gas production would result in an irreversible and irretrievable loss of the resources that would be produced. Approximately 48 percent (1,183,476 acres) of the PFO and 16 percent (117,800 acres) of the oil and gas development area would be open to leasing subject to the terms and conditions of the lease form. Approximately 23 percent (584,128 acres) of the PFO and 38 percent (276,421 acres) of the oil and gas development area would be closed to leasing. Closing these areas to leasing would preclude oil and gas exploration and development in this area and would limit the land available for development. Hydrocarbon resources under areas closed to leasing would be rendered unrecoverable. Approximately 24 percent (574,335 acres) of the PFO and 45 percent (326,433 acres) of the oil and gas development area would be open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices), which would limit oil and gas exploration and development during specific time periods</p>

MINERALS				
Oil, Gas, CBNG, Combined Hydrocarbon Leasing				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>minor constraints (timing limitations, controlled surface use, lease notices), which would limit oil and gas exploration and development during specific time periods and increase recovery costs. Approximately 9 percent (220,972 acres) of the PFO and less than 1 percent (2,461 acres) of the oil and gas development area would be open to leasing subject to major constraints (no surface occupancy). Oil and gas exploration and development in this area would possibly require directional drilling to extract hydrocarbon resources. Should the avoidance areas be wider than the technically feasible reach for directional drilling, some hydrocarbon resources may be rendered unrecoverable. Product price fluctuations may require premature abandonment that would dramatically decrease the recoverability of the resource and potentially create an irretrievable incremental loss of the resource.</p>	<p>the technically feasible reach for directional drilling, some hydrocarbon resources may be rendered unrecoverable. Product price fluctuations may require premature abandonment that would dramatically decrease the recoverability of the resource and potentially create an irretrievable incremental loss of the resource.</p>	<p>during specific time periods and would increase recovery costs. Approximately 10 percent (235,641 acres) of the PFO and 1 percent (9,038 acres) of the oil and gas development area would be open to leasing subject to major constraints (no surface occupancy). Oil and gas development in this area would possibly require directional drilling to extract hydrocarbon resources. Should the areas with major constraints be wider than the technically feasible reach for directional drilling, some hydrocarbon resource may be rendered unrecoverable. Product price fluctuations may require premature abandonment that would dramatically decrease the recoverability of the resource and potentially create an irretrievable incremental loss of the resource.</p>	<p>during specific time periods and would increase recovery costs. Approximately 14 percent (340,738 acres) of the PFO and two percent (13,276 acres) of the oil and gas development area would be open to leasing subject to major constraints (no surface occupancy). Oil and gas development in these areas would possibly require directional drilling to extract hydrocarbon resources. Should the areas be wider than the technically feasible reach for directional drilling, some hydrocarbon resources may be rendered unrecoverable. Product price fluctuations may require premature abandonment that would dramatically decrease the recoverability of the resource and potentially create an irretrievable incremental loss of the resource.</p>	<p>and would increase recovery costs. Approximately 5 percent (149,306 acres) of the PFO and 1 percent (8,530 acres) would be open to leasing subject to major constraints (no surface occupancy). Oil and gas development and exploration in this area would possibly require directional drilling to extract hydrocarbon resources. Should the areas be wider than the technically feasible reach for directional drilling, some hydrocarbon resources may be rendered unrecoverable. Product price fluctuations may require premature abandonment that would dramatically decrease the recoverability of the resource and potentially create an irretrievable incremental loss of the resource.</p>
SPECIAL DESIGNATIONS				
<p>Impacts to Wilderness Study Areas No significant impact.</p>	<p>Impacts to Wilderness Study Areas No significant impact.</p>	<p>Impacts to Wilderness Study Areas No significant impact.</p>	<p>Impacts to Wilderness Study Areas No significant impact.</p>	<p>Impacts to Wilderness Study Areas No significant impact.</p>
<p>Impacts to Areas of Critical Environmental Concern</p>	<p>Impacts to Areas of Critical Environmental Concern</p>	<p>Impacts to Areas of Critical Environmental Concern</p>	<p>Impacts to Areas of Critical Environmental Concern</p>	<p>Impacts to Areas of Critical Environmental Concern</p>

MINERALS				
Oil, Gas, CBNG, Combined Hydrocarbon Leasing				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
<p>Impacts to Wild and Scenic Rivers</p> <p>Although all BLM lands within 641 miles of eligible river corridors would be managed to protect outstandingly remarkable values, free-flowing condition, and tentative classifications, such management would be in accordance with existing mineral resource decisions. Therefore no additional impact to mineral development would result.</p>	<p>Impacts to Wild and Scenic Rivers</p> <p>Management to protect outstandingly remarkable values, free-flowing condition, and tentative classifications of 125 suitable miles of the Green River would not affect mineral resources and development, as all suitable rivers segments would be within areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing (Map 2-47 Wild and Scenic Rivers).</p>	<p>Impacts to Wild and Scenic Rivers</p> <p>Management to protect outstandingly remarkable values, free-flowing condition, and tentative classifications of 277 miles of suitable river corridors would not affect mineral resources and development, as all suitable rivers segments would be within areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing (Map 2-48 Wild and Scenic Rivers).</p>	<p>Impacts to Wild and Scenic Rivers</p> <p>Management to protect outstandingly remarkable values, free-flowing condition, and tentative classifications of 641 miles of suitable river corridors would not affect mineral resources and development, as all suitable rivers segments would be within areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing (Map 2-49 Wild and Scenic Rivers).</p>	<p>Impacts to Wild and Scenic Rivers</p> <p>Management to protect outstandingly remarkable values, free-flowing condition, and tentative classifications of 223 miles of suitable river corridors would not affect mineral resources and development, as all suitable rivers segments would be within areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing (Map 2-50 Wild and Scenic Rivers).</p>
SUPPORT				
<p>Impacts to Transportation and Motorized Access</p> <p>Based on the RFD under this alternative, short-term impacts would occur because upgrade of existing roads would be necessary to accommodate the increased traffic and change in type of vehicle traffic from minerals development vehicles such as coal trucks, drill rigs, and maintenance vehicles. Design and construction of new roads to accommodate this increased demand would also be necessary. Increased road maintenance costs on existing roads, such as the Nine Mile Canyon road, would also occur as a result of the</p>	<p>Impacts to Transportation and Motorized Access</p> <p>Impacts resulting from minerals and energy development would be the same as those in The No Action Alternative.</p>	<p>Impacts to Transportation and Motorized Access</p> <p>Impacts resulting from minerals and energy development would be less significant and would impact a smaller portion of the field office than under The No Action Alternative because of increased restrictions on use and decreased development opportunity. More areas would be closed to minerals development, which would decrease the required maintenance and development of the road network and decrease traffic from minerals development personnel.</p> <p>Under this alternative,</p>	<p>Impacts to Transportation and Motorized Access</p> <p>This alternative places the most restrictions on minerals development, which would cause long-term impacts by reducing motorized access. More areas would be closed to minerals development, which would decrease the required maintenance and development of the road network and decrease traffic from minerals development personnel.</p> <p>Under this alternative, construction and improvement of roads and highways will cause an initial disturbance of 352 acres per year and 99</p>	<p>Impacts to Transportation and Motorized Access</p> <p>Impacts resulting from minerals development would be less significant and would impact a smaller portion of the field office than in The No Action Alternative because of increased restrictions on use and decreased development opportunity. More areas would be closed to minerals development, which would decrease the required maintenance and development of the road network and decrease traffic from minerals development personnel.</p> <p>Under this alternative,</p>

MINERALS				
Oil, Gas, CBNG, Combined Hydrocarbon Leasing				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>increase in traffic.</p> <p>Under this alternative, construction and improvement of roads and highways will cause an initial disturbance of 493 acres per year, and 139 acres per year in the long term. Therefore 9,860 acres of initial disturbance and 2,780 acres in the long term would be disturbed over a 20-year planning period by road construction from minerals development. Long-term direct impacts would result from this development.</p>		<p>construction and improvement of roads and highways will cause an initial disturbance of 448 acres per year and 126 acres per year in the long term. Therefore 8,960 acres of initial disturbance and 2,520 acres in the long term would be disturbed over a 20-year planning period by road construction as a result of minerals development. Minor impacts would result from this decrease of roads and motorized access.</p>	<p>acres per year in the long term. Therefore 7,040 acres of initial disturbance and 1,980 acres in the long term would be disturbed over a 20-year planning period by road construction as a result of minerals development. Impacts would result from this decrease of roads and motorized access.</p>	<p>construction and improvement of roads and highways will cause an initial disturbance of 461 acres per year and 130 acres per year in the long term. Therefore 9,220 acres of initial disturbance and 2,600 acres in the long term would be disturbed over a 20-year planning period by road construction as a result of minerals development. Minor impacts would result from this decrease of roads and motorized access.</p>
<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>

MINERALS				
Geophysical Operations Under 43 CFR 3150				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following decisions are policy, regulation for the management of geophysical operations.				
Decisions				
<p>Areas in the San Rafael resource area open to leasing are also open to geophysical exploration.</p> <p>Geophysical exploration in the Price River Resource Area is on a case-by-case basis.</p>	<p>Geophysical operations would be allowed consistent with existing regulations for geophysical exploration.</p>			

MINERALS				
Geophysical Operations Under 43 CFR 3150				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.			
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.			
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources No significant impact.			
Impacts to Cultural Resources Impacts from geophysical exploration would be the same as from minerals development. In the former San Rafael planning area, impacts from geophysical exploration would be related to oil and gas leasing categories (Map 2-27). Areas closed to mineral leasing would be closed to surface development. The long-term impact of this decision would be the preservation of cultural resources in place. In the former Price River planning area, impacts would be addressed and mitigated on a case-by-case basis.	Impacts to Cultural Resources Impacts from geophysical exploration would be allowed in all areas not withdrawn from mineral entry. This would increase the potential for cultural resource identification associated with the inventories prior to exploration. It would also increase the potential for inadvertent damage to cultural resources.			

MINERALS				
Geophysical Operations Under 43 CFR 3150				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Paleontology Resources Impacts from geophysical exploration would be the same as from minerals development. In the former San Rafael planning area, impacts from geophysical exploration would be related to oil and gas leasing categories (Map 2-27). Areas closed to mineral leasing would be closed to surface development. The long-term impact of this decision would be the protection of paleontological resources in place. In the former Price River planning area, impacts would be addressed and mitigated on a case-by-case basis.</p>	<p>Impacts to Paleontology Resources Impacts from geophysical exploration would be allowed in all areas not withdrawn from mineral entry. This would increase the potential for significant paleontological impacts associated with resource identification during exploration.</p>			
<p>Impacts to Visual Resources No significant impact.</p>	<p>Impacts to Visual Resources No significant impact.</p>			
<p>Impacts to Special Status Species No significant impact.</p>	<p>Impacts to Special Status Species No significant impact.</p>			
<p>Impacts to Fish and Wildlife No significant impact.</p>	<p>Impacts to Fish and Wildlife No significant impact.</p>			
<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>			
<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>			
<p>RESOURCE USES</p>				

MINERALS				
Geophysical Operations Under 43 CFR 3150				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.			
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.			
Impacts to Recreation No significant impact.	Impacts to Recreation No significant impact.			
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.			
Impacts to Minerals and Energy No significant impact.	Impacts to Minerals and Energy No significant impact.			
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.			
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.			
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.			
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.			
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.			

MINERALS

Locatable Minerals				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following decisions are policy, regulation for the management of locatable minerals. Development of locatable minerals can cause resource conflicts for other resources, including cultural resources, visual resources, recreation resources, water resources, and wildlife and riparian resources.				
Decisions				
<p>Areas proposed for closure for locatable mineral development by the San Rafael RMP are shown in Map 2-32</p> <p>Areas presently closed are—</p> <ul style="list-style-type: none"> Green River Corridor, 1/2-mile of centerline, through entire field office (Three River proposed withdrawal) Cleveland-Lloyd Dinosaur Quarry National Natural Landmark (80 acres). <p>The following areas are proposed for withdrawal in the San Rafael RMP (1991):</p> <ul style="list-style-type: none"> Big Flat Tops ACEC Bowknot Bend ACEC Copper Globe ACEC Pictographs ACEC San Rafael Canyon ACEC (upper and lower portion) San Rafael Reef ACEC (north portion) Swasey Cabin ACEC. 	<p>Areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing will be recommended for withdrawal from general land laws (608,228 acres including WSAs, Wild and Scenic River Corridors, and ACECs)</p>	<p>Areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing will be recommended for withdrawal from general land laws (785,565 acres including WSAs, Wild and Scenic River Corridors, and ACECs)</p>	<p>Areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing will be recommended for withdrawal from general land laws (948,976 acres including WSAs, Wild and Scenic River Corridors, and ACECs)</p>	<p>Areas open to leasing subject to major constraints (no surface occupancy) and areas closed to leasing will be recommended for withdrawal from general land laws (769,912 acres including WSAs, Wild and Scenic River Corridors, and ACECs)</p>
Impact Analysis				
RESOURCES				
<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>	<p>Impacts to Air Quality No significant impact.</p>

MINERALS				
Locatable Minerals				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources Not withdrawing additional acres from mineral development would allow increased surface disturbance and vegetation removal and may facilitate the spread of noxious weeds and invasive plant species. Continuing to recommend withdrawing areas from locatable mineral entry and closing other areas to mineral materials disposal (Maps 2-32 and 2-37) indirectly benefits vegetation by eliminating surface disturbing activities associated with the recovery of locatable and mineral materials in those areas. Limiting surface disturbance reduces erosion and the removal of existing vegetation, decreasing the vulnerability of these areas to noxious weed and invasive plant species infestations.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals includes loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees and shrubs with grasses and forbs.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals includes loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees and shrubs with grasses and forbs.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals includes loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees and shrubs with grasses and forbs.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals includes loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees and shrubs with grasses and forbs.
Impacts to Cultural Resources No significant impact.	Impacts to Cultural Resources Impacts to cultural resources from locatable mineral development activities would not occur on those areas noted as closed to oil and gas leasing or as No Surface Occupancy for oil and gas leasing (Map 2-	Impacts to Cultural Resources Impacts to cultural resources from locatable mineral development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas	Impacts to Cultural Resources Impacts to cultural resources from locatable mineral development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas	Impacts to Cultural Resources Impacts to cultural resources from locatable mineral development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas

MINERALS				
Locatable Minerals				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	28). On the remainder of the PFO, the impacts would be the same as those identified above from oil and gas development. Since the foreseeable development of these resources is low, the potential for significant impacts is low.	leasing (Map 2-29). On the remainder of the PFO, the impacts would be the same as those identified above for oil and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.	leasing (Map 2-30). On the remainder of the PFO, the impacts would be the same as those identified above for oil and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.	leasing (Map 2-31). On the remainder of the PFO, the impacts would be the same as those identified above for oil and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.
Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.	Impacts to Paleontology Resources No significant impact.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife Areas proposed for closure for locatable minerals development by the San Rafael RMP are presented in Map 2-32. In addition, Map 2-37 shows areas that are closed to salable mineral development in the planning area. Closure of these areas would benefit fish and wildlife by removing impacts from minerals development and its associated infrastructure.	Impacts to Fish and Wildlife Areas proposed for closure for locatable mineral development by the San Rafael RMP are presented in Map 2-33. In addition, Map 2-38 shows areas that are closed to salable minerals development in the planning area. Closure of these areas would benefit fish and wildlife by removing impacts from minerals development and its associated infrastructure.	Impacts to Fish and Wildlife Areas proposed for closure for locatable minerals development by the San Rafael RMP are presented in Map 2-34. In addition, Map 2-39 shows areas that are closed to salable minerals development in the planning area. Closure of these areas would benefit fish and wildlife by removing impacts from minerals development and its associated infrastructure.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife Areas proposed for closure to locatable minerals development by the San Rafael RMP are presented in Map 2-36. In addition, Map 2-40 shows areas that are closed to salable minerals development in the planning area. Closure of these areas would benefit fish and wildlife by removing impacts from minerals development and its associated infrastructure.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management	Impacts to Fire and Fuels Management

MINERALS				
Locatable Minerals				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation Areas open to locatable mineral development would allow closure or surface disturbance that could impact the desirability of these areas for recreation use.	Impacts to Recreation Areas open to locatable mineral development would allow closure or surface disturbance that could impact the desirability of these areas for recreation use. Closure of ACECs and Suitable Wild and Scenic River segments under this alternative would maintain existing recreation opportunities.	Impacts to Recreation Areas open to locatable mineral development would allow closure or surface disturbance that could impact the desirability of these areas for recreation use. Closure of ACECs and Suitable Wild and Scenic River segments under this alternative would maintain existing recreation opportunities.	Impacts to Recreation The area open to locatable mineral development would be less than in The No Action Alternative and would serve to protect recreation opportunities in these areas (including WSAs, Wild and Scenic River segments, and certain ACECs). Where these activities are permitted, closure or surface disturbance could impact the desirability of these areas for recreation use.	Impacts to Recreation Areas open to locatable mineral development would allow closure or surface disturbance that could impact the desirability of these areas for recreation use. Closure of ACECs and Suitable Wild and Scenic River segments under this alternative would maintain existing recreation opportunities.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy Approximately 626,787 acres would be recommended for withdrawal from locatable mineral entry (Map 2-32), which would limit the areas available for locatable mineral development. The area of reasonable and foreseeable locatable mineral development would not overlap the RFD area for leasable minerals.	Impacts to Minerals and Energy Approximately 608,229 acres (Map 2-33) would be recommended for withdrawal from locatable mineral entry, which would limit the areas available for locatable mineral development.	Impacts to Minerals and Energy Approximately 788,322 acres would be recommended for withdrawal from locatable mineral entry (Map 2-34), which would limit the area available for locatable mineral development.	Impacts to Minerals and Energy Approximately 948,977 acres would be closed to locatable mineral entry (Map 2-35), which would limit the areas available for locatable mineral development.	Impacts to Minerals and Energy Approximately 788,322 acres would be recommended for withdrawal from locatable mineral entry (Map 2-36), which would limit the areas available for locatable mineral development.

MINERALS				
Locatable Minerals				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.				
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

MINERALS				
Mineral Materials (salable) (sand and gravel, stone, riprap, clay, swelling clay, humates, common variety building stone, etc.)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following decisions are policy, regulation for the management of mineral materials. Development of mineral materials can cause resource conflicts for other resources, including cultural resources, visual resources, recreation resources, water resources, and wildlife and riparian resources.				
Decisions				
Areas closed to mineral materials (salable) development are shown on Map 2-37 Closed areas include—	Areas closed for mineral materials disposal are indicated on Map 2-38	Areas closed for mineral materials disposal are indicated on Map 2-39.	Areas closed for mineral materials disposal are indicated on Map 2-40.	Areas closed for mineral materials disposal are indicated on Map 2-41.

MINERALS				
Mineral Materials (salable) (sand and gravel, stone, riprap, clay, swelling clay, humates, common variety building stone, etc.)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> • All WSAs • ACECs recommend in this alternative where determined necessary to protect the noted value • Developed recreation sites • Riparian and aquatic habitat areas. <p>Areas closed to leasing for oil and gas include—</p> <ul style="list-style-type: none"> • Incorporated municipalities • Cemeteries • Helper City Cemetery • Carbon County Airport • Carbon County Recreation Complex • Carbon County Sanitary Landfill/Transfer Station • East Carbon Sewage Lagoons • Emery County School complex • Green River Airport • Scofield Reservoir • Olsen Reservoir. 				

MINERALS				
Mineral Materials (salable) (sand and gravel, stone, riprap, clay, swelling clay, humates, common variety building stone, etc.)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
Impacts to Vegetation Resources No significant impact.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals include loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees shrubs with grasses and forbs.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals include loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees shrubs with grasses and forbs.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals include loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees shrubs with grasses and forbs.	Impacts to Vegetation Resources Surface disturbance from the development of locatable and salable minerals include loss of vegetation cover, density, and changes in composition. Reclamation of these areas is necessary for the reestablishment of plants in these areas. When completed properly, reclamation should increase plant species diversity and lower the seral stage of the community by replacing trees shrubs with grasses and forbs.
Impacts to Cultural Resources Mineral material development would not impact cultural resources on approximately 636,000 acres (Map 2-37). Impacts from mineral material site development would be the same as those from oil and gas development as noted above. Because the foreseeable development of these resources is low, the potential	Impacts to Cultural Resources Impacts to cultural resources from mineral material development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas leasing (Map 2-28). On the remainder of the PFO, the impacts would be the same as those identified above for oil	Impacts to Cultural Resources Impacts to cultural resources from mineral material development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas leasing (Map 2-29). On the remainder of the PFO, the impacts would be the same as those identified above for oil	Impacts to Cultural Resources Impacts to cultural resources from mineral material development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas leasing (Map 2-30). On the remainder of the PFO, the impacts would be the same as those identified above for oil	Impacts to Cultural Resources Impacts to cultural resources from mineral material development activities would not occur on those areas noted as closed to oil and gas leasing or listed as No Surface Occupancy for oil and gas leasing (Map 2.31). On the remainder of the PFO, the impacts would be the same as those identified above for oil

MINERALS				
Mineral Materials (salable) (sand and gravel, stone, riprap, clay, swelling clay, humates, common variety building stone, etc.)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
for significant impacts is low.	and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.	and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.	and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.	and gas development. Because the foreseeable development of these resources is low, the potential for significant impacts is low.
Impacts to Paleontology Resources Mineral material development would not impact paleontology on over 636,000 acres. Impacts would be the same as those from oil and gas development where mineral materials area developed.	Impacts to Paleontology Resources No significant impact.			
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.	Impacts to Special Status Species No significant impact.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.	Impacts to Fire and Fuels Management No significant impact.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.	Impacts to Livestock No significant impact.
Impacts to Recreation	Impacts to Recreation	Impacts to Recreation	Impacts to Recreation	Impacts to Recreation

MINERALS				
Mineral Materials (salable) (sand and gravel, stone, riprap, clay, swelling clay, humates, common variety building stone, etc.)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Areas open to mineral material sales would allow closure or surface disturbance that could impact the desirability of these areas for recreation use.	Areas open to mineral material sales would allow closure or surface disturbance that could impact the desirability of these areas for recreation use. Closure of ACECs and Suitable Wild and Scenic River segments under this alternative would maintain existing recreation opportunities.	Areas open to mineral material sales would allow closure or surface disturbance that could impact the desirability of these areas for recreation use. Closure of ACECs and Suitable Wild and Scenic River segments under this alternative would maintain existing recreation opportunities.	The area open to mineral material sales would be less than in The No Action Alternative and would serve to protect recreation opportunities in these areas (including WSAs, Wild and Scenic River segments, and certain ACECs). Where these activities are permitted, closure or surface disturbance could impact the desirability of these areas for recreation use.	Areas open to mineral material sales would allow closure or surface disturbance that could impact the desirability of these areas for recreation use. Closure of ACECs and Suitable Wild and Scenic River segments under this alternative would maintain existing recreation opportunities.
Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.	Impacts to Lands and Realty No significant impact.
Impacts to Minerals and Energy Approximately 636,952 acres would be closed to mineral materials disposal (Map 2-37), which would limit the areas available for mineral materials disposal.	Impacts to Minerals and Energy Approximately 598,539 acres (Map 2-38) would be closed to mineral materials disposal, which would limit the areas available for mineral materials disposal.	Impacts to Minerals and Energy Approximately 802,832 acres would be closed to mineral materials disposal (Map 2-39), which would limit the areas available for mineral materials disposal.	Impacts to Minerals and Energy Approximately 960,070 acres would be closed to mineral materials disposal (Map 2-40), which would limit the areas available for mineral materials disposal.	Impacts to Minerals and Energy Approximately 802,832 acres would be closed to mineral materials disposal (Map 2-41), which would limit the areas available for mineral materials disposal.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				
Impacts to Transportation	Impacts to Transportation	Impacts to Transportation	Impacts to Transportation	Impacts to Transportation

MINERALS				
Mineral Materials (salable) (sand and gravel, stone, riprap, clay, swelling clay, humates, common variety building stone, etc.)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
and Motorized Access No significant impact.	and Motorized Access No significant impact.	and Motorized Access No significant impact.	and Motorized Access No significant impact.	and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

Table 4-11. Mineral Leasing – No Action Alternative

Mineral Leasing	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
Areas Open to Leasing Subject to the Terms and Conditions of the Lease Form	992,521	40%	176,770	25%
Areas Open to Leasing Subject to Minor Constraints (timing limitations, controlled surface use, lease notices)	1,137,557	46%	492,557	69%
Areas Open to Leasing Subject to Major Constraints (no surface occupancy)	220,972	9%	2,461	< 1%
Areas Closed to Leasing	128,277 ¹	5% ¹	45,385 ¹	6% ¹
¹ Acres and percentage of areas closed to leasing do not include WSAs that have been closed to leasing as prescribed by the Interim Management Policy for Lands Under Wilderness Review (BLM-H-8550-1). Management actions under Alternatives A, B, C, and D close WSAs to leasing. For analysis purposes, areas closed to leasing under Alternative A will be used as the baseline for Alternatives B, C, and D.				

Table 4-12. Mineral Leasing – Alternative A

Mineral Leasing	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
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Mineral Leasing	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
Areas Open to Leasing Subject to the Terms and Conditions of the Lease Form	1,870,999	75%	463,708	64%
Areas Open to Leasing Subject to Minor Constraints (timing limitations, controlled surface use, lease notices)	0	0%	0	0%
Areas Open to Leasing Subject to Major Constraints (No Surface Occupancy)	73,043	3%	2	< 1%
Areas Closed to Leasing	546,765	22%	264,943	36%

Table 4-13. Mineral Leasing – Alternative B

Mineral Leasing	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
Areas Open to Leasing Subject to the Terms and Conditions of the Lease Form	0	0%	0	0%
Areas Open to Leasing Subject to Minor Constraints (timing limitations, controlled surface use, lease notices)	1,693,861	68%	437,954	60%
Areas Open to Leasing Subject to Major Constraints (no surface occupancy)	233,641	10%	9,038	1%
Areas Closed to Leasing	546,690	22%	281,859	39%

Table 4-14. Mineral Leasing – Alternative C

Mineral Leasing	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
Areas Open to Leasing Subject to the Terms and Conditions of the Lease Form	0	0%	0	0%
Areas Open to Leasing Subject to Minor Constraints (timing limitations, controlled surface use, lease notices)	1,531,000	61%	382,761	52%
Areas Open to Leasing Subject to Major Constraints (No Surface Occupancy)	340,738	14%	13,276	2%
Areas Closed to Leasing	619,818	25%	333,073	46%

Table 4-15. Mineral Leasing – Alternative D

Mineral Leasing	Acres of the PFO	Percentage of PFO	Acres in the Oil and Gas Development Area	Percentage of Oil and Gas Development Area
Areas Open to Leasing Subject to the Terms and Conditions of the Lease Form	1,183,479	48%	117,800	16%
Areas Open to Leasing Subject to Minor Constraints (timing limitations, controlled surface use, lease notices)	574,335	23%	326,433	45%
Areas Open to Leasing Subject to Major Constraints (No Surface Occupancy)	149,306	6%	8,530	1%
Areas Closed to Leasing	584,128	23%	276,421	38%

WILDERNESS STUDY AREAS

Assumptions

The following assumptions regarding construction of facilities for oil and gas exploration and development are made to analyze the effects of this activity on the wilderness characteristics of the wilderness study areas (WSAs) (It should be noted that only development of existing leases is allowed within WSAs)

Average initial width of disturbance for roads and pipelines: 70 feet for three-quarters of a mile per well	6.4 acres
Average width of disturbance for roads and pipelines after reclamation: 20 feet for three-quarters of a mile per well	1.8 acres
Reclamation will be complete after 3–5 years.	
Average initial disturbance for drill pads, including pits, cuts, and fills, per well	1.5 acres
Average disturbance for drill pads after reclamation	1.0 acres
Average initial and long-term disturbance for ancillary facilities (e.g., compressors, power lines) per facility	20.0 acres

In the Tavaputs Plateau, an area with high potential for the occurrence of energy resources, oil and gas exploration and development and OHV travel would affect wilderness characteristics. In the remainder of the PFO, an area with low potential for the occurrence of energy resources, only OHV travel would affect wilderness characteristics. Throughout the PFO, management of SRMAs and ACECs would affect the wilderness characteristics of portions of the WSAs.

Significance Criteria

- Any action leading to a new permanent use, facility, or activity in a WSA
- Any action that degrades wilderness characteristics within a WSA so far as to cause the area to be unsuitable for preservation as Wilderness
- Any action leading to new surface disturbance of soil or vegetation requiring reclamation within a WSA.

Methods of Analysis

Impacts to resources and resource uses from WSA management were not addressed because WSAs are managed according to BLM policy (Interim Management Policy for Lands under Wilderness Review, BLM Handbook 8550-1), and the scope of this analysis is limited to the decisions identified in Chapter 2. The Chapter 2 decisions related to management of visual resources and off-highway vehicles in WSAs under the IMP and management of wilderness characteristics if Congress were to release the WSAs from consideration for Wilderness designation. These decisions were analyzed under the scenario that each WSA could be released from consideration for Wilderness designation. Data used for the analysis were drawn from the Alternatives Summary Table of Chapter 2, Wilderness Study Area section of Chapter 3, as well as from the 1991 Utah Statewide Wilderness Study Report (BLM, 1991b). Analysis was also based on professional judgment and knowledge of the area.

Impacts that would result in a change in wilderness characteristics are noted. Wilderness characteristics considered in this analysis, for impacts to WSAs include naturalness, opportunities for solitude, primitive or unconfined recreation, and special features. Impacts noted in this section are limited to potential changes in wilderness characteristics for the WSAs.

WILDERNESS STUDY AREAS

Common to All Alternatives

WILDERNESS STUDY AREAS**Common to All Alternatives****Decision Background**

Decisions considered common to all alternatives are easily lumped into two categories: decisions that address management of wilderness characteristics within WSAs under the IMP; and decisions that address management of WSAs if released from wilderness consideration and management under the IMP. The decisions concerning interim management (IMP) of WSAs are included to emphasize and clarify existing policy. For the other decision, Appendix C of the BLM Planning Handbook (BLM-H-1601) directs BLM to identify in RMPs a management direction for WSAs should they be released from wilderness consideration by Congress and therefore no longer subject to management under the IMP.

Decisions

- Manage WSAs (Map 3-27) according to the Interim Management Policy for Lands under Wilderness Review (IMP, BLM Handbook 8550-1) until Congress either designated the WSAs wilderness or releases them from wilderness consideration.
- Manage WSAs as VRM Class I.
- Designated no vehicle ways open to motorized travel in any WSA, except four routes in Sids Mountain WSA.
- If the existing WSAs are released from wilderness consideration and management according to the IMP during the life of the plan, adhere to management prescriptions of this plan for all other resource values and uses as described in text, tables, and maps under the selected alternative.

WILDERNESS STUDY AREAS Common to All Alternatives Impact Analysis
<p>WSAs are managed according to the IMP, which is current policy for these areas. This analysis does not analyze the impact of interim management (IMP) on other resources and resource uses. That analysis was conducted in the Utah Statewide Wilderness FEIS.</p> <p>If the WSAs are released, impacts to other resources and resource uses would not be expected to be significantly different from the impacts identified in this analysis. If Congress releases the WSAs, the impacts from management of wilderness characteristics would be contained within the management prescriptions for all other resources as described in text, tables, and maps under the selected alternative.</p>

WILDERNESS STUDY AREAS Management of WSAs under the IMP				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impact Analysis				
<p>Impact from Interim Management: The purpose of management of the WSAs under the IMP is to preserve their wilderness values until Congress decides whether they should be designated wilderness. Interim management would preserve the naturalness, outstanding opportunities for solitude and primitive recreation, and supplement wilderness values of the WSAs. It would also preserve the roadless character of the WSAs.</p>				
<p>Impacts from Visual Resources Management: Under the No Action Alternative, management activity would still be required to comply with the non-impairment standard of the IMP. This standard would continue to preserve the wilderness characteristics of the WSAs, regardless of the visual resource management objectives prescribed in the existing land use plans.</p>	<p>Impact from Visual Resources Management: The objective of VRM Class I is to preserve the existing character of the landscape. This objective provides for natural ecological changes to the land. VRM Class I management would reinforce the intent of the IMP and preserve the natural character of the WSAs. With only very limited opportunity for management activity or development permitted under VRM Class I, opportunities for solitude and primitive recreation would remain outstanding.</p>			
<p>Impact from Transportation and Motorized Access: In all WSAs except Sid's Mountain, motor vehicle travel would be limited to boundary and cherrystem roads, preserving the roadless and natural character of the WSAs. Without the presence and noise of motor vehicles, opportunities for solitude and primitive recreation would remain outstanding in the WSAs. There would be no adverse impacts of motorized travel of the supplemental wilderness values of the WSAs, including scenery, wildlife, cultural resources, and other values. In most of Sid's Mountain WSA (the northern portion of the WSA), the effects of motorized travel would be the same. In the southern part of the WSA, motor vehicles would be permitted to travel on four designated vehicle ways. This use would not expand, nor impact the natural character of the WSA. The presence and noise of motorized</p>				

WILDERNESS STUDY AREAS				
Management of WSAs under the IMP				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
use, however, would have a temporary adverse impact on opportunities for solitude and primitive forms of recreation.				

WILDERNESS STUDY AREAS				
Management of WSAs if Released by Congress				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
Decisions				
	Should Congress release the following WSAs from management under the IMP, they would be managed as part of the San Rafael SRMA as described in the alternatives that follow: Crack Canyon, Devil's Canyon, Link's Flat ISA, Mexican Mountain, Muddy Creek, San Rafael River, Sid's Mountain, and Sid's Cabin.			
The 1991 San Rafael RMP identified these areas to be managed as an ACEC if released from wilderness consideration by Congress. Specific prescriptions are identified in Section 4.3.3.2 of the FEIS	Managed as part of San Rafael Swell SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • Open to Oil and Gas Leasing with controlled surface use stipulations and open to locatable and mineral materials • VRM Class II • OHV use limited to designated trails. 	Managed as part of San Rafael Swell SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • ROS Primitive and Semi-Primitive Non-Motorized areas will be designated as No Surface Occupancy for Oil and Gas Leasing and closed to locatable and mineral materials • VRM Class II • OHV use limited to designated trails. 	Managed as part of San Rafael Swell SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • Closed to Oil and Gas Leasing and closed to locatable and mineral materials • VRM Class I • Closed to OHV use. 	Managed as part of San Rafael Swell SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • ROS Primitive and Semi-Primitive Non-Motorized areas will be designated as No Surface Occupancy for Oil and Gas Leasing and closed to locatable and mineral materials • VRM Class II • OHV use limited to designated trails. (Same as Alternative B)
Impact Analysis				

WILDERNESS STUDY AREAS				
Management of WSAs if Released by Congress				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Impacts to Wilderness Characteristics Under these alternatives, OHV travel would be limited to designated routes. Use of these routes would limit the extent of impacts to soil and vegetation (natural character) to the designated routes (except in Devil's Canyon and Crack Canyon WSA, where no routes are designated). The presence and noise of OHVs using designated routes, however, would continue to have an impact on opportunities for solitude and primitive recreation for the duration of the motorized use.			Impacts to Wilderness Characteristics There would be no impacts.	Impacts to Wilderness Characteristics Same as the No Action Alternative, and Alternatives A & B
Decisions				
Should Congress release the following WSAs from management under the IMP, they would be managed as part of the Desolation Canyon SRMA as described in the alternatives below: Desolation Canyon, Jack Canyon, and Turtle Canyon.				
The 1983 Price River MFP did not address management of the WSAs if released from Wilderness Study by Congress.	Managed as part of Desolation Canyon SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • Areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use, Lease Notices) and open to locatable and mineral materials. • VRM Class II except in Desolation Canyon NHL, where VRM will be managed as VRM I. • OHV use limited to designated trails unless otherwise noted in SRMA direction. 	Managed as part of Desolation Canyon SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • ROS Primitive and Semi-Primitive Non-Motorized areas will be areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use, Lease Notices) and open to locatable and mineral materials. • VRM Class II except in Desolation Canyon NHL, where VRM will be managed as VRM I. • OHV use limited to designated trails unless otherwise noted in SRMA direction. 	Managed as part of Desolation Canyon SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • Will be managed as areas closed to leasing and closed to locatable and mineral materials • VRM Class I • OHV use limited to designated trails unless otherwise noted in SRMA direction. 	Managed as part of Desolation Canyon SRMA with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • ROS Primitive and Semi-Primitive Non-Motorized areas will be areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use, Lease Notices) and open to locatable and mineral materials. • VRM Class II except in Desolation Canyon NHL, where VRM will be managed as VRM I. • OHV use limited to designated trails unless otherwise noted in SRMA direction.
Impact Analysis				
Impacts to Wilderness	Impacts to Wilderness	Impacts to Wilderness	Impacts to Wilderness	Impacts to Wilderness

WILDERNESS STUDY AREAS				
Management of WSAs if Released by Congress				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Characteristics Within the Desolation Canyon SRMA Management objectives would preserve the natural character of the landscape and opportunities for solitude and primitive recreation.</p> <p>Outside the SRMA Oil and gas development would result in 15 wells per year. This would initially disturb the natural character of 2,396 acres (including facilities). Following reclamation, the long-term disturbance would directly impact 875 acres. The presence and noise of people, vehicles, and equipment needed for exploration and production of energy resources would impact opportunities for solitude and primitive recreation in proximity to wells. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p> <p>Under this alternative, OHV travel would be limited to designated routes. Use of these routes would limit the extent of impacts to soil and</p>	<p>Characteristics Within the Desolation Canyon SRMA Management objectives would preserve the natural character of the landscape and opportunities for solitude and primitive recreation.</p> <p>Outside the SRMA Oil and gas development would result in 17 wells per year. This would initially disturb the natural character of 2,788 acres (including facilities). Following reclamation, the long-term disturbance would directly impact 1,014 acres. The presence and noise of people, vehicles, and equipment needed for exploration and production of energy resources would impact opportunities for solitude and primitive recreation in proximity to wells. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p> <p>Under this alternative, OHV travel would be limited to designated routes. Use of these routes would limit the extent of impacts to soil and</p>	<p>Characteristics Within the Desolation Canyon SRMA Management objectives would preserve the natural character of the landscape and opportunities for solitude and primitive recreation.</p> <p>Outside the SRMA Oil and gas development would result in 10 wells per year. This would initially disturb the natural character of 1,610 acres (including facilities). Following reclamation, the long-term disturbance would directly impact 596 acres. The presence and noise of people, vehicles, and equipment needed for exploration and production of energy resources would impact opportunities for solitude and primitive recreation in proximity to wells. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p> <p>Under this alternative, OHV travel would be limited to designated routes. Use of these routes would limit the extent of impacts to soil and</p>	<p>Characteristics Within the Desolation Canyon SRMA Management objectives would preserve the natural character of the landscape and opportunities for solitude and primitive recreation.</p> <p>Outside the SRMA Oil and gas development would result in approximately 8 wells per year. This would initially disturb the natural character of 1,218 acres (including facilities). Following reclamation, the long-term disturbance would directly impact 457 acres. The presence and noise of people, vehicles, and equipment needed for exploration and production of energy resources would impact opportunities for solitude and primitive recreation in proximity to wells. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p> <p>Under this alternative, OHV travel would be limited to designated routes. Use of these routes would limit the extent of impacts to soil and</p>	<p>Characteristics The impacts to the wilderness characteristics would be the same as described for Alternative A.</p> <p>Within the Desolation Canyon SRMA Management objectives would preserve the natural character of the landscape and opportunities for solitude and primitive recreation.</p> <p>Outside the SRMA Oil and gas development would result in 17 wells per year. This would initially disturb the natural character of 2,788 acres (including facilities). Following reclamation, the long-term disturbance would directly impact 1,014 acres. The presence and noise of people, vehicles, and equipment needed for exploration and production of energy resources would impact opportunities for solitude and primitive recreation in proximity to wells. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p> <p>Under this alternative, OHV</p>

WILDERNESS STUDY AREAS				
Management of WSAs if Released by Congress				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
vegetation (natural character) to the designated routes. The presence and noise of motorize vehicles using designated routes, however, would continue to have an impact on opportunities for solitude and primitive recreation for the duration of the motorized use.	vegetation (natural character) to the designated routes. The presence and noise of motorize vehicles using designated routes, however, would continue to have an impact on opportunities for solitude and primitive recreation for the duration of the motorized use.	vegetation (natural character) to the designated routes. The presence and noise of motorize vehicles using designated routes, however, would continue to have an impact on opportunities for solitude and primitive recreation for the duration of the motorized use.	vegetation (natural character) to the designated routes. The presence and noise of motorize vehicles using designated routes, however, would continue to have an impact on opportunities for solitude and primitive recreation for the duration of the motorized use.	travel would be limited to designated routes. Use of these routes would limit the extent of impacts to soil and vegetation (natural character) to the designated routes. The presence and noise of motorize vehicles using designated routes, however, would continue to have an impact on opportunities for solitude and primitive recreation for the duration of the motorized use.
Decisions				
	Should Congress release Horseshoe Canyon (North) WSA from management under the IMP, it would be managed as part of the Labyrinth Canyon SRMA as described in the alternatives as follows.			
The 1991 San Rafael RMP identified this area to be managed as an ACEC if released from wilderness consideration by Congress. Specific prescriptions are identified in Section 4.3.3.2 of the FEIS. That area not covered would be managed according to other resource decisions.	Managed as part of Labyrinth Canyon SRMA (expanding the SRMA boundary) with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • Areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use, Lease Notices) and open to locatable and mineral materials • VRM Class II • OHV use limited to designated trails. 	Managed as part of Labyrinth Canyon SRMA (expanding the SRMA boundary) with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • ROS Primitive and Semi-Primitive Non-Motorized areas will be areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use, Lease Notices) and closed to locatable and mineral materials • VRM Class II • OHV use limited to 	Managed as part of Labyrinth Canyon SRMA (expanding the SRMA boundary) with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • Areas closed to leasing and closed to locatable and mineral materials • VRM Class I • Closed to OHV use. 	Managed as part of Labyrinth Canyon SRMA (expanding the SRMA boundary) with management decisions as outlined, with the following exceptions: <ul style="list-style-type: none"> • ROS Primitive and Semi-Primitive Non-Motorized areas will be areas open to leasing, subject to minor constraints (Timing Limitations; Controlled Surface Use, Lease Notices) and closed to locatable and mineral materials • VRM Class II • OHV use limited to

WILDERNESS STUDY AREAS				
Management of WSAs if Released by Congress				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		designated trails.		designated trails. (Same as Alternative B)
Impact Analysis				
Impacts to Wilderness Characteristics Because no routes are designated, there would be no impacts.	Impacts to Wilderness Characteristics Impacts to wilderness characteristics would be the same as described for the No Action Alternative.	Impacts to Wilderness Characteristics Impacts to wilderness characteristics would be the same as described for the No Action Alternative.	Impacts to Wilderness Characteristics Impacts to wilderness characteristics would be the same as described for the No Action Alternative.	Impacts to Wilderness Characteristics Impacts to wilderness characteristics would be the same as described for the No Action Alternative.

NON-WSA LANDS WITH OR LIKELY TO HAVE WILDERNESS CHARACTERISTICS

Assumptions

The following assumptions regarding construction of facilities for oil and gas exploration and development are made to analyze the effects of this activity on the wilderness characteristics of the non-WSA lands with or likely to have wilderness characteristics:

Average initial width of disturbance for roads and pipelines: 70 feet for three-quarters of a mile per well	6.4 acres
Average width of disturbance for roads and pipelines after reclamation: 20 feet for three-quarters of a mile per well	1.8 acres
Reclamation will be complete after 3–5 years.	
Average initial disturbance for drill pads, including pits, cuts, and fills, per well	1.5 acres
Average disturbance for drill pads after reclamation	1.0 acres
Average initial and long-term disturbance for ancillary facilities (e.g., compressors, power lines) per facility	20.0 acres

In the Tavaputs Plateau, an area with high potential for the occurrence of energy resources, oil and gas exploration and development and OHV travel would affect wilderness characteristics. In the remainder of the PFO, an area with low potential for the occurrence of energy resources, only OHV travel would affect wilderness characteristics. Throughout the PFO, management of SRMAs and ACECs would affect portions of non-WSA lands with or likely to have wilderness characteristics.

Significance Criteria

- There is no established threshold of significance for the loss of wilderness characteristics involving areas with or likely to have such characteristics outside of designated wilderness or WSAs. For the purpose of this analysis and comparison of alternatives, any degradation of the individual wilderness characteristics (naturalness and outstanding opportunities for solitude or primitive recreation) to the degree that the values would no longer be present within the area or a substantial portion thereof, is considered significant.

Methods of Analysis

This section addresses impacts from RMP decisions to non-WSA lands with or likely to have wilderness characteristics. Impacts that would result in a change in wilderness characteristics are noted. Wilderness characteristics considered in this analysis include naturalness, opportunities for solitude, and opportunities for primitive or unconfined recreation. Impacts noted in this section are limited to potential changes in wilderness characteristics for the various identified areas.

NON-WSA LANDS WITH OR LIKELY TO HAVE WILDERNESS CHARACTERISTICS

Impacts to Non-WSA Lands with Wilderness Characteristics

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
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Decision Background

Although BLM will not consider designation of new WSAs in this planning process, it will consider whether non-WSA lands likely to have wilderness characteristics will be managed to preserve some or all of those values with other land management allocations and actions. These actions may include designation of OHV categories, mineral leasing categories, VRM classes, SRMAs, ROS classes, and ACECs.

Non-WSA lands likely to have wilderness characteristics are lands that were identified by the public for consideration in this planning process. The BLM interdisciplinary planning team considered the information presented on the suggested wilderness characteristics of these areas and determined that some of these areas were likely to have wilderness characteristics. At this time, however, no inventory has been completed by the BLM to confirm the presence of wilderness characteristics, and no

NON-WSA LANDS WITH OR LIKELY TO HAVE WILDERNESS CHARACTERISTICS

Impacts to Non-WSA Lands with Wilderness Characteristics

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>public review of the suggested values of these areas has taken place. Because BLM believes it is likely that some of these areas have wilderness characteristics, impacts to these characteristics are being considered in this plan. In the PFO, there are nine areas outside the existing WSAs, totaling about 471,855 acres, which are likely to have wilderness characteristics. For the purpose of analysis, it is assumed that these areas have wilderness characteristics.</p> <p>Many of the plan decisions affect lands likely to have wilderness characteristics. This section focuses on these specific lands and identifies the impacts to the wilderness characteristics from the decisions in the plan. Decisions for OHV travel, management of SRMAs, and management of ACECs would affect wilderness characteristics.</p>				
<p>Impact Analysis</p>				
<p>Impacts from Recreation Management: A number of non-WSA lands with wilderness characteristics would be managed as part of the San Rafael SRMA under all alternatives, including Cedar Mountain, Devils Canyon, Mexican Mountain, Muddy Creek-Crack Canyon, San Rafael Reef, Sids Mountain, and Wild Horse Mesa. Those portions of the SRMA managed for their Primitive and Non-Motorized values would continue to provide opportunities for solitude and primitive recreation in portions of these non-WSA lands. Further, the undeveloped setting associated with these activities and experiences would preserve the natural characteristics of portions of these non-WSA lands.</p> <p>A portion or all of the non-WSA lands with wilderness characteristics in Labyrinth Canyon would be included in the Labyrinth Canyon SRMA under each alternative, an area managed for its semi-primitive recreation setting and flat water recreation. The management objectives of the SRMA would continue to provide for primitive recreation opportunities on the Green River.</p>				
<p>Impacts from Minerals and Energy Management In the Tavaputs Plateau, oil and gas exploration and development would occur at an average of one well site each every 3 years in Jack Canyon and Turtle Canyon. The initial result would be an adverse impact to the natural character of 48 acres and 63 acres respectively of these areas. In the long term following reclamation, the natural character of 18 acres and 23 acres would remain impacted.</p> <p>In the Desolation Canyon area, surface disturbance associated with an average of seven wells per year would have an adverse impact on the natural character of 1,080 acres. In</p>	<p>Impacts from Minerals and Energy Management Oil and gas exploration and development would occur at an average of one well site every 3 years in Jack Canyon. The initial result would be an adverse impact to the natural character of 53 acres. In the long term following reclamation, the natural character of 20 acres would remain impacted.</p> <p>Exploration and development would occur at an average of one well site every other year in Turtle Canyon. The initial result would be an adverse impact to the natural character of 73 acres. In the long term following reclamation, the natural character of 27 acres</p>	<p>Impacts from Minerals and Energy Management Oil and gas exploration and development would occur at an average of one well site every 5 years in Jack Canyon. The initial result would be an adverse impact to the natural character of 32 acres. In the long term following reclamation, the natural character of 12 acres would remain impacted.</p> <p>Exploration and development would occur at an average of one well site every 4 years in Turtle Canyon. The initial result would be an adverse impact to the natural character of 42 acres. In the long term following reclamation, the natural character of 16 acres</p>	<p>Impacts from Minerals and Energy Management Oil and gas exploration and development would occur at an average of one well site every 7 years in Jack Canyon. The initial result would be an adverse impact to the natural character of 25 acres. In the long term following reclamation, the natural character of 9 acres would remain impacted.</p> <p>Exploration and development would occur at an average of one well site every 5 years in Turtle Canyon. The initial result would be an adverse impact to the natural character of 39 acres. In the long term following reclamation, the natural character of 12 acres</p>	<p>Impacts from Minerals and Energy Management The impacts of mineral and energy development would be the same as described in Alternative B for the Jack Canyon, Turtle Canyon, and Desolation Canyon areas.</p> <p>Oil and gas exploration and development would occur at an average of one well site every 5 years in Jack Canyon. The initial result would be an adverse impact to the natural character of 32 acres. In the long term following reclamation, the natural character of 12 acres would remain impacted.</p> <p>Exploration and development would occur at an average of</p>

NON-WSA LANDS WITH OR LIKELY TO HAVE WILDERNESS CHARACTERISTICS				
Impacts to Non-WSA Lands with Wilderness Characteristics				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>the long term (over 20 years), following reclamation, the impact to the natural character of the area would reduce to 394 acres.</p> <p>The presence and noise of people, vehicles, and equipment during exploration and production would have an adverse impact on opportunities for solitude and primitive recreation in proximity to the activity. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p>	<p>would remain impacted.</p> <p>In the Desolation Canyon area, surface disturbance associated with an average of eight wells per year would have an adverse impact on the natural character of 1,257 acres. In the long term (over 20 years), following reclamation, the impact to the natural character of the area would reduce to 457 acres.</p> <p>The presence and noise of people, vehicles, and equipment during exploration and production would have an adverse impact on opportunities for solitude and primitive recreation in proximity to the activity. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p>	<p>would remain impacted.</p> <p>In the Desolation Canyon area, surface disturbance associated with an average of four wells per year would have an adverse impact on the natural character of 726 acres. In the long term (over 20 years), following reclamation, the impact to the natural character of the area would reduce to 269 acres.</p> <p>The presence and noise of people, vehicles, and equipment during exploration and production would have an adverse impact on opportunities for solitude and primitive recreation in proximity to the activity. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p>	<p>would remain impacted.</p> <p>In the Desolation Canyon area, surface disturbance associated with an average of three wells per year would have an adverse impact on the natural character of 548 acres. In the long term (over 20 years), following reclamation, the impact to the natural character of the area would reduce to 206 acres.</p> <p>The presence and noise of people, vehicles, and equipment during exploration and production would have an adverse impact on opportunities for solitude and primitive recreation in proximity to the activity. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p>	<p>one well site every 4 years in Turtle Canyon. The initial result would be an adverse impact to the natural character of 42 acres. In the long term following reclamation, the natural character of 16 acres would remain impacted.</p> <p>In the Desolation Canyon area, surface disturbance associated with an average of four wells per year would have an adverse impact on the natural character of 726 acres. In the long term (over 20 years), following reclamation, the impact to the natural character of the area would reduce to 269 acres.</p> <p>The presence and noise of people, vehicles, and equipment during exploration and production would have an adverse impact on opportunities for solitude and primitive recreation in proximity to the activity. Depending upon the terrain, vegetation, atmospheric conditions, etc., outstanding opportunities for solitude and primitive recreation could be lost in the area as a whole during the period of exploration and development.</p>
<p>The remaining non-WSA lands with wilderness characteristics are located in areas with low potential for the occurrence of energy resources. Because oil and gas potential is low, generally there would be no exploration or development anticipated that would have an adverse impact on the naturalness, opportunities for solitude, or opportunities for primitive recreation of these lands.</p>				

NON-WSA LANDS WITH OR LIKELY TO HAVE WILDERNESS CHARACTERISTICS				
Impacts to Non-WSA Lands with Wilderness Characteristics				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts from Designation of Areas of Critical Environmental Concern Under all action alternatives, portions of non-WSA lands with wilderness characteristics would be included in ACECs and SRMAs with management prescriptions that would preserve undeveloped landscapes and the natural characteristics. Protection of natural landscapes would also provide a setting for primitive forms of recreation and an experience of solitude. The affected non-WSA lands with wilderness characteristics include Devils Canyon, Hondu Country, Mexican Mountain, Muddy Creek-Crack Canyon, San Rafael Reef, Sids Mountain, and Upper Muddy Creek. The ACECs include Highway I-70 Scenic ACEC, Muddy Creek ACEC, San Rafael Reef ACEC, and Sids Mountain ACEC.</p>				
<p>Impacts from Transportation and Motorized Access Cross-country travel by OHVs in Jack Canyon, Desolation Canyon, and Turtle Canyon would have adverse impacts on the soil and vegetation (natural character) of these areas. Further, the presence and noise of motor vehicles would have a temporary adverse impact on opportunities for solitude and primitive recreation, for the duration of the OHV use of the area.</p>	<p>Impacts from Transportation and Motorized Access Under these alternatives, OHV travel would be limited to inventoried routes, eliminating cross-country travel and the impacts to the soil and vegetation (natural character) of Jack, Desolation, and Turtle Canyons. The presence and noise of OHVs using inventoried routes, however, would continue to have an adverse impact on opportunities for solitude and primitive recreation for the duration of the motorized use.</p>			
<p>The presence and noise of OHV use of designated routes in all of the remaining non-WSA lands with wilderness characteristics would have a temporary adverse impact on opportunities for solitude and primitive recreation. Limiting motor vehicle use to designated routes, however, would minimize disturbance of adjacent lands, protecting the natural character of these areas. No routes would be designated for OHV travel in Devils Canyon, Hondu Country, and Mussentuchit Badlands, and there would be no impacts of OHV travel in these areas.</p>				
Decision Background				
<p>Although BLM will not consider designation of new WSAs in this planning process, it will consider whether non-WSA lands likely to have wilderness characteristics will be managed to preserve some or all of those values with other land management allocations and actions. These actions may include designation of OHV categories, mineral leasing categories, VRM classes, SRMAs, ROS classes, and ACECs.</p> <p>Non-WSA lands likely to have wilderness characteristics are lands that were identified by the public for consideration in this planning process. The BLM interdisciplinary planning team considered the information presented on the suggested wilderness characteristics of these areas and determined that some of these areas were likely to have wilderness characteristics. At this time, however, no inventory has been completed by the BLM to confirm the presence of wilderness characteristics, and no public review of the suggested values of these areas has taken place. Because BLM believes it is likely that some of these areas have wilderness characteristics, impacts to these characteristics are being considered in this plan. In the PFO, there are nine areas outside the existing WSAs, totaling about 471,855 acres, which are likely to have wilderness characteristics. For the purpose of analysis, it is assumed that these areas have wilderness characteristics.</p> <p>Many of the plan decisions affect lands likely to have wilderness characteristics. This section focuses on these specific lands and identifies the impacts to the</p>				

NON-WSA LANDS WITH OR LIKELY TO HAVE WILDERNESS CHARACTERISTICS				
Impacts to Non-WSA Lands with Wilderness Characteristics				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
wilderness characteristics from the decisions in the plan. Decisions for OHV travel, management of SRMAs, and management of ACECs would affect wilderness characteristics.				
Impact Analysis				
Impacts from Recreation Management				
A number of non-WSA lands likely to have wilderness characteristics would be managed as part of the San Rafael SRMA, including Eagle Canyon, Molen Reef, and Wild Horse Mesa. That portion of Eagle Canyon in the SRMA managed for its Semi-Primitive and Non-Motorized values would continue to provide opportunities for solitude and primitive recreation. Further, the undeveloped setting associated with these types of activities and experiences would preserve the natural characteristics of a portion of the non-WSA lands.				
Impacts from Designation of Areas of Critical Environmental Concern				
Under all the alternatives, portions of non-WSA lands likely to have wilderness characteristics in Flat Tops, Molen Reef, and San Rafael River would be included in Big Flat Tops, Highway I-70 Scenic, and Dry Lake ACECs, respectively. The protective management prescriptions of these ACECs would preserve undeveloped landscapes and the natural characteristics of portions of the non-WSA lands. The undeveloped nature of the landscape would enhance a setting for primitive forms of recreation, and an experience of solitude.				
Impacts from Transportation and Motorized Access				
The presence and noise of OHV use of designated routes in all of the non-WSA lands likely to have wilderness characteristics would have a temporary adverse impact on opportunities for solitude and primitive recreation. Limiting motor vehicle use to designated routes, however, would minimize disturbance of adjacent lands, protecting the natural character of these areas. No routes would be designated for OHV travel in Wild Horse Mesa, and there would be no impacts of OHV travel in this area.				

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Assumptions

With all alternatives, relevant and important values of potential and existing ACECs would benefit from the special management attention they would receive, including development of comprehensive, integrated activity plans in some cases. The plans would address specific management actions for resources and resource uses, with a focus on protection of relevant and important values, complementary to the goals and objectives of each ACEC.

However, in alternatives where some potential ACECs would not be identified, the relevant and important values of these areas may be at some risk of irreparable damage during the life of the plan, depending upon the specific resource use categories or other actions proposed in the alternative.

Special management for identified relevant and important values is designed to protect those values and prevent irreparable harm.

Significance Criteria

- Irreparable damage to the relevant and important values of existing or potential ACECs is considered significant.

Methods of Analysis

Analysis of impacts to potential areas of critical environmental concern by examining RMP decisions for all actions for any resource or resource use that would occur within potential areas and could cause irreparable damage to identified relevant and important values. Areas of critical environmental concern may be managed for the following values, if determined to be relevant and important:

- Fish and wildlife
- Historic
- Cultural
- Scenic
- Natural process or system
- Natural hazards

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Common to All Alternatives

Decision Background

FLPMA directs BLM to identify ACECs as public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards (see Appendix 26). During the scoping process the public was invited to nominate ACEC areas. Special management is applied to protect the relevant and important values identified in existing and proposed ACECs. ACECs are not managed as wilderness area.

Impact Analysis

RESOURCES

Impacts to Air Quality

No significant impact.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Common to All Alternatives

Impacts to Soil, Water and Riparian

Management of areas of critical environmental concern (ACEC) would also protect soil, water, and riparian/wetland resources.

Soil, water, and riparian resources within ACEC boundaries would receive significant long-term protection and provide valuable benefits to the resources where they occur. These benefits would result from restrictions to surface-disturbing occupancy, exclusion of livestock grazing, and closing of these areas to OHV activities.

Impacts to Vegetation Resources

Designating and managing areas as ACECs where special management would be required would improve the long-term quality, composition, and health of vegetation communities in those areas. Limiting OHV travel to designated routes would improve vegetation by reducing surface disturbance. Closure of the ACEC to oil and gas leasing and withdrawal from locatable mineral entry would improve the integrity of vegetation. Enhanced integrity would improve the connectivity of vegetation and reduce opportunity for noxious weed and other invasive plant species establishment.

Impacts to Cultural Resources

No significant impact.

Impacts to Paleontology Resources

Avoidance of surface-disturbing activities in the Seger's Hole ACEC would have an indirect impact. Closures to fluid and mineral materials development and restrictions on other land uses would protect the paleontological resources from surface disturbance. In addition, the potential for locality identification and recordation by data recovery associated with development would be reduced.

Impacts to Visual Resources

Prescriptions for VRM classification are identified for most ACECs. Impacts of ACEC prescriptions to visual resources are included in the discussion of VRM impacts to VRM in the Common to All Alternatives section.

Impacts to Special Status Species

No significant impact.

Impacts to Fish and Wildlife

Currently 13 ACECs exist in the PFO (see Map 2-42). ACECs exist to provide special management attention to relevant and important historic, cultural, or scenic values, fish and wildlife or other natural systems or processes, or to protect life and safety from natural hazards. The provisions implemented to protect these resources provide ancillary benefit to fish and wildlife species and their habitats. By preventing irreparable damage to these resources, habitat in and around ACECS is also protected from surface-disturbing activities and excessive human presence.

Impacts to Wild Horses and Burros

No significant impact.

Impacts to Fire and Fuels Management

There would be no impacts to fire and fuels management specific to ACEC management unless management direction for a given ACEC would specify restrictions on wildland fire suppression or on vegetation/range treatments.

RESOURCE USES

Impacts to Forest and Woodlands

No significant impact.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN**Common to All Alternatives****Impacts to Livestock**

Protection of relevant and important values within ACECs may be restricted when range improvements occur and by the type of range improvement allowed.

Impacts to Recreation

Continuing to manage Seger's Hole ACEC as limited to designated routes for OHV use would maintain opportunities for motorized recreation.

Impacts to Lands and Realty

Without appropriate mitigation measures, the presence of ACECs might preclude the ability to permit land tenure actions within these boundaries. The placement of ROWs would be limited to not impact the values for which the ACECs were established.

Impacts to Minerals and Energy**Leasable Minerals**

Oil and Gas. Seger's Hole ACEC (7,379 acres) would be open to leasing, subject to major constraints (no surface occupancy), and managed as VRM Class I. The VRM Class I designation would restrict the placement of oil and gas facilities in Seger's Hole ACEC and could require directional drilling to extract hydrocarbon resources below this area.

Coal. No impacts would be anticipated to coal from ACEC management actions.

Locatable Minerals

Seger's Hole ACEC (7,379 acres) would be open to mineral entry with plans of operations. This action could lead to a delay in development, increased costs to the proponent, and/or relocation of the resource development activity.

Mineral Materials

Seger's Hole ACEC (7,379 acres) would be closed to disposal of mineral materials, which would prohibit mineral material activities. If alternative mineral material deposits were to exist nearby in areas open to the disposal of mineral materials, this action would relocate mineral materials resource development activities.

SPECIAL DESIGNATIONS**Impacts to Wilderness Study Areas**

No significant impact.

Impacts to Areas of Critical Environmental Concern

Avoidance of surface-disturbing activities in the Seger's Hole ACEC would have an indirect impact. Closures to fluid and mineral materials development and restrictions on other land uses would preserve the cultural resources in place. In addition, the potential for site identification and recordation by data recovery associated with development would be reduced.

Impacts to Wild and Scenic Rivers

No significant impact.

SUPPORT**Impacts to Transportation and Motorized Access**

No significant impact.

Impacts to Hazardous Materials and Waste

No significant impact.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decision Background				
The following ACECs were established in the 1991 San Rafael RMP.				
Decisions				
BIG FLAT TOPS ACEC—RELIC VEGETATION				
<p>Big Flat Tops ACEC would be maintained according to the prescriptions in the San Rafael RMP, including—</p> <ul style="list-style-type: none"> • Areas closed to leasing for oil and gas • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements, except for test plots and facilities necessary for study of relic and near-relic plant communities • Managed as VRM Class I 	<p>Big Flat Tops would be released from ACEC designation and managed according to other resource decisions.</p>	<p>Big Flat Tops would be released from ACEC designation and managed according to other resource decisions.</p>	<p>Big Flat Tops ACEC would be maintained and would continue to be managed with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as areas closed to leasing for oil and gas • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for test plots and facilities necessary for study of relic and 	<p>Big Flat Tops ACEC would be maintained according to the prescriptions in the San Rafael RMP, including—</p> <ul style="list-style-type: none"> • Areas closed to leasing for oil and gas • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for test plots and facilities necessary for study of relic and near-relic plant communities • Managed as VRM Class I

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> • Designated as closed to OHV use • Subject to fire suppression activities with special conditions. 			<ul style="list-style-type: none"> near-relic plant communities • Designated as closed to OHV use • Subject to fire suppression activities with special conditions. 	<ul style="list-style-type: none"> • Designated as closed to OHV use • Subject to fire suppression activities with special conditions <p>(same as No Action Alternative).</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
BOWKNOT BEND—RELIC VEGETATION				
<p>Bowknot Bend ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed areas closed to leasing for oil and gas • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for test plots and facilities necessary for study of relic and near-relic plant communities • Designated as closed to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special 	<p>Bowknot Bend would be released from ACEC designation and managed according to other resource decisions.</p>	<p>Bowknot Bend would be released from ACEC designation and managed according to other resource decisions.</p>	<p>Bowknot Bend ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed areas closed to leasing for oil and gas • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for test plots and facilities necessary for study of relic and near-relic plant communities • Designated as closed to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special 	<p>Bowknot Bend ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed areas closed to leasing for oil and gas • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for test plots and facilities necessary for study of relic and near-relic plant communities • Designated as closed to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
conditions.			conditions (same as No Action Alternative).	conditions (same as No Action Alternative).
COPPER GLOBE ACEC—HISTORIC MINING AND CULTURAL RESOURCES				
<p>Copper Globe ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as areas closed to leasing for oil and gas • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for watershed control structures that would protect historic values • Designated as limited to OHV use • Managed as VRM Class II 	<p>Copper Globe ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as No Surface Occupancy for Oil and Gas Leasing • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for watershed control structures that would protect historic values • Designated as limited to OHV use • Managed as VRM 	<p>Copper Globe ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as No Surface Occupancy for Oil and Gas Leasing. • Closed to the disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from livestock use • Excluded from land treatment and range improvements except for watershed control structures that would protect historic values • Designated as limited to OHV use • Managed as VRM 	<p>Copper Globe would be included as part of the Heritage Site ACEC and managed according to the prescriptions listed for that ACEC.</p>	<p>Copper Globe would be included as part of the Heritage Site ACEC and managed according to the prescriptions listed for that ACEC(same as Alternative C).</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> Subject to fire suppression activities with special conditions. 	<ul style="list-style-type: none"> Class II Subject to fire suppression activities with special conditions. 	<ul style="list-style-type: none"> Class II Subject to fire suppression activities with special conditions <p>(same as Alternative A).</p>		
DRY LAKE ARCHAEOLOGICAL DISTRICT ACEC—CULTURAL RESOURCES				
<p>The Dry Lake Archaeological District ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing Open to disposal of mineral materials Open to mineral entry with plans of operations Avoided for ROW grants Open to land treatments and range improvements subject to special conditions Designated as limited for OHV use, with use limited to designated roads and trails Subject to fire suppression with special condition. 	<p>The Dry Lake Archaeological District ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing Open to disposal of mineral materials Open to mineral entry with plans of operations Avoided for ROW grants Open to land treatments and range improvements subject to special conditions Designated as limited for OHV use, with use limited to designated roads and trails Subject to fire suppression with special conditions. 			

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> Upon completion of cultural resource inventory and documentation, ACEC status would be released. 				
HIGHWAY I-70 ACEC—SCENIC				
<p>Highway I-70 Scenic Corridor ACEC would be maintained (Map 2-42) with the following management prescriptions:</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing Closed to the disposal of mineral materials Open to mineral entry with plant of operations Avoided from ROW grants Excluded from land treatment Open to range improvements with special conditions Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires Designated as limited to OHV use Managed as VRM Class I 	<p>Maintain ACEC designation; however, the boundaries would be adjusted to extend from Moore Road on the West, to Highway 24 on the East, as indicated on Map 2-43.</p> <p>The ACEC would be managed with the following prescriptions (same as No Action Alternative but with change to boundary):</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing Closed to the disposal of mineral materials Open to mineral entry with plant of operations Avoided from ROW grants Excluded from land treatment Open to range improvements with special conditions Excluded from private and commercial use of woodland products except for limited on- 	<p>Maintain ACEC designation; however, the boundaries would be adjusted to extend to Highway 24 on the East, as indicated on Map 2-44.</p> <p>The ACEC would be managed with the following prescriptions (same as No Action Alternative but with change to boundary):</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing Closed to the disposal of mineral materials Open to mineral entry with plant of operations Avoided from ROW grants Excluded from land treatment Open to range improvements with special conditions Excluded from private and commercial use of woodland products for limited on-site collection of downed 	<p>Maintain ACEC designation; however, the boundaries would be expanded to extend to State Highway 6 as presented on Map 2-45.</p> <p>The ACEC would be managed with the following prescriptions (same as No Action Alternative but with change to boundary):</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing Closed to the disposal of mineral materials Open to mineral entry with plant of operations Avoided from ROW grants Excluded from land treatment Open to range improvements with special conditions Excluded from private and commercial use of woodland products except for limited on-site collection of 	<p>Maintain ACEC designation; however, the boundaries would be adjusted to extend to Highway 24 on the East, as indicated on Map 2-46.</p> <p>The ACEC would be managed with the following prescriptions (same as No Action Alternative but with change to boundary):</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing Closed to the disposal of mineral materials Open to mineral entry with plant of operations Avoided from ROW grants Excluded from land treatment Open to range improvements with special conditions Excluded from private and commercial use of woodland products except for limited on-site collection of

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> Subject to fire suppression activities with special conditions. 	<p>site collection of downed dead wood for campfires</p> <ul style="list-style-type: none"> Designated as limited to OHV use Managed as VRM Class I Subject to fire suppression activities with special conditions. 	<p>dead wood for campfires</p> <ul style="list-style-type: none"> Designated as limited to OHV use Managed as VRM Class I Subject to fire suppression activities with special conditions. 	<p>downed dead wood for campfires</p> <ul style="list-style-type: none"> Designated as limited to OHV use Managed as VRM Class I Subject to fire suppression activities with special conditions. 	<p>downed dead wood for campfires</p> <ul style="list-style-type: none"> Designated as limited to OHV use Managed as VRM Class I Subject to fire suppression activities with special conditions.
MUDDY CREEK ACEC—CULTURAL, HISTORIC, AND SCENIC				
<p>Muddy Creek ACEC would be maintained with current boundaries with the following management prescriptions:</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing except where the ACEC is in a WSA in which case it would be closed to leasing Closed to disposal of mineral materials Open to mineral entry with plans of operations Avoided for ROW grants Open to range improvements with special conditions Excluded from land treatment Excluded from private and commercial use of woodland products 	<p>Muddy Creek ACEC would be maintained with current boundaries with the following management prescriptions:</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Leasing except where the ACEC is in a WSA in which case it would be closed to leasing Closed to disposal of mineral materials Open to mineral entry with plans of operations Avoided for ROW grants Open to range improvements with special conditions Excluded from land treatment Excluded from private and commercial use of woodland products Designated as limited to OHV use Managed as VRM Class I Subject to fire suppression Firewood collection would not be allowed in the ACEC. 			

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
except for limited on-site collection of downed dead wood for campfires <ul style="list-style-type: none"> • Designated as limited to OHV use • Managed as VRM Class I • Subject to fire suppression. 				

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
PICTOGRAPHS ACEC—ROCK ART ACEC—CULTURAL				
<p>Pictographs ACEC would be maintained and managed with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as Closed to Oil and Gas Leasing • Closed to disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded for ROW grants • Excluded from range improvements and land treatments except for watershed control structures that would protect cultural resource values • Immediate areas around panels excluded from livestock use • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Designated as limited to OHV use • Subject to fire suppression activities with special 	<p>Change the name to "Rock Art ACEC."</p> <p>The existing ACEC would be maintained; however, the following sites would be managed as part of the Rock Art ACEC: Sand Cove Spring, King's Crown, Short Creek, Dry Wash, North Salt Wash, Molen Seep, Big Hole, Cottonwood Canyon, Wild Horses Canyon, and Grassy Trail.</p> <p>Archaeological inventories and test excavations would be required before site improvements or a designated route decision.</p> <p>Rock Art ACEC would be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Managed as No Surface Occupancy for Oil and Gas Leasing • Closed to disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded for ROW grants • Excluded from range improvements and land treatments, except for watershed control structures that would protect cultural resource values • Immediate areas around panels excluded from livestock use • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Designated as limited to OHV use • Subject to fire suppression activities with special conditions. 			

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
conditions.				
SAN RAFAEL CANYON ACEC—RECREATION AND SCENIC				
<p>San Rafael Canyon ACEC (Lower, Middle, Upper portions) would be maintained and would continue to be managed with the following management prescriptions:</p> <ul style="list-style-type: none"> • Lower—Closed to oil and gas leasing • Middle—Areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing • Upper—Closed to oil and gas leasing. 	<p>San Rafael Canyon would be released from ACEC designation.</p>	<p>Same as No Action. However, the area will be managed to protect recreation, scenic, and cultural resources in the area.</p> <p>The existing ACEC boundary would be expanded to include the Buckhorn Draw and Spring Canyon, Nate Canyon, Cottonwood Canyon, and associated contiguous ROS-P and Class A scenery.</p> <p>Archaeological inventories and site avoidance would be required before designated route and recreation site decisions.</p>	<p>San Rafael Canyon ACEC (Lower, Middle, Upper portions) would be maintained and expanded to include the Buckhorn Draw and Spring Canyon, Nate Canyon, Cottonwood Canyon, and associated contiguous ROS-P and Class A scenery.</p> <p>It would be managed with the following prescriptions for the protection of recreation, scenic, and cultural resources in the area:</p> <ul style="list-style-type: none"> • Lower—Closed to oil and gas leasing • Middle—Areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing • Upper—Closed to oil and gas leasing • Archaeological inventories and site avoidance would be required before designated route and recreation site decisions. 	<p>San Rafael Canyon ACEC (Lower, Middle, Upper portions) would be maintained and would continue to be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Lower—Closed to oil and gas leasing • Middle—Areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing • Upper—Closed to oil and gas leasing.
SAN RAFAEL REEF ACEC—SCENIC AND VEGETATION				

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>San Rafael Reef ACEC would be maintained with the following management prescriptions:</p> <p>North Portion (between Temple Mountain and I-70):</p> <ul style="list-style-type: none"> • Closed to oil and gas leasing • Closed to disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from land treatment and range improvements except for water control structures that would protect scenic values • Designated as limited for OHV use, with use limited to designated roads and trails • Managed as VRM Class I • Subject to fire suppression with special conditions. 	<p>San Rafael Reef ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Closed to leasing for oil and gas • Closed to disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from land treatment and range improvements except for water control structures that would protect scenic values • Designated as limited for OHV use, with use limited to designated roads and trails • Managed as VRM Class I • Subject to fire suppression with special conditions. <p>(Same as No Action Alternative, except entire ACEC would be closed to oil and gas leasing.)</p>			

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>South Portion (San Rafael Reef South of Temple Mountain):</p> <p>Same management prescriptions as North portion except managed as No Surface Occupancy for Oil and Gas Leasing.</p>				
SEGER'S HOLE ACEC—RECREATION AND SCENIC				
<p>Seger's Hole ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as No Surface Occupancy for Oil and Gas Leasing • Closed to disposal of mineral materials • Open to mineral entry with plans of operations • Avoided for ROW grants • Open to range improvements with special conditions • Excluded from land treatment • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Designated as limited to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special conditions. 				
SID'S MOUNTAIN ACEC—SCENIC				
<p>Sid's Mountain ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing • Closed to disposal of mineral materials • Open to mineral entry 	<p>Sid's Mountain would be released from ACEC designation.</p>	<p>Sid's Mountain ACEC would be maintained with the following management prescriptions (same as No Action Alternative):</p> <ul style="list-style-type: none"> • Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing • Closed to disposal of 	<p>The existing ACEC boundary would be expanded to include the proposed Sid's Mountain Expanded ACEC and managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing 	<p>Sid's Mountain ACEC would be maintained with the following management prescriptions:</p> <ul style="list-style-type: none"> • Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing • Closed to disposal of mineral materials • Open to mineral entry

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> with plans of operations • Avoided for ROW grants • Open to range improvements with special conditions • Excluded from land treatment • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Designated as limited to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special conditions. 		<ul style="list-style-type: none"> mineral materials • Open to mineral entry with plans of operations • Avoided for ROW grants • Open to range improvements with special conditions • Excluded from land treatment • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Designated as limited to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special conditions. 	<ul style="list-style-type: none"> • Closed to disposal of mineral materials • Open to mineral entry with plans of operations • Avoided for ROW grants • Open to range improvements with special conditions • Excluded from land treatment • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Closed to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special conditions • Recommended for withdrawal from mineral entry. 	<ul style="list-style-type: none"> with plans of operations • Avoided for ROW grants • Open to range improvements with special conditions • Excluded from land treatment • Excluded from private and commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Designated as limited to OHV use • Managed as VRM Class I • Subject to fire suppression activities with special conditions <p>(same as No Action Alternative).</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
SWASEY'S CABIN ACEC				
<p>The Swasey's Cabin ACEC was designated to protect the public values of historic ranching use. The ACEC would be managed as follows:</p> <ul style="list-style-type: none"> • Closed to oil and gas leasing • Closed to disposal of mineral materials • Proposed for withdrawal from locatable mineral entry • Excluded from ROW grants • Excluded from private or commercial use of woodland products except for limited on-site collection of downed dead wood for campfires • Excluded from grazing use except livestock trailing under an approved permit • Excluded from land treatment and range improvements except for watershed control structures that would protect historic values • Designated as limited for ORV use, with use limited to designated roads and trails • Managed as VRM Class II 	<p>Swasey's Cabin would be released from ACEC designation. The area would be managed as a recreation site.</p>	<p>Swasey's Cabin would be released from ACEC designation. The area would be managed as a recreation site.</p>	<p>Swasey's Cabin would be included as part of the Heritage Sites ACEC and would be managed according to the prescriptions for that ACEC.</p>	<p>Swasey's Cabin would be included as part of the Heritage Sites ACEC and would be managed according to the prescriptions for that ACEC (same as Alternative C).</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<ul style="list-style-type: none"> Subject to full fire suppression. 				
TEMPLE MOUNTAIN ACEC				
<p>Temple Mountain Historic District would be managed as follows:</p> <ul style="list-style-type: none"> Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing Open to disposal of mineral materials subject to special conditions Open to mineral entry with plans of operations Avoided for ROW grants Excluded from private or commercial use of woodland products, including wood from historic structures, except for limited on-site collection of downed dead wood for campfires Open to land treatments and range improvements subject to special conditions Designated as limited for ORV use, with use 	<p>Temple Mountain Historic District would be released from ACEC designation. The area would be managed as a recreation site.</p>	<p>Temple Mountain Historic District would be released from ACEC designation. The area would be managed as a recreation site.</p>	<p>Temple Mountain would be included as part of the Heritage Sites ACEC and would be managed according to the prescriptions for that ACEC.</p>	<p>Temple Mountain would be included as part of the Heritage Sites ACEC and would be managed according to the prescriptions for that ACEC (same as Alternative C).</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Existing ACECs (Map 2-42)				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
limited to designated roads and trails • Subject to full fire suppression.				

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
LOWER GREEN RIVER—PROPOSED FOR ECOLOGY, VEGETATION, AND CULTURAL RESOURCE VALUES				
Decision Background				
<p>The excellent riparian systems contained in the proposed ACEC contains crucial and year-long habitat for Special Status Species. The proposed ACEC incorporates a portion of the Dry Lake Archaeological District which contains Paleo-Indian sites and unusual geological formations. The area also contains geological records pertaining to prehistoric ecological conditions and abandoned river meanders. No threats have been identified to the relevant and important values of this proposed ACEC.</p>				
Decisions				
<p>Lower Green River—The proposed area would continue to be managed for multiple use without special management attention.</p> <p><i>NOTE:</i> In Alternatives B and C, the proposed area incorporates existing Bowknot Bend and Dry Lake Archaeological District ACECs.</p>	<p>The area would not be designated as an ACEC. Special management is not required for protection of relevant and important values.</p>	<p>The Lower Green River ACEC would be designated with the following proposed special management prescriptions:</p> <ul style="list-style-type: none"> • Maintain current level of livestock grazing • Prohibit expanded distribution of livestock into riparian areas • Exclude riparian habitats from mechanical land treatments except for the purpose of restoring native habitat • Managed as No Surface Occupancy for Oil and Gas Leasing • Open to disposal of mineral materials subject to special conditions • Open to mineral entry with plans of operations 	<p>The Lower Green River ACEC would be designated with the following proposed special management prescriptions:</p> <ul style="list-style-type: none"> • Grazing allotments to be retired • BLM to prohibit expanded distribution of livestock into riparian areas • Exclude riparian habitats from mechanical land treatments except to restore native habitat • Managed as No Surface Occupancy for Oil and Gas Leasing • Closed to disposal of mineral materials • Recommended for withdrawal from mineral entry • Designated as closed to OHV use • Managed as VRM 	<p>Lower Green River—The proposed area would continue to be managed for multiple use without special management attention. Special management is not required for protection of relevant and important values.</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		<ul style="list-style-type: none"> • Designated as limited to OHV use in areas outside WSA • Managed as VRM Class I. 	Class I.	

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
BECKWITH PLATEAU—PROPOSED FOR GEOLOGIC/NATURAL PROCESSES				
Decision Background				
The proposed ACEC possesses a national, important characteristic by displaying the processes leading to the formation of coal as the Mancos Seaway, an ancient ocean, retreated and was covered by river delta formation. The area has been previously considered for NNL status because of these features. This area also contains sensitive species habitat. There are no identified threats to the relevant or important values of this proposed ACEC.				
Decisions				
Beckwith Plateau-Middle Mountain/Green River-Desolation/Lower Price River—The proposed area would continue to be managed for multiple use without special management attention.	The proposed area would not be designated as an ACEC.	The “Beckwith Plateau ACEC” would be designated with the following proposed special management prescriptions: <ul style="list-style-type: none"> • Designated areas outside WSA designated as limited to OHV use • BLM would apply current management prescriptions for the Gray Canyon Wildland area to the entire proposed area • Area would be an avoidance area for ROW • Managed as closed to leasing for oil and gas • Open to disposal of mineral materials subject to special conditions • Open to mineral entry with plans of operations. 	The “Beckwith Plateau ACEC” would be designated with the following proposed special management prescriptions: <ul style="list-style-type: none"> • Designated as closed to OHV use • BLM would apply current management prescriptions for the Gray Canyon Wildland area to the entire proposed area • Area would be an exclusion for ROWs • Managed as closed to leasing for oil and gas • Closed to disposal of mineral materials • Recommended for withdrawal from mineral entry. 	Beckwith Plateau-Middle Mountain/Green River-Desolation/Lower Price River—The proposed area would continue to be managed for multiple use without special management attention.
TEMPLE-COTTONWOOD DUGOUT WASH—PROPOSED FOR CULTURAL VALUES				
Decision Background				
The Temple-Cottonwood Dugout Wash has early to middle archaic lithic scatters. The area also contains desert ecosystems, high value and unique riparian systems, and habitat for Special Status Species. This ACEC incorporates the existing Big Flat Tops ACEC. Some nominators put forward recreation as a relevant and important				

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
value for the ACEC, however, recreation is not an ACEC management prescription.				
Decisions				
Temple-Cottonwood-Dugout Wash—The proposed area would continue to be managed for multiple use without special management attention.	The area would not be designated as an ACEC. The remoteness and ruggedness of the area provides sufficient protection of the noted values without special management prescriptions.	The area would not be designated as an ACEC. The remoteness and ruggedness of the area provides sufficient protection of the noted values without special management prescriptions (same as Alternative A).	The Temple-Cottonwood Dugout ACEC would be designated for protection of cultural values with the following management prescriptions: <ul style="list-style-type: none"> • Manage as No Surface Occupancy for Oil and Gas Leasing • Closed to OHV use • Open to disposal of mineral materials subject to special conditions • Open to mineral entry with plans of operations. 	Temple-Cottonwood-Dugout Wash—The proposed area would continue to be managed for multiple use without special management attention (same as No Action Alternative).
RANGE CREEK—PROPOSED FOR CULTURAL AND NATURAL PROCESS VALUES				
Decision Background				
The Range Creek proposed ACEC includes some of the most intact and well preserved prehistoric cultural resources in the United States. In addition, the area contains ecological values associated with riparian and wetland habitats, critical habitat for Special Status Species, and high-value habitats for bighorn sheep, mule deer, and elk. Resources in this area are vulnerable to adverse change from surface-disturbing activities associated energy and mineral development and human activity including OHV recreation use.				
Decisions				
Range Creek—The proposed area would continue to be managed for multiple use without special management attention.	Range Creek—The proposed area would continue to be managed for multiple use without special management attention (same as No Action Alternative).	The Range Creek ACEC would be designated for protection of cultural and natural process values. Management prescriptions for protection of these values would include— <ul style="list-style-type: none"> • Closed to OHV use • Public access limited to hiking and horseback riding • Manage as closed to leasing for oil and gas • Closed to disposal of mineral materials • Recommended for withdrawal from mineral entry. 		

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
NINE MILE CANYON—PROPOSED FOR PROTECTION OF CULTURAL RESOURCE VALUES				
Decision Background				
<p>Management prescriptions have been developed to address development occurring in the canyon, cross-jurisdictional decisions (BLM-Vernal Field Office), valid existing rights, and complex private-public land ownership patterns. BLM will protect cultural resources on BLM-administered lands in Nine Mile Canyon. The proposed ACEC contains a significant and high density of historic and prehistoric cultural sites. It is documented to contain the nation's highest concentration of rock art panels and sites associated with the prehistoric Fremont culture. It also contains significant post-Civil War military history and was significant in the white settlement of the Uinta basin. The area is internationally significant and has been found eligible for listing as a national historic district.</p>				
Decisions				
<p>Nine Mile Canyon—The proposed area would continue to be managed for multiple use without special management attention.</p>	<p>The area would not be designated as an ACEC. The cultural resource values would receive adequate protection under the prescriptions of the SRMA and under Section 106 of the National Historic Preservation Act.</p> <ul style="list-style-type: none"> Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing OHV use would be limited to designated routes Managed as VRM Class IV Open to disposal of mineral materials subject to special conditions. 	<p>The Nine Mile Canyon ACEC would be designated for protection of the cultural resource values (prehistoric and historic, including ranching). <i>Note:</i> Following the boundaries of the proposed archeological district, refer to Vernal Alternative A as indicated in Map 2-44. Management prescriptions would include—</p> <ul style="list-style-type: none"> Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing OHV use would be limited to designated routes Managed as VRM Class II and Class III in selected areas Open to disposal of mineral materials subject to special 	<p>The Nine Mile Canyon ACEC would be designated for protection of the cultural resource values (prehistoric and historic, including ranching) <i>Note:</i> Following the boundaries of the proposed archeological district, refer to SRMA Alternative C as indicated on Map 2-45. Management prescriptions would include—</p> <ul style="list-style-type: none"> Managed as No Surface Occupancy for Oil and Gas Cultural sites in the ACEC will be managed for conservation use. OHV use would be limited to designated routes Managed as VRM Class II Open to disposal of mineral materials subject to special conditions Recommended for 	<p>The Nine Mile Canyon ACEC would be designated for protection of the cultural resource values (prehistoric and historic, including ranching). <i>Note:</i> Following the boundaries of the proposed archeological district, refer to Vernal Alternative A as indicated on Map 2-46. Management prescriptions would include—</p> <ul style="list-style-type: none"> Oil and gas leasing would be areas open to leasing, subject to major constraints (no surface occupancy) the ACEC, and within the canyon rims). Areas that do not meet both of these criteria will be open to leasing with minor constraints (timing limitations, controlled surface use, lease notices) as indicated on Map 2-31. OHV use would be

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		conditions <ul style="list-style-type: none"> Recommended for withdrawal from mineral entry. 	withdrawal from mineral entry.	limited to designated routes <ul style="list-style-type: none"> Managed as VRM Class III Open to disposal of mineral materials subject to special conditions Recommended for withdrawal from mineral entry.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	Oil and gas development would be permitted after cultural resource inventories have been completed in compliance with the National Historic Preservation Act.	Oil and gas development would not be permitted within 100 feet of inventoried cultural resources, after cultural resource inventories have been completed, in compliance with the National Historic Preservation Act.	Oil and gas development would not be permitted within 100 feet of inventoried cultural resources, after cultural resource inventories have been completed, in compliance with the National Historic Preservation Act.	Oil and gas development would be limited to surface disturbance on non-BLM lands only within the canyon rims. Additionally, Oil and gas development would not be permitted within 100 feet of inventoried cultural resources, after cultural resource inventories have been completed, in compliance with the National Historic Preservation Act. An exception may be granted by the AO if appropriate mitigation can be accomplished.
PRICE RIVER—CONSIDERED FOR CULTURAL, SCENIC, WILDLIFE, AND RIPARIAN RESOURCE VALUES				
Decision Background				
Values considered in the Price River proposed ACEC are addressed in the proposals for Beckwith Plateau-Middle Mountain ACEC, Lower Green River ACEC, and Lower Price River ACEC. The proposed area for the Price River ACEC also overlaps the Cedar Mountain proposed ACEC.				
CLEVELAND-LLOYD DINOSAUR QUARRY—PROPOSED FOR PALEONTOLOGIC RESOURCE VALUE				
Decision Background				
The Cleveland-Lloyd Dinosaur Quarry is the world-renowned site for the discovery of Jurassic Age dinosaur bones. It provides recreation users the unique opportunity to visit an active paleontological site and discover the history and evolution of the science of paleontology. The Cleveland-Lloyd bone deposit is the densest concentration of dinosaur bones in the world and contains the largest collection of meat-eating dinosaurs ever found. The 80-acre NNL covers the existing quarry site and the 767 acres in this proposed ACEC includes the Cleveland-Lloyd bone deposit and adjacent lands. The adjacent lands have 15 track sites and new track sites are discovered annually. Adjacent lands also have 32 sites where dinosaur bone is visible on the surface.				
Decisions				
The existing 80-acre NNL would be managed as an SRMA under existing management prescriptions. Boundaries of the NNL would remain in alignment.	The Cleveland-Lloyd Dinosaur Quarry ACEC would be designated for protection of the paleontologic resources in the area as indicated on Map 2-43 (767 acres). The ACEC would be managed	The Cleveland-Lloyd Dinosaur Quarry ACEC would be designated for protection of the paleontologic resources in the area as indicated on Maps 2-44 through 2-46 (767 acres). The ACEC would be managed with the following special management prescriptions: <ul style="list-style-type: none"> • Closed to all public access without authorization. <i>Note:</i> Paid use fee would be considered authorization • Mountain bikes and OHV use would be allowed on designated routes • Camping would not be allowed 		

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>with the following special management prescriptions:</p> <ul style="list-style-type: none"> • Closed to all public access without authorization • <i>Note:</i> Paid use fee would be considered authorization • Mountain bikes and OHV use would be allowed on designated routes • Camping would not be allowed • Construction of facilities would be allowed for research, visitor safety, convenience, resource interpretation, and comfort • Managed as areas closed to leasing for oil and gas within the NNL boundary • Managed as areas open to leasing, subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing outside the NNL boundary • Closed to disposal of mineral materials • The 767-acre ACEC would be 	<ul style="list-style-type: none"> • The construction of facilities would be allowed for research, visitor safety, convenience, resource interpretation, and comfort • Managed as areas closed to leasing for oil and gas within the NNL boundary • Managed as areas open to leasing subject to minor constraints (timing limitations, controlled surface use, lease notices) for oil and gas leasing outside the NNL boundary • Closed to disposal of mineral materials • The 767-acre ACEC would be recommended for withdrawal from mineral entry • Collection of nonrenewable resources such as fossils, rocks, mineral specimens, common invertebrate fossils, semiprecious gemstones, petrified wood, or mineral materials would not be allowed per 43 CFR 8365.1-5.b.2-4 • Hiking would be allowed only on developed interpretive trails; hiking off-trail would be allowed for guided tours offered by BLM staff • Managed as closed to leasing for oil and gas within the NNL boundary. Managed as No Surface Occupancy for Oil and Gas leasing outside the NNL boundary and within the ACEC. 		

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	recommended for withdrawal from mineral entry <ul style="list-style-type: none"> Collection of non-renewable resources such as fossils, rocks, mineral specimens, common invertebrate fossils, semiprecious gemstones, petrified wood, or mineral materials would not be allowed per 43 CFR 8365.1-5.b.2-4. 			

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
GORDON CREEK—PROPOSED FOR CULTURAL AND WILDLIFE RESOURCE VALUES				
Decision Background				
<p>Gordon Creek is a distinct archeological resource. Two agricultural communities occupied this area: the Fremont culture about 1,000 years ago and historic pioneers about 100 years ago. Although this situation existed elsewhere, early abandonment and natural closure of the area have left sites relatively undisturbed and provide an opportunity to study the similarity and differences of the two cultural responses to the same area. The area is also associated with the first white settlement in Carbon County</p>				
Decisions				
<p>Gordon Creek—The proposed area would continue to be managed for multiple use without special management attention.</p>	<p>The proposed area would not be designated as an ACEC.</p>	<p>The proposed area would not be designated as an ACEC.</p>	<p>The Gordon Creek ACEC would be designated for protection of cultural resource values. The ACEC boundary is indicated on Map 2-45. Special management for protection of the cultural resource values includes—</p> <ul style="list-style-type: none"> • Proposed area to be closed to OHV use • Managed as areas closed to leasing for oil and gas • Closed to disposal of mineral materials • Recommended for withdrawal from mineral entry • Livestock grazing would not be allowed • Excavation and data recovery of the entire proposed area would be required before any surface-disturbing activities occur (e.g., site-by-site excavation and data recovery would not be allowed). 	<p>Gordon Creek— The proposed area would continue to be managed for multiple use without special management attention.</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
HERITAGE SITES—PROPOSED FOR HISTORIC RESOURCE VALUE				
Decision Background				
<p>This proposed ACEC includes several sites associated with early historic uses of public lands in Emery County including Wilsonville, Shepherds End, Smith Cabin, Hunt Cabin, Copper Globe, Temple Mountain, and Swasey’s Cabin. A National Heritage Conservation Area has been proposed for the San Rafael area; these sites represent the heritage, culture, and custom. Recently they have become more fragile and threatened, because visitors who do not recognized their significance have been improperly using them (i.e., removing artifacts, removing wood from buildings for use as firewood, creating ORV trails through sites, etc.).</p>				
Decisions				
<p>Heritage Sites—The proposed areas would continue to be managed for multiple use without special management attention.</p>	<p>The sites would not be designated as an ACEC.</p>	<p>The sites would not be designated as an ACEC.</p>	<p>The Heritage Sites ACEC would be designated for protection of historic resource values. <i>Note:</i> The proposed area includes Wilsonville, Sheperds End, Smith Cabin, Hunt Cabin, Copper Globe, Temple Mountain, and Swasey’s Cabin.</p> <p>Points included as a part of this ACEC are included in Map 2-45. Special management prescriptions for protection of these resources include—</p> <ul style="list-style-type: none"> • Managed as No Surface Occupancy for Oil and Gas Leasing • Proposed for withdrawal from locatable mineral entry • Closed to disposal of mineral materials • Excluded from ROW grants • Excluded from land treatment and range improvements except for watershed control 	<p>The Heritage Sites ACEC would be designated for protection of historic resource values. <i>Note:</i> The proposed area includes Wilsonville, Sheperds End, Smith Cabin, Hunt Cabin, Copper Globe, Temple Mountain and Swasey’s Cabin.</p> <p>Points included as part of this ACEC are included in Map 2-46. Special management prescriptions for protection of these resources include—</p> <ul style="list-style-type: none"> • Managed as No Surface Occupancy for Oil and Gas Leasing; • Proposed for withdrawal from locatable mineral entry • Closed to disposal of mineral materials • Excluded from ROW grants • Excluded from land treatment and range improvements except for watershed control

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			structures that would protect historic values <ul style="list-style-type: none"> • Managed as VRM Class II. 	structures that would protect historic values <ul style="list-style-type: none"> • Managed as VRM Class II.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
URANIUM MINING DISTRICTS				
TIDWELL DRAW, HIDDEN SPLENDOR, LITTLE SUSAN MINE, AND LUCKY STRIKE MINE—PROPOSED FOR PROTECTION OF CULTURAL RESOURCE VALUES				
Decision Background				
This proposed ACEC contains several significant mining sites associated with the development of uranium for nuclear weapons during the escalation of the Cold War in the 1950s. Recently these sites have become more fragile and threatened because visitors who do not recognize their significance have been improperly using them (i.e., removing artifacts, removing wood from buildings for use as firewood, creating ORV trails through sites, etc.).				
Decisions				
The proposed area would continue to be managed for multiple use without special management attention.	The proposed area would not be designated as an ACEC.	The proposed area would not be designated as an ACEC.	<p>The Uranium Mining Districts ACEC would be designated. This would include Tidwell Draw, Hidden Splendor, Little Susan Mine, and Lucky Strike Mine areas as indicated on Map 2-45.</p> <p>The ACEC would be managed with the following special management prescriptions:</p> <ul style="list-style-type: none"> • Firewood collection would not be allowed • Excluded from livestock use • Managed as No Surface Occupancy for Oil and Gas Leasing • Open to disposal of mineral materials subject to special conditions • Open to mineral entry with plans of operations • No historic structures to be disturbed until the historic features 	<p>The Uranium Mining Districts ACEC would be designated. This would include Tidwell Draw, Hidden Splendor, Little Susan Mine, and Lucky Strike Mine areas as indicated on Map 2.-46</p> <p>The ACEC would be managed with the following special management prescriptions:</p> <ul style="list-style-type: none"> • Firewood collection would not be allowed • Excluded from livestock use • Managed as No Surface Occupancy for Oil and Gas Leasing • Open to disposal of mineral materials subject to special conditions • Open to mineral entry with plans of operations • No historic structures to be disturbed until the historic features

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			have been recorded and oral history has been conducted.	have been recorded and oral history has been conducted.
Impact Analysis				
RESOURCES				
Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.	Impacts to Air Quality No significant impact.
Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.	Impacts to Soil, Water and Riparian No significant impact.
<p>Impacts to Vegetation Resources Current vegetation conditions would be maintained by existing ACEC management actions to livestock use and OHV recreation. Closing 1,509 acres of land within ACEC to livestock grazing to protect relict vegetation and cultural and historic sites may increase the percent cover by livestock preferred plant species. Indirectly, managing Big Flat Tops and Bowknot Bend ACECs to retain relict vegetation on 1,279 acres provides a baseline for scientific research and monitoring. Closing and limiting 272,842 acres to OHV use reduces surface disturbance and vegetation crushed by vehicle treads. This preserves vegetation integrity on about 11 percent of BLM lands. Table 4-16 shows</p>	<p>Impacts to Vegetation Resources Altering the management of existing ACECs but not designating additional ACEC impacts vegetation by reducing the area of relict vegetation available for monitoring and research. Managing 170 acres of the PFO to retain relict vegetation provides a baseline for scientific research and monitoring. Closing and limiting areas to OHV recreation use reduces surface disturbance and vegetation crushed by vehicle treads which improves vegetation integrity. Limiting surface disturbance reduces the spread of noxious weeds and invasive plant species infestations. Table 4-17 shows the ACEC acres to which these management actions apply. Compared to Table 4-16, Acres Restrictions to Livestock</p>	<p>Impacts to Vegetation Resources Altering the management of existing ACECs but not designating additional ACEC impacts vegetation by reducing the area of relict vegetation available for monitoring and research. Managing 163 acres of the PFO to retain relict vegetation provides a baseline for scientific research and monitoring. Closing and limiting areas to OHV recreation use reduces surface disturbance and vegetation crushed by vehicle treads which improves vegetation integrity. Limiting surface disturbance reduces the spread of noxious weeds and invasive plant species infestations. Table 4-18 shows the ACEC acres to which these management actions apply. Compared to Table 4-16, Acres Restrictions to Livestock</p>	<p>Impacts to Vegetation Resources Altering the management of ACEC but not designating additional ACEC impacts vegetation by reducing the area of relict vegetation available for monitoring and research. Managing areas of the PFO to retain relict vegetation provides a baseline for scientific research and monitoring. Closing and limiting areas to OHV use reduces surface disturbance and vegetation crushed by vehicle treads which improves vegetation integrity. Table 4-19 shows the ACEC acres to which these management actions apply. Compared to Table 4-16, Acres Restrictions to Livestock Grazing and OHV Use in ACECs – No Action Alternative, this alternative closes 43,801 more acres to livestock grazing, closes</p>	<p>Impacts to Vegetation Resources Altering the management of ACEC but not designating additional ACEC impacts vegetation by reducing the area of relict vegetation available for monitoring and research. Managing areas of the PFO to retain relict vegetation provides a baseline for scientific research and monitoring. Closing and limiting areas to OHV use reduces surface disturbance and vegetation crushed by vehicle treads, thereby improving vegetation integrity. Table 4-20 shows the ACEC acres to which these management actions apply.</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
the ACECs to which these management actions apply.	Grazing and OHV Use in ACECs – No Action Alternative, this alternative contains 1,339 more acres open for livestock grazing, 1,037 acres are not closed to for OHV recreation use, and 21,354 more acres are open for limited OHV recreation use.	Grazing and OHV Use in ACECs – No Action Alternative, this alternative contains 1,346 more acres open for livestock grazing. Under this alternative, 64,182 additional acres are closed to OHV recreation use and 184,000 acres allow limited OHV recreation use.	306,714 more acres to OHV recreation use, and opens 1,667 more acres for limited OHV recreation use.	
<p>Impacts to Cultural Resources Restrictions on surface-disturbing actions within the ACECs would preserve cultural resources in place. Restricted activities include oil and gas leasing (either closed or no surface occupancy), mineral material and locatable minerals (closures, withdrawals, requiring plans of operation), right-of-way establishment (exclusion or avoidance), woodland product harvest (area closures), land treatments (area closures), and OHV use (either closed or limited to designated routes). Cultural resources would be preserved in place in a total of approximately 272,520 acres (11 percent of PFO total).</p> <p>ACECs designated to preserve cultural resources specifically include Copper Globe (128 acres), Dry Lake Archaeological District (17,994 acres), Muddy Creek (25,751 acres), Muddy Creek (25,751 acres), and Pictographs/Rock Art (46,048 acres). Impacts related to designation of these ACECs would be the same as those identified in the No Action Alternative.</p> <p>Some cultural resource sites and areas need special</p>	<p>Impacts to Cultural Resources Impacts would be similar to those identified in the No Action Alternative. The differences with regard to cultural resource impacts are the acres of ACECs designated. Cultural resources would be preserved in place on a total of approximately 195,400 acres (7.8 percent of PFO total) by limiting surface-disturbing activities.</p> <p>ACECs designated to preserve cultural resources specifically include Copper Globe (128 acres), Dry Lake Archaeological District (17,994 acres), Muddy Creek (25,751 acres), and Pictographs/Rock Art (46,048 acres). Impacts related to designation of these ACECs would be the same as those identified in the No Action Alternative.</p> <p>Some cultural resource sites and areas need special</p>	<p>Impacts to Cultural Resources Impacts would be similar to those identified in Alternative 1. The differences with regard to cultural resource impacts are the acres of ACECs designated. Cultural resources would be preserved in place on a total of approximately 521,800 acres (21 percent of PFO total)</p> <p>ACECs designated to preserve cultural resources specifically include Copper Globe (128 acres), Dry Lake Archaeological District (14,244 acres), Muddy Creek (25,751 acres), Rock Art (16,048 acres), Lower Green River (38,321 acres), Range Creek (65,504 acres), and Nine Mile Canyon (48,836 acres). Impacts related to designation of these ACECs would be the same as those identified in the No Action Alternative</p> <p>Some cultural resource sites</p>	<p>Impacts to Cultural Resources Impacts would be similar to those identified in Alternative 1. The differences with regard to cultural resource impacts are the acres of ACECs designated. Cultural resources would be preserved in place on a total of more than 631,600 acres (25 percent of PFO total).</p> <p>ACECs designated to specifically preserve cultural resources include Dry Lake Archaeological District (14,244 acres), Muddy Creek (25,119 acres), Rock Art (16,048 acres), Lower Green River (37,225), Temple-Cottonwood Dugout Wash (72,604 acres), Range Creek (65,504 acres), Nine Mile Canyon (49,778 acres), Gordon Creek (2,599 acres), Heritage Sites (2,865 acres), and Uranium Mining Districts (4,164 acres). In all, ACECs designated wholly or partially to preserve cultural</p>	<p>Impacts to Cultural Resources Impacts would be similar to those identified in Alternative 1. The differences with regard to cultural resource impacts are the acres of ACECs designated. Cultural resources would be preserved in place on approximately 461,000 acres (18.6 percent of PFO total).</p> <p>ACECs designated to specifically preserve cultural resources include Dry Lake Archaeological District (17,996 acres), Muddy Creek (25,119 acres), Rock Art (16,048 acres), Range Creek (65,504 acres), Nine Mile Canyon (48,838 acres), Heritage Sites (2,863 acres), and Uranium Mining Districts (4,167 acres). In all, ACECs designated wholly or partially to preserve cultural resources comprise approximately 180,500 acres in this alternative, more than 39 percent of the acreage designated as ACECs in the</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>acres), Pictographs/Rock Art (43 acres), Swasey's Cabin (60 acres), and Temple Mountain (2,442 acres). In addition to preclusion of surface-disturbing activities, these ACEC designations may encourage more concentrated recreation. Impacts from recreation would be mitigated by data recovery and site design. As a result, there would be no significant impacts from the designation of ACECs in this alternative.</p> <p>Some cultural resource sites and areas need special management but are not designated ACECs in this alternative. These sites/areas may not be preserved. Many of these areas have public use values that may not be preserved.</p>	<p>management but are not designated ACECs in this alternative. These sites/areas may not be preserved. Many of these areas have public use values that may not be preserved.</p>	<p>and areas need special management but are not designated ACECs in this alternative. These sites/areas may not be preserved. Many of these areas have public use values that may not be preserved.</p>	<p>resources comprise approximately 290,150 acres in this alternative, more than 45 percent of the acreage designated as ACECs in the PFO. Impacts related to designation of these ACECs would be the same as those identified in Alternative 1.</p>	<p>PFO. Impacts related to designation of these ACECs would be the same as those identified in Alternative 1.</p> <p>Some cultural resource sites and areas need special management but are not designated ACECs in this alternative. These sites/areas may not be preserved. Many of these areas have public use values that may not be preserved.</p>
<p>Impacts to Paleontology Resources Restrictions on surface-disturbing actions within the ACECs would protect paleontological resources in place. Restricted activities include oil and gas leasing (either closed or no surface occupancy), mineral material and locatable minerals (closures, withdrawals, requiring plans of operation), right-of-way establishment (exclusion or avoidance), woodland product harvest</p>	<p>Impacts to Paleontology Resources Impacts would be similar to those identified in Alternative 1. The differences with regard to paleontological resource impacts are the acres of ACECs designated. Paleontological resources would be protected from surface disturbance on a total of approximately 195,400 acres (7.8 percent of PFO total). One ACEC is designated</p>	<p>Impacts to Paleontology Resources Impacts would be similar to those identified in Alternative 1. The differences with regard to paleontological resource impacts are the acres of ACECs designated. Paleontological resources would be protected from surface disturbance on a total of approximately 521,800 acres (21 percent of PFO total). Impacts from management of</p>	<p>Impacts to Paleontology Resources Impacts would be similar to those identified in Alternative 1. The differences with regard to paleontological resource impacts are the acres of ACECs designated. Paleontological resources would be protected from surface disturbance on a total of more than 631,600 acres (25 percent of PFO total). Impacts from management of Cleveland-Lloyd Dinosaur</p>	<p>Impacts to Paleontology Resources Impacts would be similar to those identified in Alternative 1. The differences in regard to paleontological resource impacts are the acres of ACECs designated. Paleontological resources would be protected from surface disturbance on approximately 461,000 acres (18.6 percent of PFO total). Impacts from management of Cleveland-Lloyd Dinosaur</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
(area closures), land treatments (area closures), and OHV use (either closed or limited to designated routes). Paleontological resources would be protected in place in a total of approximately 272,520 acres.	specifically to protect and use paleontological resources. Management of Cleveland-Lloyd Dinosaur Quarry ACEC (765 acres) would protect the paleontological values in and adjacent to the existing quarry, maintain their access to the public, and provide for the continued scientific study of these paleontological resources.	Cleveland-Lloyd Dinosaur Quarry ACEC (765 acres) would be the same as those identified in Alternative A.	Quarry ACEC (765 acres) would be the same as those identified in Alternative A.	Quarry ACEC (765 acres) would be the same as those identified in Alternative A.
Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.	Impacts to Visual Resources No significant impact.
Impacts to Special Status Species Special management applied to ACECs established for other resource values indirectly maintains Special Status Species habitat in those areas by reducing surface disturbance. Approximately 272,520 acres (about 11 percent) of BLM land is managed as an ACEC, and Map 2-42 shows the location of existing ACECs and acres.	Impacts to Special Status Species Special management applied to ACECs established for other resource values indirectly improves Special Status Species habitat in those areas by reducing surface disturbance. Approximately 195,417 acres (about 8 percent) of BLM land is managed as an ACEC, and Map 2-43 shows the location of existing ACECs and acres.	Impacts to Special Status Species Special management applied to ACECs established for other resource values indirectly improves Special Status Species habitat in those areas by reducing surface disturbance. Approximately 521,843 acres (about 21 percent) of BLM land is managed as an ACEC, and Map 2-44 shows the location of existing ACECs and acres.	Impacts to Special Status Species Special management applied to ACECs established for other resource values indirectly improves Special Status Species habitat in those areas by reducing surface disturbance. Approximately 631,670 acres (about 25 percent) of BLM land is managed as an ACEC, and Map 2-45 shows the location of existing ACECs and acres.	Impacts to Special Status Species Special management applied to ACECs established for other resource values indirectly improves Special Status Species habitat in those areas by reducing surface disturbance. Approximately 460,954 acres (about 18 percent) of BLM land is managed as an ACEC, and Map 2-46 shows the location of existing ACECs and acres.
Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.	Impacts to Fish and Wildlife No significant impact.
Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.	Impacts to Wild Horses and Burros No significant impact.
Impacts to Fire and Fuels Management Restrictions to suppression and fuels treatments within	Impacts to Fire and Fuels Management Restrictions to suppression and fuels treatments within	Impacts to Fire and Fuels Management Restrictions to suppression and fuels treatments within	Impacts to Fire and Fuels Management Restrictions to suppression and fuels treatments within	Impacts to Fire and Fuels Management Restrictions to suppression and fuels treatments within

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
ACECs are identified in Table 4-21.	ACECs are identified in Table 4-22.	ACECs are identified in Table 4-23.	ACECs are identified in Table 4-24.	ACECs are identified in Table 4-25.
RESOURCE USES				
Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.	Impacts to Forest and Woodlands No significant impact.
Impacts to Livestock Closure of five ACECs to livestock grazing is not anticipated to impact livestock grazing. Table 2.16 (Alternatives Summary) describes the management decision regarding each ACEC. The types and methods of range improvements may be altered in ACECs open to livestock grazing, but this is not anticipated to change permitted use levels. Table 4-26 lists each ACEC where livestock grazing is not permitted. Livestock grazing is not permitted on 1,598 acres within the five ACECs.	Impacts to Livestock Closure of two ACECs to livestock grazing is not anticipated to impact livestock grazing. Table 2.16 (Alternatives Summary) describes the management decision regarding each ACEC. The types and methods of range improvements may be altered in ACECs open to livestock grazing, but this is not anticipated to change permitted use levels. Table 4-27 lists each ACEC where livestock grazing is not permitted and acres. Livestock grazing is not permitted on 170 acres within the two ACECs.	Impacts to Livestock Closure of two ACECs to livestock grazing is not anticipated to impact livestock grazing. Table 2.16 (Alternatives Summary) describes the management decision regarding each ACEC. The types and methods of range improvements may be altered in ACECs open to livestock grazing, but this is not anticipated to change permitted use levels. Table 4-28 lists each ACEC where livestock grazing is not permitted and acres. Livestock grazing is not permitted on 170 acres within the two ACECs.	Impacts to Livestock Closure of six ACECs to livestock grazing is not anticipated to impact livestock grazing. Table 2.16 (Alternatives Summary) describes the management decision regarding each ACEC. The types and methods of range improvements may be altered in ACECs open to livestock grazing, but this is not anticipated to change permitted use levels. Table 4-29 lists each ACEC where livestock grazing is not permitted and acres. Livestock grazing under this alternative is not permitted on 45,437 acres within the six ACECs.	Impacts to Livestock Closure of four ACECs to livestock grazing is not anticipated to impact livestock grazing. Table 2.16 (Alternatives Summary) describes the management decision regarding each ACEC. The types and methods of range improvements may be altered in ACECs open to livestock grazing, but this is not anticipated to change permitted use levels. Table 4-30 lists each ACEC where livestock grazing is not permitted and acres. Livestock grazing is not permitted on 5,499 acres within the four ACECs.
Impacts to Recreation Highway I-70 ACEC Management of the Highway I-70 ACEC as VRM Class I would maintain opportunities for driving for pleasure.	Impacts to Recreation Impacts would be the same as identified in Alternative 1 except that designating the 765-acre CLDQ ACEC would enhance recreation management in the area by removing conflicting uses, adding visitor facilities, and limiting types of recreation use	Impacts to Recreation Highway I-70 ACEC Maintaining the designation and expanding the east boundary of the ACEC to Highway 24 (approximately 40,831 acres) and managing the area as VRM Class I would maintain and enhance opportunities for scenic driving.	Impacts to Recreation Highway I-70 ACEC Maintaining the designation and expanding the east boundary of the ACEC to State Highway 6 (approximately 45,283 acres) and managing the area as VRM Class I would maintain and enhance opportunities for scenic driving.	Impacts to Recreation Highway I-70 ACEC Maintaining the designation and expanding the east boundary of the ACEC to Highway 24 (approximately 40,831 acres) and managing the area as VRM Class I would maintain and enhance opportunities for scenic driving.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	to areas that would not impact paleontological resources.	<p>Lower Green River ACEC Designating the 38,321-acre ACEC would protect and enhance recreation opportunities in and around the lower Green River corridor. Limiting OHV use to designated routes would maintain existing opportunities for motorized recreation without damage to natural resources in the area.</p> <p>Range Creek ACEC Designating the 65,504-acre ACEC would greatly enhance and protect opportunities for dispersed, nonmotorized recreation in the Range Creek area by limiting recreation access to hiking and horseback use. Closure of the area to OHV use and mineral development would maintain existing natural resources and levels of surface disturbance important to primitive recreation experiences.</p> <p>CLDQ ACEC Designating the 766-acre ACEC would enhance recreation management in the area by removing conflicting uses, adding visitor facilities, and limiting types of recreation use to areas that would not impact paleontological</p>	<p>Lower Green River ACEC Designating the 73,225-acre ACEC would also protect natural resources important to recreation and enhance primitive recreation opportunities; however, the ACEC would be closed to OHV use, which would restrict motorized access to the area.</p> <p>Temple-Cottonwood Dugout Wash ACEC Designating the 72,604-acre ACEC would protect natural and cultural resources important to recreation and enhance primitive recreation opportunities; however, the ACEC would be closed to OHV use, which would restrict motorized access to the area.</p> <p>Range Creek ACEC Designating the 65,504-acre ACEC would preserve and protect opportunities for dispersed, non-motorized recreation in the Range Creek area by limiting recreation access to hiking and horseback use. Closure of the area to OHV use and mineral development would maintain existing natural resources and levels of surface disturbance important to primitive recreation experiences.</p>	<p>Rock Art ACEC Prescriptions for the Rock Art ACEC (approximately 16,048 total acres) would maintain unique and important cultural resource recreation opportunities.</p> <p>San Rafael Canyon ACEC Maintaining the San Rafael Canyon ACEC (approximately 86,696 acres) with mineral leasing categories described in Chapter 2 would protect and enhance existing opportunities.</p> <p>CLDQ ACEC Designating the 766-acre ACEC would enhance recreation management in the area by removing conflicting uses, adding visitor facilities, and limiting types of recreation use to areas that would not impact paleontological resources.</p> <p>Heritage Sites ACEC Closing approximately 2,863 acres to mineral development, lands and realty actions, and range improvements would maintain opportunities for heritage recreation by preserving the historic integrity of these sites.</p> <p>Uranium Mining Districts ACEC No firewood collection would</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		resources.	<p>CLDQ ACEC Designating the 766-acre ACEC would enhance recreation management in the area by removing conflicting uses, adding visitor facilities, and limiting types of recreation use to areas that would not impact paleontological resources.</p> <p>Gordon Creek ACEC Closing the area to OHV use would restrict motorized access to the area; however, it would also protect natural and cultural resources important to recreation and enhance primitive recreation opportunities. Because of the small size (approximately 2,600 acres) and narrow configuration of the ACEC, loss of motorized access would be a negligible effect.</p> <p>Heritage Sites ACEC Closing the area to mineral development, lands and realty actions, and range improvements (approximately 2,865 total acres) would maintain opportunities for heritage recreation by preserving the historic integrity of these sites.</p> <p>Uranium Mining Districts ACEC No firewood collection would</p>	be allowed in the ACEC, which would preserve the integrity of historic structures and maintain opportunities for heritage recreation.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
			be allowed in the ACEC, which would preserve the integrity of historic structures and maintain opportunities for heritage recreation.	
<p>Impacts to Lands and Realty Potential impacts from existing or proposed ACECs would usually be minimal and vary by management restrictions for each designated and proposed ACEC. There would be minimal impacts to the Lands and Realty Program because of the potential to mitigate such impacts. Upon designation as an ACEC, BLM would pursue the acquisition and/or exchange of state and private in-holdings. BLM would also determine case by case the feasibility of acquiring state and private lands immediately adjacent to the ACEC if those lands would enhance the characteristics of the ACEC. (Table 4-31)</p>	<p>Impacts to Lands and Realty Those areas that have been identified as potential ACECs, would limit land tenure activities, and would cause significant impacts to the Lands and Realty Program where the ability to prescribe ROWs and other permitting activities are restricted. (Table 4-32)</p>	<p>Impacts to Lands and Realty Those areas that have been identified as potential ACECs would limit land tenure activities and would result in significant impacts to the Lands and Realty Program where the ability to prescribe ROWs and other permitting activities are restricted. (Table 4-33)</p>	<p>Impacts to Lands and Realty Those areas that have been identified as potential ACECs would limit land tenure activities and would limit the Lands and Realty Program as to where ROWs and other land tenure adjustments could be applied. Under this alternative the following proposed ACECs and their accompanying acreages would restrict land tenure activities. (Table 4-34)</p>	<p>Impacts to Lands and Realty Those areas that have been identified as potential ACECs would limit land tenure activities and would cause significant impacts to the Lands and Realty Program where the ability to prescribe ROWs and other permitting activities are restricted. Under this alternative the following proposed ACECs and their accompanying acreages would have restrictions on land tenure activities. (Table 4-35)</p>
<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. ACECs would not be located in the oil and gas development area (Map 2-42); therefore, ACEC management actions would not impact oil and gas exploration and development in this area. ACEC management actions</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. See Alternative 1. ACECs would not be located in the oil and gas development area; therefore, impacts to oil and gas exploration and development from ACEC management actions would not be significant</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Under this alternative, Range Creek ACEC, Beckwith Plateau ACEC, and Nine Mile Canyon ACEC would be the only ACECs proposed in the oil and gas development area (Map 2-44). ACEC management</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Under this alternative, Range Creek ACEC, Beckwith Plateau ACEC, and Nine Mile Canyon ACEC would be the only ACECs proposed in the oil and gas development area (Map 2-45). ACEC management</p>	<p>Impacts to Minerals and Energy Leasable Minerals Oil and Gas. Range Creek ACEC and Nine Mile Canyon ACEC would be the only ACECs proposed in the oil and gas development area (Map 2-46). ACEC management actions associated with other ACECs under this alternative</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>associated with other ACECs under this alternative would not significantly impact oil and gas exploration and development because the ACECs would not be located in areas of reasonable and foreseeable oil and gas development.</p> <p>Coal. No reasonable and foreseeable coal development areas are within ACECs (Map 2-42); therefore impacts from ACEC management actions on coal activities would not be significant.</p> <p>Locatable Minerals Big Flat Tops ACEC (192 acres), Bowknot Bend ACEC (1,087 acres), Copper Globe ACEC (127 acres), Pictographs ACEC (43 acres), San Rafael Reef ACEC (74,102 acres), and Swasey's Cabin ACEC (60 acres) would be proposed for withdrawal from locatable mineral entry (Map 2-42). A total of 75,611 acres would be recommended for withdrawal. Locatable mineral entry would not be allowed in these areas after withdrawal from locatable mineral entry, which would reduce the area available for entry.</p> <p>Dry Lake Archaeological District ACEC (17,994 acres), Highway I-70 Scenic Corridor</p>	<p>(Map 2-43). ACEC management actions associated with other ACECs under this alternative would not significantly impact oil and gas exploration and development because the ACECs would not be located in areas of reasonable and foreseeable oil and gas development.</p> <p>In the Nine Mile Canyon (approximately 50,000 acres), management actions would require cultural resource inventories before oil and gas development would be permitted, which could decrease operator costs and would minimize the potential for costly delays in oil and gas exploration and development when cultural resources are identified, disturbed, or damaged during construction activities. The Nine Mile Canyon area would be open to leasing subject to minor constraints (controlled surface use), which would limit oil and gas development and explorations. Management actions would require development to meet VRM Class IV restrictions, which would place minor restrictions on the placement of oil and gas facilities.</p> <p>Coal. No reasonable and foreseeable coal development</p>	<p>actions associated with other ACECs under this alternative would not significantly impact oil and gas exploration and development because the ACECs would not be located in areas of reasonable and foreseeable oil and gas development.</p> <p>A total of 116,036 acres in Beckwith Plateau ACEC (50,532 acres) and Range Creek ACEC (65,504 acres) would be closed to leasing, which would render hydrocarbon resources under these areas unrecoverable.</p> <p>The Nine Mile Canyon ACEC (48,836 acres) would be open to leasing subject to minor constraints (controlled surface use), which would limit oil and gas development and explorations and could compress oil and gas exploration and development into specific periods of time. In the Nine Mile Canyon, management actions would not permit oil and gas development within 100 feet of inventoried cultural resources, after completion of cultural resource inventories, which could decrease operator costs and would minimize the potential for costly delays in oil and gas exploration and development when cultural resources are</p>	<p>actions associated with other ACECs under this alternative would not significantly impact oil and gas exploration and development because the ACECs would not be located in areas of reasonable and foreseeable oil and gas development.</p> <p>A total of 116,036 acres in Beckwith Plateau ACEC (50,532 acres) and Range Creek ACEC (65,504 acres) would be closed to leasing, which would render hydrocarbon resources under these areas unrecoverable.</p> <p>The Nine Mile Canyon ACEC (48,836 acres) would be open to leasing subject to minor constraints (controlled surface use), which would limit oil and gas development and explorations and could compress oil and gas exploration and development into specific periods of time. In Nine Mile Canyon, management actions would not permit oil and gas development within 100 feet of inventoried cultural resources, after completion of cultural resource inventories, which could decrease potential operator costs and would minimize the potential for costly delays in oil and gas exploration and development when cultural</p>	<p>would not significantly impact oil and gas exploration and development because the ACECs would not be located in areas of reasonable and foreseeable oil and gas development.</p> <p>Range Creek ACEC (65,504 acres) would be closed to leasing, which would render hydrocarbon resources under these areas unrecoverable. Closure of these areas would not allow new oil and gas leasing. Valid and existing leases could be developed in the closed areas.</p> <p>The Nine Mile Canyon ACEC (48,838 acres) would be open to leasing subject to major constraints (no surface occupancy), which would limit oil and gas development on BLM administered lands within the canyon rims. In the Nine Mile Canyon ACEC, management actions would not permit oil and gas development within 100 feet of inventoried cultural resources, after completion of cultural resource inventories, which could decrease potential operator costs and would minimize the potential for costly delays in oil and gas exploration and development when cultural resources are identified, disturbed, or damaged during</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>ACEC (39,493 acres), Muddy Creek ACEC (25,751 acres), Seger's Hole (7,379 acres), and Temple Mountain ACEC (2,444 acres) would be open to mineral entry with plans of operations. A total of 93,061 acres would be open to mineral entry with plans of operations, which could lead to a delay in development and/or relocation of the resource development activity.</p> <p>Mineral Materials Bowknot Bend ACEC (1,087 acres), Copper Globe ACEC (127 acres), Highway I-70 Scenic Corridor ACEC (39,493 acres), Muddy Creek ACEC (25,751 acres), Pictographs ACEC (43 acres), San Rafael Reef ACEC (74,102 acres), Seger's Hole ACEC (7,379 acres), Sid's Mountain ACEC (54,729 acres), and Swasey's Cabin ACEC (60 acres) would be closed to disposal of mineral materials (Map 2-42). Disposal of mineral materials would not be allowed in these 202,771 acres. If alternative mineral material deposits were to exist nearby, these actions could relocate mineral materials resource development activities.</p>	<p>areas are within ACECs (Map 2-43); therefore impacts to coal development from ACEC management actions would not be significant.</p> <p>Locatable Minerals Copper Globe ACEC (127 acres), Rock Art ACEC (46,048 acres), San Rafael Reef ACEC (72,079 acres), Nine Mile Canyon (approximately 50,000 acres), and Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be proposed for withdrawal from locatable mineral entry (Map 2-43). A total of approximately 169,021 acres, 93,410 acres more than Alternative 1, would be proposed for withdrawal, which would limit areas available for locatable mineral development.</p> <p>Dry Lake Archaeological District ACEC (17,994 acres), Highway I-70 Scenic Corridor ACEC (25,274 acres), Muddy Creek ACEC (25,751 acres), and Seger's Hole ACEC (7,379 acres) would be open to mineral entry with plans of operations (Map 2-43). A total of 76,398 acres—16,663 fewer acres than Alternative 1—would be open to mineral entry with plans of operations, which could lead to a delay in development and/or relocation of the resource development</p>	<p>identified, disturbed, or damaged during construction activities. ACEC management actions would require development to meet VRM Class II and III restrictions, which could result in the relocation of oil and gas facilities.</p> <p>Coal. No reasonable and foreseeable coal development areas are within ACECs; therefore impacts to coal activities from ACEC management actions would not be significant.</p> <p>Locatable Minerals Copper Globe ACEC (127 acres), Rock Art ACEC (16,048 acres), San Rafael Reef ACEC (72,079 acres), Range Creek ACEC (65,504 acres), Nine Mile Canyon ACEC (48,836 acres), and Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be proposed for withdrawal from locatable mineral entry (Map 2-44). Locatable mineral entry would not be allowed on these 203,361 acres—127,750 acres more than in the No Action Alternative—after withdrawal from locatable mineral entry.</p> <p>Dry Lake Archaeological District ACEC (14,244 acres), Highway I-70 Scenic Corridor ACEC (40,831 acres), Muddy</p>	<p>resources identified, disturbed, or damaged during construction activities. ACEC management actions would require development to meet VRM Class II and III restrictions, which could result in the relocation of oil and gas facilities.</p> <p>Coal. No reasonable and foreseeable coal development areas are within ACECs; therefore impacts to coal activities from ACEC management actions would not be significant.</p> <p>Locatable Minerals Copper Globe ACEC (127 acres), Rock Art ACEC (16,048 acres), San Rafael Reef ACEC (72,079 acres), Range Creek ACEC (65,504 acres), Nine Mile Canyon ACEC (48,836 acres), and Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be proposed for withdrawal from locatable mineral entry (Map 2-45). Locatable mineral entry would not be allowed on these 203,361 acres—127,750 acres more than Alternative 1—after withdrawal from locatable mineral entry.</p> <p>Dry Lake Archaeological District ACEC (14,244 acres), Highway I-70 Scenic Corridor ACEC (40,831 acres), Muddy</p>	<p>construction activities. ACEC management actions would require development to meet VRM Class III restrictions, which would place minor restrictions on the placement of oil and gas facilities. Access to oil and gas resources within the ACEC would be available from non-BLM lands within the area as negotiated with land owners.</p> <p>Coal. No reasonable and foreseeable coal development areas are within ACECs; therefore impacts to coal activities from ACEC management actions would not be significant.</p> <p>Locatable Minerals Big Flat Tops ACEC (192 acres), Bowknot Bend ACEC (1,087 acres), Heritage Sites ACEC (2,863 acres) (Wilsonville, Sheperds End, Smith Cabin, Hunt Cabin, Copper Globe, Swasey's Cabin, and Temple Mountain), Rock Art ACEC (16,048 acres), San Rafael Reef ACEC (71,596 acres), Range Creek ACEC (65,504 acres), Nine Mile Canyon ACEC (48,838 acres), and Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be proposed for withdrawal from locatable mineral entry (Map 2-46). A total of 206,895 acres—</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	<p>activity.</p> <p>Mineral Materials Copper Globe ACEC (127 acres), Highway I-70 Scenic Corridor ACEC (25,274 acres), Muddy Creek ACEC (25,751 acres), Rock Art ACEC (46,048 acres), San Rafael Reef ACEC (72,079 acres), Seger's Hole ACEC (7,379 acres), and Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be closed to disposal of mineral materials (Map 2-43). Disposal of mineral materials would not be allowed in these 177,425 acres, 25,346 fewer acres than the No Action Alternative. If alternative mineral material deposits were to exist nearby, these actions could relocate mineral materials resource development activities.</p>	<p>Creek ACEC (25,751 acres), Seger's Hole ACEC (7,379 acres), Sid's Mountain ACEC (54,729 acres), Lower Green River (38,321 acres), and Beckwith Plateau (50,532 acres) would be open to mineral entry with plans of operations. Actions on these 231,787 acres—138,726 acres more than in the No Action Alternative—could lead to a delay in development and/or relocation of the resource development activity.</p> <p>Mineral Materials Copper Globe ACEC (127 acres), Highway I-70 Scenic Corridor ACEC (40,831 acres), Muddy Creek ACEC (25,751 acres), Rock Art ACEC (16,048 acres), San Rafael Reef ACEC (72,079 acres), Seger's Hole ACEC (7,379 acres), Sid's Mountain ACEC (54,729 acres), Range Creek ACEC (65,504 acres), Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be closed to disposal of mineral materials (Map 2-44). Disposal of mineral materials would not be allowed on these 283,215 acres, 80,444 acres more than in the No Action Alternative. If alternative mineral material deposits were to exist nearby, such actions could relocate mineral materials resource</p>	<p>Creek ACEC (25,751 acres), Seger's Hole ACEC (7,379 acres), Sid's Mountain ACEC (54,729 acres), Lower Green River (38,321 acres), and Beckwith Plateau (50,532 acres) would be open to mineral entry with plans of operations. Actions on these 231,787 acres— 138,726 acres more than Alternative 1—could lead to a delay in development and/or relocating the resource development activity.</p> <p>Mineral Materials Copper Globe ACEC (127 acres), Highway I-70 Scenic Corridor ACEC (40,831 acres), Muddy Creek ACEC (25,751 acres), Rock Art ACEC (16,048 acres), San Rafael Reef ACEC (72,079 acres), Seger's Hole ACEC (7,379 acres), Sid's Mountain ACEC (54,729 acres), Range Creek ACEC (65,504 acres), Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be closed to disposal of mineral materials (Map 2-45). Disposal of mineral materials would not be allowed on these 283,215 acres, 80,444 acres more than in the No Action Alternative. If alternative mineral material deposits were to exist nearby, such actions could relocate mineral materials resource</p>	<p>131,284 acres more than in the No Action Alternative—would be proposed for withdrawal, which would limit areas available for locatable mineral development.</p> <p>Dry Lake Archaeological District ACEC (17,996 acres), Highway I-70 Scenic Corridor ACEC (40,831 acres), Muddy Creek ACEC (25,119 acres), Seger's Hole ACEC (7,076 acres), Sid's Mountain ACEC (54,729 acres), and Uranium Mining Districts ACEC (4,167 acres) would be open to mineral entry with plans of operations (Map 2-46). A total of 149,918 acres—56,857 acres more than in the No Action Alternative—would be open to mineral entry with plans of operations, which could lead to a delay in development and/or relocation of the resource development activity.</p> <p>Mineral Materials Bowknot Bend ACEC (1,087 acres), Heritage Sites ACEC (2,863 acres) (Wilsonville, Sheperds End, Smith Cabin, Hunt Cabin, Copper Globe, Swasey's Cabin, and Temple Mountain), Highway I-70 Scenic Corridor ACEC (40,831 acres), Muddy Creek ACEC (25,119 acres), Rock Art ACEC (16,048 acres), San Rafael</p>

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
		development activities.	development activities.	Reef ACEC (71,596 acres), Seger's Hole ACEC (7,076 acres), Sid's Mountain ACEC (54,729 acres), Range Creek ACEC (65,504 acres), Cleveland-Lloyd Dinosaur Quarry ACEC (767 acres) would be closed to disposal of mineral materials (Map 2-46). Disposal of mineral materials would not be allowed in these 285,620 acres—82,849 acres more than Alternative 1. If alternative mineral material deposits were to exist nearby, these actions could relocate mineral materials resource development activities.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.	Impacts to Wilderness Study Areas No significant impact.
Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.	Impacts to Areas of Critical Environmental Concern No significant impact.
Impacts to Wild and Scenic Rivers Portions of the San Rafael River, Muddy Creek, North Salt Wash, Coal Wash, Cane Wash, and small portions of the Green River are within ACECs. North Fork Coal Wash and South Fork Coal Wash are entirely within the Sid's Mountain ACEC. Management of ACECs would	Impacts to Wild and Scenic Rivers Only a small portion of suitable river segments of the Green River corridor would be within the Dry Lake ACEC. Management of this ACEC would complement protective management of outstandingly remarkable cultural values. Of the eligible river segments not suitable with this	Impacts to Wild and Scenic Rivers All suitable segments of the San Rafael River would be within the San Rafael Canyon ACEC, while large portions of suitable segments of the Green River, Price River, and Range Creek would be within other ACECs. Management of ACECs would complement protective management of	Impacts to Wild and Scenic Rivers Portions of the San Rafael River, Muddy Creek, North Salt Wash, Coal Wash, Cane Wash, and small portions of the Green River are within ACECs. North Fork Coal Wash and South Fork Coal Wash are entirely within the Sid's Mountain ACEC. Management of ACECs would	Impacts to Wild and Scenic Rivers Only small portions of suitable river segments of the Green River corridor would be within the ACECs, specifically the Nine Mile Canyon, Range Creek, Dry Lake, and Horseshoe Canyon ACECs. All of the San Rafael River is within the San Rafael Canyon ACEC. Management of these

AREAS OF CRITICAL ENVIRONMENTAL CONCERN				
Proposed Areas of Critical Environmental Concern				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
complement protective management of the ORVs of these eligible river segments.	alternative, only the Muddy Creek corridor would be within an ACEC (Muddy Creek ACEC). Management of this ACEC would complement protective management of outstandingly remarkable cultural, historic, and natural values. ORVs of all other river segments not within ACECs and not determined suitable would be at more risk.	ORVs of these suitable river segments. Of the eligible river segments not suitable with this alternative, Nine Mile Creek, North Fork Coal Wash, South Fork Coal Wash, Cottonwood Wash, and Barrier Creek would be entirely within ACECs, while portions of Muddy Creek, Coal Wash, Keg Spring Canyon and North Salt Wash would be within ACECs. ACEC management would protect their ORVs.	complement protective management of ORVs and tentative classifications of these suitable river segments.	ACEC would complement protective management of outstandingly remarkable cultural values.
SUPPORT				
Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.	Impacts to Transportation and Motorized Access No significant impact.
Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.	Impacts to Hazardous Materials and Waste No significant impact.

Table 4-16. Acres Restrictions to Livestock Grazing and OHV Use in ACECs – No Action Alternative

ACEC	Closed for Livestock Grazing	Closed to OHV Use	Limited OHV Use
Big Flat Tops	192	192	192
Bowknot	1,087	1,087	1,087
Copper Globe	127		127
Dry Lake			17,994
I-70 Scenic			39,493
Muddy Creek			25,751
Pictographs*	43	43	43
San Rafael Canyon			49,121
San Rafael Reef			74,102
Seger's Hole			7,379
Sid's Mountain			54,729
Swasey's Cabin	60		60
Temple Mountain			2,442
Total	1,509	1,322	272,520
Notes:			
* Only the area immediately around panels is closed to livestock grazing.			

Table 4-17. Acres Restrictions to Livestock Grazing and OHV Use in ACECs – Alternative A

ACEC	Closed to Livestock Grazing	Closed to OHV Use	Limited OHV Use
Cleveland-Lloyd Dinosaur Quarry			765
Copper Globe	127		127
Dry Lake			17,994
I-70 Scenic			29,205
Muddy Creek			28,778
Rock Art Sites	43	43	46,003
San Rafael Reef			72,079
Seeger's Hole			7,379
Nine Mile Canyon			48,836
Total	170	285	251,166

Table 4-18. Acres Restrictions to Livestock Grazing and OHV Use in ACECs – Alternative B

ACEC	Closed to Livestock Grazing	Closed to OHV use	Limited OHV Use
Beckwith Plateau ¹			50,532
Cleveland-Lloyd			765
Copper Globe	127		127
Dry Lake			14,244
I-70 Scenic			45,283
Lower Green River ²			37,225
Muddy Creek			25,199
Nine Mile			49,778
Range Creek		65,504	
Rock Art ³	43		16,048
San Rafael Canyon			86,695
San Rafael Reef			71,596
Seeger's Hole			7,076
Sid's Mountain			78,293
Total	163	65,504	456,339
Notes:			
1 WSA portion of this ACEC excludes OHV use.			
2 Included in Dry Lakes ACEC.			
3 Rock Art livestock grazing is excluded only from the area immediately surrounding the panels.			

Table 4-19. Acres Restrictions to Livestock Grazing and OHV Use in ACEC – Alternative C

ACEC	Closed to Livestock Grazing	OHV Closed	OHV Limited
Beckwith Plateau		50,532	
Big Flat Tops	192	192	
Bowknot Bend	1,087	1,087	
Cleveland-Lloyd Dinosaur Quarry			766
Dry Lake ¹			14,244
Gordon Creek	2,599	2,599	
Heritage Sites ²			2,865
I-70 Scenic			45,283
Lower Green River ³	37,225	37,225	
Muddy Creek			25,119
Nine Mile Canyon			49,778
Range Creek		65,504	
Rock Art Sites ⁴	43		16,048
San Rafael Canyon			86,695
San Rafael Reef			71,596
Seger's Hole			7,076
Sid's Mountain		78,293	
Temple-Cottonwood Dugout		72,604	
Uranium Mining Districts	4,164		
Total	45,310	308,036	274,187

ACEC	Closed to Livestock Grazing	OHV Closed	OHV Limited
<p>Notes:</p> <p>¹ Dry Lake includes Bowknot Bend.</p> <p>² Heritage ACEC includes Copper Globe, Swasey's Cabin, and Temple Mountain ACECs.</p> <p>³ Allotments would be retired.</p> <p>⁴ Livestock grazing excluded only from the area immediately around panels.</p>			

Table 4-20. Acres Restrictions to Livestock Grazing and OHV Use in ACECs – Alternative D

ACEC	Closed to Livestock Grazing	Closed to OHV Use	Limited OHV Use
Big Flat Tops	192	192	
Bowknot Bend ¹	1,087	1,087	
Cleveland-Lloyd Dinosaur Quarry			766
Dry Lake			17,996
Heritage Sites ²			2,863
I-70 Scenic			40,831
Muddy Creek			25,119
Nine Mile Canyon			48,838
Range Creek		65,504	
Rock Art Sites ³	43		16,048
San Rafael Canyon			86,696
San Rafael Reef			71,596
Seger's Hole			7,076
Sid's Mountain		54,729	
Uranium Mining Districts	4,167		
Total	5,489	121,512	317,829
Notes:			
¹ Bowknot Bend is included in the Dry Lake ACEC.			
² Heritage Sites ACEC includes Copper Globe, Swasey's Cabin, and Temple Mountain.			
³ Rock Art ACEC excludes livestock grazing only in the area immediately around panels.			

Table 4-21. Fire and Fuels Management Restrictions Within ACECs – No Action Alternative

ACEC Name	Suppression Restrictions	Fuels Treatments Restrictions
Big Flat Tops	Subject to suppression with special conditions	Excluded from land treatment
Bowknot Bend	Subject to suppression with special conditions	Excluded from land treatment
Copper Globe	Subject to suppression with special conditions	Excluded from land treatment
Dry Lake	Subject to suppression with special conditions	Open to land treatment
I-70 Scenic	Subject to suppression with special conditions	Excluded from land treatment
Muddy Creek	Subject to suppression	Excluded from land treatment
Pictographs	Subject to suppression with special conditions	Excluded from land treatment with special conditions
San Rafael Canyon	None	None
San Rafael Reef	Subject to suppression with special conditions	Excluded from land treatment with special conditions
Seger's Hole	Subject to suppression with special conditions	Excluded from land treatment
Sid's Mountain	Subject to suppression with special conditions	Excluded from land treatment
Swasey's Cabin	Subject to full suppression	Excluded from land treatment
Temple Mountain	Subject to full suppression	Open to land treatment
These restrictions would result in site-specific suppression strategies to protect resources from wildland fire damage.		

Table 4-22. Fire and Fuels Management Restrictions within ACECs – Alternative A

ACEC Name	Suppression Restrictions	Fuels Treatments Restrictions
Cleveland-Lloyd Dinosaur Quarry	None	None
Copper Globe	Subject to suppression with special conditions	Excluded from land treatment
Dry Lake	Subject to suppression with special conditions	Open to land treatment
I-70 Scenic	Subject to suppression with special conditions	Excluded from land treatment
Muddy Creek	Subject to suppression	Excluded from land treatment
Rock Art	Subject to suppression with special conditions	Excluded from land treatment with special conditions
San Rafael Reef	Subject to suppression with special conditions	Excluded from land treatment with special conditions
Seger's Hole	Subject to suppression with special conditions	Excluded from land treatment
These restrictions would result in site-specific suppression strategies to protect resources from wildland fire damage.		

Table 4-23. Fire and Fuels Management Restrictions Within ACECs – Alternative B

ACEC Name	Suppression Restrictions	Fuels Treatments Restrictions
Beckwith Plateau	None	None
Cleveland-Lloyd Dinosaur Quarry	None	None
Copper Globe	Subject to suppression with special conditions	Excluded from land treatment
Dry Lake	Subject to suppression with special conditions	Open to land treatment
I-70 Scenic	Subject to suppression with special conditions	Excluded from land treatment
Lower Green River	None	Riparian excluded from land treatment with special conditions
Muddy Creek	Subject to suppression	Excluded from land treatment
Nine Mile Canyon	None	None
Range Creek	None	None
Rock Art	Subject to suppression with special conditions	Excluded from land treatment with special conditions
San Rafael Canyon	None	None
San Rafael Reef	Subject to suppression with special conditions	Excluded from land treatment with special conditions
Seeger's Hole	Subject to suppression with special conditions	Excluded from land treatment
Sid's Mountain	Subject to suppression with special conditions	Excluded from land treatment
These restrictions would result in site-specific suppression strategies to protect resources from wildland fire damage.		

Table 4-24. Fire and Fuels Management Restrictions Within ACECs – Alternative C

ACEC Name	Suppression Restrictions	Fuels Treatments Restrictions
Beckwith Plateau	None	None
Big Flat Tops	Subject to suppression with special conditions	Excluded from land treatment
Bowknot Bend	Subject to suppression with special conditions	Excluded from land treatment
Cleveland-Lloyd Dinosaur Quarry	None	None
Dry Lake	Subject to suppression with special conditions	Excluded from land treatment
Gordon Creek	None	None
Heritage Sites	None	Excluded from land treatment with special conditions
I-70 Scenic	Subject to suppression with special conditions	Excluded from land treatment
Lower Green River	Subject to suppression with special conditions	Excluded from land treatment with special conditions
Muddy Creek	Subject to fire suppression	Excluded from land treatment
Nine Mile Canyon	None	None
Range Creek	None	None
Rock Art	Subject to full suppression	Excluded from land treatment
San Rafael Canyon	None	None
San Rafael Reef	Subject to suppression with special conditions	Excluded from land treatment with special conditions
Seger's Hole	Subject to suppression with special conditions	Excluded from land treatment
Sid's Mountain	Subject to suppression with special conditions	Excluded from land treatment
Temple-Cottonwood-Dugout Wash	None	None
Uranium Mining Districts	None	None
These restrictions would result in site-specific suppression strategies to protect resources from wildland fire damage.		

Table 4-25. Fire and Fuels Management Restrictions Within ACECs – Alternative D

ACEC Name	Suppression Restrictions	Fuels Treatments Restrictions
Big Flat Tops	Subject to suppression with special conditions	Excluded from land treatment
Bowknot Bend	Subject to suppression with special conditions	Excluded from land treatment
Cleveland-Lloyd Dinosaur Quarry	None	None
Dry Lake	Subject to suppression with special conditions	Excluded from land treatment
Heritage Sites	None	Excluded from land treatment with special conditions
I-70 Scenic	Subject to suppression with special conditions	Excluded from land treatment
Muddy Creek	Subject to fire suppression	Excluded from land treatment
Nine Mile Canyon	None	None
Range Creek	None	None
Rock Art	Subject to full suppression	Excluded from land treatment
San Rafael Canyon	None	None
San Rafael Reef	Subject to suppression with special conditions	Excluded from land treatment with special conditions
Seger's Hole	Subject to suppression with special conditions	Excluded from land treatment
Sid's Mountain	Subject to suppression with special conditions	Excluded from land treatment
Uranium Mining Districts	None	None
These restrictions would result in site-specific suppression strategies to protect resources from wildland fire damage.		

Table 4-26. ACECs Restricted From Livestock Grazing and Acres – No Action Alternative

ACEC Name	Acres
Big Flat Tops*	295
Bowknot Bend*	1,072
Copper Globe	127
Pictographs (Rock Art)**	43
Swasey's Cabin	60
Total	1,597
Notes:	
*Restricted from grazing to protect relict vegetation.	
** Only the areas immediately around panels are excluded from livestock grazing.	

Table 4-27. ACECs Restricted From Livestock Grazing and Acres – Alternative A

ACEC Name	Acres
Copper Globe	127
Pictographs (Rock Art)*	43
Total	170
Note:	
* Only the areas immediately around panels are excluded from livestock grazing.	

Table 4-28. ACECs Restricted From Livestock Grazing and Acres – Alternative B

ACEC name	Acres
Copper Globe	127
Pictographs (Rock Art)*	43
Total	170
Note: * Only the areas immediately around panels are excluded from livestock grazing.	

Table 4-29. ACECs Restricted From Livestock Grazing and Acres – Alternative C

ACEC Name	Acres
Big Flat	192
Bowknot Bend	1,087
Copper Globe	127
Pictographs (Rock Art)*	43
Lower Green River	37,225
Gordon Creek	2,599
Uranium Mines	4,164
Total	45,437
Note: * Only the areas immediately around panels are excluded from livestock grazing.	

Table 4-30. ACECs Restricted from Livestock Grazing and Acres – Alternative D

ACEC Name	Acres
Big Flat	192
Bowknot Bend	1,097
Pictographs (Rock Art)*	43
Uranium Mines	4,167
Total	5,499
Note: *Only the areas immediately around panels are excluded from livestock grazing.	

Table 4-31. Lands and Realty Actions by ACEC – No Action Alternative

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Big Flat Tops 285 acres	Closed	N/A	Withdrawn	No ROW
Bowknot Bend 1,087 acres	Closed	Closed	Withdrawn	Excluded
Copper Globe 128 acres	Closed	Closed	Withdrawn	Excluded
Dry Lake Archaeological 22,258 acres	Controlled surface use	Open	Open	Avoid ROW
Highway I-70 45,594 acres	NSO	Closed	Open to existing	Avoid ROW
Muddy Creek 28,778 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Pictographs 7 acres	Closed	Closed	Withdrawn	Excluded
San Rafael Canyon 54,102 acres	Lower – Closed Middle – Controlled SO Upper – Closed	N/A	N/A	N/A
San Rafael Reef 84,018 acres	North – Closed South – NSO	Closed	Withdrawn	Excluded
Seger’s Hole 7,918 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Sid’s Mountain 61,380 acres	Controlled surface use	Closed	Open only with operation plans	Avoid ROW
Swasey’s Cabin 60 acres	Closed	Closed	Withdrawn	Excluded

Table 4-32. Lands and Realty Actions by ACEC – Alternative A

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Big Flat Tops 285 acres	Closed	Closed	Withdrawn	Excluded
Cleveland-Lloyd Dinosaur Quarry 765 Acres	Closed	Closed	Closed	Excluded
Copper Globe 128 acres	NSO	Closed	Withdrawn	Excluded
Dry Lake Archaeological 22,258 acres	NSO	Open	Open	Avoid ROW
Highway I-70 29,205 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Muddy Creek 28,778 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Nine Mile Canyon 60,678 acres	Controlled surface use	Open	Withdrawn	N/A
Rock Art 18,143 acres	NSO	Closed	Withdrawn	Excluded
San Rafael Reef 81, 724 acres	Closed	Closed	Withdrawn	Excluded
Sege's Hole 7,918 acres	NSO	Closed	Open only with operation plans	Avoid ROW

Table 4-33. Lands and Realty Actions by ACEC – Alternative B

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Beckwith Plateau 56,980	Closed	Open with stipulations	Open only with operation plans	Avoid ROW
Big Flat Tops 285 acres	Closed	Closed	Withdrawn	Excluded
Cleveland-Lloyd Dinosaur Quarry 765 Acres	Closed within NNL CSU outside NNL	Closed	Withdrawn	Excluded
Copper Globe 128 acres	NSO	Closed	Withdrawn	Excluded
Dry Lake Archaeological 16,718 acres	NSO	Open	Open	Avoid ROW
Highway I-70 47,270 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Lower Green River 44,515 acres	NSO	Open with stipulations	Open only with operation plans	N/A
Muddy Creek 28,788 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Nine Mile Canyon 60,678 acres	Controlled surface use	Open	Withdrawn	N/A
Range Creek 80,632 acres	Closed	Closed	Withdrawn	N/A
Rock Art 18,143 acres	NSO	Closed	Withdrawn	Excluded

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
San Rafael Canyon 54,102	Lower – Closed Middle – Controlled SO Upper – Closed	N/A	N/A	N/A
San Rafael Reef 81,724 acres	Closed	Closed	Withdrawn	Excluded
Seger's Hole 7,918 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Sid's Mountain 61,380 acres	Controlled surface use	Closed	Open only with operation plans	Avoid ROW

Table 4-34. Lands and Realty Actions by ACEC – Alternative C

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Beckwith Plateau 56,943	Closed	Open with stipulations	Open only with operation plans	Avoid ROW
Big Flat Tops 285 acres	Closed	Closed	Withdrawn	Excluded
Bowknot Bend 1,087 acres	Closed	Closed	Withdrawn	Excluded
Cleveland-Lloyd Dinosaur Quarry 765 Acres	Closed within NNL CSU outside NNL	Closed	Withdrawn	Excluded
Copper Globe	Copper Globe would be included as part of the Heritage Site ACEC			
Dry Lake Archaeological 16,718 acres	NSO	Open	Open	Avoid ROW
Gordon Creek 4,079 acres	Closed	Closed	Withdrawn	N/A
Heritage Sites 2,753 acres	Closed	Closed	Withdrawn	Excluded
Highway I-70 53,193 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Lower Green 42,906 acres	NSO	Closed	Withdrawn	N/A
Muddy Creek 28,788 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Nine Mile Canyon 60,678 acres	Closed	Open	Withdrawn	N/A

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Range Creek 80,632 acres	Closed	Closed	Withdrawn	N/A
Rock Art 18,143 acres	NSO	Closed	Withdrawn	Excluded
San Rafael Canyon 54,102	Lower – Closed Middle – CSU Upper – Closed	N/A	N/A	N/A
San Rafael Reef 81,724 acres	Closed	Closed	Withdrawn	Excluded
Seger's Hole 7,918 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Sid's Mountain 87,428 acres	Controlled surface use	Closed	Open only with operation plans	Avoid ROW
Temple- Cottonwood Dugout 80,818 acres	NSO	Open	Open	N/A
Uranium Mining Districts 2,856 acres	NSO	Open	Open	N/A

Table 4-35. Lands and Realty Actions by ACEC – Alternative D

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Beckwith Plateau 56,943	Closed	Open with stipulations	Open only with operation plans	Avoid ROW
Big Flat Tops 285 acres	Closed	Closed	Withdrawn	Excluded
Bowknot Bend 1,087 acres	Closed	Closed	Withdrawn	Excluded
Copper Globe	Copper Globe would be included as part of the Heritage Site ACEC			
Cleveland-Lloyd Dinosaur Quarry 765 Acres	Closed within NNL CSU outside NNL	Closed	Withdrawn	Excluded
Dry Lake Archaeological 16,718 acres	NSO	Open	Open	Avoid ROW
Gordon Creek 4,079 acres	Continue management for multiple use without special management designations			
Heritage Sites 2,753 acres	Closed	Closed	Withdrawn	Excluded
Highway I-70 53,193 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Lower Green 42,906 acres	Continue management for multiple use without special management designations			
Muddy Creek 28,788 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Nine Mile Canyon 60,678 acres	CSU	Open	Withdrawn	N/A

ACEC and Acreage	Oil and Gas Leasing	Mineral Materials	Locatable Minerals	Land Tenure
Range Creek 80,632 acres	Closed	Closed	Withdrawn	N/A
Rock Art 18,143 acres	NSO	Closed	Withdrawn	Excluded
San Rafael Canyon 54,102	Lower – Closed Middle – CSU Upper – Closed	N/A	N/A	N/A
San Rafael Reef 81,724 acres	Closed	Closed	Withdrawn	Excluded
Seger's Hole 7,918 acres	NSO	Closed	Open only with operation plans	Avoid ROW
Sid's Mountain 87,428 acres	Controlled surface use	Closed	Open only with operation plans	Avoid ROW
Swasey's Cabin	Swasey's Cabin would be included as part of the Heritages Sites ACEC			
Temple- Cottonwood Dugout 80,818 acres	NSO	Open	Open	N/A
Uranium Mining Districts 2,856 acres	NSO	Open	Open	N/A

WILD AND SCENIC RIVERS

Assumptions

- Wild and Scenic Rivers (WSR) would be identified and designated.

Significance Criteria

- Any loss of outstandingly remarkable values or the free-flowing nature of the river, to the degree that the river would no longer be considered eligible for Congressional designation into the National Wild and Scenic River System, or any proposed development that would not be in keeping with the tentative classification considered in any given alternative, is considered significant.

Goals

- Review all potentially eligible rivers to determine eligibility and suitability for potential congressional designation for inclusion in the National Wild and Scenic River System (NWSRS)
- To the extent of BLM’s authority, (which is limited to BLM lands within the corridor), maintain the free-flowing character of, preserve or enhance the outstandingly remarkable values of, and allow no activities within the river corridor that would alter the tentative classification of those segments determined suitable for congressional designation into the NWSRS.

Methods of Analysis

The Wild and Scenic Rivers Act (WSRA) would guide the analysis.

WILD AND SCENIC RIVERS

Common to All Alternatives

Decisions

Actions Common to All Alternatives

Rivers listed on Table 4 in Appendix 3 are determined by the BLM to be eligible for designation under the Wild and Scenic Rivers Act. Outstandingly remarkable values and tentative classification for each eligible river are also identified.

Protective management for river segments provide protection in the following ways:

- Free-flowing Values: The free-flowing characteristics of river segments cannot be modified to allow stream impoundments, diversions, channelization, and/or rip-rapping to the extent the BLM is authorized under law.
- Outstandingly Remarkable Values: Each river segment shall be managed to protect identified outstandingly remarkable values and, to the extent practicable, such values shall be enhanced.
- Tentative Classification: Management and development of the river and its corridor cannot be modified to the degree that its tentative classification would be affected. Modification from wild to scenic, or from scenic to recreation cannot change a river segment’s tentative classification.

Affording adequate protection requires sound resource management decisions based on NEPA analysis. Protective management is subject to valid existing rights and applies to different river segments in each alternative. Protective management applies to BLM lands within the river corridor, which includes one-fourth mile on both sides of the river.

WILD AND SCENIC RIVERS

Decisions by Alternative

No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Decisions				
DETERMINATIONS OF POTENTIAL WILD AND SCENIC RIVERS				
<p>Previous planning efforts in the PFO have not included analysis and recommendations for Suitability. As a result, to date, no rivers or river segments have been determined suitable for designation. In the No Action Alternative, no rivers or river segments are recommended as suitable for designation as a Wild and Scenic River. In keeping with BLM Manual 8351, .32C and .33 C, suitability determinations would not be made for any of the eligible river segments. They would remain eligible and would be managed to protect their outstandingly remarkable values, free-flowing nature, and tentative classification to the degree that BLM has authority (i.e., BLM lands within the corridor) and within the parameters of decisions made in the San Rafael RMP and the Price River MFP until such time as suitability determinations are made.</p>	<p>Under the Action Alternatives, the following eligible river segments would be determined suitable for Wild and Scenic river designation, with the tentative classification (Wild, Scenic, or Recreation described below). Specific management for each classification is outlined in Appendix 22.</p>			
PROTECTIVE MANAGEMENT OF RIVERS POTENTIALLY INCLUDED IN THE NATIONAL WILD AND SCENIC RIVER SYSTEM				
<p>Protective management would apply to BLM lands along eligible river segments with 272.9 miles tentatively classified as Wild, 238.2 miles Scenic, and 129.5 miles</p>	<p>Protective management would apply to BLM lands along segments of the Green River with 80.0 miles tentatively classified as Scenic and 44.6 miles Recreational.</p>	<p>Protective management would apply to BLM lands along suitable river segments with 79.2 miles tentatively classified as Wild, 69.3 miles Scenic, and 94.4 miles Recreational.</p>	<p>Protective management would apply to BLM lands along suitable river segments with 272.9 miles tentatively classified as Wild, 238.2 miles Scenic, and 129.5 miles</p>	<p>Protective management would apply to BLM lands along suitable river segments with 122.0 miles tentatively classified as Scenic and 101.3 miles Recreational.</p>

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Recreational.			Recreational.	
Barrier Creek—Canyonlands National Park boundary to mouth at Green River				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Bear Canyon—Headwaters to mouth at Rock Creek				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Buckskin Canyon Creek—Headwaters to mouth at Rock Creek				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Cane Wash—Head of wash to mouth at San Rafael River				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable
Coal Wash—Confluence of North and South Forks of Coal Wash to mouth at North Salt Wash				
	Not Suitable	Not Suitable	Suitable—Recreation	Not Suitable
Cottonwood Wash—Head of wash to county road at T. 20 S., R. 13 E., Sec. 14				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Fish Creek—Scofield Reservoir to confluence with White River				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable
Gordon Creek—Confluence of Bob Wright and Mud Water Canyons to mouth at Price River				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable
GREEN RIVER				
County line near Nine Mile Creek to Chandler Canyon (Desolation Canyon)				
	Suitable—Scenic	Suitable—Wild	Suitable—Wild	Suitable—Scenic
Chandler Creek to Florence Creek (Desolation Canyon)				
	Suitable—Scenic	Suitable—Scenic	Suitable—Scenic	Suitable—Scenic
Florence Creek to Nefertiti boat ramp (Desolation and Gray Canyon)				
	Suitable—Scenic	Suitable—Wild	Suitable—Wild	Suitable—Scenic
Nefertiti boat ramp to Swasey's boat ramp				
	Suitable—Recreation	Suitable—Recreation	Suitable—Recreation	Suitable—Recreation
Swasey's Boat ramp to I-70 bridge				
	Not Suitable	Not Suitable	Suitable—Recreation	Suitable—Recreation
I-70 to mile 91 below Ruby Ranch (to Confluence with San Rafael River in Alternative D)				

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
	Not Suitable	Suitable—Recreation	Suitable—Scenic	Suitable—Recreation
Confluence with San Rafael River to Canyonlands National Park (Alternative D only)				
				Suitable—Scenic
Mile 91 below Ruby Ranch to Hey Joe Canyon (Labyrinth Canyon)				
	Suitable—Recreation	Suitable—Scenic	Suitable—Wild	
Hey Joe Canyon to Canyonlands National Park boundary (Labyrinth Canyon)				
	Suitable—Recreation	Suitable—Recreation	Suitable—Scenic	
Keg Spring Canyon—Head of Canyon to mouth at Green River				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
MUDDY CREEK				
I-70 to Lone Tree Crossing				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Lone Tree Crossing to South Salt Wash				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable
South Salt Wash to County Road below San Rafael and North Caineville Reefs				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Nine Mile Creek—Minnie Maude Creek to Bulls Canyon				
	Not Suitable	Not Suitable	Suitable—Recreation	Not Suitable
North Fork Coal Wash-Head of Wash to Fix It Pass route				
	Not Suitable	Not Suitable	Suitable-Wild	Not Suitable
Fix It Pass route to confluence with South Fork Coal Wash				
	Not Suitable	Not Suitable	Suitable—Recreational	Not Suitable
North Salt Wash—Confluence with Horn Silver Gulch to mouth at San Rafael River				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
PRICE RIVER				
Confluence of Fish Creek and White River to Poplar Street Bridge in Helper				
	Not Suitable	Not Suitable	Suitable—Recreation	Not Suitable
Mounds Bridge to Book Cliffs Escarpment				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Book Cliffs Escarpment to mouth at Green River				
	Not Suitable	Suitable—Scenic	Suitable—Wild	Not Suitable
RANGE CREEK				
Headwaters to Trail Canyon				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Trail Canyon to drill holes at T. 17 S., R. 16 E., Sec. 27				
	Not Suitable	Suitable—Recreation	Suitable—Recreation	Not Suitable
Drill holes at T. 17 S., R. 16 E., Sec. 27 to mouth at Green River				
	Not Suitable	Suitable—Scenic	Suitable—Wild	Not Suitable
Rock Creek—North Fork headwaters to mouth at Green River				
	Not Suitable	Suitable—Wild	Suitable—Wild	Not Suitable
SAN RAFAEL RIVER				
Confluence of Ferron and Cottonwood Creeks to Fuller Bottom				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable
Fuller Bottom to Johansen Corral				
	Not Suitable	Suitable—Scenic	Suitable—Wild	Suitable—Recreation
Johansen Corral to Lockhart Wash				
	Not Suitable	Suitable—Recreational	Suitable—Scenic	Suitable—Recreation
Lockhart Wash to Tidwell Bottom				
	Not Suitable	Suitable—Scenic	Suitable—Wild	Suitable—Recreation
Tidwell Bottom to confluence with Green River				
	Not Suitable	Not Suitable	Suitable—Scenic	Not Suitable
South Fork Coal Wash-Head of wash to Eva Conover route				
	Not Suitable	Not Suitable	Suitable—Wild	Not Suitable
Eva Conover route to confluence with North Fork Coal Wash				
	Not Suitable	Not Suitable	Suitable—Recreational	Not Suitable
Impact Analysis				
RESOURCES				
Impacts to Air Quality	Impacts to Air Quality	Impacts to Air Quality	Impacts to Air Quality	Impacts to Air Quality

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
No significant impact.	No significant impact.	No significant impact.	No significant impact.	No significant impact.
<p>Impacts to Soil, Water and Riparian Protective management of all 39 eligible river segments would indirectly protect riparian vegetation and soils from surface-disturbing activities on 144,254 acres of BLM lands within 641 miles of river corridors. Although specific developments, such as check dams to reduce salinity, may not be allowed on BLM lands within the eligible river corridors, none are currently proposed. Overall, water quality would probably benefit from the protection of soils and vegetation because the potential for salinity resulting from surface runoff would be reduced. Benefits would be greatest along the 273 miles of river tentatively classified as wild. Benefits would also result along the 238 miles of river tentatively classified as scenic and, to a lesser degree, the 130 miles tentatively classified as recreational.</p> <p>Protection of the free-flowing character of eligible river segments would also protect riparian vegetation to the extent that modifications, such as stream impoundments, channelization, and/or rip-rapping, would not be</p>	<p>Impacts to Soil, Water and Riparian Protective management of six suitable river segments would indirectly protect riparian vegetation and soils from surface disturbing activities on 35,435 acres of BLM lands within 125 miles of river corridors. Although specific developments, such as check dams to reduce salinity, may not be allowed on BLM lands within the suitable river corridors, none are currently proposed. Overall, water quality would probably benefit from the protection of soils and vegetation because the potential for salinity resulting from surface runoff would be reduced. However, the benefits along the 80 miles of river tentatively classified as scenic and the 45 miles of river tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Protection of the free-flowing character of eligible river segments would also protect riparian vegetation to the extent that modifications, such as stream impoundments, channelization, and/or rip-rapping, would not be permitted along BLM</p>	<p>Impacts to Soil, Water and Riparian Protective management of 15 suitable river segments would indirectly protect riparian vegetation and soils from surface disturbing activities on 76,797 acres of BLM lands within 277 miles of river corridors. Although specific developments, such as check dams to reduce salinity, may not be allowed on BLM lands within the river corridors, none are currently proposed. Overall, water quality would probably benefit from the protection of soils and vegetation because the potential for salinity resulting from surface runoff would be reduced. Benefits would be greatest along the 80 miles of river tentatively classified as wild. Benefits would also result along the 121 miles tentatively classified as scenic and, to a lesser degree, the 76 miles tentatively classified as recreational.</p> <p>Protective management regarding free-flowing characteristics of suitable river segments would protect riparian areas to the extent that modifications, such as stream impoundments, channelization, and/or rip-rapping, would not</p>	<p>Impacts to Soil, Water and Riparian Protective management of all 39 suitable river segments would indirectly protect riparian vegetation and soils from surface disturbing activities on 144,254 acres of BLM lands within 641 miles of river corridors. Although specific developments, such as check dams to reduce salinity, may not be allowed on BLM lands within the river corridors, none are currently proposed. Overall, water quality would probably benefit from the protection of soils and vegetation because the potential for salinity resulting from surface runoff would be reduced. Benefits would be greatest along the 273 miles of river tentatively classified as wild. Benefits would also result along the 238 miles of river tentatively classified as scenic and the 130 miles tentatively classified as recreational, but to a lesser degree.</p> <p>Protection of the free-flowing character of eligible river segments would also protect riparian vegetation to the extent that modifications, such as stream impoundments, channelization, and/or rip-rapping, would not be</p>	<p>Impacts to Soil, Water and Riparian Protective management of 11 suitable river segments would indirectly protect riparian vegetation and soils from surface disturbing activities on 66,540 acres of BLM lands within 223 miles of river corridors. Although specific developments, such as check dams to reduce salinity, may not be allowed on BLM lands within the river corridors, none are currently proposed. Overall, water quality would probably benefit from the protection of soils and vegetation because the potential for salinity resulting from surface runoff would be reduced. However, the benefits along the 122 miles tentatively classified as scenic 101 miles tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Protection of the free-flowing character of eligible river segments would also protect riparian vegetation to the extent that modifications such as stream impoundments, channelization, and/or rip-rapping would not be permitted along BLM shorelines. There are no such structures</p>

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>permitted along BLM shorelines. There are no such structures currently proposed. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of eligibility determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands. Because of these factors, there would be no effect on the Colorado River Compact from protective management of these eligible segments.</p>	<p>shorelines. There are no such structures currently proposed. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands. Because of these factors, there would be no effect on the Colorado River Compact from protective management of these suitable segments.</p> <p>Riparian vegetation, soils and water quality would not benefit from protective management along the 33 river segments (516 miles of river corridor) because these segments would not be determined suitable with this alternative.</p>	<p>be permitted along BLM shorelines. There are no such structures currently proposed. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands. Because of these factors, there would be no effect on the Colorado River Compact from protective management of these suitable segments.</p> <p>Riparian vegetation, soils and water quality would not benefit from protective management along the 24 river segments (364 miles of river corridor) because these segments would not be determined suitable with this alternative.</p>	<p>permitted along BLM shorelines. There are no such structures currently proposed. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands. Because of these factors, there would be no effect on the Colorado River Compact from protective management of these suitable segments.</p>	<p>currently proposed. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands. Because of these factors, there would be no effect on the Colorado River Compact from protective management of these suitable segments.</p> <p>Riparian vegetation, soils and water quality would not benefit from protective management along the 28 river segments (418 miles of river corridor) because these segments would not be determined suitable with this alternative.</p>
<p>Impacts to Vegetation Resources Protective management of all 39 eligible river segments would indirectly protect vegetation from many surface-disturbing activities on 136,454 acres of BLM lands within 641 miles of river corridors.</p>	<p>Impacts to Vegetation Resources Protective management of six suitable river segments would indirectly protect vegetation from some surface-disturbing activities on 35,435 acres of BLM lands within 125 miles of river corridors. However the</p>	<p>Impacts to Vegetation Resources Protective management of 15 suitable river segments would indirectly protect vegetation from many surface-disturbing activities on 76,797 acres of BLM lands within 277 miles of river corridors. Benefits would</p>	<p>Impacts to Vegetation Resources Protective management of all 39 suitable river segments would indirectly protect vegetation from many surface-disturbing activities on 125,484 acres of BLM lands within the 641 miles of river corridors.</p>	<p>Impacts to Vegetation Resources Protective management of 11 suitable river segments would indirectly protect vegetation from some surface-disturbing activities on 66,540 acres of BLM lands within the 223 miles of river corridors. However,</p>

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Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Benefits would be greatest along the 273 miles of river tentatively classified as wild where any surface-disturbing activities would generally be excluded, subject to valid existing rights. Benefits would also result along the 238 miles of river tentatively classified as scenic and, to a lesser degree, the 130 miles tentatively classified as recreational.</p>	<p>benefits along the 80 miles of river tentatively classified as scenic and the 45 miles of river tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Vegetation would not benefit from protective management along the 33 river segments (516 river miles) because these segments would not be determined suitable with this alternative.</p>	<p>be greatest along the 80 miles of river tentatively classified as wild where any surface-disturbing activities would generally be excluded, subject to valid existing rights. Benefits would also result along the 121 miles tentatively classified as scenic and, to a lesser degree, the 76 miles tentatively classified as recreational.</p> <p>Vegetation would not benefit from protective management along the 24 river segments (364 river miles) because these segments would not be determined suitable with this alternative.</p>	<p>Benefits would be greatest along the 273 miles of river tentatively classified as wild where any surface-disturbing activities would generally be excluded, subject to valid existing rights. Benefits would also result along the 238 miles of river tentatively classified as scenic and, to a lesser degree, the 130 miles tentatively classified as recreational.</p>	<p>the benefits along the 122 miles tentatively classified as scenic 101 miles tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Vegetation would not benefit from protective management on the 28 river segments (417 river miles) because these segments would not be determined suitable with this alternative.</p>
<p>Impacts to Cultural Resources</p> <p>Protective management of eligible river segments would directly protect cultural resources on 136,454 acres of BLM lands within 608.2 miles of river corridors where these resources are identified as outstandingly remarkable values. Historic values would be directly protected on 125,484 acres of BLM lands along 527.8 miles of river corridors where they are identified as outstandingly remarkable.</p> <p>Benefits would be greatest along river segments</p>	<p>Impacts to Cultural Resources</p> <p>Protective management of suitable segments of the Green River would directly protect cultural and historic resources on 35,435 acres of BLM lands within 125 miles of river corridors where these resources are identified as outstandingly remarkable values.</p> <p>However, the benefits along the 80 miles of river tentatively classified as scenic and the 45 miles of river tentatively classified as recreational would be less than if the tentative classification were wild.</p>	<p>Impacts to Cultural Resources</p> <p>Protective management of suitable river segments would directly protect cultural resources on 76,797 acres of BLM lands within 277 miles of river corridors where these resources are identified as outstandingly remarkable values. Historic values would be directly protected on 67,813 acres of BLM lands along 226 miles of river corridors where they are identified as outstandingly remarkable.</p> <p>Benefits would be greatest along river segments tentatively classified as wild.</p>	<p>Impacts to Cultural Resources</p> <p>Protective management of suitable river segments would directly protect cultural resources on 136,454 acres of BLM lands within 608.2 miles of river corridors where these resources are identified as outstandingly remarkable values. Historic values would be directly protected on 125,484 acres of BLM lands along 527.8 miles of river corridors where they are identified as outstandingly remarkable.</p> <p>Benefits would be greatest along river segments</p>	<p>Impacts to Cultural Resources</p> <p>Protective management of suitable river segments would directly protect cultural and historic resources on 66,540 acres of BLM lands within 223 miles of river corridors where these resources are identified as outstandingly remarkable values. However, the benefits along the 122 miles tentatively classified as scenic and 101 miles tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Cultural resources would not be directly protected within 24</p>

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
tentatively classified as wild. Benefits would also result along river segments tentatively classified as scenic and recreational, but to a lesser degree.	Cultural resources would not be directly protected within 29 river segments, while historic resources would not be directly protected within 23 segments, where they are identified as outstandingly remarkable values. These river segments would not be determined suitable with this alternative and, therefore, would not receive protective management.	Benefits would also result along river segments tentatively classified as scenic and recreational, but to a lesser degree. Cultural resources would not be directly protected within 20 river segments, while historic resources would not be directly protected within 16 segments, where they are identified as outstandingly remarkable values. These river segments would not be determined suitable with this alternative and, therefore, would not receive protective management.	tentatively classified as wild. Benefits would also result along river segments tentatively classified as scenic and recreational, but to a lesser degree.	river segments, while historic resources would not be directly protected within 18 segments, where they are identified as outstandingly remarkable values. These river segments would not be determined suitable with this alternative and, therefore, would not receive protective management.
Impacts to Paleontology Resources Known paleontological values identified as outstandingly remarkable on 5,703 acres of BLM lands along 32 miles of the Green River would be directly protected by continued protective management of this eligible river segment.	Impacts to Paleontology Resources Known paleontological values identified as outstandingly remarkable on 5,703 acres of BLM lands along 32 miles of the Green River would not be directly protected by protective management because this river segment would not be determined suitable with this alternative.	Impacts to Paleontology Resources Known paleontological values identified as outstandingly remarkable on 5,703 acres of BLM lands along 32 miles of the Green River would be directly protected by continued protective management of this eligible river segment.	Impacts to Paleontology Resources Known paleontological values identified as outstandingly remarkable on 5,703 acres of BLM lands along 32 miles of the Green River would be directly protected by continued protective management of this eligible river segment.	Impacts to Paleontology Resources Known paleontological values identified as outstandingly remarkable on approximately 7,300 acres of BLM lands along 26 miles of the Green River would be directly protected by continued protective management of this eligible river segment.
Impacts to Visual Resources Protective management of eligible river segments would directly protect visual resources on 132,745 acres of BLM lands within 546 miles of river corridors where scenic values are identified as	Impacts to Visual Resources Protective management of suitable segments of the Green River would directly protect visual resources on 35,435 acres of BLM lands within 125 miles of river corridors where scenic values are identified as	Impacts to Visual Resources Protective management of suitable segments of the Green River would directly protect visual resources on 76,797 acres of BLM lands within 277 miles of river corridors where scenic values are identified as	Impacts to Visual Resources Protective management of suitable segments of the Green River would directly protect visual resources on 132,745 acres of BLM lands within 546 miles of river corridors where scenic values are identified as	Impacts to Visual Resources Protective management of suitable segments of the Green River would directly protect visual resources on 66,540 acres of BLM lands within 223 miles of river corridors where scenic values are identified as

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>outstandingly remarkable. Benefits would be greatest along river segments tentatively classified as wild. Benefits would also result along river segments tentatively classified as scenic and recreational, but to a lesser degree.</p>	<p>outstandingly remarkable. However, the benefits along the 80 miles of river tentatively classified as scenic and the 45 miles of river tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Visual resources would not be directly protected within 27 river segments where scenic quality is identified as an outstandingly remarkable value. These river segments would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>	<p>outstandingly remarkable. Benefits would be greatest along the 80 miles of river tentatively classified as wild. Benefits would also result along the 121 miles tentatively classified as scenic and, to a lesser degree, the 76 miles tentatively classified as recreational.</p> <p>Visual resources would not be directly protected within 20 river segments where scenic quality is identified as an outstandingly remarkable value. These river segments would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>	<p>outstandingly remarkable. Benefits would be greatest along river segments tentatively classified as wild. Benefits would also result along river segments tentatively classified as scenic and recreational, but to a lesser degree.</p>	<p>outstandingly remarkable. However, the benefits along the 122 miles tentatively classified as scenic 101 miles tentatively classified as recreational would be less than if the tentative classification were wild.</p> <p>Visual resources would not be directly protected within 22 river segments where scenic quality is identified as an outstandingly remarkable value. These river segments would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>
<p>Impacts to Special Status Species Where special status fish species (Humpback Chub, Bonytail Chub, Razorback Sucker, and Colorado Pikeminnow) contribute to the outstandingly remarkable fish values in 294 miles of rivers, these species would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from continued management of these rivers as eligible for wild and scenic designation.</p>	<p>Impacts to Special Status Species Where special status fish species (Humpback Chub, Bonytail Chub, Razorback Sucker, and Colorado Pikeminnow) contribute to the outstandingly remarkable fish values in 125 miles of the Green River, these species would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from management of these rivers as suitable for wild and scenic designation.</p>	<p>Impacts to Special Status Species Where special status fish species (Humpback Chub, Bonytail Chub, Razorback Sucker, and Colorado Pikeminnow) contribute to the outstandingly remarkable fish values in 230 miles of rivers, these species would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from management of these rivers as suitable for wild and scenic designation. Designated critical habitat for the Mexican</p>	<p>Impacts to Special Status Species Where special status fish species (Humpback Chub, Bonytail Chub, Razorback Sucker, and Colorado Pikeminnow) contribute to the outstandingly remarkable fish values in 294 miles of rivers, these species would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from continued management of these rivers as eligible for wild and scenic designation.</p>	<p>Impacts to Special Status Species Where special status fish species (Humpback Chub, Bonytail Chub, Razorback Sucker, and Colorado Pikeminnow) contribute to the outstandingly remarkable fish values in 223 miles of rivers, these species would be protected by protective management of suitable rivers segments. Designated critical habitat for the Mexican Spotted Owl, where it is present within the Green River corridor, would benefit for the same reasons. However, the protection is</p>

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Designated critical habitat for the Mexican Spotted Owl, where it is present within the Green River corridor, would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of eligibility determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p>	<p>Designated critical habitat for the Mexican Spotted Owl, where it is present within the Green River corridor, would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p> <p>There would be no benefits for special status fish species in 169 miles of river. These river miles would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>	<p>Spotted Owl, where it is present within the Green River corridor, would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p> <p>There would be no benefits for special status fish species in 64 miles of river. These river miles would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>	<p>Designated critical habitat for the Mexican Spotted Owl, where it is present within the Green River corridor, would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p>	<p>limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p> <p>There would be no benefits for special status fish species in 70 miles of river. These river miles would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>
<p>Impacts to Fish and Wildlife Where important fish or fishery values identified as outstandingly remarkable occur in 351 miles of river, these values would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from continued management of these rivers as eligible for wild and scenic</p>	<p>Impacts to Fish and Wildlife Where important fish or fishery values identified as outstandingly remarkable occur in 125 miles of the Green River found suitable, these values would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from management of this river as suitable for wild and</p>	<p>Impacts to Fish and Wildlife Where important fish or fishery values identified as outstandingly remarkable occur in 245 miles of suitable rivers, these values would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from management of this river as suitable for wild and scenic</p>	<p>Impacts to Fish and Wildlife Where important fish or fishery values identified as outstandingly remarkable occur in 351 miles of suitable rivers, these values would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from management of these rivers as suitable for wild and scenic</p>	<p>Impacts to Fish and Wildlife Where important fish or fishery values identified as outstandingly remarkable occur in 223 miles of suitable rivers, these values would benefit from protection of riparian values, water quality, and the free-flowing nature of the rivers that would result from management of this river as suitable for wild and scenic</p>

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>designation. Important wildlife values identified as outstandingly remarkable on 85,686 acres of BLM lands along 345 miles of river would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of eligibility determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p>	<p>scenic designation.</p> <p>Important wildlife values identified as outstandingly remarkable on 27,390 acres of BLM lands along 125 miles of the Green River would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p> <p>There would be no benefits for important fish and wildlife values along 220 miles of river. These river miles would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>	<p>designation. Important wildlife values identified as outstandingly remarkable on 61,756 acres of BLM lands along 230 miles of river would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p> <p>There would be no benefits for important fish values along 106 miles of rivers or for important wildlife values along 115 miles of river. These river miles would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>	<p>designation. Important wildlife values identified as outstandingly remarkable on 85,686 acres of BLM lands along 345 miles of river would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p>	<p>designation. Important wildlife values identified as outstandingly remarkable on 66,540 acres of BLM lands along 223 miles of river would benefit for the same reasons. However, the protection is limited because there are no federal reserve water rights established for in-stream flow purposes because of suitability determinations. Also, unless BLM land is somehow involved in a proposed action, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.</p> <p>There would be no benefits for important fish and wildlife values along 121 miles of river. These river miles would not be determined suitable with this alternative and, therefore, would not receive protective management.</p>
<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>	<p>Impacts to Wild Horses and Burros No significant impact.</p>
<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>	<p>Impacts to Fire and Fuels Management No significant impact.</p>
RESOURCE USES				

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Forest and Woodlands No significant impact.</p>	<p>Impacts to Forest and Woodlands No significant impact.</p>	<p>Impacts to Forest and Woodlands No significant impact.</p>	<p>Impacts to Forest and Woodlands No significant impact.</p>	<p>Impacts to Forest and Woodlands No significant impact.</p>
<p>Impacts to Livestock Livestock grazing would not be affected by protective management of eligible river segments. All existing range developments are consistent with the tentative classifications (273 miles of wild, 238 miles of scenic, and 130 miles of recreational). Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications. In order to protect their free-flowing nature, no impoundment of eligible streams would be permitted.</p>	<p>Impacts to Livestock Livestock grazing would not be affected by protective management of suitable river segments. All existing range developments are consistent with the tentative classifications (80 miles of scenic and 45 miles of recreational). Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications. In order to protect their free-flowing nature, no impoundment of suitable streams would be permitted.</p>	<p>Impacts to Livestock Livestock grazing would not be affected by protective management of suitable river segments. All existing range developments are consistent with the tentative classifications (80 miles of wild, 121 miles of scenic, and 76 miles of recreational). Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications. In order to protect their free-flowing nature, no impoundment of suitable streams would be permitted.</p>	<p>Impacts to Livestock Livestock grazing would not be affected by protective management of suitable river segments. All existing range developments are consistent with the tentative classifications (273 miles of wild, 238 miles of scenic, and 130 miles of recreational). Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications. In order to protect their free-flowing nature, no impoundment of suitable streams would be permitted.</p>	<p>Impacts to Livestock Livestock grazing would not be affected by protective management of suitable river segments. All existing range developments are consistent with the tentative classifications (122 miles of scenic and 101 miles of recreational). Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications. In order to protect their free-flowing nature, no impoundment of suitable streams would be permitted.</p>
<p>Impacts to Recreation Outstanding river-related recreation opportunities involving 116,518 acres of BLM land along 464 miles of river would benefit from protection of recreation values, tentative classification, and the free-flowing nature of the rivers that would result from continued management of these rivers as eligible for wild</p>	<p>Impacts to Recreation Outstanding river-related recreation opportunities involving 35,435 acres of BLM land along 125 miles of the Green River would benefit from protection of recreation values, tentative classification, and the free-flowing nature of the rivers that would result from management of this river as suitable for wild and scenic</p>	<p>Impacts to Recreation Outstanding river-related recreation opportunities involving 76,797 acres of BLM land along 277 miles of river would benefit from protection of recreation values, tentative classification, and the free-flowing nature of the rivers that would result from management of these rivers as suitable for wild and scenic designation.</p>	<p>Impacts to Recreation Outstanding river-related recreation opportunities involving 116,518 acres of BLM land along 464 miles of river would benefit from protection of recreation values, tentative classification, and the free-flowing nature of the rivers that would result from management of these rivers as suitable for wild and scenic</p>	<p>Impacts to Recreation Outstanding river-related recreation opportunities involving 66,540 acres of BLM land along 223 miles of river would benefit from protection of recreation values, tentative classification, and the free-flowing nature of the rivers that would result from management of these rivers as suitable for wild and scenic designation.</p>

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
and scenic designation.	designation. There would be no benefits for outstanding recreation opportunities along 339 miles of river because these segments would not be determined suitable.	There would be no benefits for outstanding recreation opportunities along 221 miles of river because these segments would not be determined suitable.	designation.	There would be no benefits for outstanding recreation opportunities along 241 miles of river because these segments would not be determined suitable.
Impacts to Lands and Realty Because BLM lands within 641 miles of eligible river corridors would be retained in federal ownership and cannot be modified to the degree that the tentative classifications would change, future lands and realty actions within these river corridors would be limited, subject to valid existing rights and existing plan decisions. Lands and realty actions would be less likely to be compatible with the approximately 273 miles of eligible river segments tentatively classified as wild, and would be more likely to be compatible with 238 miles of eligible river areas tentatively classified as scenic and 130 miles tentatively classified as recreational. Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values and free-flowing condition in keeping with the tentative classifications.	Impacts to Lands and Realty Because BLM lands within 125 miles of suitable rivers would be retained in federal ownership and cannot be modified to the degree that the tentative classifications would change, future lands and realty actions within these river corridors would be limited, subject to valid existing rights. Lands and realty actions would be more likely to be compatible with 80 miles of suitable river segments tentatively classified as scenic and 45 miles tentatively classified as recreational, than if wild classifications were involved. Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values and free-flowing condition in keeping with the tentative classifications. Where actions are inconsistent with management of suitable rivers, activities would be	Impacts to Lands and Realty Because BLM lands within 277 miles of suitable rivers would be retained in federal ownership and cannot be modified to the degree that the tentative classifications would change, future lands and realty actions within these river corridors would be limited, subject to valid existing rights. Lands and realty actions would be less likely to be compatible with the approximately 80 miles of suitable river segments tentatively classified as wild, and would be more likely to be compatible with 121 miles of suitable river areas tentatively classified as scenic and 76 miles tentatively classified as recreational. Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values and free-flowing condition in keeping with the tentative classifications. Where actions are inconsistent	Impacts to Lands and Realty Because BLM lands within 641 miles of suitable rivers would be retained in federal ownership and cannot be modified to the degree that the tentative classifications would change, future lands and realty actions within these river corridors would be limited, subject to valid existing rights and existing plan decisions. Lands and realty actions would be less likely to be compatible with the approximately 273 miles of suitable river segments tentatively classified as wild, and would be more likely to be compatible with 238 miles of suitable river areas tentatively classified as scenic and 130 miles tentatively classified as recreational. Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values and free-flowing condition in keeping with the tentative classifications.	Impacts to Lands and Realty Because of BLM lands within 223 miles of suitable rivers would be retained in federal ownership and cannot be modified to the degree that the tentative classifications would change, future lands and realty actions within these river corridors would be limited, subject to valid existing rights. Lands and realty actions would be more likely to be compatible with 122 miles of suitable river segments tentatively classified as scenic and 101 miles tentatively classified as recreational, than if wild classifications were involved. Any new construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values and free-flowing condition in keeping with the tentative classifications. Where actions are inconsistent with management of suitable rivers, activities would be

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
Where actions are inconsistent with management of eligible rivers, activities could be precluded or substantially mitigated. For example, in order to protect their free-flowing nature, impoundment, rip-rapping or diversion of eligible streams would generally not be allowed along BLM shorelines of any eligible stream. However, unless BLM lands are involved, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.	precluded or substantially mitigated. For example, in order to protect their free-flowing nature, impoundment, rip-rapping or diversion of eligible streams would not be allowed along BLM shorelines of any suitable stream. However, unless BLM lands are involved, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.	with management of suitable rivers, activities would be precluded or substantially mitigated. For example, in order to protect their free-flowing nature, impoundment, rip-rapping or diversion of suitable streams would not be allowed along BLM shorelines of any suitable stream. However, unless BLM lands are involved, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.	Where actions are inconsistent with management of suitable rivers, activities could be precluded or substantially mitigated. For example, in order to protect their free-flowing nature, impoundment, rip-rapping or diversion of eligible streams would generally not be allowed along BLM shorelines of any suitable stream. However, unless BLM lands are involved, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.	precluded or substantially mitigated. For example, in order to protect their free-flowing nature, impoundment, rip-rapping or diversion of eligible streams would not be allowed along BLM shorelines of any suitable stream. However, BLM has no control of potential modifications of the shoreline or other development (including development related to the perfection of water rights) on non-public lands.
Impacts to Minerals and Energy Although all BLM lands within 641 miles of eligible river corridors would be managed to protect outstandingly remarkable values, free-flowing condition and tentative classifications, such management would be in accordance with existing mineral resource decisions. Therefore, no additional impact to mineral development would result.	Impacts to Minerals and Energy Management to protect outstandingly remarkable values, free-flowing condition and tentative classifications of 125 suitable miles of the Green River would not affect mineral resources and development as all suitable rivers segments are within Minerals Leasing Categories 3 and 4.	Impacts to Minerals and Energy Management to protect outstandingly remarkable values, free-flowing condition and tentative classifications of 277 miles of suitable river corridors would not affect mineral resources and development as all suitable rivers segments are within Minerals Leasing Categories 3 and 4.	Impacts to Minerals and Energy Management to protect outstandingly remarkable values, free-flowing condition and tentative classifications of 641 miles of suitable river corridors would not affect mineral resources and development as all suitable rivers segments are within Minerals Leasing Categories 3 and 4.	Impacts to Minerals and Energy Management to protect outstandingly remarkable values, free-flowing condition and tentative classifications of 223 miles of suitable river corridors would not affect mineral resources and development as all suitable rivers segments are within Minerals Leasing Categories 3 and 4.
SPECIAL DESIGNATIONS				
Impacts to Wilderness Study Areas Protective management of all	Impacts to Wilderness Study Areas Protective management of	Impacts to Wilderness Study Areas Protective management of	Impacts to Wilderness Study Areas Protective management of all	Impacts to Wilderness Study Areas Protective management of

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
eligible river segments within WSAs, which include portions of the Green River, San Rafael River, Price River, Muddy Creek North Salt Wash, Coal Wash, Cane Wash, Rock Creek, Keg Spring Canyon, Range Creek, and all of Barrier Creek, North Fork Coal Wash, South Fork Coal Wash, and Cottonwood Wash, is complementary with WSA management. Whichever management options are more protective of the values of concern would take precedence.	suitable segments of the Green River within Desolation Canyon and Horseshoe Canyon WSAs is complementary with WSA management. Whichever management options are more protective of the values of concern would take precedence.	suitable river segments within WSAs, which include portions of the Green River, San Rafael River, Price River, and Rock Creek, is complementary with WSA management. Whichever management options are more protective of the values of concern would take precedence.	suitable river segments within WSAs, which include portions of the Green River, San Rafael River, Price River, Muddy Creek North Salt Wash, Coal Wash, Cane Wash, Rock Creek, Keg Spring Canyon, Range Creek, and all of Barrier Creek, North Fork Coal Wash, South Fork Coal Wash, and Cottonwood Wash, is complementary with WSA management. Whichever management options are more protective of the values of concern would take precedence.	suitable segments of the Green River within Desolation Canyon and Horseshoe Canyon WSAs and the San Rafael River within Sid's Mountain and Mexican Mountain WSAs is complementary with WSA management. Whichever management options are more protective of the values of concern would take precedence.
Impacts to Areas of Critical Environmental Concern Protective management of all eligible river segments within ACECs, including portions of the San Rafael River, Muddy Creek, North Salt Wash, Coal Wash, Cane Wash and all of North Fork Coal Wash and South Fork Coal Wash, is complementary with ACEC management. Whichever management options are more protective of the values of concern would take precedence.	Impacts to Areas of Critical Environmental Concern Protective management of suitable segments of the Green River within the Dry Lake ACEC is complementary with ACEC management. Whichever management options are more protective of the values of concern would take precedence.	Impacts to Areas of Critical Environmental Concern Protective management of suitable river segments within ACECs, including portions of the Green River, Price River, Range Creek, and all of the San Rafael segments, is complementary with ACEC management. Whichever management options are more protective of the values of concern would take precedence.	Impacts to Areas of Critical Environmental Concern Protective management of all suitable river segments within ACECs, including portions of the San Rafael River, Muddy Creek, North Salt Wash, Coal Wash, Cane Wash and all of North Fork Coal Wash and South Fork Coal Wash, is complementary with ACEC management. Whichever management options are more protective of the values of concern would take precedence.	Impacts to Areas of Critical Environmental Concern Protective management of suitable segments of the Green River and San Rafael River within ACECs, is complementary with ACEC management. Whichever management options are more protective of the values of concern would take precedence.
Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.	Impacts to Wild and Scenic Rivers No significant impact.
SUPPORT				

WILD AND SCENIC RIVERS				
Decisions by Alternative				
No Action Alternative	Alternative A	Alternative B	Alternative C	Alternative D
<p>Impacts to Transportation and Motorized Access Protective management of all eligible river segments would have little effect on transportation. All existing travel routes were taken into consideration and are consistent with the tentative classifications (273 miles of wild, 238 miles of scenic, and 130 miles of recreational).</p> <p>Any new road construction would involve site-specific NEPA analysis to determine appropriate locations, methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p> <p>Road construction would be precluded on BLM lands within the 273 miles of river corridors tentative classified as wild, subject to valid existing rights.</p>	<p>Impacts to Transportation and Motorized Access Transportation would not be affected by protective management of suitable river segments. All existing travel routes are compatible with the tentative classifications (80 miles of scenic and 45 miles of recreational).</p> <p>Any new road construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p>	<p>Impacts to Transportation and Motorized Access Protective management of suitable river segments would have little effect on transportation. All existing travel routes are compatible with the tentative classifications (80 miles of wild, 121 miles of scenic and 76 miles of recreational).</p> <p>Any new road construction would involve site-specific NEPA analysis to determine appropriate locations, methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p> <p>Road construction would be precluded on BLM lands within the 80 miles of river corridors tentative classified as wild, subject to valid existing rights.</p>	<p>Impacts to Transportation and Motorized Access Protective management of all suitable river segments would have little effect on transportation. All existing travel routes are consistent with the tentative classifications (273 miles of wild, 238 miles of scenic, and 130 miles of recreational).</p> <p>Any new road construction would involve site-specific NEPA analysis to determine appropriate locations, methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p> <p>Road construction would be precluded on BLM lands within the 273 miles of river corridors tentative classified as wild, subject to valid existing rights.</p>	<p>Impacts to Transportation and Motorized Access Transportation would not be affected by protective management of suitable river segments. All existing travel routes are compatible with the tentative classifications (122 miles of scenic and 101 miles of recreational).</p> <p>Any new road construction would involve site-specific NEPA analysis to determine appropriate methods and mitigation to protect the outstandingly remarkable values in keeping with the tentative classifications.</p>
<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>	<p>Impacts to Hazardous Materials and Waste No significant impact.</p>

HAZARDOUS MATERIALS AND WASTE**Common to All Alternatives****Decision Background**

The following decisions are policy or regulation for the protection of cultural resources. These decisions are included to clarify standard operating procedures.

Decisions**Actions Common to All Alternatives:**

- Conduct management of hazardous materials, substances, and waste (including storage, transportation, and spills) in compliance with 29 CFR 1910, 49 CFR 100-185, 40 CFR 100-400, Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Superfund Amendment Reauthorization Act (SARA), Toxic Substances Control Act (TSCA), Clean Water Act (CWA), and other federal and state regulations and policies regarding hazardous materials management.
- Implement hazardous materials management through the PFO and National Contingency Plans.
- For BLM-authorized activities that involve hazardous materials or their use, use precautionary measures to guard against releases or spills into the environment.
- Prohibit hazardous materials disposal sites within the planning area.
- In coordination with cooperating agencies, report, secure, and clean up BLM-administered public land sites contaminated with hazardous wastes according to applicable federal and state regulations and contingency plans. Parties responsible for contamination would be liable for cleanup and resource damage costs, as prescribed in federal and state regulations.
- Investigate and clean up solid wastes discovered on public lands in accordance with the PFO Contingency Plan and Hazardous Materials Protocol, and all applicable laws, regulations, and policies.
- If safety hazards are identified as a result of hazardous waste spills on BLM-administered public lands, BLM would provide appropriate warnings.
- Address other physical hazards identified on public lands in accordance with the PFO Contingency Plan and Hazardous Materials Protocol.

TRANSPORTATION AND MOTORIZED ACCESS

Assumptions

The analysis is based on the following assumptions:

- BLM would maintain the BLM transportation system at existing road standards.
- Roads would be removed from the BLM transportation system only to reduce duplicate routes and accomplish resource protection.
- Roads developed in association with permitted uses of the public lands would be added to the BLM transportation system but may not be available to all users.
- RS-2477 assertions will not be addressed in this plan.
- BLM will coordinate with Carbon and Emery counties and the State of Utah in development, maintenance, and management of BLM system, state, and county roads on public lands in the field office.

Significance Criteria

Impacts to transportation and access would be considered significant if the following occur:

- Restrictions from the management of other resources substantially limit public motorized access and use within the planning area or reduce the existing transportation system.
- Public health and safety are compromised due to management decisions.

Methods of Analysis

Transportation and motorized access provide for appropriate ingress, egress, and motorized access throughout the PFO. Potential impacts resulting from management of transportation and motorized access are characterized by required changes in vehicle movement on designated roadways within and adjacent to the PFO as a result of the management of other resource programs. Analysis of these impacts is based on the expertise of BLM resource specialists at the PFO and their extensive knowledge of the planning area. The impact analysis and resulting conclusions are based on the interdisciplinary team knowledge of resources within the planning area, review of existing literature, and information provided by experts in the BLM or other agencies. Effects are quantified where possible. In the absence of quantitative data, best professional judgment was used. Impacts are sometimes described using ranges of potential impacts or in qualitative terms, if appropriate.

TRANSPORTATION AND MOTORIZED ACCESS

Common to All Alternatives

Decision Background

The following decisions are policy and/or regulation for the management of transportation and motorized access. These decisions are included to clarify standard operating procedures. Transportation and motorized access was one of the most frequently discussed resources during the scoping process. By policy, BLM will not close backcountry airstrips without consultation and coordination with FAA and Utah State Division of Aeronautics.

Decisions

TRANSPORTATION AND MOTORIZED ACCESS**Common to All Alternatives**

- Review requests on a case-by-case basis for motorized vehicle access on restricted routes through the permitting process for authorized and approved uses
- Manage the transportation system in accordance with maintenance agreements with Carbon and Emery counties
- Allow for reasonable access to non-BLM managed lands within the PFO
- Continue to require reclamation of redundant road systems or roads that no longer serve their intended purpose to reduce road density, maintain connectivity, and reduce habitat fragmentation
- Manage designated byway and backway corridors for the purposes for which they were designated
- Install direction, informational, regulatory, and interpretive signs at appropriate locations throughout the area, in conformance with SRMA, ROS, and VRM class
- Continue to use the following existing and currently used backcountry airstrips for non-commercial and limited commercial use. Extended commercial use would require ROW purposes. Any closure of an existing airstrip would be done through consultation with the FAA and the Utah Division of Aeronautics on a case-by-case basis:
 - Peter's Point
 - Mexican Mountain
 - Cedar Mountain
 - Hidden Splendor
- Resource Management Plan will not address RS-2477 rights of way assertions. Such assertions will be settled administratively on a case-by-case basis.
 - *Direction for OHV management is addressed in the recreation section.

TRANSPORTATION AND MOTORIZED ACCESS

Common to All Alternatives

Impact Analysis

RESOURCES

Impacts to Air Quality

Increased utilization of BLM-maintained roads and maintenance activities on these roads would cause increases in pollutant emissions, such as fugitive dust in localized areas. These impacts would be limited to specific geographic areas and of short duration.

Impacts to Soil, Water and Riparian

Roads that are not frequently maintained would deteriorate, and excessive runoff would cause soil erosion, which would lead to siltation and sedimentation of streams, thereby impacting water quality. These roads would be reviewed for possible closure and reclamation to prevent further damage to these resources.

Reclamation of redundant and “cherry stemming” roads would provide beneficial impacts to soil, water, and riparian resources by returning them to a more natural condition that would reduce erosion, siltation, and impacts to water quality. Reducing the total number of roads would allow for better maintenance of existing roads and reduce associated soil erosion and associated impacts to water and riparian/wetland resources.

Long-term effects would be associated with access routes and road construction and maintenance, especially near wetland/riparian areas. Increased erosion, sedimentation, and bank instability would occur from compaction, removal of vegetative cover, and channelization of surface runoff in ruts and road ditches. In addition, road-surfacing chemicals would contaminate nearby streams, impacting water quality and water sources. Road design, including proper drainage design and culvert sizing, would lessen the long-term impacts from roads; however, changes in surface hydrology would likely cause impacts such as increased erosion and sedimentation to streams impacting water quality and rivers.

Access and vehicular use within the PFO as a result of acquiring new road easements would increase the potential for vegetation removal and accelerated soil erosion. Impacts would be greatest if these newly acquired easements remained as two-track roads. Upgrading roadways would require installation of erosion control structures, which would mitigate soil erosion and reduce impacts.

Impacts to Vegetation Resources

Motorized access on routes restricted to administrative access would not impact vegetation resources.

Reclaiming redundant road systems to reduce road density, maintain connectivity, and reduce habitat fragmentation would reduce the opportunity for noxious weed and invasive plant species establishment. Conversely, reducing access to areas with noxious or invasive plant species infestations would potentially become more expensive.

Impacts to Cultural Resources

Maintenance or reclamation of existing roads and routes would require cultural resource inventories/clearances before implementation. Continued use of these maintained routes would result in continued impacts from erosion due to water crossing hardened surfaces at water diversions and wash crossings.

Providing directional, informational, regulatory, or interpretive signage would provide information to public land users. This would result in more frequent compliance with land use plan decisions. This long-term impact would tend to result in preservation of cultural resources.

TRANSPORTATION AND MOTORIZED ACCESS

Common to All Alternatives

Impacts to Paleontology Resources

Maintenance or reclamation of existing roads and routes would require paleontological resource assessments before implementation. Because most of these areas have already been disturbed, the potential to impact paleontological resources through these activities is not anticipated to be significant. If any paleontological resources were present or discovered during the project, mitigation efforts would ensure that impacts would not be significant.

Providing directional, informational, regulatory, or interpretive signage would provide information to public land users. This would result in more frequent compliance with land use plan decisions. This long-term impact would tend to protect paleontological resources from uninformed users.

Impacts to Visual Resources

Requiring the reclamation of redundant road systems and/or roads that no longer serve their intended purpose would improve visual qualities of the landscape in those areas. The reclamation of roads would be most beneficial to VRM Class I and II areas.

Impacts to Special Status Species

No significant impact.

Impacts to Fish and Wildlife

Transportation and access resources would be managed to accommodate access needs for approved public land uses and to manage access where appropriate to protect other resource values. The public land transportation system would be maintained or modified to provide for public health and safety and adequate access to public lands. Voluntary mitigation would maintain habitat as applied case-by-case.

Impacts to Wild Horses and Burros

Maintenance of existing roads in HMAs would result in the short-term displacement of wild horses.

Impacts to Fire and Fuels Management

Maintenance of roads throughout the PFO would provide improved access for dispersed recreation uses, providing for the continued potential of human-caused wildland fires. However, an improved road network in the PFO would improve emergency vehicle access, enabling a quicker response for initial attack of fire starts.

RESOURCE USES

Impacts to Forest and Woodlands

Continuing to maintain the existing transportation system within the Price PFO would decrease the use of forest products by limiting access to forested areas in the northeastern portion of the PFO. Gated access routes through private parcels impede convenient access to forested areas in need of ongoing forest health monitoring.

Impacts to Livestock

Impacts resulting from transportation and access management would serve to improve the transportation network, which would increase the distribution of people within the PFO. This change in the population distribution would increase the potential for incidental damage to range improvements and general disturbance of livestock.

Improving highways and roads could improve access for range improvements and livestock transportation. However, these improvements also would improve access for other uses and may indirectly increase user conflict.

TRANSPORTATION AND MOTORIZED ACCESS

Common to All Alternatives

Impacts to Recreation

Reclamation of redundant road system and/or roads would reduce opportunities for motorized recreation in any areas where closures would occur.

Continuing to manage byway and backway corridors would maintain opportunities for motorized recreation and scenic driving on designated byways and backways in the PFO.

Installation of signage throughout the field office would alter the recreation experience by providing information and directing users.

Continued use of backcountry airstrips in the PFO would maintain unique opportunities for recreational backcountry aviation. Any closure of these backcountry airstrips would result in a loss of a regionally unique recreation opportunity.

Impacts to Lands and Realty

Reasonable access to privately held lands would be required.

If the ability to dispose of lands were restricted due to the lack of sufficient access, then the ability to dispose of those lands would be impacted. Development of new roads into the system would require establishment of ROWs.

Impacts to Minerals and Energy

No significant impact.

SPECIAL DESIGNATIONS

Impacts to Wilderness Study Areas

No significant impact.

Impacts to Areas of Critical Environmental Concern

No significant impact.

Impacts to Wild and Scenic Rivers

Suitable river segments would be within areas managed as limited to designated routes and areas closed to off-highway vehicles. Use of existing routes would be compatible with protective management of the suitable river segments.

Eligible river segments not suitable with this alternative would also be within areas managed as limited to designated routes and areas closed to off-highway vehicles. These designations would be protective of these rivers by limiting OHV activities that could change the degree of human disturbance in the river corridors.

SUPPORT

Impacts to Transportation and Motorized Access

Establishing and implementing maintenance agreements with the counties to maintain system roads and requiring reclamation of redundant road systems and/or roads that no longer serve their intended purpose would yield long-term, direct benefits for transportation and motorized access by reducing required road maintenance and associated costs.

Directional, informational, regulatory, and interpretive signage at appropriate locations throughout the PFO would improve visitor safety.

Impacts to Hazardous Materials and Waste

No significant impact.