



U.S. DEPARTMENT OF THE INTERIOR
**BUREAU OF LAND
MANAGEMENT**

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE



Bears Ears National Monument

San Juan County, Utah

**PROPOSED RESOURCE MANAGEMENT PLAN AND
FINAL ENVIRONMENTAL IMPACT STATEMENT**

VOLUME 1: EXECUTIVE SUMMARY AND CHAPTERS 1–5

October 2024

A wide-angle photograph of a desert landscape at sunset. The foreground shows large, layered rock formations with some green vegetation. The middle ground features a deep canyon with a winding river and several prominent rock spires. The background shows distant mountains under a sky with orange and blue clouds.

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

BLM Mission

The BLM's mission is to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.

U.S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE

USDA Forest Service Mission

The mission of the USDA Forest Service is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.

Sunset in the Bears Ears landscape overlooking one of the many canyons of Cedar Mesa
Photograph by Bob Wick provided by the Bureau of Land Management

BEARS EARS NATIONAL MONUMENT PROPOSED RESOURCE MANAGEMENT PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT

Responsible Agencies: United States Department of the Interior, Bureau of Land Management
United States Department of Agriculture, U.S. Forest Service

Document Status: Draft () Final (X)

Abstract: This Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed RMP/Final EIS) has been prepared by the United States Department of the Interior, Bureau of Land Management (BLM) and United States Department of Agriculture, U.S. Forest Service (USDA Forest Service) (collectively, “the agencies”) with expertise from Tribal Nations, including those of the Bears Ears Commission, and input from cooperating agencies, the public, and stakeholders. The purpose of the Proposed RMP/Final EIS is to protect and provide proper care and management to the “object[s] of antiquity” and “objects of historic or scientific interest” of the Bears Ears National Monument (BENM) that were identified in Presidential Proclamations 9558 and 10285. The Proposed RMP/Final EIS will also provide a comprehensive framework for the agencies’ allocation of resources and management of the federal lands within BENM pursuant to the specific direction in Presidential Proclamation 10285.

The Proposed RMP/Final EIS describes and analyzes six alternatives for managing BENM in San Juan County, Utah. The No Action Alternative is a continuation of current management; under this alternative, federal lands and resources would continue to be managed under existing management plans to the extent those plans are consistent with Proclamation 10285. The existing management plans applicable to the Monument are the 2008 *Bureau of Land Management Monticello Field Office Record of Decision and Approved Resource Management Plan*, as amended; the 2008 *Bureau of Land Management Moab Field Office Record of Decision and Approved Resource Management Plan*, as amended; the 1986 *Land and Resource Management Plan: Manti-La Sal National Forest*, as amended; and the 2020 *Bears Ears National Monument: Record of Decision and Approved Monument Management Plans, Indian Creek and Shash Jáa Units*. Alternative B would apply on-site and prescriptive management to protect BENM objects. Alternative C would use permits and off-site interpretation and education for public uses in high-use areas to reduce impacts to more remote locations. Alternative D would allow for the continuation of natural processes by limiting or discontinuing discretionary uses. Alternative E would maximize the consideration and use of Tribal perspectives on managing the landscape of BENM with an intent to emphasize resource protection and stewardship. The agencies added the Proposed Plan, which is based on Alternative E, with a combination of components from the various alternatives and represents the management the agencies are proposing for BENM. Alternatives B, C, D, E, and the Proposed Plan were developed using input from the Bears Ears Commission, public, stakeholders, and cooperating agencies. Major planning issues addressed include cultural resources and recreation management.

Protest Period: The Proposed RMP/Final EIS is subject to a 30-day protest period and a 60-day governor’s consistency review. This process began when the U.S. Environmental Protection Agency published a notice of availability in the *Federal Register*.

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**In Reply Refer To:
DOI-BLM-UT-Y020-2022-0030-RMP-EIS**

Dear Reader:

Enclosed for your review and comment is the Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed RMP/Final EIS) for the Bears Ears National Monument (BENM). The Proposed RMP/Final EIS was prepared by the United States Department of the Interior, Bureau of Land Management (BLM) and United States Department of Agriculture, U.S. Forest Service (USDA Forest Service) (collectively, “the agencies”) in accordance with the National Environmental Policy Act of 1969, the BLM’s land use planning regulations at 43 Code of Federal Regulations 1600, and other applicable laws.

On October 8, 2021, Presidential Proclamation 10285 restored the BENM boundaries and conditions established in Presidential Proclamation 9558, and retained approximately 11,200 acres that were added to the Monument by Presidential Proclamation 9681. Presidential Proclamation 10285 declares that the entire landscape reserved by the Proclamation is “an object of historic and scientific interest in need of protection” and that in the absence of a reservation under the Antiquities Act, the objects identified within the boundary of BENM are not adequately protected.

In developing the Proposed RMP/Final EIS, the agencies have developed a range of management alternatives to protect Monument objects. The agencies have developed this range of alternatives by coordinating closely with the Bears Ears Commission, consulting with Tribal Nations, considering issues raised through public scoping and coordination with cooperating agencies, and considering applicable planning criteria. This process has resulted in the development of six alternatives, including the No Action Alternative, which represents a continuation of current management under existing management plans, to the extent they are consistent with Proclamation 10285. The alternatives are described in their entirety in Chapter 2 of the Proposed RMP/Final EIS. Chapter 3 presents the affected environment and analyzes the potential impacts to resources or resource uses from implementation of the alternatives. Chapter 4 describes the agencies’ consultation and coordination efforts throughout the process.

Changes between the Draft RMP/EIS and the Proposed RMP/Final EIS include the development of the Proposed Plan, modifications and clarifications of the analysis and background information contained in the Draft RMP/EIS, and the addition of the analysis of potential impacts from the Proposed Plan. Additionally, the Proposed RMP/Final EIS includes a summary of the comment process and the agencies’ responses to the comments received during the 90-day public review period of the Draft RMP/EIS.

The BLM planning regulations state that any person who participated in the preparation of the Proposed RMP/Final EIS and has an interest that will or might be adversely affected by approval of the Proposed RMP/Final EIS may protest its approval to the BLM Director. Protest on the Proposed RMP/Final EIS constitutes the final opportunity for administrative review of the proposed land use planning decisions prior to the BLM adopting an approved resource management plan and the USDA Forest Service approving amendment of the 1986 *Land and Resource Management Plan: Manti-La Sal National Forest*. Instructions for filing a protest regarding the Proposed RMP/Final EIS with the BLM Director may be found online at <https://www.blm.gov/programs/planning-and-nepa/public-participation/filing-a-plan-protest> and at 43 Code of Federal Regulations 1610.5-2. All protests must be in writing and submitted as follows:

ePlanning website: <https://eplanning.blm.gov/eplanning-ui/project/2020347/510>

Mail:

BLM Director
Attention: Protest Coordinator (HQ210)
Denver Federal Center, Building 40 (Door W-4)
Lakewood, Colorado 80215

Protests submitted electronically by any means other than the ePlanning project website will be invalid unless a protest is also submitted as a hard copy.


Thank you for your continued interest in the BENM RMP/EIS. We appreciate the interest and information you contribute to the process.

Sincerely,

NICOLLEE
GADDIS-WYATT

Digitally signed by NICOLLEE
GADDIS-WYATT
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Nicollee Gaddis-Wyatt, District Manager

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Barbara Van Alstine, Forest Supervisor

ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/L	micrograms per liter
µg/m ³	micrograms per cubic meter
1986 Manti-La Sal LRMP	<i>Land and Resource Management Plan: Manti-La Sal National Forest</i>
2008 Moab RMP	<i>Bureau of Land Management Moab Field Office Record of Decision and Approved Resource Management Plan</i>
2008 Monticello RMP	<i>Bureau of Land Management Monticello Field Office Record of Decision and Approved Resource Management Plan</i>
2020 ROD/MMPs	<i>Bears Ears National Monument: Record of Decision and Approved Monument Management Plans, Indian Creek and Shash Jáa Units</i>
2022 AMS	<i>Bears Ears National Monument Resource Management Plan and Environmental Impact Statement: Analysis of the Management Situation – September 2022</i>
2022 BEITC LMP	<i>Bears Ears Inter-Tribal Coalition: A Collaborative Land Management Plan for the Bears Ears National Monument</i>
4WD	four-wheel drive
ACEC	area of critical environmental concern
ADA	Americans with Disabilities Act
AIM	Assessment, Inventory, and Monitoring
AML	abandoned mine lands
AMP	allotment management plan
AR6	Intergovernmental Panel on Climate Change Sixth Assessment Report
ARPA	Archaeological Resources Protection Act
ATV	all-terrain vehicle
aU	assessment unit
AUM	animal unit month
BCC	Birds of Conservation Concern
BEC	Bears Ears Commission
BEITC	Bears Ears Inter-Tribal Coalition
BENM	Bears Ears National Monument
BIL	Bipartisan Infrastructure Law
BLM	Bureau of Land Management
BMPs	best management practices
BPS	biophysical setting

BSC	biological soil crust
CCC	Civilian Conservation Corps
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO₂	carbon dioxide
CO_{2e}	carbon dioxide equivalent
CRMP	cultural resources management plan
dBA	A-weighted decibel
Dingell Act	John D. Dingell Jr. Conservation, Management, and Recreation Act of 2019
DOI	United States Department of the Interior
DWSP zone	Drinking Water Source Protection zone
<i>E. coli</i>	<i>Escherichia coli</i>
EIS	environmental impact statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERMA	extensive recreation management area
ESA	Endangered Species Act
ESR	Emergency Stabilization and Rehabilitation
FEMA	Federal Emergency Management Agency
FLPMA	Federal Land Policy and Management Act
FMP	fire management plan
FMU	Fire Management Unit
FO	field office
FRG	Fire Regime Groups
FSH	Forest Service Handbook
FSM	Forest Service Manual
GHG	greenhouse gas
GIS	geographic information system
GMO	genetically modified organism
gpm	gallons per minute
GPRA	Government Performance and Results Act
HAP	hazardous air pollutant
HM	head month

HPP	historic property plan
HUC	hydrologic unit code
IMPLAN	Impact Analysis for Planning Model
IMPROVE	Interagency Monitoring of Protected Visual Environments
IPCC	Intergovernmental Panel on Climate Change
IRA	inventoried roadless area
ISA	instant study area (Note: Lands formerly in this category are referred to as wilderness study areas.)
ISRP	Individual Special Recreation Permit
IWG	U.S. Interagency Working Group on Social Cost of Greenhouse Gases
kg N/ha	kilograms nitrogen per hectare
kg S/ha	kilograms sulfur per hectare
LMP	land management plan
LTA	land tenure adjustment
LWC	lands with wilderness characteristics
MAC	Monument Advisory Committee
MIS	Management Indicator Species
MIST	Minimum Impact Suppression Tactics
MMP	monument management plan
mpsa	magnitudes per square arcsecond
MSO	Mexican spotted owl
NAAQS	National Ambient Air Quality Standards
NABR	Natural Bridges National Monument
NADP	National Atmospheric Deposition Program
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NFS	National Forest System
NHPA	National Historic Preservation Act
NO₂	nitrogen dioxide
NO_x	nitrogen oxides
NOA	notice of availability
NPS	National Park Service
NRA	National Recreation Area
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

NTU	nephelometric turbidity unit
NVUM	National Visitor Use Monitoring
NWI	National Wetlands Inventory
NWSR	National Wild and Scenic Rivers
OHV	off-highway vehicle
ORVs	outstandingly remarkable values
PAC	Protected Activity Center
PFC	proper functioning condition
PFYC	Potential Fossil Yield Classification
PILT	payments in lieu of taxes
PL	Public Law
PM_{2.5}	particulate matter less than 2.5 microns in diameter
PM₁₀	particulate matter less than 10 microns in diameter
PWRs	public water reserves
RAMP	recreation area management plan
RFFA	reasonably foreseeable future action
RM	river mile
RMA	recreation management area
RMIS	Recreation Management Information System
RMP	resource management plan
RMZ	recreation management zone
RNA	Research Natural Area
ROD	record of decision
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
RSC	recreation setting characteristic
RV	recreational vehicle
SCC	species of conservation concern
SC-GHG	social cost of greenhouse gases
SFHA	Special Flood Hazard Area
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
SIO	scenic integrity objective (USDA Forest Service)
SMS	Scenery Management System (USDA Forest Service)
SO₂	sulfur dioxide

SR	State Route
SRMA	special recreation management area
SRP	Special Recreation Permit
SSI	Springs Stewardship Institute
SUP	special use permit
T&E	threatened and endangered
TCP	traditional cultural property
TDS	total dissolved solids
TMDL	total maximum daily load
TMP	travel management plan
UAC	Utah Administrative Code
UAS, drone	unstaffed aircraft system
UDAQ	Utah Division of Air Quality
UDEQ	Utah Department of Environmental Quality
UDOT	Utah Department of Transportation
UDWQ	Utah Division of Water Quality
UDWR	Utah Division of Wildlife Resources
UGS	Utah Geological Survey
US	U.S. Highway
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTV	utility task vehicle
UWRI	Utah Watershed Restoration Initiative
VCC	Vegetation Condition Class
VOCs	volatile organic compounds
VQO	Visual Quality Objective (USDA Forest Service)
VRI	Visual Resource Inventory (BLM)
VRM	Visual Resource Management (BLM)
WFDSS	Wildland Fire Decision Support System
WSA	wilderness study area (Note: Lands formerly considered instant study areas are within this category.)
WSR	wild and scenic river
WUI	wildland-urban interface

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EXECUTIVE SUMMARY

ES-1 Introduction

The *Bears Ears National Monument Proposed Resource Management Plan and Final Environmental Impact Statement* (Proposed RMP/Final EIS) presents and analyzes management alternatives for the federal lands and resources administered by the United States Department of the Interior, Bureau of Land Management (BLM) and United States Department of Agriculture, U.S. Forest Service (USDA Forest Service) (collectively, “the agencies”) within Bears Ears National Monument (BENM, or Monument). The Planning Area, which is located in San Juan County, Utah, and comprises approximately 1.36 million acres of federal land, is coextensive with BENM.

BENM represents the culmination of more than a century of efforts to protect the ancestral homeland of five Tribal Nations. On October 8, 2021, Presidential Proclamation 10285 restored the Monument boundaries and conditions established by Presidential Proclamation 9558 and retained approximately 11,200 acres that were added to the Monument by Presidential Proclamation 9681. Presidential Proclamation 10285 declares that the entire landscape reserved by the Proclamation is “an object of historic and scientific interest in need of protection” and that in the absence of a reservation under the Antiquities Act, the objects identified within the boundary of BENM are not adequately protected. Presidential Proclamation 10285 specifies that BENM ensures “the preservation, restoration, and protection of the objects of scientific and historic interest on the Bears Ears region, including the entire monument landscape,” and it re-establishes the Bears Ears Commission (BEC) of Tribal Nations in accordance with the terms, conditions, and obligations set forth in Proclamation 9558 to ensure that “management decisions affecting the monument reflect expertise and traditional and historical knowledge of Tribal Nations.”

The agencies, in coordination with the BEC and cooperating agencies, jointly prepared this Proposed RMP/Final EIS pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321 et seq.), BLM land use planning regulations at 43 Code of Federal Regulations (CFR) 1600, United States Department of the Interior NEPA regulations (43 CFR 1501 et seq. Part 461), USDA Forest Service land management planning regulations at 36 CFR 219, USDA Forest Service NEPA compliance regulations at 36 CFR 220, and other applicable laws.

Proclamation 10285—in accordance with the Antiquities Act of 1906—dedicates the lands in BENM to specific uses by designating the Monument and reserving the entirety of the lands in the restored boundary of BENM as the smallest area compatible with the protection of its objects.

In addition to the management direction in Proclamation 10285, the federal lands within the Planning Area are currently managed by the agencies primarily under the following land use plans:

- *Bears Ears National Monument: Record of Decision and Approved Monument Management Plans, Indian Creek and Shash Jáa Units* (BLM 2020). The document is referred to hereafter as the 2020 ROD/MMPs.¹
- *Bureau of Land Management Moab Field Office Record of Decision and Approved Resource Management Plan* (BLM 2008a). The document is referred to hereafter as the 2008 Moab RMP.²

¹ The 2020 ROD/MMPs is referred to frequently throughout the Executive Summary; therefore, the author-date citation is provided here at first mention only.

² The 2008 Moab RMP is referred to frequently through the Executive Summary; therefore, the author-date citation is provided here at first mention only.

- *Bureau of Land Management Monticello Field Office Record of Decision and Approved Resource Management Plan*, as amended (BLM 2008b). The document is referred to hereafter as the 2008 Monticello RMP.³
- *Land and Resource Management Plan: Manti-La Sal National Forest*, as amended (USDA Forest Service 1986). The document is referred to hereafter as the 1986 Manti-La Sal LRMP.⁴

ES-2 Purpose and Need

Proclamation 10285 directs the agencies to “prepare and maintain a new management plan for the entire monument” for the specific purposes of “protecting and restoring the objects identified [in Proclamation 10285] and in Proclamation 9558.”

Accordingly, the agencies’ underlying purpose and need is to provide a framework, including goals, objectives, and management direction, to guide management of BENM, consistent with the protection of BENM objects, and other applicable laws, regulations, and policies.

The following purposes and desired outcomes are set forward explicitly in Presidential Proclamation 10285, represent direction and guidance provided in BLM and USDA Forest Service regulations and policy, and address present and historical BENM management challenges. Associated needs and challenges that the Proposed RMP/Final EIS will address are summarized in greater detail in Chapter 1, Purpose and Need, Section 1.1.

1. Protect and restore Monument objects in large, remote, rugged, and connected landscapes. This includes the entire Bears Ears landscape and the collection of objects and resources that the Monument was established to protect.
2. Protect the historical and cultural significance of this landscape. This includes objects identified in Presidential Proclamation 10285 such as numerous archaeological sites, locations facilitating modern Tribal uses and other traditional descendant community uses, historic routes and trails, historic inscriptions, and historic sites.
3. Protect and restore the unique and varied natural and scientific resources of these lands. This includes objects identified in Presidential Proclamation 10285 such as biological resources, including various plant communities, relic and endemic plants, diverse wildlife, including unique species, and habitat for Endangered Species Act-listed species.
4. Protect scenic qualities, including night skies; natural soundscapes; diverse, visible geology; and unique areas and features.
5. Protect important paleontological resources.
6. Ensure that management of BENM will incorporate Tribal expertise and traditional and historical knowledge related to the use and significance of the landscape.
7. Provide for uses of Monument lands, so long as those uses are consistent with the protection of BENM objects.

³ The 2008 Monticello RMP is referred to frequently throughout the Executive Summary; therefore, the author-date citation is provided here at first mention only.

⁴ The 1986 Manti-La Sal LRMP is referred to frequently throughout the Executive Summary; therefore, the author-date citation is provided here at first mention only.

ES-3 Issues Considered

The agencies identified issues to be addressed in the Proposed RMP/Final EIS through public scoping, internal scoping, government-to-government consultation and information sharing with Tribal Nations, and outreach to cooperating agencies.

Table ES-1 presents the primary issues identified during internal and external scoping that were analyzed in detail. These resources are organized into two general categories: the natural environment and the built environment (see Section 3.4 and Section 3.5). Resources are categorized this way based on perspectives shared by members of Tribal Nations in the *Bears Ears Inter-Tribal Coalition: A Collaborative Land Management Plan for the Bears Ears National Monument* (Bears Ears Inter-Tribal Coalition 2022) (Appendix L), which discusses connections and distinctions among aspects of the natural world and human constructs.

Table ES-1. Issues Analyzed in Detail

Resource Topic	Issues
NATURAL ENVIRONMENT	
Paleontological Resources and Geology	<p>How would proposed management decisions regarding paleontological resource management (such as curation, protection, survey, collection, outreach, and interpretation) impact paleontological resources, research communities, local communities, and visitor experience?</p> <p>How would proposed land use allocations and discretionary uses impact paleontological resources?</p> <p>How would proposed land use allocations and discretionary uses impact unique geological features?</p>
Soils and Biological Soil Crusts	<p>How would existing and proposed land use allocations affect the structure, health, and function of soil resources (including biological soil crusts and other sensitive soils) across the landscape?</p> <p>How would BENM management impact soils (e.g., degradation, erosion, preservation, etc.), including biological soil crusts and other sensitive soils?</p>
Water Resources (Groundwater, Surface Water, Wetlands, Riparian Areas, Floodplains, Water Quality)	<p>How would BENM management affect surface water hydrology, water quality, water quantity, and riparian and wetland areas?</p> <p>How would BENM management affect groundwater quality and quantity, groundwater-dependent ecosystems, public Drinking Water Source Protection zones, groundwater protection zones, or associated surface water resources?</p>
Terrestrial Habitat and Vegetation Resilience and Conservation (large-scale and local ecotypes)	<p>How would existing and proposed management prescriptions and discretionary uses (such as those made for livestock grazing, recreation, and lands and realty actions) affect terrestrial vegetation, including special status plant species?</p> <p>How would existing and proposed vegetation management affect terrestrial vegetation and special status plant species?</p>
Noxious Weeds and Nonnative Invasive Plants	<p>How would existing and proposed land use allocation decisions about grazing, recreation, lands and realty actions, and discretionary uses affect noxious weeds and invasive nonnative plants?</p> <p>How could existing and proposed vegetation management affect noxious weeds and invasive nonnative plants?</p>
Fuels, Wildfire, and Prescribed Fire and Forestry and Woodlands	<p>How would vegetative treatments (e.g., prescribed fire, thinning) and harvesting affect the health and preservation of woodlands, the objects of the Monument related to forests, and Indigenous peoples' traditional and ceremonial uses?</p> <p>How do current and proposed fire and fuels management techniques affect ecosystem function, fire regime, cultural resources, and health and human safety?</p>
Lands with Wilderness Characteristics	<p>How would the proposed land use allocations and discretionary uses affect the apparent naturalness, size, and outstanding opportunities for solitude or primitive and unconfined recreation of lands with wilderness characteristics?</p>

Resource Topic	Issues
Special Land Designations for Conservation and Protection	<p>How would proposed management of BENM affect suitable wild and scenic river segments?</p> <p>How would proposed management prescriptions and other management actions affect the relevant or important values of existing and nominated areas of critical environmental concern and the ecological values of Research Natural Areas?</p> <p>How would relevant and important values be impacted by the decision to not carry forward or not designate an area of critical environmental concern?</p> <p>How would BENM management affect the values and wilderness characteristics associated with wilderness study areas?</p>
Wildlife and Fisheries	<p>How would proposed management affect wildlife and fisheries habitat and populations including special status species and species otherwise generally identified in Proclamations 10285 and 9558?</p> <p>How would the proposed management affect state wildlife agency habitat management goals and associated actions related to big game winter and summer range movement and migration corridors and migration corridors for birds, insects, and fish?</p>
Visual Resources and Scenery	<p>How would proposed management actions affect scenic quality, scenic character, scenic integrity, and the public's highly valued experience of enjoying scenery?</p> <p>How would proposed management actions affect inventoried visual values?</p>
Natural Soundscapes	How would proposed management actions under the alternatives affect natural quiet soundscapes?
Air Quality	How would proposed management actions and management prescriptions contribute to air pollutant emissions and affect air quality and visibility?
Night Skies	How would proposed management actions under the alternatives affect dark night skies?
BUILT ENVIRONMENT	
Cultural Resource Management, Indigenous People's Religious Concerns, and Tribal Use	<p>How would the proposed management affect continued traditional uses of religious or cultural importance to Tribal Nations?</p> <p>How would the proposed management actions affect cultural resources, including cultural landscapes, traditional uses, and historic properties?</p> <p>How would the proposed management actions provide information and education about cultural resources, including cultural landscapes, traditional uses, and historic properties, to the public?</p> <p>How would the proposed management action affect uses of cultural resources?</p>
Archaeological Sites and Historic Communities, Historic Resources	<p>How would proposed management impact archaeological resources (pre-contact, post-contact, and multicomponent in temporal affiliation) that are either not eligible, eligible or listed in the National Register of Historic Places (i.e., historic properties)?</p> <p>How would the proposed management actions affect cultural resources, including cultural landscapes, traditional uses, and archaeological historic properties?</p> <p>How would the proposed management actions provide information and education about cultural resources, including cultural landscapes, traditional uses, and archaeological historic properties, to the public?</p> <p>How would proposed impact post-contact historic communities and/or post-contact historic archaeological locations that are either not eligible, eligible, or listed in the National Register of Historic Places (i.e., historic properties)?</p> <p>How would the proposed management actions affect historic communities and post-contact historic properties?</p> <p>How would the proposed management actions provide information and education about historic communities and post-contact historic properties to the public?</p>
Environmental Justice and Social and Economic Values	<p>Would proposed management result in disproportionate or adverse impacts on environmental justice populations?</p> <p>How would proposed management impact jobs and income in the socioeconomic analysis area?</p> <p>How would proposed management impact the nonmarket benefits individuals receive from BLM-administered and National Forest System lands and public resources?</p>
Lands and Realty	How would proposed land use allocations and discretionary uses affect land use authorizations and land tenure in the Planning Area?
Recreation Use and Visitor Services	How would proposed management affect the agencies' ability to meet recreation objectives to provide for quality visitor experiences and education while protecting BENM objects?
Travel, Transportation, and Access Management	How would proposed travel designations affect the travel and transportation system in BENM, including impacts to resources?

Resource Topic	Issues
Livestock Grazing	How would proposed management of Monument objects affect rangeland forage conditions and livestock grazing operations, including range improvements?
Climate Change	How would land use allocations and discretionary uses in BENM contribute to greenhouse gas emissions? How would land use allocations and discretionary uses affect long-term carbon storage and sequestration in BENM?

ES-4 Alternatives

ES-4.1 Actions Common to All Alternatives

All alternatives incorporate the intent of the intergovernmental cooperative agreement between the Tribal Nations that make up the BEC and the BLM and USDA Forest Service to cooperate and collaborate in the management of BENM. This shared stewardship includes the federal agencies' commitment to ensure that Traditional Indigenous Knowledge and other local expertise are reflected throughout all alternatives in the agency decision-making process for BENM, including through regular and project-specific communications.

In accordance with Presidential Proclamation 10285, if grazing permits or leases are voluntarily relinquished by the existing holders, the lands covered by such permits or leases would be retired from livestock grazing pursuant to the processes of applicable law. Forage would not be reallocated for livestock grazing purposes unless the Secretaries specifically find that such reallocation would advance the purposes of the Monument designation.

Presidential Proclamation 10285 withdrew BENM from all forms of mineral entry and location. The lands previously available for mineral and energy activities under the 2008 Monticello RMP, the 2008 Moab RMP, and the 1986 Manti-La Sal LRMP are therefore no longer available for such use, subject to valid existing rights. All management in the alternatives are subject to valid existing rights. This includes the rights of owners to access their existing private land inholdings as well as the rights of existing right-of-way (ROW) holders approved by the agencies.

Finally, all alternatives incorporate education and interpretation for the public regarding appropriate ways to recreate and engage in other activities while protecting BENM objects.

ES-4.2 Alternative A (No Action)

Alternative A, the No Action Alternative, represents existing management guided by management decisions in the 2020 ROD/MMPs, 2008 Monticello RMP, 2008 Moab RMP, and 1986 Manti-La Sal LRMP. Land use management direction in these plans guides BENM management to the extent that it is consistent with Proclamation 10285 and the protection of BENM objects. Where management direction in these plans is inconsistent with Proclamation 10285, the proclamation controls. Alternative A serves as the baseline comparison against which all action alternatives (B, C, D, and E) and the Proposed Plan are compared.

- Recreation areas: The BLM would continue to manage recreation with eight special recreation management areas (SRMAs) and two extensive recreation management areas (ERMAs). The SRMAs and ERMAAs would provide for specific, outcomes-based recreational experiences. The USDA Forest Service would manage recreation on National Forest System (NFS) lands within BENM based on the Recreation Opportunity Spectrum (ROS) categories of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural.

- **Recreational shooting:** Recreational shooting would be allowed throughout BENM with the exception of campgrounds/developed recreation sites, rock writing sites, and structural cultural sites. If problems with recreational shooting occur in the future, the agencies would consider future restrictions or closures.
- **Recreational facilities:** This alternative would continue to manage the existing recreational facilities. An implementation-level recreation management plan would be developed to provide additional site-specific management.
- **Livestock grazing:** BENM would be available/suitable for livestock grazing except for approximately 135,007 acres that would be unavailable or not suitable for grazing, and 5,229 acres designated for trailing only (with 1,277 of those acres open to emergency grazing).
- **Areas of critical environmental concern (ACECs):** Alternative A would continue to manage existing ACECs for their relevant and important values.
- **Vegetation management:** Alternative A would continue to manage vegetation to provide for high levels of vegetative diversity and productivity while continuing to prioritize commercial and private use of the Monument.
- **Forest and wood product harvest:** Alternative A would continue to limit private use of wood products to six designated areas.
- **Fire management:** Generally, Alternative A primarily relies on federal wildland fire land management decisions for wildfire and fuel management, with less emphasis on Tribal collaboration in these aspects. Alternative A would give priority to fuels treatments in the wildland-urban interface (WUI) and developed recreation areas. Additionally, there would be an emphasis on fuels treatments around cultural and natural resources.
- **Travel and transportation management:** Alternative A would continue to manage the existing network of non-motorized and non-mechanized trails per the 2008 Monticello RMP and the 2020 ROD/MMPs. For off-highway vehicle (OHV) use, 389,645 acres of BLM-administered lands and 46,430 acres of NFS lands would be managed as OHV closed areas, totaling 436,075 acres. OHV use would be limited on 685,403 acres of BLM-administered lands and 242,677 acres of NFS lands.
- **Lands with wilderness characteristics (LWC):** The BLM would continue to manage 48,954 acres of LWC for their wilderness characteristics.

ES-4.3 Alternative B

Alternative B would provide the most permissive management for those discretionary actions that are compatible with protecting BENM objects. This alternative would focus on on-site education and interpretation and allow for the development of facilities to protect BENM objects.

- **Recreation areas:** The BLM would manage recreation with four SRMAs and four ERMAs. The USDA Forest Service would manage recreation on NFS lands within BENM based on the ROS categories of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural.
- **Recreational shooting:** Recreational shooting would be allowed throughout BENM with the exception of the Indian Creek Corridor recreation management zone (RMZ) and San Juan River SRMA. Recreational shooting would also be prohibited in campgrounds, developed recreation facilities, climbing areas, existing and designated trails, parking areas, trailheads, across roadways, rock writing sites, and structural cultural sites. If problems with recreational shooting occur in the future, the agencies would consider future restrictions or closures.

- **Recreational facilities:** Recreation facilities would be developed as necessary to support the recreation objectives in recreation management areas (RMAs), protect resources, and provide for public health and safety.
- **Livestock grazing:** BENM would be available/suitable for livestock grazing except for approximately 169,530 acres, which would be unavailable/not suitable or restricted to trailing or trailing with emergency grazing only.
- **ACECs:** The BLM would designate the Indian Creek ACEC, Lavender Mesa ACEC, and Valley of the Gods ACEC. The San Juan River ACEC and Shay Canyon ACEC would not be designated as ACECs.
- **Vegetation management:** Vegetation management under Alternative B places more emphasis on restoring historical vegetation conditions and fire return intervals and includes a reduction in some uses of vegetation resources such as timber harvest and grazing.
- **Forest and wood product harvest:** Alternative B would have approximately 930,911 acres open to wood product harvest (approximately 68% of the Monument).
- **Fire management:** Fire management under Alternative B would involve heightened environmental protection measures and place a greater emphasis on the protection of cultural resources. Additionally, it would prioritize increased Tribal collaboration during fire and fuels management. Alternative B would give precedence to fuels treatments in culturally significant sites and areas that have deviated from their Vegetation Condition Class (VCC). In these instances, Traditional Indigenous Knowledge would be integrated into fuels management.
- **Travel and transportation management:** Under Alternative B, public use of BENM for landings and takeoffs of motorized aircraft would be limited to Bluff Airport and Fry Canyon Airstrip, with the potential for additional locations to be identified in future implementation-level decisions. OHV use would be limited to 685,403 acres of BLM-administered lands and 112,122 acres of NFS lands, totaling 797,525 acres. OHV use would be managed as closed on 389,645 acres of BLM-administered lands and 176,982 acres of NFS lands, totaling 566,627 acres.
- **LWC:** The BLM would manage 97,403 acres of LWC to protect wilderness characteristics while allowing for compatible uses.

ES-4.4 Alternative C

Alternative C would allow discretionary actions only if necessary to protect BENM objects. This alternative would focus on off-site education and interpretation and allow for limited development of facilities to protect BENM objects.

- **Recreation areas:** The BLM would manage recreation with four SRMAs and four ERMAs. The USDA Forest Service would manage recreation on NFS lands within BENM based on the ROS categories of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural.
- **Recreational shooting:** Recreational shooting would be allowed throughout BENM with the exception of the Indian Creek SRMA and the San Juan River SRMA. Recreational shooting would also be prohibited in campgrounds, developed recreation facilities, climbing areas, existing and designated trails, parking areas, trailheads, across roadways, rock writing sites, and structural cultural sites. If problems with recreational shooting occur in the future, the agencies would consider future restrictions or closures.

- **Recreational facilities:** Recreation facilities would be developed or improved if needed to support the recreation objectives in RMAs, protect resources, and provide for public health and safety.
- **Livestock grazing:** BENM would be available/suitable for livestock grazing except for approximately 169,530 acres, which would be unavailable/not suitable or restricted to trailing/trailing with emergency grazing only.
- **ACECs:** The BLM would designate the Indian Creek ACEC, Lavender Mesa ACEC, and Valley of the Gods ACEC. The San Juan River ACEC and Shay Canyon ACEC would not be designated as ACECs.
- **Vegetation management:** Under Alternative C, vegetation management would prioritize high value/high risk areas such as developed recreation facilities, and emphasis would be placed on treatments that maintain plant diversity, enhance native species productivity, and habitat connectivity.
- **Forest and wood product harvest:** Alternative C would have approximately 930,910 acres open to wood product harvest (approximately 68% of the Monument).
- **Fire management:** Fire management under Alternative C would also prioritize more environmental protection measures during fire and fuels treatments. Fuel reduction would target areas with motorized access, high visitation, and/or developed recreation facilities, but would also emphasize maintaining healthy VCCs, cultural resource protection, incorporation of Traditional Indigenous Knowledge, and Tribal collaboration.
- **Travel and transportation management:** Alternative C would eliminate most public access of BENM for unstaffed aircraft systems (UASs or drones), except for authorizations for case-by-case landings and takeoffs through formal permitting processes, where the use is beneficial to protecting BENM objects. Under Alternative C, 487,048 acres of BLM-administered lands and 176,982 acres of NFS lands would be managed as OHV closed areas, totaling 664,030 acres. In all, 588,000 acres of BLM-administered lands and 112,122 acres of NFS lands would be managed as OHV limited areas, totaling 700,122 acres.
- **LWC:** The BLM would manage 97,403 acres of LWC to protect wilderness characteristics while allowing for compatible uses under Alternative C.

ES-4.5 Alternative D

Alternative D would generally prioritize the continuation of natural processes by limiting or discontinuing discretionary uses. This alternative would minimize human-created facilities and management would emphasize natural conditions.

- **Recreation areas:** The BLM would manage recreation with seven Management Areas. The USDA Forest Service would manage recreation on NFS lands within BENM based on the ROS categories of primitive, semi-primitive non-motorized, semi-primitive motorized, and roaded natural.
- **Recreational shooting:** Recreational shooting would be allowed throughout BENM with the exception of the Indian Creek Management Area, San Juan River Management Area, recommended wilderness, wilderness study areas (WSAs), and protected LWC. Recreational shooting would also be prohibited in campgrounds, developed recreation facilities, climbing areas, existing and designated trails, parking areas, trailheads, across roadways, rock writing sites, and structural cultural sites. If problems with recreational shooting occur in the future, the agencies would consider future restrictions or closures.

- **Recreational facilities:** This alternative would minimize the development of recreational facilities and management and would emphasize natural conditions.
- **Livestock grazing:** BENM would be available/suitable for livestock grazing except for approximately 410,367 acres, which would be unavailable/not suitable or restricted to trailing/trailing with emergency grazing only.
- **ACECs:** The BLM would designate the Indian Creek ACEC, Lavender Mesa ACEC, Valley of the Gods ACEC, nominated John's Canyon Paleontological ACEC, and the Aquifer Protection ACEC. The San Juan River ACEC and Shay Canyon ACEC would not be carried forward.
- **Vegetation management:** Alternative D would use "light-on-the-land" treatments and natural processes throughout the entire Monument to enhance or maintain desirable conditions for vegetation for traditional uses and improving VCCs.
- **Forest and wood product harvest:** Alternative D would have approximately 930,910 acres open to wood product harvest (approximately 68% of the Monument).
- **Fire management:** Under Alternative D, numerous environmental protection measures would be employed to safeguard natural and cultural resources. Fire and fuel management would give precedence to natural processes and Traditional Indigenous Knowledge to achieve desired outcomes. The protection of culturally significant sites would be a primary focus. Mechanical treatments would solely be utilized to safeguard BENM objects.
- **Travel and transportation management:** In all, 808,630 acres of BLM-administered lands and 176,982 acres of NFS lands would be managed as OHV closed areas, totaling 985,612 acres. A total of 266,429 acres of BLM-administered lands and 112,122 acres of NFS lands would be managed as OHV limited areas, totaling 378,551 acres.
- **LWC:** All lands in BENM that have been inventoried as having wilderness characteristics (approximately 421,965 acres) would be managed to protect wilderness characteristics while allowing for compatible uses.

ES-4.6 Alternative E

Alternative E maximizes the consideration and use of Tribal perspectives on managing the landscape of BENM. This alternative is meant to emphasize resource protection and the use of Traditional Indigenous Knowledge and perspectives on the stewardship of the Bears Ears landscape. This includes consideration of natural processes and seasonal cycles in the management of BENM and collaboration with Tribal Nations to incorporate those considerations into BENM day-to-day management.

- **Recreation areas:** Alternative E would manage recreation based on a zoned approach. Four zones would be designated: Front Country, Passage, Outback, and Remote.
- **Recreational shooting** would be prohibited in BENM.
- **Recreational facilities:** In general, development of facilities would be allowed, where necessary, in Front Country and Passage Zones.
- **Livestock grazing:** BENM would be available/suitable for livestock grazing except for approximately 169,530 acres, which would be unavailable/not suitable or restricted to trailing only.
- **ACECs:** Under Alternative E, all existing ACECs would be carried forward. Additionally, the nominated John's Canyon Paleontological ACEC and Aquifer Protection ACEC would be designated.
- **Vegetation management:** Vegetation management under Alternative E would emphasize Traditional Indigenous Knowledge and techniques and natural processes to restore

ecosystems, return natural fire intervals, vegetation conditions and landscape characteristics.

- **Forest and wood product harvest:** The agencies and the BEC would monitor populations and locations of traditionally harvested trees and their uses and impacts to vegetation and wildlife species. Wood product use would be opened or closed permanently or on a seasonal or multi-year basis to allow for resource rest. The acreages of areas open and closed to wood product harvest would be determined by the agencies in collaboration with the BEC. Within areas open to wood product harvest, designated harvest areas would be designated with emphasis on areas with pinyon pine and juniper encroachment and where site-specific analysis indicates that harvest would be useful to protect vegetation ecosystems.
- **Fire management:** Under Alternative E, the most environmental protection measures would be employed to maximize protection of cultural resources, while also protecting natural resources. Fire and fuel management would prioritize natural processes and incorporate Traditional Indigenous Knowledge. The fuels treatments would give precedence to the protection of culturally significant sites. Mechanical treatments would only be used to protect BENM objects.
- **Travel and transportation management:** Under Alternative E, public use for landing and takeoffs of motorized aircraft would be limited to the Bluff Airport and Fry Canyon Airstrip. Alternative E would eliminate most public access of BENM for UASs, except for authorizations for case-by-case landings and takeoffs through formal permitting processes, where the use is beneficial to protecting BENM objects. 392,989 acres of BLM-administered lands and 176,982 acres of NFS lands would be managed as OHV closed areas, totaling 569,971 acres. In all, 682,059 acres of BLM-administered lands and 112,122 acres of NFS lands would be managed as OHV limited areas, totaling 794,181 acres.
- **LWC:** The BLM would manage 421,965 acres of LWC to protect their wilderness characteristics while allowing for compatible uses under Alternative E.

Consistent with the BLM planning regulations (43 CFR 1610.4-7), USDA Forest Service NEPA regulations (36 CFR 220.5(e)), and as part of the agencies' commitment to an open and transparent planning process, the agencies identified Alternative E as the preferred alternative at the Draft RMP/EIS stage. For additional information regarding the selection of the preferred alternative, see Section 2.3.

ES-4.7 Proposed Plan

The Proposed Plan is based on Alternative E, with a combination of components from the various alternatives. The Proposed Plan similarly emphasizes resource protection and the use of Traditional Indigenous Knowledge and perspectives on the stewardship of the Bears Ears landscape.

- **Recreation areas:** The Proposed Plan would manage recreation based on a zoned approach. Four zones would be designated: Front Country, Passage, Outback, and Remote. In addition, the BLM would manage recreation with six Management Areas and seven Sub-Areas that underlie the recreation zones.
- **Recreational shooting** would be prohibited in BENM.
- **Recreational facilities:** In general, development of facilities would be allowed in Front Country and Passage Zones and where necessary. Recreation facilities would be allowed only when necessary for the protection of BENM objects in the Outback Zone. Any facilities in the Remote Zone would be the minimum allowed to protect at-risk resources, with no new facilities developed. Management for these recreation zones would dictate allowable

facilities in different areas of Management Areas and Sub-Areas, unless the Management Areas or Sub-Areas have further limitations than the zones.

- **Livestock grazing:** BENM would be available/suitable for livestock grazing except for 174,411 acres, which would be unavailable/not suitable or restricted to trailing/trailing with emergency grazing only.
- **ACECs:** Under the Proposed Plan, all existing ACECs would be carried forward. Additionally, the nominated Aquifer Protection ACEC would be designated.
- **Vegetation management:** Vegetation management under the Proposed Plan would use light-on-the-land treatments wherever practicable as well as natural processes to enhance or maintain desirable conditions for vegetation for traditional uses and improving VCCs.
- **Forest and wood product harvest:** In general, under the Proposed Plan, areas of BENM would be available for wood product harvest in accordance with applicable law unless otherwise specified in the Proposed Plan and except in certain specified areas. Agencies would collaborate with the BEC and use implementation level planning to close or restrict areas that are available for wood product harvest on a seasonal or multiyear basis.
- **Fire management:** Under the Proposed Plan, the most environmentally protective measures would be employed to maximize protection of cultural resources while also protecting natural resources. Fire and fuel management would prioritize natural processes and incorporate Traditional Indigenous Knowledge. The fuels treatments would give precedence to the protection of culturally significant sites. Mechanical treatments would only be used to protect BENM objects.
- **Travel and transportation management:** Under the Proposed Plan, public use of BENM for landings and takeoffs of motorized aircraft would be limited to Bluff Airport and Fry Canyon Airstrip or on routes designated for such use in the travel management plan (TMP). The BLM would manage 591,185 acres of public lands as OHV closed areas and 483,917 acres as OHV limited areas. The NFS land OHV designations would be the same as under Alternative A.
- **LWC:** The BLM would manage 205,594 acres of LWC to protect their wilderness characteristics while allowing for compatible uses under the Proposed Plan.

ES-5 Environmental Consequences

ES-5.1 Natural Environment

ES-5.1.1 PALEONTOLOGICAL RESOURCES AND GEOLOGY

All alternatives would aim to protect paleontological resources in the Monument in collaboration with the BEC. Research, monitoring, and inventories of paleontological resources would be conducted in accordance with applicable laws, regulations, and policies. Collection of paleontological resources would be allowed under Alternative A in areas managed under the 2008 Monticello RMP and would be prohibited under Alternatives B, C, D, and E, unless such prohibition is inconsistent with the Religious Freedom Restoration Act or other applicable law. Under the Proposed Plan, collection and curation of paleontological resources would be allowed under certain conditions, by permit only, and through collaboration with the BEC. Under Alternative A, management and protection would focus on paleontological resources in Potential Fossil Yield Classification (PFYC) 4 and 5 areas, whereas the other alternatives would manage and protect paleontological resources in PFYC 3, 4, 5 and U areas. Alternative A contains the most acreage in PFYC Classes 4 and 5 open to ROW authorization in recreation areas, and available/suitable to

grazing, potentially allowing for damage to paleontological resources in these areas. Alternatives D, E, and the Proposed Plan, would manage the most acreage as ACECs, Research Natural Areas (RNAs), wild and scenic rivers (WSRs), and WSAs, which would help protect paleontological resources from inadvertent damage in these areas. Alternative E would provide the most protective management for paleontological resources, which would include pre-disturbance surveys for all discretionary actions that may impact paleontological resources as well requiring methods to separate the public from paleontological resources. Alternative D would manage the least acreage in PFYC Classes 4 and 5 as available to grazing, reducing potential impacts to paleontological resources from grazing. Compared to Alternative E, the Proposed Plan has more acreage available/suitable for grazing in PFYC Classes 4, 5 and U, which may impact paleontological resources; however, the Proposed Plan also provides protections for paleontological resources similar to Alternative E through surveys, inventories, and education, as well as limitations on ROW authorizations, development, vegetation management, and access.

ES-5.1.2 SOILS AND BIOLOGICAL CRUSTS

Under Alternative A, management of soils would continue under current the 2020 ROD/MMPs and resource management plans (RMPs). While promoting sustainable soil functions and protecting highly sensitive soils, Alternative A would focus management actions on maintaining soil productivity for multiple uses. Current management plans do not necessarily require actions to maintain sensitive soils and soil crusts or restore areas with soil degradation. Areas with sensitive soils or degraded areas would continue to be at risk from erosion from authorized activities, resource uses, and natural disturbance(s). Additionally, existing management measures may not necessarily take into consideration current technology nor utilize current science for best management practices (BMPs) to address soil degradation and soil management. Agencies would collaborate with the BEC in identifying areas with biological soil crusts and classifying those crusts to best protect them.

Alternative B would focus on sustainable soil functions based on site-specific conditions and protecting sensitive soils and biological soil crusts and would allow for fewer soil-disturbing uses throughout the Monument than Alternative A, especially in areas of sensitive soils or on steeper slopes, providing more protection for soils in these areas and reducing the chances of erosion.

The management focus of soil resources under Alternative C would be the same as Alternative B. No discretionary activities would be allowed on slopes greater than 35% and discretionary actions on slopes between 21 percent and 35 percent would require erosion control plans. These measures would help minimize the susceptibility of soils to wind and water erosion, and the loss of soil function associated with land uses.

Under Alternative D, management of soil resources would be the same as Alternatives B and C, except that discretionary activities would be prohibited on slopes greater than 30%. If discretionary actions cannot be avoided on slopes between 21% and 30%, an erosion control plan would be required. These measures would minimize soil impacts similar to Alternative B and C.

Soil management under Alternative E would focus on maintenance or improvement of soil quality and long-term soil productivity, ecosystem functioning, and a return to natural states using culturally led standards, including an emphasis on Traditional Indigenous Knowledge, in collaboration with the BEC, as well as peer-reviewed literature based on the best available Western science. This would benefit natural ecosystems and important relationships between water and soil and protect and restore soil crusts.

Under the Proposed Plan, management of soil resources would focus on maintaining or improving soil quality and long-term productivity using Traditional Indigenous Knowledge. Surface-disturbing discretionary actions would be allowed on less acreage compared to Alternative A, providing enhanced protection of soils against wind and water erosion and the loss of soil function associated with these discretionary actions.

ES-5.1.3 WATER RESOURCES

Under Alternative A, water resources would be managed under existing management plans. Agencies would manage riparian resources for proper functioning condition and riverscape health, limit disturbance within floodplains, and delineate riparian areas for project-specific impacts. Hydrologic study requirements for groundwater withdrawals would be determined at the implementation level, which is less protective of groundwater than Alternatives B and C, which require hydrologic studies for any withdrawal within 0.25 mile and 0.5 mile of seeps, springs, water wells, public water reserves, and other groundwater-dependent ecosystems, respectively. Alternative A is also less protective of groundwater withdrawal than Alternatives D and E because it allows new groundwater withdrawals. Alternatives D, E, and the Proposed Plan do not permit new groundwater withdrawals unless to protect BENM objects and/or Tribal Nations' traditional uses.

Alternative A would be less protective against impacts to water resources from soil erosion than Alternatives C, D, and the Proposed Plan because it would allow surface-disturbing activities on slopes up to 40%, whereas Alternatives B, C, D, E, and the Proposed Plan would require an erosion control plan for surface-disturbing activities on slopes greater than 21%, Alternative C would allow surface-disturbing activities on slopes up to 35%, and Alternatives D and E would allow surface-disturbing activities on slopes up to 30% unless it is consistent with the protection of BENM objects. The Proposed Plan would have more restrictions in the erosion and control plans than Alternatives A, B, C, and D, which aim to reduce degradation of water quality through surface-disturbing activities.

More acres are open to livestock grazing under Alternative A than in Alternatives B, C, D, E, and the Proposed Plan. The Proposed Plan has fewer acres open to livestock grazing than in all alternatives, except for Alternative D. Livestock grazing near waterways can affect other water quality parameters including increased nutrient levels and stream temperatures and decreased oxygen levels, affecting aquatic habitats which may exceed State of Utah water quality standards by increasing *Escherichia coli* (*E. coli*) and other harmful bacteria concentrations in waterbodies, which can be a health concern because some water sources are used for drinking water in backcountry sites.

Alternatives D, E, and the Proposed Plan are generally most protective of surface water quality, aquifers, and public drinking water resources within BENM. Under Alternative D, approximately 66% of the Planning Area is closed to OHV use, which would minimize erosion and streambank alteration from the use of OHVs on more acreage within the Planning Area than Alternative A. Under the Proposed Plan, the buffer areas around springs, riparian areas, and streams (1,000 feet) are more protective than in Alternatives A, B, C, and D (330 feet), and less protective than Alternative E (2,640 feet). Under Alternatives D and E, agencies would manage discretionary uses in Aquifer Protection ACECs which would improve protection of public drinking water sources relative to Alternative A and avoids or limits disturbance in public drinking source water protection zones. Cottonwood and willow harvesting restrictions under the Proposed Plan and Alternative E are more protective than the other alternatives, which would aid in protecting riparian habitat and maintaining shade over streams, which indirectly effects water quality parameters such as temperature and dissolved oxygen.

Under all alternatives, agencies would conduct comprehensive monitoring to track water quality conditions across the Monument and would collaborate with the BEC to develop a groundwater/surface water technical study and monitoring plan, including, but not limited to, studies related to pumping impacts, water well production rates, water levels in water wells, and triggers for adaptive management, if needed, to protect BENM objects. Additionally, agencies would conduct a groundwater study on any and all relevant aquifers, including the Cedar Mesa Sandstone and N aquifers to better understand characteristics, current conditions, recharge areas, recharge rates, groundwater budget (inflow vs. outflow), travel time, and springs.

Specific management actions to accomplish these goals vary by alternative; however, common to all alternatives is the management of water resources to maintain and enhance water quality and quantity in efforts to protect BENM objectives and collaboration with the BEC. Riparian areas would be managed to provide for native and special status plant, fish, and wildlife habitats, and traditional, cultural, and ceremonial uses of water on BENM. Water resources would be managed to ensure stream channel morphology and functions are appropriate to the local soil type, climate, and landform and ensure ecological diversity, stability, and sustainability, including maintaining the desired mix of vegetation types and structural stages. All alternatives would seek collaboration with the BEC to restore and protect springs where riparian conditions are non-functional and/or functional—at risk or water quality conditions are degraded from impacts using implementable protection measures and support traditional uses of springs/seeps and riparian areas on BENM for Tribal Nations, consistent with the protection of Monument objects.

ES-5.1.4 TERRESTRIAL HABITAT AND VEGETATION RESILIENCE AND CONSERVATION

Alternative A would focus on continuing existing land management practices and acreages for discretionary land allocations. Vegetation treatments would still occur under the individual and relevant RMPs. Vegetation would continue under current trends.

Under Alternative B, there would be more emphasis placed on restoring historical vegetation conditions and fire return intervals, collaboration with the BEC on identifying priority treatment areas, as well as a focus on maintaining desired VCCs than Alternative A. There would be a reduction in some uses of vegetation resources, such as timber harvest and grazing. This would likely result in more management of culturally important species and communities, as well as more holistic, ecologically minded approaches to vegetation management than under Alternative A.

Vegetation management under Alternative C would be prioritized in high value/high-risk areas such as developed recreation facilities, and emphasis would be placed on treatments that maintain plant diversity, enhance native species productivity, and emphasize habitat connectivity. No chaining would be allowed in the Monument and treatments authorized in special designation areas would use light-on-the-land methods. This reduction in allowable mechanical vegetation treatments would likely result in short-term improvements in vegetation due to the lack of surface-disturbance often associated with mechanical treatments.

Under Alternative D vegetation treatments would focus on enhancing or maintaining desirable conditions of vegetation for traditional uses as well as improving VCCs. Light-on-the-land treatments informed by Traditional Indigenous Knowledge would be used throughout the Monument and/or natural processes would be used for vegetation management. The prioritization of natural processes and reduction in mechanical vegetation treatment would likely reduce the number and scale of vegetation management projects.

Alternative E would emphasize Traditional Indigenous Knowledge and techniques and natural processes. The goals of vegetation management would be to restore ecosystems; return natural fire intervals, vegetation conditions, and landscape characteristics; and maintain access to the Monument without large amounts of human interference or impacts. Alternative E would account for seasonality and drought conditions when considering vegetation management which could reduce impacts to vegetation resources that are magnified during drought or certain parts of their life cycles.

Vegetation management under the Proposed Plan would be similar to Alternative E; however, the Proposed Plan would also account for seasonality and drought conditions when considering vegetation management, which could help reduce impacts that are magnified during drought times.

ES-5.1.5 NOXIOUS WEEDS AND NONNATIVE INVASIVE PLANTS

Alternative A would focus on continuing existing land management practices and designating acreages for discretionary land allocations, and conditions and trends for noxious weeds and invasive species would be expected to continue along similar trajectories. The increasing risk of uncharacteristic wildfire due to invasive annual grass cover and fine fuel loads would continue and lead to further invasions and reduced ecological resilience, particularly with increased droughts and warming conditions. Prevention measures, including the use of herbicides approved for use on BLM-administered lands, would be implemented for treating and preventing the spread of invasives.

Alternative B would focus on vegetation management to maintain plant diversity, native species productivity, and maintaining vegetation for Tribal Nations' traditional and ceremonial uses which could help focus invasive and nonnative plant treatments in areas other than those that are high risk or high value. Invasive plant control would use agency techniques as directed by current agency-approved vegetation management plans as well as Traditional Indigenous Knowledge, which would allow for management options not typically considered by Western management agencies and potentially allow for reduced invasive spread and establishment.

Vegetation management priorities under Alternative C are the same as Alternative B, and invasive plant control would be the same as under Alternative B.

Alternative D prioritizes using light-on-the-land techniques throughout the Monument as well as using more Traditional Indigenous Knowledge and techniques and/or natural processes which could result in fewer introductions of invasive plants due to reduced disturbance; however, the allowable vegetation treatment methods might result in a reduction in the number and scale of treatment projects if certain tools and techniques are not authorized to be used. Invasive plant control would be the same as Alternatives B and C.

Under Alternative E, vegetation management would emphasize Traditional Indigenous Knowledge and techniques as well as natural processes and priorities would focus on restoring ecosystems and returning natural fire intervals and vegetation conditions. The preference for natural processes and nonmechanical treatment would likely result in short-term declines in the introduction and spread of noxious and invasive species. There would likely be a reduction in the number and scale of treatment projects, which could potentially cause a long-term increase in the spread of noxious and invasive species if certain tools and techniques are not authorized for use. Agencies would collaborate with the BEC on herbicide use or other control methods.

Under the Proposed Plan, vegetation management would prioritize using light-on-the-land techniques throughout the Monument, which could result in fewer introductions of invasive plants due to reduced surface disturbance. Agencies would coordinate with the BEC to focus vegetation management on restoring ecosystems and returning natural fire intervals and vegetation conditions. The preference for natural processes and nonmechanical treatment would likely result in short-term declines in the introduction and spread of noxious and invasive species. Mechanical methods would be allowed if necessary for the protection of BENM objects, which would allow for large-scale vegetation treatments to reduce the spread of invasive plants in the long-term. Agencies would collaborate with the BEC on herbicide use or other control methods.

ES-5.1.6 FORESTRY AND WOODLANDS

Under all alternatives, the agencies would collaborate with BEC and Tribal Nations to incorporate Traditional Indigenous Knowledge to establish and implement forest health and forest management standards and guidelines and to assess conditions and guide management decisions for wood product harvest. All woodlands in BENM would be designated as lands not suited for timber production (i.e., growing, harvesting, and regenerating crops of trees for industry economic benefit); however, timber management would be appropriate to provide for the protection of BENM objects. Where possible, agencies would prioritize making fuelwood and forestry products resulting from fuels and vegetation projects available to Indigenous people and other members of the public. All wood product harvest would require an appropriate authorization in accordance with applicable law. Authorizations would continue to be issued to the public consistent with the availability of wood products and the protection of other resource values.

Alternative A would continue to allow approximately 52% of the Monument to be open for wood product harvest. Alternatives B, C, and D would open approximately 68% of the Monument to wood product harvest.

Alternative B would provide the largest area of woodlands that are both open to harvest and managed as OHV limited. This is noteworthy because OHV use could facilitate wood gathering, and impacts can include erosion and damage to soil and vegetation. For this reason, Alternative B would likely have more wood products harvested than areas that are closed to OHV use due to the relative ease of access.

Alternative C would provide a smaller area open to harvest and managed as OHV limited than under Alternative B. Alternative D would provide the smallest area open to harvest and managed as OHV limited.

Alternative E is the alternative that most emphasizes and implements collaboration with the BEC and Tribal Nations. Under Alternative E, no areas are designated as open or closed to wood product harvest, rather, the acreages would be determined by the agencies in collaboration with the BEC, and the selected acreages would determine the level of woodland resources open for harvest.

Under the Proposed Plan, 859,983 acres would be open to wood product harvest and 504,076 acres would be closed to wood product harvest. Agencies would collaborate with the BEC and use implementation-level planning to close or restrict areas that are available for wood product harvest on a seasonal or multiyear basis in accordance with applicable law unless otherwise specified in the Proposed Plan and except in certain specified areas. Approximately 425,364 acres of woodlands would be both open to harvest and managed as limited OHV use; therefore, less harvesting would be expected than under Alternatives A, B, and C, and more harvesting would be expected than under Alternative D.

ES-5.1.7 LANDS WITH WILDERNESS CHARACTERISTICS (BLM ONLY)

Approximately 421,965 acres have been found to possess wilderness characteristics in the Decision Area. Alternative A would continue to manage 48,954 acres of LWC for the protection of their wilderness characteristics. Compared with Alternative A, Alternatives B and C would manage 97,403 acres of LWC for the protection of their wilderness characteristics while allowing for compatible uses, and Alternatives D and E would manage 421,965 acres of LWC. Under the Proposed Plan, 205,594 acres of LWC would be managed to protect their wilderness characteristics, and 216,371 acres would be managed to minimize impacts to wilderness characteristics (i.e., to allow for discretionary uses only in a manner that minimize impacts to the unit's wilderness characteristics and are consistent with the protection of BENM objects). Alternatives D and E would provide the most protection for LWC because there would be the greatest acreage of LWC that would be managed compared with the other alternatives. Across all alternatives, LWC would be managed in accordance with applicable BLM policy.

ES-5.1.8 WILDERNESS STUDY AREAS (BLM ONLY)

Under all alternatives, there are no designated wilderness areas on BLM-administered lands and no proposed changes to existing WSAs. This is because if Congress releases any WSAs within BENM, whether in whole or in part, the agencies would continue to manage the subject lands to protect wilderness characteristics until re-inventories of wilderness attributes occur. If the lands in question are determined to have wilderness characteristics during a re-inventory, in collaboration with the BEC, they would be managed to protect those characteristics unless inconsistent with applicable law. No new proposals or actions would occur within WSA units until the BLM completes the wilderness characteristics inventory unless those proposals or actions are essential for protection of BENM objects. In comparison, Alternative A would not require re-inventory of wilderness characteristics, and the BLM would only conduct a land use plan amendment of the 2020 ROD/MMPs, with accompanying NEPA analysis, to determine how those lands would be managed. Alternatives D, E, and the Proposed Plan would provide additional protection of wilderness character by prohibiting recreational shooting in all WSAs, although lawful firearm use for hunting would still be permissible. Across all alternatives, WSAs would continue to be managed in accordance with BLM Manual 6330 and as Visual Resource Management (VRM) Class I, closed to OHV use, and ROW exclusion areas.

ES-5.1.9 WILD AND SCENIC RIVERS (BLM ONLY)

Under all alternatives, WSR segments would remain suitable and free-flowing, and their mileage, outstandingly remarkable values, and tentative classifications would remain the same as described in the 2008 Monticello RMP. Alternative A would continue to manage suitable segments as VRM Class I or II, ROW avoidance or exclusion and closed to OHV use, based on tentative classifications. Alternatives B, C, D, E, and the Proposed Plan would provide more protections to WSR segments than Alternative A by changing the segments to VRM Class I, changing to ROW exclusion, and, for Alternatives B, E, and the Proposed Plan, prohibiting motorized boat use within one of the segments. Alternative D prescriptions would be identical to Alternative C. Alternative E prescriptions would be identical to Alternative B.

Effects on WSR segments from activities outside the WSR corridors could occur from other uses of these lands. Under Alternative A, lands surrounding the WSR segments are available for grazing, limited to designated routes and trails, and open for ROWs; these uses have the potential to affect water quality and outstandingly remarkable values. These effects would be similar under Alternatives B and C but likely would decrease for three of the segments under Alternatives D and E.

ES-5.1.10 AREAS OF CRITICAL ENVIRONMENTAL CONCERN AND RESEARCH NATURAL AREAS

The designation and management of ACECs for their relevant and important values would serve to protect Monument objects. Management actions and impacts to ACECs would vary by designated unit and identified values and may include closure to or limitations on OHV uses, collection of woodland products, limitations on use if resource damage is observed, and making the areas unavailable/not suitable to livestock grazing or trailing. All of these actions could help protect relevant and important values for ACECs. Under all action alternatives, some ACECs whose relevant and important values include scenic qualities (e.g., Indian Creek ACEC and Valley of the Gods ACEC) would be managed as ROW exclusion areas; San Juan River ACEC would be managed as ROW exclusion under Alternative E and the Proposed Plan. This would prevent new linear infrastructure or development from impacting viewsheds across these landscapes and thereby help to maintain the relevant and important values for which the ACECs were designated.

Alternatives D, E, and the Proposed Plan would provide the most protections of identified ACEC values by managing approximately 1,000,000 acres of ACECs under Alternative D, 126,000 acres under Alternative E, and 115,000 acres under the Proposed Plan. Alternative E would designate seven ACECs (two new ACECs in addition to the five existing ACECs designated under Alternative A), the most of any alternative, whereas the Proposed Plan would designate six ACECs (one new ACEC and the five ACECs designated under Alternative A). The protection of the extensive relevant and important values under Alternatives D, E, and the Proposed Plan may result in more prescriptive management to protect those values in certain areas. Alternatives B and C would both designate the same three ACECs (in total, approximately 27,000 acres).

Specific management actions for Cliff Dwellers Pasture RNA, the sole RNA on BENM, can be found in the 1986 Manti-La Sal LRMP and would remain consistent under all alternatives. The Cliff Dwellers Pasture RNA would be managed as a protective emphasis unit with unmodified internal conditions that can be compared to manipulated conditions outside the RNA. Prohibitions on resources uses in the RNA would prevent impacts like erosion, forage consumption, surface disturbance, and the spread of noxious and invasive weeds from changing the internal conditions necessary to the RNA.

ES-5.1.11 WILDLIFE AND FISHERIES

Many goals, objectives, and management directions for wildlife and fish would remain the same or be similar under all alternatives and provide protection for fisheries, wildlife and habitats while allowing for other discretionary uses. Management direction for all alternatives would include limiting discretionary uses to protect and recover special status species' habitats and populations including BLM and USDA Forest Service sensitive species, Utah Species of Greatest Conservation Need, and federally threatened, endangered, proposed, or candidate species.

Alternative A would allow for maximum discretionary uses and emphasize management flexibility. Under Alternative A, current trends pertaining to wildlife and habitat, including special status species, would likely continue. Alternative B would emphasize flexibility in planning-level direction to maximize the potential for an array of discretionary actions that would be compatible with the protection of BENM objects and resources. Although protection of these objects includes wildlife and habitat, the allowance of many discretionary actions under Alternatives A and B would likely result in impacts on wildlife and fisheries (such as habitat loss, fragmentation, and reduced individual fitness) and their habitat that would be similar between these two alternatives.

Under Alternative C, an emphasis on indirect and prescriptive management to protect BENM objects, including implementation of additional controls (such as an increased emphasis on permits) and allowance of discretionary uses only as needed for protection of Monument objects, would result in increased protection of riparian and aquatic wildlife and habitats when compared to Alternatives A and B.

Alternative D would maximize natural processes by limiting discretionary uses and would constrain management actions to emphasize natural conditions such as passive vegetation management. Alternative D would protect more wildlife and habitat through land use allocations and therefore reduce impacts on wildlife and habitat as compared with Alternative A; however, by emphasizing natural processes as opposed to active management, this alternative would also limit some management actions or extend the period of time it would take to achieve desirable conditions that could improve wildlife habitat.

Alternative E would prioritize a holistic land management approach that provides equity to the Traditional Indigenous Knowledge of the Bears Ears landscape and would take a more active approach to maintaining, restoring, and/or improving critical habitat requirements for native fish and general habitat for terrestrial wildlife, which would likely improve wildlife habitat relative to Alternative A.

Under the Proposed Plan, habitat for terrestrial wildlife, special status species, native fish, amphibian, and aquatic species would be managed similarly to Alternative A; however, additional measures to minimize disturbances to key habitats and to maintain and provide habitat for culturally and ecologically important species would be included similar to Alternative E. These actions would likely improve aquatic and terrestrial fish and wildlife habitat relative to Alternative E.

ES-5.1.12 VISUAL RESOURCES

Alternative A would continue to manage large portions of BENM under VRM Class I and II where management activities would preserve or retain the natural landscape character and not attract the attention of casual viewers. Under Alternative A, the BLM would continue to manage portions of landscapes inventoried as having high scenic quality under VRM Class III and IV where management activities could moderately alter (VRM Class III) or dominate (VRM Class IV) the characteristic landscape. The USDA Forest Service would continue to manage portions of BENM, including the Dark Canyon Wilderness, under a Preservation Visual Quality Objective (VQO) and Very High scenic integrity objective (SIOs) (Shash Jaa unit) where most management activities are prohibited. Under Alternative A, the USDA Forest Service would continue to manage portions of BENM under a Modification VQO where management activities could dominate the characteristic landscape, but these activities must remain compatible with the natural surroundings.

Alternatives B, C, D, E, and the Proposed Plan would not manage any BENM lands with VRM Class IV, which allows for major modification of the characteristic landscape. Under Alternatives B, C, D, and the Proposed Plan, the BLM would manage portions of landscapes inventoried as having high scenic quality under VRM Class III, where management activities could moderately alter the characteristic landscape. Alternative E would only assign VRM Class I or II to BENM lands, resulting in these landscapes retaining their landscape character.

Under Alternatives A and B, 38% of BLM-administered lands would be managed as VRM Class I, meaning that only negligible and natural process changes to landscape would be allowed; under Alternative C, that acreage would increase to 47%; under the Proposed Plan it would increase to 55%; and under Alternative D, acreage would increase to 75%. Under Alternative E, the BLM would

manage all lands as VRM Class I or II, with almost 98% managed as VRM Class I. Under Alternative A, 28% of BLM-administered lands would be managed as VRM Class II, which allows only minor changes in the landscape character such that the attention of the casual observer is not attracted. Under Alternative B, 60% of BLM-administered lands would be managed as VRM Class II; under Alternative C, 51% would be managed as VRM Class II; under the Proposed Plan, 43% would be managed as VRM Class II; and under Alternative D, 25% would be managed as VRM Class II. Alternative A would allow for the most acres to be managed as VRM Class III (20%), where projects could modify the landscape character such that changes could attract the attention of the casual observer, whereas Alternative E would not allow any lands to be managed to these objectives. Alternatives B, C, and the Proposed Plan would allow for less than 2%, and Alternative D less than 1%, of BENM to be managed under VRM Class III. Only Alternative A allows for any lands within BENM to be managed for objectives that allow major modification of the landscape character (VRM Class IV).

Under Alternatives B-E and the Proposed Plan, NFS lands would be managed as Very High or High SIOs.

Under Alternatives B, C, D, and the Proposed Plan, the USDA Forest Service would manage approximately 16% of NFS lands BENM under a Very High SIO, where only subtle deviations are allowed to protect the area's wilderness values, and approximately 84% under a High SIO, where the valued scenic character must appear intact and deviations must not be evident. Under Alternative E, all NFS lands in BENM would be managed under a Very High or High SIO with over 99% managed under a Very High SIO.

VRM Class I and II, for the BLM, and Preservation VQO/Very High SIO and Retention VQO/High SIO, for the USDA Forest Service, are the more protective of scenic values. Comparing alternatives, Alternative E is the most protective because it manages the entire Monument under these more protective visual management objectives. The level of protection lessens across alternatives from D to C to B with the Proposed Plan being most similar to Alternative C and Alternative A being the least protective of scenic values with 20% of the BLM-administered portion of BENM managed as VRM Class III and 13% VRM Class IV, as well as 44% of the NFS lands portion of BENM managed as a Modification VQO.

ES-5.1.13 NATURAL SOUNDSCAPES

Under Alternative A, the application of BMPs outlined in the 2020 ROD/MMPs would continue for those areas within the 2020 ROD/MMPs Planning Area. Drone takeoffs and landings would not be limited, and OHV area designations would remain the same. Under all alternatives, impacts to soundscapes from scenic overflights, drones in flight, and travel along highway corridors would continue to affect BENM soundscapes. Existing soundscapes would be more protected under Alternatives B, C, D, E, and the Proposed Plan than under Alternative A because the BMPs designed to protect natural soundscapes would be applied to the entire BENM instead of being limited to the smaller 2020 ROD/MMPs Planning Area. Alternatives B, C, D, E, and the Proposed Plan include additional areas closed to OHV use, compared with Alternative A, with Alternative D protecting the largest portion of BENM from potential noise associated with OHV use.

Alternative B and the Proposed Plan would limit drone takeoffs and landings to routes designated in a manner that allows for such use in a TMP to focus use where other human-generated noise would occur to protect these areas from increased noise associated with drone use. Under Alternatives C, D, and E, public drone takeoffs and landings would only be allowed if permitted through formal authorization and only when it would be beneficial to protecting BENM objects,

resulting in further protection of BENM soundscapes compared to Alternatives A, B, and the Proposed Plan.

Two airstrips would continue to be open for landing or takeoff of aircraft under Alternative A, but no new backcountry airstrips could be designated under this alternative without implementation-level planning. Under Alternatives B, C, D, E, and the Proposed Plan, additional landings and takeoffs at backcountry airstrips, beyond the two identified under Alternative A, could be allowed through a formal authorization process, only if the use is beneficial to BENM objects, potentially resulting in increased impacts to soundscapes adjacent to these existing but undesignated airstrips.

A soundscape management plan would be developed under Alternatives B, C, D, E, and the Proposed Plan to identify methods to mitigate effects associated with trends and specific effects on soundscapes in BENM, including inventorying and monitoring soundscapes in collaboration with the BEC. All alternatives would include collaboration with the BEC informed by Traditional Indigenous Knowledge. Under Alternative E and the Proposed Plan, the BLM and USDA Forest Service would collaborate further with BEC to survey existing impacts to soundscapes and identify those that damage or degrade culturally affiliated Tribes' cultural practices requiring quiet. Based on this additional level of collaboration with BEC, impacts on soundscapes, potentially affecting Traditional Indigenous practices, would be reduced where identified by BEC under this alternative compared to Alternatives A, B, C, and D.

Overall, Alternative D would be the most protective of natural soundscapes, followed by the Proposed Plan, Alternative C, Alternative E, Alternative B, and Alternative A.

ES-5.1.14 AIR QUALITY

Impacts to air quality include fugitive dust generation (e.g., from vehicular travel on unpaved roads and exposure and degradation of soils) and pollutant emissions (e.g., tailpipe exhaust and smoke from wildland fires). Under the alternatives, the primary source of particulate matter emissions in the Planning Area would be from recreation and travel management, followed by wildland and prescribed fires.

Localized impacts from particulate matter emissions from travel management and recreation would continue along designated unpaved roads under all alternatives. Alternative D, with 72% of the Planning Area closed to OHV travel, would result in reduced emissions within an area larger by 40% compared with Alternative A. Under Alternative C, localized impacts from particulate matter emissions would be reduced within 17% more acres than Alternative A, whereas under Alternatives B and E, it would be reduced within 10% more acres compared with Alternative A, and under the Proposed Plan, would be reduced within 15% more acres than Alternative A. Area closures to OHV travel could result in activity relocation within the Planning Area and displaced emissions along designated routes elsewhere in the Planning Area.

Common to all the alternatives, increasing recreation and visitation and OHV use would continue to impact air quality according to the level of demand. Alternatives A and B would result in the highest levels of emissions from maintenance and development of recreational sites; however, emissions would be temporary and concentrated. Targeted recreation under Alternative B would improve air quality in more remote areas in the Planning Area by focusing use and emissions near more developed locations.

Under Alternative D, a reduction in animal unit months (AUMs) and head months (HMs) would result in 12% less emissions from range improvement projects compared with Alternative A. Under Alternatives D and E, impacts from management actions for vegetation management and

prescribed fires would use a landscape-wide approach for restoring natural fire, which would have indirect, long-term effects to the extent that it creates more resilient vegetation communities that are less prone to wildfire. In the short term, however, it could lead to a greater prevalence of wildfire, which could impact air quality.

Under the Proposed Plan, impacts to air quality from travel and transportation would be similar to impacts under Alternatives A through E, from displaced emissions. Impacts from management actions for vegetation management and prescribed fires to air quality would be the same as impacts under Alternative D, whereas grazing impacts would be the same as impacts under Alternative B, and effects related to drought mitigation would be the same as described for Alternative E.

ES-5.1.15 NIGHT SKIES

Based on the release of BLM Technical Memorandum 457 (Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Managed Lands), strategies to reduce light pollution would be applied for all alternatives during planning and design of projects (or other management actions) located on BLM-administered lands, resulting in protection of BENM dark night skies. All alternatives include collaboration with the BEC informed by Traditional Indigenous Knowledge. Under Alternative A, management of dark night skies would continue with BMPs associated with BLM Technical Memorandum 457, in addition to those outlined in the 2020 ROD/MMPs, thus minimizing impacts to the extent practicable including the prohibition of permanent lighting in BLM VRM Class I areas within the 2020 ROD/MMPs Planning Area. Under Alternatives B, C, D, E, and the Proposed Plan, the BLM and USDA Forest Service would prohibit permanent lighting in BLM VRM Classes I and II as well as USDA Forest Service Very High and High SIO areas. This would result in the protection of night skies over a large portion of BENM (98%), beyond the areas protected under Alternative A, with Alternative E protecting 100% of BENM's dark night skies. Alternatives B, C, D, E, and the Proposed Plan would inventory and monitor dark night resources, culminating in a night skies management plan to mitigate effects from BENM uses, which is not included under Alternative A. Under Alternative E and the Proposed Plan, the BLM and USDA Forest Service would coordinate further with the BEC to survey existing impacts to night skies and identify those that damage or degrade culturally affiliated Tribes' cultural practices requiring darkness. Under Alternative E, the BLM and USDA Forest Service would promote night sky resources with the goal of the program to meet or exceed the standards for accreditation as a Dark Sky Association International Dark Sky Place. Alternative E would be the most protective of dark night skies, followed by the Proposed Plan, Alternative D, Alternative C, Alternative B, and then Alternative A.

ES-5.2 Built Environment

ES-5.2.1 CULTURAL RESOURCES, INDIGENOUS PEOPLES' RELIGIOUS CONCERNS, AND TRIBAL USE

Recreation is expected to increase generally within BENM. Accordingly, activities associated with increased visitation are anticipated to impact important cultural resources, including the cultural landscape and traditional uses. Increased visitation of culturally significant landscapes for use by non-Indigenous people could interfere with specific religious ceremonies or with specific Indigenous peoples' landscape use activities. Travel and transportation within the Monument would continue under all alternatives but would be actively managed to provide safe and reasonable access while protecting BENM objects.

Alternative A maintains current management of cultural resources, Indigenous peoples' religious concerns, and Tribal use as described by the current 2020 ROD/MMPs and current RMPs. Under all action alternatives, management of the Monument would involve collaboration among the BLM, USDA Forest Service, and the BEC. Across all alternatives, areas subject to more active recreation management would minimize impacts to cultural resources by providing opportunities to apply timing and visitation restrictions that would limit incompatible use with cultural resources. OHV use of the Monument under Alternatives B, C, D, E, and the Proposed Plan is addressed primarily by designating areas as closed or limited to OHV use. Cultural resources are sensitive to incompatible uses when they can be easily accessed. Accordingly, alternatives that minimize OHV access would minimize those potential impacts. Each of the action alternatives provides for varying areas of OHV restrictions. Greater numbers of acres that are closed to OHV use would provide greater protection of cultural resources than would smaller areas. Grazing can impact cultural resources through trampling, livestock wallowing, and establishment of livestock trails through important locations. In general, where grazing is designated as available/suitable, there is greater potential impact to such sites than in areas where grazing activity is limited or prohibited. Alternative D provides for the greatest number of acres unavailable/not suitable for grazing. ROW grants are expected to continue within the Monument under all alternatives. Although a ROW grant itself does not necessarily result in impacts to important cultural resources, the activity for which the grant is issued may.

ES-5.2.2 ARCHAEOLOGICAL SITES

Recreation and tourism are expected to increase regionally and to accordingly increase within BENM which could bring increased OHV use and associated access to more remote archaeological sites. Additional visitation to these locations could have associated impacts (e.g., vandalism, looting, and accidental damage). Travel and transportation within the Monument would continue under all alternatives but would be actively managed to provide safe and reasonable access while protecting BENM objects. Under all alternatives, new and ongoing vehicular use in areas where use is currently limited would impact archaeological resources by providing greater access to those resources. However, such use would be managed to ensure the travel network supports education and protection of BENM objects by siting roads and trails in locations which allow the public to better understand the cultural landscape without impacting objects. Moreover, under all alternatives, no cross-country OHV use is allowed.

Alternative A maintains current management of archaeological sites as described by the current ROD/MMPs and RMPs. Under Alternatives B, C, D, E, and the Proposed Plan, management of the Monument would involve collaboration among the BLM, USDA Forest Service, and BEC. Under each alternative, designated recreation areas or zones would affect the allowable recreation activities and thus limit the potential for impacts. All such implementation-level recreation management actions would be developed in coordination with the BEC. Each action alternative designates certain areas as OHV closed or OHV limited. The specific areas and acreages of each vary between alternatives. Archaeological sites are sensitive to impacts when they can be easily accessed. Accordingly, alternatives that minimize OHV access would minimize those potential impacts. Each of the action alternatives provide for varying areas of OHV restrictions. Alternatives that have greater numbers of documented archaeological sites in OHV closed areas would provide greater protection of archaeological sites than would alternatives with fewer sites in OHV closed areas. Under Alternative D, there are more documented archaeological sites in OHV closed areas than under any other alternative. Grazing can impact archaeological sites through trampling, livestock wallowing, and establishment of livestock trails through sites. In general, where lands are designated as available/suitable for grazing, there is greater potential impact to archaeological sites than in areas where grazing activity is limited or prohibited. The greatest number of archaeological sites in areas designated as unavailable/not suitable for grazing is found under

Alternative D. Wood product harvest can impact archaeological sites by providing for increased use and access to areas that may contain documented or unknown sites. There are more documented archaeological sites in areas closed to wood product harvest under Alternative A. ROW grants are expected to continue within the Monument under all alternatives. Although a ROW grant itself does not necessarily result in impacts to archaeological resources, the activity for which the grant is issued may.

ES-5.2.3 HISTORIC RESOURCES

Recreation is expected to increase regionally and within BENM. Accordingly, activities associated with increased visitation are anticipated to impact historic period communities and resources. Travel and transportation within the Monument would also continue under all alternatives providing easier access to historic resources and would be actively managed to provide safe and reasonable access while protecting BENM objects.

Alternative A maintains current management of cultural resources, Indigenous peoples' religious concerns, and Tribal use as described by the current 2020 ROD/MMPs and current RMPs. Under all action alternatives, management of the Monument would involve collaboration among the BLM, USDA Forest Service, and BEC. Under each action alternative, designated recreation areas, Management Areas or Management Zones would affect allowable recreation activities and thus limit the potential for impacts. Alternatives B, C, D, E, and the Proposed Plan each designate RMAs or Management Areas by one or more of several management actions. SRMAs, ERMAs, RMZs, Management Areas, Sub-Areas, recreation setting characteristics areas, or recreation zones and the specific areas and acreages of these designations vary between alternatives. In general, those areas that are subject to more active recreation management would minimize impacts to historic resources by providing opportunities to apply timing and visitation restrictions that would limit incompatible use with those resources. Similar to archaeological sites, historic resources are sensitive to impacts when they can be easily accessed. Accordingly, alternatives that minimize OHV access would minimize those potential impacts. Each of the action alternatives provide varying areas of OHV restrictions. Alternatives with greater numbers of documented post-contact historic sites in OHV closed areas would provide greater protection of those sites than would alternatives with fewer sites in OHV closed areas. There are more documented post-contact historic resources under Alternative D in OHV closed areas than under any other alternative. Grazing can impact post-contact historic sites through trampling, livestock wallowing, and establishment of livestock trails through sites. In general, where grazing is designated as available/suitable, there is greater potential impact to such sites than in areas where grazing activity is limited or prohibited. The greatest number of documented post-contact historic sites in areas designated as unavailable/not suitable for grazing are found under Alternative D. Wood product harvest can impact archaeological sites in ways similar to OHV use by providing for increased use and access to areas that may contain documented or unknown sites. There are more documented post-contact historic sites in areas closed to wood product harvest under Alternative A. ROW grants are expected to continue within the Monument under all alternatives. Although a ROW grant itself does not necessarily result in impacts to post-contact historic resources, the activity for which the grant is issued may.

ES-5.2.4 FUELS, WILDFIRE, AND PRESCRIBED FIRE

Under all alternatives, firefighter and public safety remain the top priorities for fire management in BENM. Collaboration with the BEC, the State of Utah, other partners, and affected groups is pursued to reduce wildfire risks to communities, property, and recreation areas while preserving ecosystems. Key considerations include maintaining healthy ecosystems, protecting important watersheds and habitats, and safeguarding cultural resources. Traditional Indigenous Knowledge

and techniques are incorporated into wildfire protection and fuels management projects to enhance the preservation and resilience of cultural and natural resources.

Alternative A maintains the current approach with federal wildland fire land management decisions as described under the current 2020 ROD/MMPs and current RMPs, while placing less emphasis on Tribal input compared to all other alternatives. Alternative A offers options for improving ecosystem function and returning fire regimes to historic conditions but is less likely to be effective than all other alternatives at accomplishing these goals because Alternative A allows more intrusive fire management strategies that may pose risks to cultural resources but emphasize protection of human health and safety. Alternative B focuses more on ecosystem health and restoring fire regimes through collaboration with the BEC and Tribal Nations compared to Alternative A and provides greater options for returning fire regimes to historic conditions and emphasizing the protection of cultural resources than Alternative A; however, Alternative B places less emphasis on treatments in WUI and recreational sites, which could increase fire risks for surrounding communities. Fire management under Alternative C has a similar impact on ecosystem health and fire regimes as Alternative B, but with more restrictive management options. Alternative C utilizes the same fire and fuels management approach for protecting cultural resources but places greater emphasis on fuel and vegetation treatments in areas with motorized access, high visitation, and developed recreation facilities to reduce fire risk. This approach balances natural and cultural resource protection with health and human safety when compared to the other Alternatives. Alternative D is similar to Alternative C in terms of impacts to ecosystem health and fire regimes, as well as cultural resource protection. Similar to Alternative B, Alternative D also places less emphasis on treatments in the WUI and recreational sites, potentially increasing fire risks for communities. Alternative E and the Proposed Plan involve more stringent environmental protection and increased coordination with the BEC and Tribal Nations for all fire and fuels management activities compared to Alternatives A, B, C, and D. Alternative E and the Proposed Plan offer similar fire management options as Alternative D but with greater restrictions meant to protect cultural resources. Alternative E and the Proposed Plan provide the highest level of protection for cultural resources. Like Alternatives B and D, they place less emphasis on treatments in the WUI and recreational sites, which could increase fire risks for communities.

ES-5.2.5 ENVIRONMENTAL JUSTICE AND SOCIAL AND ECONOMIC VALUES

ES-5.2.5.1 Economic Contributions

Under all alternatives, BENM would continue to support the local and regional economy through increased jobs, wages, economic output, nonmarket values, and ecosystem services from its uses, such as recreational opportunities and grazing and ranching allotments.

Alternatives A, B, C, E, and the Proposed Plan would likely provide more economic value from grazing through more jobs, labor income, and net economic output than Alternative D, due to the larger number of actual AUMs/HMs. Although the Proposed Plan makes no direct change to allocated AUMS, compared with Alternatives, A, B, and C, including John's Canyon as unavailable to grazing and limiting North Cottonwood to trailing would likely lead to a reduction in available and billed AUMs, which would likely reduce jobs, labor income, and economic output from livestock grazing under the Proposed Plan compared with Alternatives A, B, and C. The economic contributions from recreation depends on the number of visitors and the type of visitors. Alternative B would likely support more recreation visitors, especially those who stay overnight on BENM. Alternative C would support improvements to facilities and amenities in high use areas, which would likely increase the numbers of visitors to these areas, but impacts to economic contributions from recreation would likely be similar to Alternative A. Alternatives D and E are the most restrictive alternatives on recreation, especially with respect to dispersed camping and areas

closed to OHV travel; this could lead to a decrease in overall visitors to BENM and decrease the economic contributions from recreation; however, under Alternatives D and E, there could be an increase in recreational expenditures if more recreators stay off-site, which might increase recreation-related economic contributions. The management decisions for recreation activity under the Proposed Plan would likely result in a similar level of economic contributions from recreation spending as described under Alternative E, but with more potential for additional economic contributions due to fewer restrictions on film permits and recreational use in Mexican spotted owl Protected Activity Centers, and managing Arch Canyon Sub-Area as OHV limited rather than closed to motorized use, compared with Alternative E.

ES-5.2.5.2 Social Conditions

Under Alternatives D, E, and the Proposed Plan, the BLM and USDA Forest Service would protect the most LWC (BLM-administered lands) and would place the most restrictions on other uses that would not contribute to the protection of the lands, compared with the other alternatives. This would mean the BLM and USDA Forest Service management decisions under Alternatives D, E, and the Proposed Plan would most likely provide more nonmarket value associated with open spaces (such as quality-of-life values), but less nonmarket value associated with recreation and grazing (such as mental and physical health and sense of place) than the other alternatives. Under Alternatives D, E, and the Proposed Plan, there would likely be more nonmarket values associated with traditional, cultural, and spiritual uses of BENM land and natural resources, including soundscapes, scenic and visual resources, higher water and air quality, and wildlife. Alternative A would have the smallest amount of protected LWC and would likely provide fewer nonmarket values associated with open spaces but might provide more nonmarket values associated with recreation and grazing than Alternative D.

Under Alternatives D, E, and the Proposed Plan, management decisions would provide increased access to cultural values to Tribes and increased access to valued resources to communities of interest that value protection and preservation of habitats and resources, compared with Alternative A; however, under Alternative D, there would likely be an impact to the culture and way of life surrounding livestock grazing, which could impact local farmers and ranchers and their families.

ES-5.2.5.3 Environmental Justice

Under all alternatives, there could be adverse impacts that would affect environmental justice communities. These impacts include impacts to water quality, traditional cultural use of plants, animals, and minerals, travel and transportation, and economic contributions; however, the degree to which these impacts disproportionately affect environmental justice communities often depends on the site-specific activities that cause the impacts, and the mitigation measures that the BLM and USDA Forest Service take can reduce the impacts overall.

Under all alternatives, the BLM and USDA Forest Service's management decisions could impact environmental justice communities who rely on wood product harvesting for heating sources or other uses. Under Alternative A, access for noncommercial timber harvesting is more limited than Alternatives, B, C, D, E, and the Proposed Plan, which could disproportionately impact environmental justice communities by restricting access to products. Communities who use wood products for heating sources may need to find additional sources for heating in the winter. Firewood users would be required to pay higher prices for alternative fuels or for fuelwood procured resulting in high social health costs; however, reducing use of wood for heating sources could improve air quality for the surrounding communities, including environmental justice populations, especially during the winter months due to inversion conditions. Impacts to emissions from burning

wood would likely occur in the analysis area, but outside of the Planning Area. Reduced harvest under Alternative A could result in reduced disruption to cultural resources from foot or vehicle traffic. These impacts would be site specific and would depend on the location and concentration of the wood burning. See Section 3.4.14. for more information on air quality impacts from wood burning. Under all alternatives, the BLM and USDA Forest Service would continue to coordinate and consult with Tribes with ties to BENM and would implement mitigation measures that would reduce impacts to Tribal communities, such as impacts to timber and wood cutting resources, subsistence resources, and cultural and spiritual resources.

ES-5.2.6 LANDS AND REALTY

All alternatives would impact land use authorization and land tenure within BENM. However, each alternative varies in degree of restriction in relation to land use authorization and land tenure. Under all alternatives, land use authorization and land tenure adjustments would continue. ROWs would be allowed within designated ROW avoidance areas if certain criteria are met, but the BLM would only retain existing utility corridors and not allow new designated corridors. Land tenure adjustments would occur in the form of acquisition and exchange under all alternatives. All current communication sites would continue to exist, and new communication sites would be allowed in ROW avoidance areas if certain criteria are met. Film permits would continue to be issued under all alternatives with varying degrees of restrictions.

Alternative A is the least restrictive in terms of ROW authorization, as most of the Planning Area would be designated as open to ROW authorization or ROW avoidance, with the exception of WSAs and wilderness areas, which are exclusion areas under Alternative A. New applications for ROWs would be authorized with or without restriction, depending on the ROW location.

Similar to Alternative A, Alternative B and the Proposed Plan would allow for ROW authorization in ROW open and avoidance areas; however, most land would be allocated as ROW avoidance or exclusion areas. Therefore, new ROW applications would likely occur within the ROW avoidance areas and need to meet specific criteria to do so. Alternative B and the Proposed Plan would likely result in fewer ROW applications because they are more restrictive than Alternative A.

Under Alternatives C, D, and E, no lands would be allocated as open to ROW authorization within the Planning Area, and only a portion of the BLM-administered lands within the Planning Area would be allocated as ROW avoidance areas. Most of the Planning Area would be allocated as ROW exclusion areas under Alternatives D and E, and less than half of the Planning Area would be allocated as ROW exclusion under Alternative C and the Proposed Plan. The Proposed Plan includes some ROW open areas. All lands and realty actions under Alternatives B, C, D, E, and the Proposed Plan would be completed in collaboration with the BEC, and the BLM and USDA Forest Service would coordinate with landowners on reasonable access as consistent with Proclamation 10285.

ES-5.2.7 RECREATION USE AND VISITOR SERVICES

Unmanaged or uncontrolled recreation can have impacts on and implications for the condition of Monument resources and objects; however, visitation can be a beneficial method of public and cultural education if appropriate and culturally sensitive modes of thinking and visitation can be effectively communicated (see Appendix L). The various alternatives have differing levels of impacts (both beneficial and adverse), based on management direction, on recreational use and other Monument resources. Alternative A would recognize that regulations and limits are necessary but would attempt to minimize recreation limitations, which would benefit existing recreational users by keeping the majority of recreational opportunities open to the greatest extent possible.

Alternative B would manage recreation via limiting or restricting public use as little as possible without compromising the protection of BENM objects. Similar to Alternative A, Alternative B would provide facilities adequate for anticipated use in appropriate areas. Alternative B would also provide the most on-site interpretation/educational materials. Compared to Alternative A, Alternatives C, E, and the Proposed Plan would place more emphasis on managing recreational activities via permitting and limitations on visitation group sizes and duration of stays. Alternative D would place far more restrictions and limits on recreational use in more remote areas compared to Alternative A; this could benefit users who seek solitude-oriented experiences. In areas without recreational development, Alternatives C, D, and E would provide mostly off-site interpretational materials, unless required on-site to address impacts to Monument objects. Such restrictions would benefit users seeking more primitive recreation settings on BENM. Alternative E would allow for the most extensive seasonal restrictions to allow for resource rest.

Designating SRMAs and RMZs, and, to a lesser extent, ERMA, can benefit specific recreational opportunities and experiences. Alternative A would designate the most acres of SRMAs and would therefore provide the most prescriptive management of allowable recreational activities and experiences on BENM. Being less prescriptive, ERMA provide greater flexibility of management to allow for adaptive change to recreational uses and infrastructure needs; however, if recreation increases in BENM as predicted, managing vast areas as ERMA could limit the BLM's ability to allocate resources and funding to address recreation-focused issues or needs compared to Alternative A. Alternatives B and C would provide slightly fewer SRMA, ERMA, and RMZ designations than Alternative A. Alternative D designates Management Areas and Management Zones rather than SRMAs, ERMA, or RMZs. Because Alternative D has the most OHV closed areas and generally less recreation to manage due to the number and size of Management Areas and Management Zones, the agencies would provide less interpretation and services across all spaces (on- or off-site) than under Alternatives B and C, which are meant to both provide more for recreational experiences and more directly manage recreation. Alternative D would not benefit recreation users as much as Alternative A. Alternative E would designate zones and would not designate any RMAs or Management Areas. Recreation would be managed to meet resource protection and visitor safety objectives. The Proposed Plan would also designate zones similar to Alternative E, but would also provide Management Areas and Sub-Areas to allow the BLM to manage for more specific recreational use in certain areas.

Alternatives A, B, C, and D would generally allow recreational shooting except in campgrounds or developed recreation sites, rock writing sites, and structural cultural sites (with the inclusion of WSAs and LWC under Alternative D). Alternatives B, C, and D would also prevent recreational shooting where prohibited under SRMAs, RMZs, or Management Areas, which would continue to result in potential conflicts between user groups over recreational shooting. Recreational shooting activities would be prohibited in all areas of BENM under Alternative E and the Proposed Plan. This prohibition does not apply to the use of firearms in the lawful pursuit of game. This would vastly reduce the potential for conflicts with other users in BENM when compared with all other alternatives and would benefit other user groups. Prohibiting recreational shooting would limit (Alternatives B, C, and D) or preclude (Alternative E and the Proposed Plan) this activity in the Planning Area and adversely impact those who engage in recreational shooting, potentially requiring them to find other areas of public land in the vicinity on which to engage in this activity.

Under all alternatives, no area of BENM would be designated as OHV open. Alternative A closes the fewest acres to OHV use and provides the most OHV limited acreage and thus would provide the most OHV recreation opportunities, although, compared to Alternative A, Alternatives B and C do not result in any additional currently designated routes being closed to OHV use. Under Alternative A, OHV management would likely benefit motorized recreationists while resulting in user group conflicts and potentially detracting from the experience of non-motorized visitors due to noise and

dust. Of all the action alternatives, Alternative B provides the most acreage of OHV limited and closes the fewest acres to OHV use, followed by Alternative E, Alternative C, and the Proposed Plan. Alternative D closes the greatest area of BENM to OHV use and provides the lowest acreage of OHV limited areas as well, which would impact OHV users' ability to recreate in the majority of the Monument; however, this would preserve naturalness and improve the experience of non-motorized users by reducing recreation setting impacts from OHV use.

ES-5.2.8 TRAVEL, TRANSPORTATION, AND ACCESS MANAGEMENT

Potential effects on travel management would occur to varying degrees across alternatives. Route designations are implementation-level decisions that would be analyzed and approved in accordance with Proclamation 10285 and 43 CFR 8342.1 separately through the travel management planning process. This process evaluates and designates routes to provide a high-quality travel network for a wide variety of uses. Beneficial impacts of designating routes through a TMP include improved access, experience, and connectivity; the promotion of safety for all users; minimization of conflict among various uses of BLM-administered and NFS lands; and reduction in route redundancy, resource degradation, and habitat fragmentation in the Planning Area. Under all alternatives, agencies would collaborate with the BEC, San Juan County, the State of Utah, and other local governments on designation of routes in a TMP and would incorporate Traditional Indigenous Knowledge, as applicable, which could reduce access issues and management conflicts, improve the safety and convenience of the traveling public and Tribes, and provide a more sustainable use of resources.

Potential effects on access would occur to varying degrees across alternatives. Under all alternatives, OHV closed designations would only affect public access and would not affect administrative access, including to Utah Trust Lands parcels. Increased visitation under all alternatives would result in continued pressure on transportation assets, both non-motorized use within BENM and OHV use in surrounding areas. Under all alternatives, public use of BENM for landings and takeoffs of motorized aircraft would be allowed at Bluff Airport and Fry Canyon Airstrip.

Alternative A closes the fewest acres of OHV closed areas (436,075) of the alternatives, which would provide the most OHV recreation alternatives compared to other alternatives. Additionally, Alternative A provides the agencies the greatest latitude to allow for OHV use through future implementation level planning. Under Alternative B, areas designated as OHV limited and OHV closed on BLM-administered lands would be the same as Alternative A. On NFS lands, OHV use would be limited to designated routes across 112,122 acres and closed on 176,982 acres. Under Alternative C, the nature of the impacts from OHV area designations would be similar to those described under Alternative B, but the extent of those impacts would be greater due to the larger portion of BLM-administered lands managed as closed to OHV use. The miles of designated routes impacted by OHV area designations would be the same as Alternative B. Under Alternative D, the impacts resulting from OHV area designations would be greater in degree than those under Alternatives B and C due to the larger portion of BLM-administered lands managed as closed to OHV use. Unlike Alternatives B and C, the Arch Canyon Management Zone and a greater number of protected LWC acres would be closed which would curtail motorized access to Arch Canyon and some National Park Service trails and permitted opportunities, as well as several Utah Trust Lands parcels. Under Alternative E, the impacts from OHV area designations would be similar to Alternative B, due to the similar travel allocations, with the exception that the Arch Canyon Area would be closed to motorized travel. Under the Proposed Plan, the impacts from OHV area designations would be greater in degree than those described under Alternatives B, C, and E, but less than D, due to the 591,185 acres of BLM-administered lands managed as closed to OHV use. Compared to Alternative D, there are less impacts to access due to a greater acreage being

designated as OHV limited, including Arch Canyon Sub-Area, routes accessing National Park Service trails and permitted opportunities and certain routes accessing Utah Trust Lands sections.

For non-motorized and non-mechanized travel, the public would be encouraged to stay on existing or designated trails under Alternative E and the Proposed Plan. The agencies would identify whether specific areas would need to be closed to cross-country hiking to protect Monument objects, which could adversely affect non-motorized and non-mechanized access compared with the other alternatives.

Public use of BENM for landings and takeoffs of motorized aircraft would be allowed on designated airstrips in Alternatives B, C, D, E, and the Proposed Plan and would include the potential to identify additional locations for public use of BENM for landings and takeoffs of motorized aircraft through implementation-level travel and transportation planning. These alternatives also include management direction to maintain existing and designated trails for non-motorized and non-mechanized use and would improve signage on travel corridors so that land users understand land use rules and regulations. This would improve non-motorized and non-mechanized trail access compared with Alternative A, as well as enable the agencies to protect BENM objects.

ES-5.2.9 LIVESTOCK GRAZING

Alternative A allocates the fewest acres unavailable/not suitable (135,007 acres) for livestock grazing. Alternatives B, C, and E would increase the acres unavailable/not suitable for livestock grazing to 163,034 acres for both agencies combined. Alternative D would restrict grazing further and make 359,201 acres unavailable/not suitable for both agencies. The Proposed Plan would allocate 162,217 acres as unavailable/not suitable. Making these additional acres unavailable/not suitable for livestock grazing could have an economic impact to permittees or operators. Alternatives A, B, C, E, and the Proposed Plan allow for the most AUMs and HMs for permitted use, 62,035 and 10,520 respectively. All alternatives would have an impact to water developments and range improvements, with Alternative A having the least impact and allowing for the most new improvements and developments, whereas Alternatives D, E, and the Proposed Plan restrict them and include the potential to remove existing improvements and developments, except where they help protect BENM objects and subject to additional site-specific NEPA.

ES-5.2.10 CLIMATE CHANGE

Methane emission from livestock grazing is the primary source of impacts to climate change from authorized activities in the Planning Area (Kauffman et al. 2022). Under Alternatives B, C, and E, emissions would be the same as under Alternative A. Alternative D, with 6% fewer AUM and 25% fewer HM allocations, would result in 12% fewer emissions compared with Alternative A. With proper grazing techniques, some of the emitted carbon can be sequestered and stored in soil and vegetation.

Under all alternatives, short-term greenhouse gas emissions would occur from prescribed fire and vegetation management and would vary depending on the size and frequency of such activities. Active vegetation management under the action alternatives would improve vegetation health and diversity, which would increase the carbon sequestration and storage potential in the Planning Area and would improve landscape resiliency to wildfires more quickly compared with Alternative A, which would also offset some of the climate change impacts from other actions.

Under the Proposed Plan, the same number of AUMs (BLM) and HMs (USDA Forest Service) as under Alternatives A, B, C, and E would result in the same amount of emissions from enteric fermentation of livestock. Emissions based on visitation and vehicle miles traveled in BENM may be the same as under all of the alternatives, whereas impacts from vegetation management and prescribed fire would be the same as impacts under Alternative D.

CHAPTER 1. PURPOSE AND NEED FOR ACTION

1.1. Introduction

Bears Ears National Monument (BENM or Monument) represents the culmination of more than a century of efforts to protect the ancestral homeland of five Tribal Nations that all refer to the area by the same name—Bears Ears, or *Hoon’Naqvut* for the Hopi people, *Shash Jáa* for the Navajo people, *Kwiyagatu Nukavachi* for people of the Ute Indian Tribe and the Ute Mountain Ute Tribe, and *Ansh An Lashokdiwe* for the Zuni people.

Presidential Proclamation 9558 established BENM on December 28, 2016, and emphasized the compelling need to protect one of the most extraordinary cultural landscapes in the United States. On October 8, 2021, Presidential Proclamation 10285 restored the Monument boundaries and conditions established in Presidential Proclamation 9558 and retained approximately 11,200 acres that were added to the Monument by Presidential Proclamation 9681. Presidential Proclamation 10285 declares that the entire landscape reserved by the Proclamation is “an object of historic and scientific interest in need of protection” and that in the absence of reservation under the Antiquities Act, the objects identified within the full 1.36-million-acre boundary of BENM are not adequately protected. Presidential Proclamation 10285 specifies that BENM ensure “the preservation, restoration, and protection of the objects of scientific and historic interest on the Bears Ears region, including the entire monument landscape.” The geographic scope of the Planning Area and Decision Area are further defined in Section 1.3.

Furthermore, Presidential Proclamation 10285 re-establishes the Bears Ears Commission (BEC) of Tribal Nations “in accordance with the terms, conditions, and obligations set forth in Presidential Proclamation 9558 to provide guidance and recommendations on the development and implementation of management plans and on management of the entire monument” to ensure that “management decisions affecting the monument reflect expertise and traditional and historical knowledge of Tribal Nations.”

The United States Department of the Interior, Bureau of Land Management (BLM) and the United States Department of Agriculture, U.S. Forest Service (USDA Forest Service) (collectively referred to as “the agencies”), in coordination with the BEC, are jointly preparing this resource management plan (RMP) and associated environmental impact statement (EIS) (Proposed RMP/Final EIS) pursuant to BLM land use planning regulations at 43 Code of Federal Regulations (CFR) 1600, USDA planning regulations at 36 CFR 219, and the National Environmental Policy Act of 1969, as amended (NEPA). The BLM and USDA Forest Service have agreed that the USDA Forest Service will waive the objection procedures for all USDA Forest Service planning decisions related to the Proposed RMP/Final EIS, and instead adopt the BLM’s administrative review processes at 43 CFR 1610.5-2 in accordance with the Forest Service Planning Rule at 36 CFR 219.59(a) (BLM and USDA Forest Service 2022a).

The Federal Land Policy and Management Act of 1976 (FLPMA) establishes the policy of the United States concerning the management of federally owned land administered by the agencies. The BLM “shall manage the public lands under principles of multiple use and sustained yield . . . except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law” (43 United States Code [USC] 1732(a)). Proclamation 10285—in accordance with the Antiquities Act of 1906—dedicated the lands in BENM to specific uses by designating the Monument and reserving the entirety of the lands in the boundary of BENM as the smallest area compatible with the protection of its objects. The Omnibus Public Land Management Act of 2009 (Public Law 111-11) requires units of the National

Conservation Lands, which includes BENM, to be managed “in accordance with any applicable law (including regulations) relating to any component of the system . . . and . . . in a manner that protects values for which the components of the system were designated.”

1.2. Purpose and Need

Proclamation 10285 directs the BLM and USDA Forest Service to “prepare and maintain a new management plan for the entire monument” for the specific purposes of “protecting and restoring the objects identified [in Proclamation 10285] and in Proclamation 9558.”

Accordingly, the agencies’ underlying purpose and need is to provide a framework, including goals, objectives, and management direction, to guide the management of BENM consistent with the protection of BENM objects and other applicable laws, regulations, and policies.

The following purposes and desired outcomes are set forward explicitly in Presidential Proclamation 10285, represent direction and guidance provided in BLM and USDA Forest Service regulations and policy, and address present and historical BENM management challenges:

1. **Protect and restore** Monument objects in large, remote, rugged, and connected landscapes. This includes the entire landscape within the Monument and the objects for which the Monument was established to protect.

Needs and challenges: For centuries, BENM has been a place that holds deep cultural and spiritual connections for many communities. BENM includes a diversity of ecotypes, geological and paleontological resources, vegetation, and wildlife. During the last century, uranium mining activities and livestock grazing, as well as medicinal herb gathering, fuel wood collection, and other traditional practices, have been common activities in this part of southeastern Utah. Mining activity within BENM is rare today, but livestock grazing remains an important local economic use of the landscape. Recreational visitation is an important driver of the local economy, with the area becoming world famous for rock climbing and the increased popularity of off-highway vehicle (OHV) use, cultural tourism, and other forms of recreation, many of which take place on a road network largely developed for mining and grazing activities. The increased demand for BENM’s resources, and subsequently, Monument objects, poses a challenge to balance the wide variety of uses of the landscape with the protection of Monument objects. Planning decisions can define resource uses and land designations to help resolve conflicts between various uses and object protection.

2. **Protect** the historical and cultural significance of this landscape. This includes objects identified in Presidential Proclamation 10285 such as numerous archaeological sites, modern Tribal uses, other traditional descendant community uses, historic routes and trails, historic inscriptions, and historic sites.

Needs and challenges: Public visitation, permitted activities, and climate change have the potential to impact cultural resources. Traditional Indigenous Knowledge, interpretation, and management guidance to help inform the public and protect various cultural resources and traditional uses are needed. Planning decisions can help provide management direction to protect cultural resources and traditional uses and to provide direction for a lasting and effective partnership with Tribal Nations and the BEC.

3. **Protect and restore** the unique and varied natural and scientific resources of these lands. This includes objects identified in Presidential Proclamation 10285 such as biological resources, including various plant communities, relict and endemic plants, diverse wildlife, including unique species, and habitat for Endangered Species Act (ESA)–listed species.

Needs and challenges: Increasing uses of the landscape such as rock climbing, OHV use, and cultural tourism, whether through an organized or commercial event with a Special Recreation Permit (SRP) or by the public, can impact various plant and wildlife communities and habitats. Planning decisions can help re-evaluate and balance the trade-offs for the desired uses of the landscape with the need to protect the Monument's biological resources identified as objects.

4. **Protect scenic qualities, including night skies, natural soundscapes, diverse and visible geology, and unique areas and features.**

Needs and challenges: BENM is surrounded by various National Park Service (NPS) and Utah State Park units designated as Dark Sky Parks, and the region is recognized for its uniquely dark night sky. Additionally, the remoteness of the region provides the opportunity for a quiet, natural soundscape, and the varied geological features provide incredibly unique scenic qualities. Planning decisions should reflect the need to protect these visual and scenic qualities.

5. **Protect important paleontological resources.**

Needs and challenges: BENM is becoming an increasingly important region for the study of paleontological resources. Some sites containing paleontological resources also have ties to the stories and cultures of Indigenous people. To protect these important resources, planning decisions should be made to support appropriate access, use, and the protection of paleontological resources.

6. **Ensure that management of BENM will incorporate traditional and historical knowledge related to the use and significance of the landscape.**

Needs and challenges: Tribal Nations and descendant communities care about and learn from cultural resources found in BENM and the BENM landscape. Indigenous peoples and descendant communities still use the BENM landscape for traditional, cultural, and spiritual needs, as well as for subsistence purposes. Agency actions have the potential to impact spiritual, traditional, or subsistence uses of the BENM landscape; therefore, it is critical that planning decisions reflect Traditional Indigenous Knowledge and provide a framework to incorporate traditional knowledge into any future implementation activities. Access for some traditional uses, however, such as the use of plants, wildlife, and water, may in some cases cause impacts to cultural resources, sensitive soils, and vegetation. Firewood, plant, wildlife, and water collection is an important traditional use and adds to the quality of life for local communities, and the planning decisions should consider how to address the potential impacts while also balancing the positive aspects like fuel load reduction and subsistence needs.

7. **Provide for uses of Monument lands, so long as those uses are consistent with the protection of BENM objects.**

Needs and challenges: Public land uses within BENM, such as livestock grazing and recreation, are important to the economic opportunities and quality of life of the local communities surrounding BENM. Although these two uses are not identified in Presidential Proclamation 10285 as objects, these are discussed as important land uses in the area. Planning decisions should consider how to protect Monument objects with consideration of other uses of the landscape.

In compliance with the National Forest Management Act of 1976 and associated implementing regulations at 36 CFR 219 (the Forest Service Planning Rule), the USDA Forest Service proposes to amend the 1986 *Land and Resource Management Plan: Manti-La Sal National Forest* (hereafter

referred to as the 1986 Manti-La Sal LRMP) (USDA Forest Service 1986)¹ to incorporate the Proposed RMP/Final EIS, associated management direction, and BENM boundary area (Appendix M). The scope of the proposed programmatic plan amendment is based on the objects identified in Proclamation 10285, and the scale of the Proposed Plan amendment applies to National Forest System (NFS) lands within the BENM boundary area. The amendment and direction in the Proposed RMP/Final EIS shall take precedence over other direction in the 1986 Manti-La Sal LRMP, unless the 1986 Manti-La Sal LRMP direction provides more protection for BENM objects. The need for this programmatic plan amendment closely ties to the purpose and need for the BENM Proposed RMP/Final EIS, which includes the need to prepare and maintain new management direction for the entire Monument for the specific purposes of protecting and restoring the objects as identified in Proclamation 10285.

1.3. Planning Area and Decision Area

Consistent with the BLM's *Land Use Planning Handbook* (H-1601-1), the Proposed RMP/Final EIS specifically delineates geographic areas associated with this planning process. The BENM Planning Area boundary includes all lands regardless of jurisdiction; however, the management direction in the Proposed RMP/Final EIS would only apply to the Decision Area, which includes the lands within the Planning Area for which the BLM or USDA Forest Service have authority to make land use and management decisions, including for subsurface minerals. The Planning Area covers approximately 1.49 million acres, including all exterior boundaries, and represents the area that the agencies will consider in the planning effort for this Proposed RMP/Final EIS. The Decision Area covers approximately 1.36 million acres of federal land administered by the BLM or NFS land and is encompassed by the Planning Area. The remaining acreage not included in the Decision Area is managed by private land owners, the Utah Trust Lands Administration, or the State of Utah.

The Planning Area and Decision Area are depicted in Appendix A, Figure 1-1. Surface jurisdiction within the Planning Area is detailed in Table 1-1.

Table 1-1. Areas by Jurisdiction in the Planning Area

Jurisdiction	Acres*
BLM	1,075,000
USDA Forest Service	289,000
State	112,000
Private	13,000
Total	1,490,000

Source: BLM and USDA Forest Service Geographic Information System (GIS) (2022).

* Acreages are approximate and for planning purposes only.

The Planning Area is near or adjacent to other areas of national and international significance, including Canyonlands National Park, Arches National Park, Capitol Reef National Park, Mesa Verde National Park, Glen Canyon National Recreation Area (NRA), Natural Bridges National Monument (NABR), Grand Staircase-Escalante National Monument, Canyons of the Ancients National Monument, Dead Horse Point State Park, Goosenecks State Park, and Hovenweep National Monument as well as the sovereign lands of the Hopi Tribe, the Navajo Nation, the Ute Indian Tribe, the Ute Mountain Ute Tribe, and the Zuni Tribe.

¹ The 1986 Manti-La Sal LRMP is referred to frequently throughout this Proposed RMP/Final EIS; therefore, the author-date citation is provided here at first mention only.

1.4. Issues Considered

1.4.1. Issues and Related Resource Topics Identified through Scoping

The agencies identified issues to be addressed in the RMP/EIS through public scoping; internal scoping; and outreach to Tribal Nations, the BEC, cooperating agencies, and consulting parties. Public scoping ensures early involvement by parties interested in the environmental analysis process and allows those participants to meaningfully contribute to the agencies' decision-making process.

Table 1-2 presents the primary issues identified during internal and external scoping that were analyzed in detail. These resources are organized into two general categories: the natural environment and the built environment (see Section 3.4 and Section 3.5). Some resources encompass aspects of both and are placed in one or the other section out of organizational necessity. Additional detail regarding the scoping process, scoping comments, and issues identified during scoping is available in *Bears Ears National Monument Resource Management Plan and Environmental Impact Statement Scoping Report* (BLM and USDA Forest Service 2022b).

Table 1-2. Issues Analyzed in Detail

Resource Topic	Issues
NATURAL ENVIRONMENT	
Paleontological Resources and Geology	How would proposed management decisions regarding paleontological resource management (such as curation, protection, survey, collection, outreach, and interpretation) impact paleontological resources, research communities, local communities, and visitor experience? How would proposed land use allocations and discretionary uses impact paleontological resources? How would proposed land use allocations and discretionary uses impact unique geological features?
Soils and Biological Soil Crusts	How would existing and proposed land use allocations affect the structure, health, and function of soil resources (including biological soil crusts and other sensitive soils) across the landscape? How would BENM management impact soils (e.g., degradation, erosion, preservation, etc.), including biological soil crusts and other sensitive soils?
Water Resources (Groundwater, Surface Water, Wetlands, Riparian Areas, Floodplains, Water Quality)	How would BENM management affect surface water hydrology, water quality, water quantity, and riparian and wetland areas? How would BENM management affect groundwater quality and quantity, groundwater-dependent ecosystems, public Drinking Water Source Protection zones, groundwater protection zones, or associated surface water resources?
Terrestrial Habitat and Vegetation Resilience and Conservation (large-scale and local ecotypes)	How would existing and proposed management prescriptions and discretionary uses (such as those made for livestock grazing, recreation, and lands and realty actions) affect terrestrial vegetation, including special status plant species? How would existing and proposed vegetation management affect terrestrial vegetation and special status plant species?
Noxious Weeds and Nonnative Invasive Plants	How would existing and proposed land use allocation decisions about grazing, recreation, lands and realty actions, and discretionary uses affect noxious weeds and invasive nonnative plants? How could existing and proposed vegetation management affect noxious weeds and invasive nonnative plants?
Fuels, Wildfire, and Prescribed Fire and Forestry and Woodlands	How would vegetative treatments (e.g., prescribed fire, thinning) and harvesting affect the health and preservation of woodlands, the objects of the Monument related to forests, and Indigenous peoples' traditional and ceremonial uses? How do current and proposed fire and fuels management techniques affect ecosystem function, fire regime, cultural resources, and health and human safety?
Lands with Wilderness Characteristics	How would proposed land use allocations and discretionary uses affect the apparent naturalness, size, and outstanding opportunities for solitude or primitive and unconfined recreation of lands with wilderness characteristics?

Resource Topic	Issues
Special Land Designations for Conservation and Protection	<p>How would proposed management of BENM affect suitable wild and scenic river segments?</p> <p>How would proposed management prescriptions and other management actions affect the relevant or important values of existing and nominated Areas of Critical Environmental Concern and the ecological values of Research Natural Areas?</p> <p>How would relevant and important values be impacted by the decision to not carry forward or not designate an Areas of Critical Environmental Concern?</p> <p>How would BENM management affect the values and wilderness characteristics associated with wilderness study areas?</p>
Wildlife and Fisheries	<p>How would proposed management affect wildlife and fisheries habitat and populations, including special status species and species otherwise generally identified in Proclamations 10285 and 9558?</p> <p>How would the proposed management affect state wildlife agency habitat management goals and associated actions related to big game winter and summer range movement and migration corridors and migration corridors for birds, insects, and fish?</p>
Visual Resources and Scenery	<p>How would proposed management actions affect scenic quality, scenic character, scenic integrity, and the public's highly valued experience of enjoying scenery?</p> <p>How would proposed management actions affect inventoried visual values?</p>
Natural Soundscapes	How would proposed management actions under the alternatives affect natural quiet soundscapes?
Air Quality	How would proposed management actions and management prescriptions contribute to air pollutant emissions and affect air quality and visibility?
Night Skies	How would proposed management actions under the alternatives affect dark night skies?
BUILT ENVIRONMENT	
Cultural Resource Management, Indigenous People's Religious Concerns, and Tribal Use	<p>How would the proposed management affect continued traditional uses of religious or cultural importance to Tribal Nations?</p> <p>How would the proposed management actions affect cultural resources, including cultural landscapes, traditional uses, and historic properties?</p> <p>How would the proposed management actions provide information and education about cultural resources, including cultural landscapes, traditional uses, and historic properties, to the public?</p> <p>How would the proposed management actions affect uses of cultural resources?</p>
Archaeological Sites and Historic Communities, Historic Resources	<p>How would proposed management impact archaeological resources (pre-contact, post-contact, and multicomponent in temporal affiliation) that are either not eligible, eligible or listed in the National Register of Historic Places (i.e., historic properties)?</p> <p>How would the proposed management actions affect cultural resources, including cultural landscapes, traditional uses, and archaeological historic properties?</p> <p>How would the proposed management actions provide information and education about cultural resources, including cultural landscapes, traditional uses, and archaeological historic properties, to the public?</p> <p>How would BENM management impact post-contact historic communities and/or post-contact historic archaeological locations that are either not eligible, eligible, or listed in the National Register of Historic Places (i.e., historic properties)?</p> <p>How would the proposed management actions affect historic communities and post-contact historic properties?</p> <p>How would the proposed management actions provide information and education about historic communities and post-contact historic properties to the public?</p>
Environmental Justice and Social and Economic Values	<p>Would proposed management result in disproportionate or adverse impacts to environmental justice populations?</p> <p>How would proposed management impact jobs and income in the socioeconomic analysis area?</p> <p>How would proposed management impact the nonmarket benefits individuals receive from BLM-administered and NFS lands and public resources?</p>
Lands and Realty	How would proposed land use allocations and discretionary uses affect land use authorizations and land tenure in the Planning Area?
Recreation Use and Visitor Services	How would proposed management affect the agencies' ability to provide recreation objectives, recreation setting characteristics, and Recreation Opportunity Spectrum classes?
Travel, Transportation, and Access Management	How would proposed travel designations affect the travel and transportation system in BENM, including impacts to resources?

Resource Topic	Issues
Livestock Grazing	How would proposed management of Monument objects affect rangeland forage conditions and livestock grazing operations, including range improvements?
Climate Change	How would land use allocations and discretionary uses in BENM contribute to greenhouse gas emissions? How would land use allocations and discretionary uses affect long-term carbon storage and sequestration in BENM?

1.4.2. Issues Considered but Not Analyzed in Detail

The following issues were considered but, for the reasons provided below, are not analyzed in detail:

- How would proposed management impact wild horses and burros?
 - There are no herd management areas in the Planning Area. The only horses or burros occasionally present are due to trespass and are not under the jurisdiction of the agencies.
- How would proposed management affect valid existing rights for minerals in the Decision Area?
 - Proclamation 10285 appropriated and withdrew BENM “from all forms of entry, location, selection, sale, or other disposition under the public land laws or laws applicable to the United States Forest Service, from location, entry, and patent under the mining laws, and from disposition under all laws relating to mineral and geothermal leasing other than by exchange that furthers the protective purposes of the monument.” As a result, BENM is closed to oil and gas, geothermal, coal, and nonenergy solid minerals leasing and closed to location of mining claims under the Mining Law of 1872. The Monument is also closed to mineral materials disposal (e.g., sand, gravel, and petrified wood) as a result of 30 USC 601; however, the withdrawal of BLM-administered and NFS lands within BENM is subject to valid existing rights, meaning that such rights are generally unaffected by the Monument designation. As a result, that issue is not analyzed in depth.
- How would proposed management affect public health and safety around abandoned mines in the Decision Area?
 - The agencies maintain an inventory of abandoned mines within the Planning Area. The agencies prioritize which mines to remediate based on the physical and environmental hazards at each site. Proposed management would not measurably change public health and safety concerns related to abandoned mines in BENM. Abandoned mine lands (AML) projects would be analyzed through site-specific analysis, consistent with federal law.

1.5. Planning Criteria

Planning criteria provide the constraints, standards, and guidelines for the planning process and help determine what the agencies will include in their scope of planning and analysis. Planning criteria may be found in *Bears Ears National Monument Resource Management Plan and Environmental Impact Statement: Analysis of the Management Situation – September 2022* (2022 AMS) prepared for this project (BLM and USDA Forest Service 2022c).²

² The 2022 AMS is referred to frequently throughout this Proposed RMP/Final EIS; therefore, the author-date citation is provided at first mention only.

1.6. Relationship to Other Policies and Plans

The agencies recognize the importance of state, Tribal, and local plans. The agencies have sought to coordinate with other federal, state, and local agencies and governments throughout the development of the RMP/EIS. State and local governments, other federal agencies, and Tribal government involvement has proven most helpful throughout scoping, alternatives development, impact analysis, and public and agency comment periods.

The agencies conducted a detailed review of state and county plans to evaluate the consistency of the alternatives presented in the RMP/EIS with relevant plans. The Proposed RMP/Final EIS is generally consistent with state and county plans, as detailed in Appendix S. The relevant state and county plans identified below do not identify management specific to the Monument and were not developed using the agencies' land use regulations. The Proposed RMP/Final EIS generally does not use language from state and county plans, although the agencies did develop the Proposed RMP/Final EIS to be consistent with general management described in the plans, including providing access to lands in the Planning Area in a responsible manner.

The agencies have developed the Proposed RMP/Final EIS to be consistent with or complementary to the management actions in the following plans and policies to the maximum extent, consistent with Presidential Proclamation 10285, FLPMA, the National Forest Management Act, and other applicable laws and regulations governing the administration of public lands. Additionally, the agencies have considered and developed the Proposed RMP/Final EIS to be consistent with the applicable laws, regulations, policies, and plans listed in Appendix B. Chapter 3 of the 2022 AMS includes a list of relevant federal laws as well as agency plans, policies, and programs.

1.6.1. Federal Plans and Policies

The federal lands within the Planning Area are currently managed by the agencies, primarily under four documents:

- *Bears Ears National Monument: Record of Decision and Approved Monument Management Plans Indian Creek and Shash Jáa Units* (BLM 2020). The document is referred to hereafter as the 2020 ROD/MMPs.³
- *Bureau of Land Management Moab Field Office Record of Decision and Approved Resource Management Plan* (BLM 2008a). The document is referred to hereafter as the 2008 Moab RMP.⁴
- *Bureau of Land Management Monticello Field Office Record of Decision and Approved Resource Management Plan*, as amended (BLM 2008b). The document is referred to hereafter as the 2008 Monticello RMP.⁵
- 1986 Manti-La Sal LRMP.

The record of decision (ROD) for this Proposed RMP/Final EIS will replace the 2020 ROD/MMPs and portions of the 2008 Monticello RMP and 2008 Moab RMP covered by the Planning Area. The ROD will also amend the portions of the 1986 Manti-La Sal LRMP covered by the Planning Area (see Appendix M). The BLM and the USDA Forest Service are also adhering to the requirements of

³ The 2020 ROD/MMPs is referred to frequently throughout this Proposed RMP/Final EIS; therefore, the author-date citation is provided here at first mention only.

⁴ The 2008 Moab RMP is referred to frequently through this Proposed RMP/Final EIS; therefore, the author-date citation is provided here at first mention only.

⁵ The 2008 Monticello RMP is referred to frequently throughout this Proposed RMP/Final EIS; therefore, the author-date citation is provided here at first mention only.

the section of the John D. Dingell Jr. Conservation, Management, and Recreation Act of 2019 on *Closure of Federal land to hunting, fishing, and recreational shooting* (Dingell Act) (Public Law 116-9, Section 4103).

The Dingell Act addresses sportsmen’s access to federal land. Under this law, it is the policy of the United States that federal department and agencies “facilitate the expansion and enhancement of hunting, fishing, and recreational shooting opportunities on federal land.” Although most public land is open to recreational shooting, the Dingell Act provides a pathway for the agencies to designate an area where no recreational shooting shall be permitted for public safety, administration, or compliance with applicable laws. The Dingell Act requires that these areas be the smallest area for the least amount of time that is required. More information about the Dingell Act is in Appendix O, Section 7.1. During the development of this Proposed RMP/Final EIS, the federal policies and plans included in Appendix B and the 2022 AMS were also considered to ensure consistency.

1.6.2. State and County Plans and Policies

During the development of this Proposed RMP/Final EIS, the state and county plans included in Appendix B and the 2022 AMS were considered for consistency (see Appendix S).

1.6.3. Tribal Plans

The BEC is supported by and works in concert with the Bears Ears Inter-Tribal Coalition (BEITC). Together, the BEC and BEITC developed and presented to the agencies the *Bears Ears Inter-Tribal Coalition: A Collaborative Land Management Plan for the Bears Ears National Monument* (referred to hereafter as the 2022 BEITC LMP, and provided as Appendix L) (BEITC 2022),⁶ which the agencies have been using in collaboration with the BEC to guide the development of the Proposed RMP/Final EIS to align with Presidential Proclamation 10285’s mandate that Monument management reflect the “expertise and historical and traditional knowledge of Tribal Nations” (see Appendix L). As stated in the 2022 BEITC LMP,

Traditional knowledge of Tribal Nations with ancestral ties to the region is fundamental to collaborative management of BENM and long-term preservation of the cultural landscape. The Federal land managers will benefit from Native American insights and input. Juxtaposing traditional Native and mainstream Western understandings of time, space, and valid modes of knowledge would be of benefit to Natives and non-Natives alike. (see Appendix L:64)

For this reason, Traditional Indigenous Knowledge is integrated alongside Western scientific information throughout the Proposed RMP/Final EIS.

1.7. Summary of Key Changes from the Draft RMP/EIS

With the exception of Chapter 3, light gray highlighted text throughout the Proposed RMP/Final EIS indicates changes that were made between the Draft RMP/EIS and Proposed RMP/Final EIS. In Chapter 3, extensive changes were made to comply with page limits established in 40 CFR 1502.7. As a result, the gray highlight was not applied to Chapter 3 to approve readability. Additionally, the agencies made changes to the Proposed RMP/Final EIS based on public comments received on the Draft RMP/EIS and input from cooperating agencies, the BEC, and agency interdisciplinary team.

⁶ The 2022 BEITC LMP is referred to frequently throughout this Proposed RMP/Final EIS; therefore, the author-date citation is provided here at first mention only.

Changes were also made for consistency, clarity, and accuracy. The primary changes in the Proposed RMP/Final EIS, when compared to the Draft RMP/EIS, are summarized below:

- The Proposed RMP/Final EIS describes and analyzes the impacts associated with the Proposed Plan. The Proposed Plan is based on Alternative E, with a combination of components from the various alternatives. Similar to Alternative E, the Proposed Plan emphasizes resource protection and the use of Traditional Indigenous Knowledge and perspectives on the stewardship of the Bears Ears landscape. The Proposed Plan was developed from Alternative E based on the consideration of public comments on the Draft RMP/EIS, input from the BEC, cooperating agencies, Tribal Nations, consulting parties, the agencies' interdisciplinary team, government-to-government consultation, updates to the best available science, and by combining elements of the alternatives analyzed in the Draft RMP/EIS.
- In the Proposed RMP/Final EIS the agencies revised Chapter 3 for organization and concision.
- The Proposed RMP/Final EIS summarizes the affected environment sections in Chapter 3. Additional context concerning the affected environment has been relocated to Appendix N.
- The Proposed RMP/Final EIS summarizes the content of Chapter 4 and moved the detailed discussion of cooperation and consultation to Appendix O. The agencies added a summary of the public comment process to Appendix O.
- The Proposed RMP/Final EIS added a monitoring plan in Appendix P.
- The Proposed RMP/Final EIS added a cultural resources monitoring framework in Appendix Q.
- The Proposed RMP/Final EIS added scenic character descriptions for NFS lands in Appendix R.
- The Proposed RMP/Final EIS added a detailed explanation of how the Proposed Plan is consistent or inconsistent with state and county plans in Appendix S.
- The Proposed RMP/Final EIS added an implementation plan in Appendix T.
- The Proposed RMP/Final EIS provides responses to comments received during the 90-day public comment period in Appendix U (Volume 3).

CHAPTER 2. ALTERNATIVES

2.1. Description of the Alternatives Analyzed in this Proposed Resource Management Plan and Final Environmental Impact Statement

The alternatives developed for managing BENM were designed to present a range of management options compatible with protection of Monument objects, as outlined in Presidential Proclamations 9558 and 10285, and are therefore aligned with the purpose and need for the Proposed RMP/Final EIS. The BLM Authorized Officer and USDA Forest Service Responsible Official were responsible for the final decisions on which alternatives to analyze in the Proposed RMP/Final EIS.

This section presents the reasonable range of alternatives developed by the agencies and the BEC, in coordination with the cooperating agencies (see Appendix O). Alternatives were developed in response to issues identified through public and internal scoping, in response to deficiencies in current management strategies, and to provide greater opportunities for resource management and incorporation of Traditional Indigenous Knowledge. Table 2-1 highlights the quantifiable differences among alternatives relative to what they establish.

The agencies used geographic information system (GIS) data to perform acreage calculations and to generate the maps in Appendix A. Calculations depend on the quality and availability of data. Calculations in this Proposed RMP/Final EIS are rounded to the nearest acre or tenth of a mile. Given the scale of the analysis, the compatibility constraints between data sets, and the lack of data for some resources, all calculations are approximate; they serve for comparison and analytic purposes only. Total acreages may not be additive.

Likewise, the maps in Appendix A are provided for illustrative purposes and are subject to the limitations discussed above. The agencies may receive additional or updated data; therefore, acreages may be recalculated and revised later.

Table 2-1. Comparison Summary of Alternatives

Resource, Resource Use, or Special Designation	Alternative Acreages					Proposed Plan
	A	B	C	D	E	
Wood Product Harvest						
Closed	648,392	433,148	433,148	433,148	*	504,076
Open	715,667	930,910	930,910	930,910	*	859,983
BLM Lands with Wilderness Characteristics	A	B	C	D	E	Proposed Plan
Manage to protect wilderness characteristics	48,954	97,403	97,403	421,965	421,965	205,594
Manage to minimize impacts to wilderness characteristics						216,371
Special Designations	A	B	C	D	E	Proposed Plan
Dark Canyon Wilderness	46,333	46,333	46,333	46,333	46,333	46,333
Indian Creek Area of Critical Environmental Concern (ACEC)	3,856	3,856	3,856	3,856	3,856	3,856

Resource, Resource Use, or Special Designation	Alternative Acreages					
Lavender Mesa ACEC	649	649	649	649	649	649
San Juan River ACEC (portion within Planning Area)	1,555	0	0	0	1,555	1,555
Shay Canyon ACEC	119	0	0	0	119	119
Valley of the Gods ACEC	22,716	22,716	22,716	22,716	22,716	22,716
John's Canyon Paleontological ACEC	0	0	0	1,542	11,465	0
Aquifer Protection ACEC	0	0	0	1,012,371	85,856	85,856
Cliff Dwellers Pasture Research Natural Area	266	266	266	266	266	266
Colorado River #2 Wild and Scenic River (WSR)	809	809	809	809	809	809
Colorado River #2 WSR (portion within Planning Area)	759	759	759	759	759	759
Colorado River #3 WSR	987	987	987	987	987	987
Colorado River #3 WSR (portion within Planning Area)	752	752	752	752	752	752
Dark Canyon WSR	1,888	1,888	1,888	1,888	1,888	1,888
Dark Canyon WSR (portion within Planning Area)	1,887	1,887	1,887	1,887	1,887	1,887
San Juan River #5 WSR	1,875	1,875	1,875	1,875	1,875	1,875
San Juan River #5 WSR (portion within Planning Area)	1,247	1,247	1,247	1,247	1,247	1,247
Bridger Jack Mesa Wilderness Study Area (WSA)	5,233	5,233	5,233	5,233	5,233	5,233
Butler Wash WSA	22,051	24,312	24,312	24,312	24,312	24,312
Cheese Box Canyon WSA	14,871	14,871	14,871	14,871	14,871	14,871
Dark Canyon WSA	67,840	67,840	67,840	67,840	67,840	67,840
Fish Creek Canyon WSA	46,097	46,097	46,097	46,097	46,097	46,097
Grand Gulch WSA	105,194	105,194	105,194	105,194	105,194	105,194
Indian Creek WSA	6,469	6,469	6,469	6,469	6,469	6,469
Mancos Mesa WSA	50,846	50,846	50,846	50,846	50,846	50,846
Mule Canyon WSA	6,014	6,014	6,014	6,014	6,014	6,014
Road Canyon WSA	52,344	52,344	52,344	52,344	52,344	52,344
South Needles WSA	159	159	159	159	159	159
Inventoried Roadless Areas USDA Forest Service	90,190	90,190	90,190	90,190	90,190	90,190
Visual Resource Management (VRM)	A	B	C	D	E	Proposed Plan
VRM Class I	411,245	410,236	507,746	804,406	1,049,081	596,030
VRM Class II	304,949	646,619	549,685	270,394	25,082	459,390
VRM Class III	212,623	18,144	17,568	516	0	19,681
VRM Class IV	143,845	0	0	0	0	0
Scenic integrity objective (SIO) Very High	12,775	46,858	46,858	46,858	287,613	46,858
SIO High	19,815	242,933	242,933	242,933	1,238	242,933
SIO Moderate	0	0	0	0	0	0

Resource, Resource Use, or Special Designation	Alternative Acreages					
	A	B	C	D	E	Proposed Plan
SIO Low	0	0	0	0	0	0
Visual Quality Objective (VQO) Preservation	50,666	N/A	N/A	N/A	N/A	N/A
VQO Retention	4,342	N/A	N/A	N/A	N/A	N/A
VQO Partial Retention	92,267	N/A	N/A	N/A	N/A	N/A
VQO Modification	108,114	N/A	N/A	N/A	N/A	N/A
Lands and Realty	A	B	C	D	E	Proposed Plan
Right-of-way (ROW) exclusion BLM	402,985	407,038	505,935	805,329	1,058,613	597,624
USDA Forest Service Special Use Authorizations for ROWs unavailable	46,343	46,343	46,343	46,343	46,343	46,343
ROW avoidance BLM	147,742	662,439	569,020	269,787	16,342	472,017
USDA Forest Service Special Use ROW Avoidance Area	32,587	242,697	242,697	242,697	242,697	242,697
Open to ROW authorization BLM	524,229	5,477	0	0	0	5,477
USDA Forest Service Special Use Authorizations for ROWs available	210,110	0	0	0	0	0
Recreation – special recreation management areas (SRMAs), extensive recreation management areas (ERMAs), and recreation management zones (RMZs)	A	B	C	D	E	Proposed Plan
BENM Indian Creek SRMA	48,937	0	0	0	N/A	N/A
BENM Indian Creek ERMA	22,959	0	0	0	N/A	N/A
BENM Shash Jáa SRMA	97,472	0	0	0	N/A	N/A
Arch Canyon Backcountry RMZ	13,322	0	0	0	N/A	N/A
Arch Canyon RMZ	5,457	0	0	0	N/A	N/A
McLloyd Canyon – Moon House RMZ	318	0	0	0	N/A	N/A
San Juan Hill RMZ	2,828	0	0	0	N/A	N/A
South Elks/Bears Ears RMZ	5,692	0	0	0	N/A	N/A
The Points RMZ	13,432	0	0	0	N/A	N/A
Trail of the Ancients RMZ	30,612	0	0	0	N/A	N/A
Beef Basin SRMA	17,191	0	0	0	N/A	N/A
Canyon Rims SRMA	7,411	7,413	7,413	0	N/A	N/A
Cedar Mesa SRMA	326,090	344,628	344,628	0	N/A	N/A
Arch Canyon RMZ	0	3,344	3,344	0	N/A	N/A
Cedar Mesa Backpacking RMZ	0	34,833	34,833	0	N/A	N/A
Comb Ridge RMZ	0	21,980	21,980	0	N/A	N/A
Grand Gulch RMZ	37,388	0	0	0	N/A	N/A
Moon House RMZ	0	318	318	0	318	N/A
Trail of the Ancients RMZ	0	7,063	7,063	0	N/A	N/A
Natural Bridges Overflow RMZ	0	0	0	0	N/A	N/A
Dark Canyon SRMA	30,810	0	0	0	N/A	N/A
Indian Creek SRMA	41,226	74,783	74,783	0	N/A	N/A
Indian Creek Corridor RMZ	3,459	3,459	3,459	0	N/A	N/A

Resource, Resource Use, or Special Designation	Alternative Acreages					
San Juan River SRMA (portion within Planning Area)	2,815	5,355	5,355	0	N/A	N/A
San Juan River SRMA (portion outside Planning Area)	6,056	0	0	0	N/A	N/A
San Juan Hill RMZ	0	1,717	1,717	0	N/A	N/A
Sand Island RMZ	0	278	278	0	N/A	N/A
Tank Bench SRMA	2,721	0	0	0	N/A	N/A
White Canyon SRMA	2,825	0	0	0	N/A	N/A
Monticello ERMA (portion within Planning Area)	477,229	0	0	0	N/A	N/A
Monticello ERMA (portion outside Planning Area)	712,972	0	0	0	N/A	N/A
Beef Basin ERMA	0	25,083	25,083	0	N/A	N/A
Fable Valley RMZ	0	7,870	7,870	0	N/A	N/A
Dark Canyon ERMA	0	40,829	40,829	0	N/A	N/A
Dark Canyon Backpacking RMZ	0	18,799	18,799	0	N/A	N/A
Valley of the Gods ERMA	0	45,763	45,763	0	N/A	N/A
Goosenecks RMZ	0	96	96	0	N/A	N/A
White Canyon ERMA	0	124,827	124,827	0	N/A	N/A
Bicentennial Highway RMZ	0	4,178	4,178	0	N/A	N/A
Natural Bridges Overflow RMZ	0	1,458	1,458	0	N/A	N/A
White Canyon Canyoneering RMZ	0	7,222	7,222	0	N/A	N/A
Canyon Rims Management Area	N/A	N/A	N/A	7,414	N/A	N/A
Cedar Mesa Management Area	N/A	N/A	N/A	348,043	N/A	341,523
Cedar Mesa Backpacking Management Zone	N/A	N/A	N/A	38,177	N/A	N/A
Comb Ridge Management Zone	N/A	N/A	N/A	21,980	N/A	N/A
Moon House Management Zone	N/A	N/A	N/A	318	N/A	N/A
Trail of the Ancients Management Zone	N/A	N/A	N/A	7,063	N/A	N/A
Natural Bridges Overflow Management Zone	N/A	N/A	N/A	1,458	N/A	N/A
Indian Creek Management Area	N/A	N/A	N/A	67,310	N/A	75,036
Indian Creek Corridor Management Zone	N/A	N/A	N/A	3,459	N/A	N/A
San Juan River Management Area (portion within Planning Area)	N/A	N/A	N/A	5,350	N/A	5,343
Sand Island Management Zone	N/A	N/A	N/A	278	N/A	N/A
San Juan River	N/A	N/A	N/A	N/A	5,343	N/A
Dark Canyon Management Area	N/A	N/A	N/A	18,802	N/A	20,665
Valley of the Gods Management Area	N/A	N/A	N/A	34,389	N/A	34,395
White Canyon Management Area	N/A	N/A	N/A	7,222	N/A	118,452
Arch Canyon Sub-Area						3,344
Cedar Mesa Backpacking Sub-Area						34,834
Comb Ridge Sub-Area						23,380
Moon House Sub-Area						318

Resource, Resource Use, or Special Designation	Alternative Acreages					
	A	B	C	D	E	Proposed Plan
San Juan Hill Sub-Area						1,693
Natural Bridges Overflow Sub-Area						1,659
White Canyon Canyoneering Sub-Area						7,025
Zones	A	B	C	D	E	Proposed Plan
Front Country	N/A	N/A	N/A	N/A	18,995	21,407
Outback	N/A	N/A	N/A	N/A	265,299	542,361
Passage	N/A	N/A	N/A	N/A	7,498	25,959
Remote	N/A	N/A	N/A	N/A	1,072,587	774,589
USDA Forest Service Recreation Opportunity Spectrum	A	B	C	D	E	Proposed Plan
Primitive	45,884	48,440	48,440	48,440	N/A	N/A
Roaded Natural	65,946	25,700	25,700	25,700	N/A	N/A
Semi-Primitive Motorized	151,320	86,163	86,163	86,163	N/A	N/A
Semi-Primitive Non-Motorized	25,906	128,752	128,752	128,752	N/A	N/A
Travel and Transportation Management	A	B	C	D	E	Proposed Plan
BLM Closed to OHV travel	389,645	389,645	487,048	808,630	392,989	591,185
BLM OHV travel limited	685,403	685,403	588,000	266,429	682,059	483,917
BLM Open to OHV travel	0	0	0	0	0	0
USDA Forest Service Closed to OHV travel	46,430	176,982	176,982	176,982	176,982	46,430
USDA Forest Service Limited to OHV travel†	242,677	112,122	112,122	112,122	112,122	242,677
USDA Forest Service Open to OHV travel	0	0	0	0	0	0
Livestock Grazing	A	B	C	D	E	Proposed Plan
Available (BLM) / Suitable (USDA Forest Service)	1,223,820	1,194,529	1,194,529	953,692	1,194,529	1,189,648
Trailing Only	3,952	5,218	5,218	49,889	5,218	10,917
Trailing Only/Emergency Grazing	1,277	1,277	1,277	1,277	1,277	1,277
Unavailable (BLM) / Not Suitable (USDA Forest Service)	135,007	163,034	163,034	359,201	163,034	162,217

Note: N/A = not applicable.

* See Table 2-7 and the direction for Alternative E, which is that the agencies would collaborate with the BEC and Tribal Nations to identify specific areas within BENM that would be open or closed to wood product harvest.

† OHV limited on NFS lands authorizes OHV travel to designated motorized routes as shown on the current Motorized Vehicle Use Map.

2.1.1. Approaches Common to All Alternatives

All alternatives would incorporate the intent of the intergovernmental cooperative agreement between the Tribal Nations that make up the BEC and the BLM and USDA Forest Service to cooperate and collaborate in the management of BENM. This shared stewardship includes the federal agencies' commitment to ensure that Traditional Indigenous Knowledge and local expertise is reflected in the agency decision-making process for BENM, including through regular and project-specific communications. Although the agencies have substantial leeway to involve the BEC in management of BENM through co-stewardship, the agencies retain authority to undertake inherently federal functions, including decision-making authority for the management plan and its

future implementation. The federal agencies further acknowledge the responsibility to protect the ceremonies, rituals, and traditional uses that are part of the Tribal Nations' way of life on these lands since time immemorial, both in the land use plan and through the plan's implementation.

In accordance with Presidential Proclamation 10285, if grazing permits or leases are voluntarily relinquished by the existing holders, the permits or leases would be retired from livestock grazing pursuant to the processes of applicable law. Forage would not be reallocated for livestock grazing purposes unless the Secretaries specifically find that such reallocation would advance the purposes of the Monument designation.

Presidential Proclamation 10285 withdrew BENM from all forms of mineral entry and location, subject to valid existing rights. The lands previously available for mineral and energy activities under the 2008 Monticello RMP, the 2008 Moab RMP, and the 1986 Manti-La Sal LRMP are therefore no longer available for such use, subject to valid existing rights. All management alternatives are subject to valid existing rights. This includes the rights of owners to have reasonable access to their existing private land inholdings as well as the rights of existing right-of-way (ROW) holders approved by the agencies.

In accordance with the ESA, Archaeological Resources Protection Act (ARPA), National Historic Preservation Act (NHPA), Wilderness Act of 1964, among others, the agencies would collaborate with the BEC to appropriately incorporate a land management philosophy that emphasizes a holistic approach to BENM management and incorporates Traditional Indigenous Knowledge. All action alternatives incorporate Traditional Indigenous Knowledge in the management of BENM and include BENM-wide management to provide for the continued preservation not only of the physical landscape but also the cultural and spiritual landscape, including that which is visual and auditory. All action alternatives include management actions to provide for and protect Tribal Nations' cultural, traditional, ceremonial, and subsistence uses. The agencies would collaborate with the BEC, its constituent Tribal Nations, and other Tribal Nations in the management of the cultural and spiritual landscape and all natural resources to ensure that Traditional Indigenous Knowledge is incorporated into management of the Bears Ears cultural landscape.

Finally, all alternatives incorporate education and interpretation for the public regarding appropriate ways to recreate and engage in other activities while protecting BENM objects.

2.1.2. Alternative A: No Action Alternative

Alternative A, the No Action Alternative, represents existing management guided by management decisions in the 2020 ROD/MMPs, 2008 Monticello RMP, 2008 Moab RMP, and 1986 Manti-La Sal LRMP, as amended. Land use management direction in these plans guides BENM management to the extent that it is consistent with Proclamation 10285 and the protection of BENM objects. Where management direction in these plans is inconsistent with Proclamation 10285, the proclamation controls. Alternative A serves as the baseline comparison against which all action alternatives (B, C, D, E, and Proposed Plan) are compared.

2.1.3. Alternative B

Alternative B would provide the most permissive management for those discretionary actions that are compatible with protecting BENM objects. This alternative would focus on on-site education and interpretation and allow for the development of facilities to protect BENM objects.

2.1.4. Alternative C

Alternative C would allow discretionary actions if they are necessary to protect BENM objects. This alternative would focus on off-site education and interpretation and allow for limited development of facilities to protect BENM objects.

2.1.5. Alternative D

Alternative D would generally prioritize the continuation of natural processes by limiting or discontinuing discretionary uses. This alternative would minimize human-created facilities and management would emphasize natural conditions.

Areas selected for limiting or discontinuing discretionary uses were determined by evaluation of available data that informed the overall ecological condition of the landscape and known objects at risk (e.g., susceptibility of perennial water to degradation) across multiple lines of evidence. Data types used included but were not limited to the Assessment, Inventory, and Monitoring (AIM) Strategy (terrestrial and lotic); remote sensing; upland range trends; water quality/quantity (state and federal); and consultation with BLM/USDA Forest Service interdisciplinary team members and subject-matter experts. Data were initially evaluated at the hydrologic unit code (HUC) 10 watershed scale to identify areas of concern that were then adjusted based on management considerations (e.g., existing management boundaries, recently implemented habitat improvement projects [e.g., Vegetation Management Action Portal {VMAP} or fuels treatments], and minimizing new fencing). Methods used to identify areas of concern are described in Chapter 3 and Appendix K.

2.1.6. Alternative E

Alternative E maximizes the consideration and use of Tribal perspectives on managing the landscape of BENM. This alternative is meant to emphasize resource protection and the use of Traditional Indigenous Knowledge and perspectives on the stewardship of the Bears Ears landscape. This includes consideration of natural processes and seasonal cycles in the management of BENM and collaboration with Tribal Nations to incorporate those considerations into BENM day-to-day management. See Section 2.3 for information about the selection of Alternative E as the preferred alternative.

2.1.7. Proposed Plan

The Proposed Plan is based on Alternative E, with a combination of components from the various alternatives. The Proposed Plan similarly emphasizes resource protection and the use of Traditional Indigenous Knowledge and perspectives on the stewardship of the Bears Ears landscape. The Proposed Plan was also based on the consideration of public comments on the Draft RMP/EIS, input from cooperating agencies, Tribal Nations, and the BLM and USDA Forest Service interdisciplinary team, government-to-government consultation, updates to the best available science, and by combining elements of the alternatives analyzed in the Draft RMP/EIS.

2.2. Alternatives Considered but Not Analyzed in Detail

As per the Council on Environmental Quality NEPA implementing regulations, federal agencies are required to “Rigorously explore and objectively evaluate reasonable alternatives to the proposed action” and “need not consider every conceivable alternative to a proposed action; rather, [they] shall consider a reasonable range of alternatives that will foster informed decision making” (40

CFR 1502.14(a)). When preparing an EIS, agencies analyze a range of reasonable alternatives, but each agency's NEPA implementing policy defines reasonable alternatives slightly differently. The BLM defines them as those that are technically and economically feasible, while also satisfying the purpose and need of the proposed action. The grounds on which the BLM may eliminate a potential alternative from detailed analysis include, but are not limited to: 1) it does not respond to the purpose and need; 2) it is not technically or economically feasible; 3) it is not consistent with the overall policy objectives for the area; 4) its implementation is remote or speculative; 5) it is not substantively different in design from an alternative being analyzed in detail; or 6) it would have substantively similar effects as an alternative being analyzed in detail. The USDA Forest Service defines a reasonable alternative as one that meets the purpose and need and addresses one or more significant issues related to the proposed action. The USDA Forest Service NEPA regulations at 36 CFR 220.5(e) state that no specific number of alternatives is required or prescribed because an alternative may be developed to address more than one significant issue. Alternatives not considered in detail may include, among other things, those that do not meet the purpose and need, those that are technologically infeasible or illegal, or those resulting in unreasonable environmental harm. During the planning process, several alternatives were identified that were not carried forward because they did not meet the agencies' criteria for alternatives to be analyzed in detail. The following describes the alternatives that the agencies considered but did not carry forward for detailed analysis in the RMP/EIS:

- Any alternative that would modify the boundaries of BENM set forth by Proclamation 10285.
 - Rationale: The Antiquities Act authorizes only the President to establish or modify the boundaries of a national monument. This alternative was not analyzed in detail because neither agency has authority to modify the boundaries of BENM established in Proclamation 10285.
- An alternative that incorporates all the management actions in the 2022 BEITC LMP.
 - Rationale: The agencies have incorporated management actions from the BEITC and the BEC into the action alternatives to the maximum extent possible consistent with laws and regulations, particularly Alternative E. As a result, an alternative that incorporates all the management action in the 2022 BEITC LMP would be substantially similar in design and in effects to Alternative E, as well as components of Alternatives B, C, and D.
- Alternatives aimed at increasing motorized access.
 - Rationale: Several commenters suggested the agencies consider and analyze increasing motorized access in BENM. Such alternatives were not carried forward for detailed analysis because they are inconsistent with management direction in Proclamation 9558, which is incorporated into Proclamation 10285. Specifically, Proclamation 9558 prohibits cross-country motorized vehicle use except for emergency or authorized purposes and prohibits the designation of new roads and trails for motorized vehicle use unless they are for the purposes of public safety or the protection of BENM objects. In other words, the agencies generally do not have discretion to increase motorized access within the Monument. As a result, alternatives that were aimed at increasing motorized access in the Monument were not carried forward for detailed analysis.
- Alternatives that prioritize multiple uses over protection of BENM objects.
 - Rationale: Section 302 of FLPMA states that public lands should be managed under the principles of multiple use and sustained yield "except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law." Proclamation 10285 dedicates the lands within BENM to a specific use, therefore the lands reserved within the Monument

boundary must be managed in a manner that protects the objects for which the Monument has been designated. In other words, within BENM, typical multiple use management is superseded by the direction in Proclamation 10285 to protect Monument objects. Multiple uses are allowed only to the extent they are consistent with the protection of the objects within the Monument. An alternative that prioritizes multiple uses over the protection of BENM objects would be inconsistent with Proclamation 10285 and Section 302 of FLPMA. It was therefore not analyzed in detail.

- An alternative that excludes livestock grazing entirely.
 - Rationale: The agencies considered an alternative that would exclude livestock grazing from BENM; however, its implementation would be considered remote and speculative. Grazing impacts are generally site specific and not evenly distributed over the landscape, making causal factor determinations on a landscape scale difficult. The agencies reviewed monitoring data and, the BLM reviewed remote sensing data to better understand land health and ecosystem function, identifying departed watersheds and departed vegetation and soil conditions. In these departed areas, the BLM considered further limiting availability for livestock grazing under Alternative D; however, the monitoring data and remote sensing data did not suggest that grazing was incompatible with protecting Monument objects in all areas of BENM, making it unlikely the BLM would be able to justify selecting such an alternative. Under several alternatives, land health assessments and/or causal factor determinations would be completed in certain areas within given time frames and may be used to inform livestock grazing permit renewals. Where a categorical exclusion cannot be used to fully process a grazing permit, a “no grazing” alternative could be considered in the NEPA process consistent with BLM Instruction Memorandum 2012-169.

2.3. Selection of the Preferred Alternative and Proposed Plan

Consistent with BLM planning regulations (43 CFR 1610.4-7) and as part of the agencies’ commitment to an open and transparent planning process, the agencies identified Alternative E as the preferred alternative at the Draft RMP/EIS stage because it would emphasize Traditional Indigenous Knowledge and a holistic approach to stewardship of this sacred landscape that addresses tangible and intangible aspects of the Monument. Alternative E would also incorporate both the Western science perspective and the cyclical nature of management, including Indigenous circular ways of knowing and seasonality, as well as recognize spiritual, cultural, and ancestral connections to the landscape and protect Indigenous traditional uses of the Monument.

In identifying the preferred alternative, the agencies evaluated how well each of the alternatives in the Draft RMP/EIS would respond to the purpose and need for action and the guidance for the formulation of alternatives, as well as the effects of each of the alternatives relevant to the issues identified for detailed analysis. Although collaboration with the BEC, other federal agencies, state and local governments, and other stakeholders was critical in developing and evaluating alternatives, the designation of a preferred alternative remained the exclusive responsibility of the agencies. The identification of the preferred alternative did not constitute any commitment or decision by the agencies; the agencies were simply identifying that Alternative E provided the most useful starting point from which to construct a Proposed Plan based on the analysis in the Draft RMP/EIS.

After considering public comments, input from cooperating agencies, consulting parties, and government-to-government consultation, the agencies developed the Proposed Plan to be evaluated in this Proposed RMP/Final EIS. The agencies used Alternative E as a basis and revised it

based on consideration of robust public input, updates to the best available science and information, and by combining elements of the alternatives analyzed in the Draft RMP/EIS.

2.4. Detailed Descriptions of the Alternatives

This section provides detailed descriptions of the proposed alternatives, including goals, objectives, and management actions. Within the alternatives matrix below, management under Alternative A, or management under another alternative that is noted as the same as Alternative A, applies to the entire Decision Area, unless otherwise specified.

2.4.1. Links to Alternatives

Use the following hyperlinks to access the resource sections of the alternatives matrix.

Natural Environment

2.4.3 Geology and Minerals

2.4.4 Paleontological Resources

2.4.5 Soil Resources

2.4.6 Water Resources

2.4.7 Vegetation

2.4.8 Forestry and Woodlands

2.4.9 Lands with Wilderness Characteristics
(applies to BLM-administered lands only)

2.4.10 Special Designations

2.4.11 Wildlife and Fisheries

2.4.12 Special Status Species

2.4.13 Visual Resource Management, Night Skies,
and Soundscapes

Built Environment

2.4.14 Cultural Resources

2.4.15 Cross-Cultural Education and Outreach

2.4.16 Air Quality

2.4.17 Fire Management

2.4.18 Health and Safety

2.4.19 Lands and Realty

2.4.20 Recreation and Visitor Services

2.4.21 Travel and Transportation Management

2.4.22 Livestock Grazing

2.4.2. Management Actions Common to All Resources and All Alternatives

2.4.2.1. OVERARCHING MANAGEMENT

- All actions in BENM would be consistent with Proclamations 9558 and 10285 and the protection of BENM objects.
- Agencies would collaborate with the BEC, or a comparable Tribal representative body, on the site-specific implementation-level management that follows this plan and future maintenance and/or amending of this plan as necessary. This ongoing implementation is necessary for the agencies to manage BENM consistent with Proclamation 10285 and the protection of BENM objects.
- Agencies would coordinate with the Monument Advisory Committee (MAC), as appropriate, on future maintenance and/or amending of this plan, as necessary, as well as site-specific implementation-level management that follows this plan.
- Agencies would coordinate with state and local governments and Tribal Nations on future maintenance and/or amending of this plan, as necessary, as well as in the site-specific, implementation-level management that follows this plan.
- The agencies would prohibit collection of BENM objects and resources, including but not limited to rocks; petrified wood; fossils; plants; bones; parts of plants, animals, fish, insects, or other invertebrate animals; other products from animals; or other items from within BENM, except where the collection is specifically allowed in Proclamation 9558 or 10285 and permitted under applicable BLM/USDA Forest Service authority pursuant to the legal harvest of game (including shed antlers and horns), or the prohibition is inconsistent with the Religious Freedom Restoration Act or other applicable law. For example, casual collection would not be prohibited where such prohibition constitutes a substantial burden on religious practices.
- For BLM-administered lands, BENM qualifies as a special area under 43 CFR 2932.5 notwithstanding its status as a national monument; in addition to being officially designated by Presidential order (Presidential Proclamations 9558 and 10285), the entire area consists of resources that require special management and control measures for their protection, including a renowned collection of cultural resources, many of which are sacred to several Tribal Nations.
- For NFS lands, BENM is a Statutorily Designated Area per 36 CFR 219.19 that is officially designated by Presidential order (Presidential Proclamations 9558 and 10285). In addition to the Proposed Plan management actions for each resource, the 1986 Manti-La Sal LRMP direction applies to NFS lands in BENM unless there is no similar management in the 1986 Manti-La Sal LRMP or if the Proposed Plan direction is more restrictive in terms of limits on use and development.
- Agencies may issue closures, in accordance with applicable law, regulation, and policy, when necessary, including when the closures would support protecting BENM objects. This could include, but would not be limited to, protecting special status species populations, habitat, connectivity, forage, prey base and/or cultural resources.

2.4.2.2. TRIBAL CO-STEWARDSHIP

- The agencies would manage BENM in collaboration with the BEC (Appendix C). As described in Proclamations 9558 and 10285, the Tribal Nations that comprise the BEC would inform management of BENM, and the traditional and historical knowledge and special expertise of the BEC would be integrated into BENM management. The agencies' co-stewardship relationship with the BEC facilitates, enhances, and supplements coordination and cooperative management of the federal lands within BENM; however, the agencies retain decision-making authority for the Proposed RMP/Final EIS and its future implementation. The co-stewardship relationship respects but does not curtail, abrogate, or replace the agencies' obligations under applicable law and policy to consult with Tribal Nations—particularly the requirements to engage in government-to-government consultation and consultation pursuant to the NHPA.
- To ensure enhanced Tribal Nation engagement and collaboration in the management of BENM, the agencies would do the following:
 - Ensure that Traditional Indigenous Knowledge and local expertise informs and is reflected in agency decision-making processes for BENM.
 - Engage on an ongoing basis in joint dialogue, knowledge sharing, and learning programs for agency managers and professional staff, Tribal officials, and other appropriate partners to address critical resource management, Tribal and agency program priorities, and to foster a shared awareness of the Tribal context of the landscape, including the need to protect both important and sacred Tribal uses and activities as well as BENM objects and other resources.
 - Provide the BEC opportunities to review and provide input on BLM and USDA Forest Service policy guidance for BENM prior to issuance.
 - Collaborate, consult, and engage regularly with the BEC on resource management priorities and joint management opportunities within BENM as follows:
 - Meet annually to develop a joint annual work plan that would set priorities for the year based on available funding, including but not limited to critical research opportunities, a schedule of site visit(s), shared training, visitor management initiatives, volunteer opportunities, interpretive signage needs, and categories of activities and types of agency decisions for which the BEC may elect to provide input, such as authorizations regarding range improvements, developed recreation sites and areas, and SRPs.
 - Meet annually to review the BENM RMP and the status of implementation.
 - Meet quarterly to collaborate and consult on Tribal Nations' land management priorities, public land resource issues, opportunities for joint Tribal-federal program development, BEC participation in implementation-level decision-making processes, and landscape-level management issues and to provide awareness of upcoming federal actions and authorizations.
 - Ensure appropriate BEC engagement on agency decision-making by adhering to the following communication and review processes:
 - At least 15 business days prior to initiating an implementation-level project in BENM, the agencies would provide initial notification to the BEC and provide an opportunity to collaborate via email. If the BEC responds within 15 business days via email electing to participate in the coordination process, the agencies would provide a schedule that includes the time frames for the BEC to provide input as part of each internal review stage and before the final decision is issued. The agencies would provide notice to the BEC at least 15 business days before each internal review stage and before the final decision is issued. If the BEC does not

- respond to the notification or declines to participate in the coordination process, the agencies may provide notice of the final decision 5 business days before it is issued. The agencies and the BEC may agree to modify these time frames if they do not provide adequate time to ensure appropriate collaboration with the BEC in agency decision-making processes.
- If the BEC determines that more time is needed to provide feedback to the agencies than was provided in an established planning- or implementation-level decision-making schedule, they would provide the agencies timely notice, with an explanation of why more time is needed, and would propose a reasonable time frame to provide input. Although the agencies are not obligated to provide additional time, the agencies would endeavor to grant a reasonable extension if the delay would not place the agency in jeopardy of failing to meet a deadline imposed by law or this plan to issue the final decision.
- If the Authorized Officer (BLM)/Responsible Official (USDA Forest Service) decided not to incorporate specific recommendations timely submitted by the BEC in writing during the implementation-level decision-making process, they would provide the BEC written explanation at least 30 days prior to issuing the document on which the comments were provided (e.g., draft or final environmental assessment or EIS). Within 15 days of receiving the written explanation, the BEC may request a meeting with the BLM state director or USDA Forest Service regional forester, as appropriate, to discuss any disagreements with the Authorized Officer's/Responsible Official's explanation before the decision is finalized.
- Agencies would collaborate with the BEC and Tribal Nations to develop a Tribal Nations co-stewardship implementation-level plan to provide for specific co-stewardship relationships between the agencies, the BEC, and Tribal Nations. This plan would provide additional direction for several items included in the Proposed RMP/Final EIS, including some aspects of management identified in Section 2.4.15, Cross-Cultural Education and Outreach and Section 2.4.14, Cultural Resources. Additionally, the co-stewardship plan would address the following:
 - Opportunities for development of initiatives to cooperatively conduct land management programs concerning BENM.
 - Opportunities for repatriating cultural resources and related data excavated or removed from federal lands.
 - Placename changes for locales, resources, and spaces in BENM, including recommendations for placename changes to the U.S. Board on Geographic Names or National Register of Historic Places (NRHP) to better honor Tribal stewardship of this landscape.
 - Collaborate with the BEC to develop a woodcutter education program to educate woodcutters regarding wood cutting safety, authorization requirements, wood cutting opportunities and impacts, traditional Indigenous values associated with forestry, and the importance of forestry to the protection of BENM objects.
 - Agencies would collaborate with the BEC to develop data-sharing agreements, including ownership of the data, to preserve sensitive information regarding BENM resources, including but not limited to ethnographic research and traditional cultural property (TCP) surveys; natural resources data on quality and conditions of water, plants, animals, birds, air, land use; a trails inventory; and other recreation data.
 - Agencies would collaborate with BEC and Tribal Nations in managing ethnographic or other sensitive cultural information. The agencies, BEC and/or Tribal Nations would coordinate the protection of this information through informal or formal agreements (e.g., data-sharing agreements).
- Agencies would collaborate with the BEC and Tribal Nations on recreation and travel management planning, including but not limited to developing implementation-level recreation management plans, developing travel management plans (TMPs), managing use levels, and developing/maintaining infrastructure (Appendix H).
- Agencies would collaborate with the BEC and Tribal Nations when developing stipulations for discretionary actions including, but not limited to seed and plant collection and permitted activities, as consistent with federal law and regulations.
- Tribal site visits and other methods to ensure collaboration on the ground would be planned as part of the management of BENM and implementation plans and actions. Resources and places on the landscape would not be considered separately from the landscape as a whole.

2.4.2.3. INVENTORYING, MONITORING, SCIENCE, AND INDIGENOUS KNOWLEDGE

- Agencies would collaborate with the BEC to ensure that Tribal Nations' ways of knowing are given equal consideration with knowledge derived from a Western scientific paradigm by incorporating Tribal expertise when designing and implementing management in BENM.
- Agencies would collaborate with the BEC, Tribal experts recognized by Tribal Nations, and applicable federal and state agencies, in inventorying and monitoring BENM resources to develop a greater understanding of resource status and to provide for effective management. The agencies would collaborate on strategies with the BEC on inventorying and monitoring including, but not limited to the following programs:
 - Wildlife habitat (including but not limited to goshawks, raptors, migratory birds, aquatic species, and bighorn sheep)
 - Soils
 - Water (e.g., springs, streams, water wells)
 - Vegetation
 - Viewsheds, dark night skies, and soundscapes
 - Recreation (e.g., visitor use)
 - Culturally important plants and animals
 - Paleontological resources
 - Air quality (e.g., dust)
- Agencies would collaborate with the BEC to facilitate increased scientific research and increased understanding of Traditional Indigenous Knowledge to further understanding of BENM objects.
- Agencies would collaborate with the BEC to develop and maintain a BENM science plan that directs the administration of a science program and is informed by Traditional Indigenous Knowledge.
- Agencies would collaborate with the BEC on proposals for scientific research.

NATURAL ENVIRONMENT

2.4.3. Geology and Minerals

2.4.3.1. GOALS AND OBJECTIVES

- Manage BENM for the protection and preservation of all geological features and resources.

2.4.3.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Ensure that adequate reclamation of disturbed areas is accomplished consistent with the protection of BENM objects.
- Casual collection of minerals in BENM is prohibited except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. Casual collection of minerals would not be prohibited where such prohibition constitutes a substantial burden on religious practices.

2.4.3.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-2. Alternatives for Geology and Minerals

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
1	<p>Subject to valid existing rights, BLM and NFS lands within BENM are withdrawn from location, entry, and patent under the Mining Law of 1872 and from disposition under all laws relating to mineral and geothermal leasing.</p> <p>The agencies would, to the greatest extent possible, and in accordance with applicable law, manage any operations that occur under the mineral leasing laws pursuant to valid existing rights in a manner that protects and mitigates impacts to the protection of BENM objects.</p> <p>The agencies would coordinate with Utah Division of Oil, Gas and Mining in implementing the Abandoned Mine Reclamation Program to close access and clean up waste associated with AMLs.</p> <p>Agencies would work with the BEC and Tribal Nations to identify geological hazards that pose a problem to public health and safety and partner with appropriate agencies as applicable for remediation.</p> <p>Agencies would coordinate with the BEC and Tribal Nations to identify and preserve unique geological features and/or geological features of spiritual significance. This could include closing areas with the features on a seasonal basis to protect them or to provide for traditional uses or ceremonies.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Subject to valid existing rights, BLM-administered and NFS lands within BENM are withdrawn from location, entry, selection, or patent under the Mining Law of 1872 and from disposition under all laws relating to mineral and geothermal leasing.</p> <p>The agencies, in collaboration with the BEC, would, to the greatest extent possible, and in accordance with applicable law, manage any operations that occur under the Mining Law or the mineral leasing laws pursuant to valid existing rights in a manner that protects and mitigates impacts to the protection of BENM objects.</p> <p>The agencies would collaborate with the BEC and Utah Division of Oil, Gas and Mining in implementing the Abandoned Mine Reclamation Program to close access and clean up waste associated with AMLs.</p> <p>Agencies would work with the BEC and Tribal Nations to identify geological hazards that pose a risk to public health and safety and partner with appropriate agencies as applicable for remediation.</p> <p>Agencies would collaborate with the BEC and Tribal Nations to identify and preserve unique geological features and/or geological features of spiritual significance. This could include closing areas with these features on a seasonal basis to protect them or to provide for traditional uses or ceremonies.</p>	<p>Subject to valid existing rights, BLM-administered and NFS lands within BENM are withdrawn from location, entry, selection, or patent under the Mining Law of 1872 and from disposition under all laws relating to mineral and geothermal leasing.</p> <p>The agencies, in collaboration with the BEC, would, to the greatest extent possible, and in accordance with applicable law, manage any operations that occur under the Mining Law or the mineral leasing laws pursuant to valid existing rights in a manner that protects and mitigates impacts to the protection of BENM objects.</p> <p>The agencies would collaborate with the BEC and federal and state partners in implementing the Abandoned Mine Reclamation Program to close access and clean up waste associated with AMLs.</p> <p>Agencies would work with the BEC and Tribal Nations to identify geological hazards that pose a risk to public health and safety and partner with appropriate agencies as applicable for remediation.</p> <p>Agencies would collaborate with the BEC and Tribal Nations to identify and preserve unique geological features and/or geological features of spiritual significance. This could include closing areas with these features on a seasonal basis to protect them or to provide for traditional uses or ceremonies.</p>

2.4.4. Paleontological Resources

2.4.4.1. GOALS AND OBJECTIVES

- Protect paleontological resources in BENM in collaboration with the BEC and Traditional Indigenous Knowledge regarding the value of these resources to the BENM cultural landscape.
- Foster public awareness and appreciation of the paleontological heritage.

2.4.4.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with the BEC to provide for the protection of paleontological resources and the protection of BENM objects while providing public access to those resources for scientific education and study.
- Agencies would collaborate with the BEC to provide for traditional and/or cultural uses of paleontological resources, consistent with applicable law.
- Identify, evaluate, study, interpret, and protect paleontological resources in BENM and promote and facilitate scientific investigation of fossil resources.
- All research, inventories, and monitoring of paleontological resources would be conducted in accordance with applicable federal laws, regulations, and policy, and, where possible, Tribal Nations’ policies and protocols and in collaboration with the BEC.
- Develop a paleontological resource implementation plan in collaboration with the BEC that includes, but is not limited to consideration for Traditional Indigenous Knowledge within 5 years.

2.4.4.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-3. Alternatives for Paleontology

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
2	Per 2020 ROD/MMPs All research, inventories, and monitoring of paleontological resources would be conducted in accordance with applicable laws, regulations, and policy.	See Management Actions Common to All Action Alternatives (Section 2.4.4.2) and Geology and Minerals Management Actions Common to All Action Alternatives (Section 2.4.3.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2) and Geology and Minerals Management Actions Common to All Action Alternatives (Section 2.4.3.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2) and Geology and Minerals Management Actions Common to All Action Alternatives (Section 2.4.3.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2) and Geology and Minerals Management Actions Common to All Action Alternatives (Section 2.4.3.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2) and Geology and Minerals Management Actions Common to All Action Alternatives (Section 2.4.3.2).
3	Per 2020 ROD/MMPs Casual collection of petrified wood is prohibited in BENM except where such prohibition constitutes a substantial burden on religion in accordance with the Religious Freedom Restoration Act and other applicable law.	See Management Actions Common to All Action Alternatives (Section 2.4.4.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2).	See Management Actions Common to All Action Alternatives (Section 2.4.4.2).
4	Per 2020 ROD/MMPs As funding is available, the agencies would conduct paleontological resources inventories in a manner that complies with the Paleontological Resources Preservation Act. Priorities for inventory include the following (in this order): <ul style="list-style-type: none"> • Group 1: Areas that receive heavy public use and/or those that lack intensive inventory in relation to current standards • Group 2: Areas that need records clarification or updating • Group 3: Areas with little or no previous inventory These inventory priorities may change in response to changing conditions; uses and input from researchers, educators, and Tribes; or other changed circumstances such as changes in travel management implementation guidelines. Inventory and site documentation would conform to the standards listed in BLM Manual 8270; the agencies would also allow the use of additional field recording protocols in response to research goals and designs, special management, and/or other needs as identified in the future.	As funding is available, agencies would collaborate with the BEC to gather information on the importance of paleontological resources to Tribal Nations, including Traditional Indigenous Knowledge, documentation aspects, and recognition of important traditional use areas. Agencies would also collaborate with the BEC on the prioritization of information gathering.	Same as Alternative B.	Same as Alternative B.	As funding is available, the agencies would collaborate with the BEC to gather information on the importance of paleontological resources to Tribal Nations, where appropriate, including Traditional Indigenous Knowledge. The agencies would use Traditional Indigenous Knowledge regarding paleontological resources as a management approach, together with Western science. Agencies would also collaborate with the BEC on the prioritization of information gathering from Tribal Nations.	As funding is available, the agencies would collaborate with the BEC and Tribal Nations to gather information on the importance of paleontological resources to Tribal Nations, where appropriate, including Traditional Indigenous Knowledge. The agencies would use Traditional Indigenous Knowledge regarding paleontological resources as a management approach, together with Western science. Agencies would also collaborate with the BEC on the prioritization of information gathering from Tribal Nations. Paleontological resources inventories would comply with the Paleontological Resources Preservation Act. Example priorities for inventory include the following: <ul style="list-style-type: none"> • Group 1: Areas that receive heavy public use and/or those that lack intensive inventory in relation to current standards. • Group 2: Areas that need records clarification or updating. • Group 3: Areas with little or no previous inventory. • These inventory priorities may change based on collaboration with BEC and Tribal Nations.
5	Per 2020 ROD/MMPs Collection of paleontological objects would be by permit only.	See Section 2.4.2.1, Overarching Management.	See Section 2.4.2.1, Overarching Management.	See Section 2.4.2.1, Overarching Management.	See Section 2.4.2.1, Overarching Management.	See Section 2.4.2.1, Overarching Management.
6	No similar action.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Casting of paleontological resources would be by permit only.	In situ casting of paleontological resources would be by permit only.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
7	Per 2020 ROD/MMPs To protect paleontological resources, no casual fossil collecting would be allowed within BENM.	See Management Actions Common to All Alternatives (Section 2.4.4.2).	See Management Actions Common to All Alternatives (Section 2.4.4.2).	See Management Actions Common to All Alternatives (Section 2.4.4.2).	See Management Actions Common to All Alternatives (Section 2.4.4.2).	See Management Actions Common to All Alternatives (Section 2.4.4.2).
8	Per 2020 ROD/MMPs Conduct on-site survey for paleontological resources in Potential Fossil Yield Classification (PFYC) Classes 4 and 5 areas prior to implementing any surface-disturbing activities.	Prior to implementing any discretionary actions that could impact paleontological resources, on-site surveys would be conducted for paleontological resources in areas classified as PFYC Classes 3, 4, and 5 and U (Unknown). The Authorized Officer (BLM)/Responsible Official (USDA Forest Service) has the discretion to modify these survey requirements if they determine that the modification would continue to protect BENM objects.	Same as Alternative B.	Same as Alternative B.	Prior to implementing any discretionary actions that could impact paleontological resources, on-site surveys would be conducted for paleontological resources. Areas that contain or are likely to contain vertebrate or plant fossils and their traces would be identified and evaluated prior to implementing and discretionary actions. The Authorized Officer (BLM)/Responsible Official (USDA Forest Service) has the discretion to modify these survey requirements if they determine that the modification would continue to provide for the proper care and management of BENM objects. This determination should include collaboration with the BEC.	Prior to implementing any discretionary actions that could impact paleontological resources, on-site surveys for paleontological resources would be required in PFYC Classes 3, 4, 5, and U (Unknown). Areas that contain or are likely to contain vertebrate or plant fossils and their traces would be identified and evaluated prior to implementing and discretionary actions. The Authorized Officer (BLM)/Responsible Official (USDA Forest Service) has the discretion to modify these survey requirements if they determine that the modification would continue to provide for the proper care and management of BENM objects. This determination should include collaboration with the BEC.
9	Per 2020 ROD/MMPs Surface-disturbing activities would avoid or minimize impacts to paleontological resources to the degree practicable. Where avoidance is not practicable, appropriate mitigation to reduce impacts would be developed based on site-specific survey information.	Surface-disturbing activities would avoid or minimize impacts to paleontological resources to the degree practicable. Where avoidance is not practicable, appropriate mitigation to protect paleontological resources would be developed based on site-specific survey information.	Same as Alternative B.	Same as Alternative B.	Protect and preserve paleontological resources. Restoration of paleontological resources should only be done in collaboration with the BEC, due to Traditional Ecological Knowledge requiring that paleontological resources be left undisturbed. Any work done involving fossils should not be extractive; fossil resources would not be extracted from BENM.	Protect and preserve paleontological resources. Collection and curation of paleontological resources, in accordance with applicable law and regulation, would only be done in collaboration with the BEC, due to Traditional Ecological Knowledge requiring that paleontological resources be left undisturbed. Agencies would minimize collection and curation of fossils and would consider collection only in cases where paleontological objects are threatened by potential impacts including, but not limited to erosion, development, or other discretionary actions. Identifying collection opportunities would be done, in collaboration with the BEC. Applications for paleontological excavation permits would be limited to areas of high fossil potential. The following stipulations would be required on any excavation permit: <ul style="list-style-type: none"> • Protect the cultural landscape during any excavations and address Traditional Ecological Knowledge, including the development of a guidebook, as part of evaluating and designing permits. • Limit excavations to only those fossils that would substantially advance scientific knowledge. • Limit excavations to the minimum necessary area and minimum necessary fossils. • Evaluate options for conducting research without excavation. • Ensure that fossils are curated and available to the public including education on cultural values.
10	Per 2020 ROD/MMPs If surveys indicate presence of significant paleontological resources on trails and access points, the BLM and USDA Forest Service would close or reroute trails and access points for both casual and permitted use.	If surveys indicate presence of significant paleontological resources, the BLM and USDA Forest Service would take appropriate action to avoid impacts to those resources.	Same as Alternative B.	Same as Alternative B.	If surveys indicate presence of significant paleontological resources, the BLM and the USDA Forest Service, in collaboration with the BEC, would take appropriate action to avoid impacts to those resources. This may require the construction of physical barriers or other methods to separate the public from paleontological resources.	If surveys indicate presence of paleontological resources, the agencies, in collaboration with the BEC, would take appropriate action to avoid impacts to those resources. This may require the construction of physical barriers or other methods to protect the paleontological resources.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
11	Per 2020 ROD/MMPs If trails and access points cannot be rerouted, the BLM and USDA Forest Service would provide specific education to climbers and hikers on best climbing practices to avoid or minimize impacts to paleontological resources.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
12	Per 2020 ROD/MMPs Shay Canyon Hiking trails would continue to be open to casual use. Management and development of hiking paths and trails would be consistent with maintaining BENM objects, including protection of significant paleontological resources. If monitoring indicates impacts to significant paleontological resources, the BLM may harden, reroute, or close trails as necessary to protect sites. The BLM would provide education or interpretation to inform users of the importance of not impacting paleontological resources.	Shay Canyon Hiking trails would continue to be open for public use. Management and development of hiking paths and trails would be consistent with protecting BENM objects, including protection of significant paleontological resources. If monitoring indicates impacts to significant paleontological resources, the BLM may harden, reroute, or close trails as necessary to protect sites. The BLM would provide education or interpretation to inform recreational users of the importance of not impacting paleontological resources. Trails could be closed seasonally to allow for resource rest and/or traditional use. Seasonal closures would be determined in coordination with the BEC and Tribal Nations.	Same as Alternative B.	Same as Alternative B with the following exception: • No new trail development would be allowed in Shay Canyon.	Management of hiking trails in Shay Canyon, or in any other areas with significant paleontological resources as defined by the agencies and in collaboration with the BEC, would be consistent with maintaining BENM objects, including protection of significant paleontological resources. If monitoring indicates impacts to significant paleontological resources, the agencies, in collaboration with the BEC, may harden, reroute, or close trails as necessary to protect sites. No new trail development would be allowed in Shay Canyon or in any other areas with significant paleontological resources. Education or interpretation would be provided to inform recreational users of the importance of protecting paleontological resources. Seasonal closures of trails and access areas to allow for resource rest would be determined in collaboration with the BEC.	The agencies would collaborate with the BEC in the management of hiking trails in Shay Canyon, and in PFYC Classes 3, 4, 5, and U would be consistent with maintaining BENM objects, including protection of paleontological resources. If monitoring indicates impacts to paleontological resources, the agencies, in collaboration with the BEC, may harden, reroute, or close trails as necessary to protect sites through implementation-level planning. No new trail development would be allowed in Shay Canyon or areas classified as PFYC Classes 3, 4, 5, and U. Education or interpretation would be provided to inform recreational users of the importance of protecting paleontological resources. Seasonal closures of trails and access areas to allow for resource rest would be determined in collaboration with the BEC and Tribal Nations.
13	Per 2008 Monticello RMP Recreational collectors may collect and retain reasonable amounts of common invertebrate and plant fossils for personal, noncommercial use. Surface disturbance must be negligible, and mechanized tools may not be used.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
14	Per 2008 Monticello RMP Collection of invertebrate and plant fossils and casting of fossils would require a permit.	See management above.	See management above.	See management above.	See management above.	See management above.
15	Per 2008 Monticello RMP Vertebrate fossils may be collected only under a permit issued by the Authorized Officer (BLM)/Responsible Official (USDA Forest Service) to qualified individuals. Vertebrate fossils include bones, teeth, eggs, and other body parts of animals with backbones such as dinosaurs, fish, turtles, and mammals. Vertebrate fossils also include trace fossils such as footprints, burrows, and dung.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
16	Per 2008 Monticello RMP Casting of vertebrate fossils, including dinosaur tracks, would be prohibited unless allowed under a scientific/research permit issued by the BLM Utah State Office.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
17	Per 2008 Monticello RMP Fossils collected under a permit remain the property of the federal government and must be placed in a suitable repository (such as a museum or university) identified at the time of permit issuance.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
18	Per 2008 Monticello RMP Lands identified for exchange would be evaluated to determine whether such actions would remove important fossils from federal ownership.	See Section 2.4.19, Lands and Realty.	See Section 2.4.19, Lands and Realty.	See Section 2.4.19, Lands and Realty.	See Section 2.4.19, Lands and Realty.	Management not carried forward.
19	Per 2008 Monticello RMP In areas where surface disturbance, either initiated by the BLM or by other land users, may threaten substantial or noteworthy fossils, the BLM would follow its policy, per the <i>BLM Manual and Handbook 8270</i> to assess any threat and mitigate damage.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
20	Per 2008 Monticello RMP Where scientifically noteworthy fossils are threatened by natural hazards or unauthorized collection, the BLM would work with permittees and other partners to salvage specimens and reduce future threats to resources at risk.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
21	Per 2008 Monticello RMP Conduct on-site evaluation of surface-disturbing activities for all PFYC Class 5 areas and minimize impacts to paleontological resources to the degree practicable. Evaluation would consider the type of surface disturbance proposed, and mitigation would be developed based on site-specific information.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

2.4.5. Soil Resources

2.4.5.1. GOALS AND OBJECTIVES

- Promote sustainable soil functions and interactions with all other resources in BENM and maintain or improve soils to a suitable level of functionality, with soil properties appropriate to site-specific climate and landform and to the total functional composition of soils in BENM.
- Protect soil resources and all other resources that depend on the soil as part of the healing landscape of BENM.
- Protect highly sensitive soils (e.g., highly susceptible to erosion) and biological soil crusts (BSCs).

2.4.5.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with the BEC to protect soil resources and provide for the long-term sustainability of soil.
- Agencies would collaborate with the BEC to maintain and/or restore overall watershed health and water quality conditions. This could include reducing erosion, stream sedimentation, and salinization of water to ensure ecological diversity and sustainability.
- Agencies would manage public lands consistent with the Colorado River Salinity Control Act and any other relative legislation or Traditional Indigenous Knowledge-based standards, as identified in collaboration with the BEC.

2.4.5.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-4. Alternatives for Soil Resources

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
22	Per 2020 ROD/MMPs For slopes greater than 40%, no surface disturbance would be allowed unless it is determined that other placement alternatives	If new discretionary actions cannot be avoided on slopes between 21% and 40%, as applicable, an erosion control plan would be required. The	If new discretionary actions cannot be avoided on slopes between 21% and 35%, as applicable, an erosion control plan would be required. The	If new discretionary actions cannot be avoided on slopes between 21% and 30%, as applicable, an erosion control plan would be required. The	If discretionary actions cannot be avoided on slopes between 21% and 30%, an erosion control plan would be required. The plan must be approved by the agencies, prior to construction and maintenance; agencies would collaborate	No discretionary actions would be allowed on slopes greater than 30% unless necessary to protect BENM objects.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	are not practicable or when surface-disturbing activities (e.g., trail construction) are necessary to reduce or prevent soil erosion. In those cases, an erosion control plan would be required for review and approval by the BLM and USDA Forest Service prior to permitting the activity.	plan must be approved by the agencies prior to construction and maintenance. No surface-disturbing activities would be allowed on slopes greater than 40% unless consistent with the protection of BENM objects. If soil map units indicate that discretionary actions are within areas with sensitive soils, consider further restricting activities to assure control of soil erosion within acceptable levels. Protect snow courses from site modification.	plan must be approved by the agencies prior to construction and maintenance. No discretionary actions would be allowed on slopes greater than 35% unless consistent with the protection of BENM objects. Protect snow courses from site modification.	plan must be approved by the agencies prior to construction and maintenance. No discretionary actions would be allowed on slopes greater than 30% unless necessary to protect BENM objects. Protect snow courses from site modification.	with the BEC regarding the discretionary action. The erosion control plan would include the following: <ul style="list-style-type: none"> An erosion control strategy. An agency-approved survey and design of the erosion control plan. No surface-disturbing activities would be allowed on slopes greater than 30% unless necessary to protect BENM objects. Protect snow courses from site modification. 	If discretionary actions cannot be avoided on slopes between 21% and 30%, an erosion control plan would be required, as applicable. The plan must be approved by the agencies, prior to construction and maintenance; agencies would collaborate with the BEC regarding the discretionary action. The erosion control plan would include the following: <ul style="list-style-type: none"> An erosion control strategy. An agency-approved survey and design of the erosion control plan. Protect snow courses from site modification. If soil map units indicate that discretionary actions are within areas with sensitive soils, consider further restricting activities to assure control of soil erosion within acceptable levels.
23	No similar management.	No similar management.	No similar management.	No similar management.	Traditional Indigenous Knowledge and Tribal policies and guidelines, peer-reviewed literature based on the best available Western science, and best management practices would be applied to restore BSCs.	Traditional Indigenous Knowledge and Tribal policies and guidelines, peer-reviewed literature based on the best available Western science, and best management practices would be applied to restore BSCs.
24	No similar management.	No similar management.	No similar management.	No similar management.	Maintain or improve soil quality and long-term soil productivity using culturally led standards, identified in collaboration with the BEC, designed to benefit natural ecosystems, native species, and important relationships between water and soil.	Maintain or improve soil quality and long-term soil productivity using Traditional Indigenous Knowledge, identified in collaboration with the BEC, designed to benefit natural ecosystems, native species, and important relationships between water and soil.
25	No similar management.	Agencies would collaborate with the BEC in identifying areas with BSCs and classifying those crusts to best protect them. These protections could include seasonal closures of areas to visitation during drought periods and ceremonially and traditionally important times of the year.	Same as Alternative B.	Same as Alternative B.	Agencies would collaborate with the BEC in identifying areas with BSCs and classifying those crusts to best protect them. These protections could include seasonal closures of areas to visitation during drought periods and ceremonially and traditionally important times of the year or permanent closures of areas with high BSC density.	Agencies would collaborate with the BEC in identifying areas with BSCs and classifying those crusts to best protect them. These protections could include seasonal closures of areas to visitation during drought periods and ceremonially and traditionally important times of the year or permanent closures of areas with high BSC density.
26	Per 1986 Manti-La Sal LRMP Soil and Water Resource Inventories <ul style="list-style-type: none"> Complete appropriate order of soil and water resource inventories to provide data for USDA Forest Service activities and uses. Meet the National Cooperative Soil Survey Standards. Forest Service Manual 2530.4.43 and Forest Service Handbook 2509.16. Protect snow courses from site modification. 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
27	Per 1986 Manti-La Sal LRMP Soil Resource Management <ul style="list-style-type: none"> Maintain or improve soil productivity and watershed qualities within the ecological site capabilities. Provide soil resource inventories, interpretations, and evaluation at the appropriate intensity level for projects which could adversely affect the soil resource or where the success or failure of the project depends on soil management. Minimize adverse, human-caused impacts to the soil resource, including accelerated erosion, compaction, contamination, and displacement. 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

2.4.6. Water Resources

2.4.6.1. GOALS AND OBJECTIVES

- Surface and groundwater in BENM is a cultural resource and should be managed as such. Water is integral to the cultural landscape of the entire BENM and supports culturally important springs, wildlife, and plants. Watersheds that feed BENM are also culturally important as are watersheds that rely on waters from BENM.
- Protect, maintain, and restore water resources and riverscapes, including riparian areas, wetlands, springs, and seeps. Collaborate with the BEC in the determination of appropriate restrictions or improvements to water resources, as necessary to protect BENM objects.

2.4.6.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Manage riparian and wetland resources for proper functioning conditions (PFCs) and other agency methods; manage water resources for quality and quantity.
- Maintain and enhance water quantity and quality, the desired mix of vegetation types, structural stages, and landscape/riparian/watershed function to protect BENM objects. Conduct comprehensive monitoring to track water quality conditions.
- Manage riparian areas to ensure stream channel morphology and functions are appropriate to the local soil type, climate, and landform. Ensure ecological diversity, resilience, and sustainability, including maintaining the desired mix of vegetation types and structural stages. Provide for native and special status plant, fish, and wildlife habitats, and traditional, cultural, and ceremonial uses of water in BENM.
- Collaborate with the BEC to develop a groundwater/surface water technical study and monitoring plan, including, but not limited to, studies related to pumping impacts, water well production rates, water levels in water wells, and triggers for adaptive management, if needed, to protect BENM objects.
- Complete a comprehensive spring, seep, and water resources inventory of BENM. Collaborate with the BEC to protect properly functioning springs and restore and protect springs that are nonfunctional and/or functional-at risk.
- Pursue and quantify federally reserved and other water rights where possible for springs and water resources to protect BENM objects.
- Conduct a groundwater study on any and all relevant aquifers (including but not limited to the Cedar Mesa Sandstone and N Aquifers) to better understand characteristics, current conditions, recharge areas, recharge rates, groundwater budget (inflow vs. outflow), travel time, and springs.
- Collaborate with the BEC and Tribal Nations to reclaim disturbed soils to avoid impacts to the protection of BENM objects, including riparian areas and aquatic ecosystems.
- Agencies would collaborate with the BEC in managing for water flow (quantity and timing) to maintain habitat function.
- Agencies would implement the management actions for water quality per the *Utah Statewide Nonpoint Source Pollution Management Plan* (Utah Department of Environmental Quality [UDEQ] 2018) or most up to date plan.
- Agencies would collaborate with the BEC and State of Utah to incorporate additional water quality standards in the management of BENM as appropriate and consistent with federal law.
- In collaboration with the BEC, manage watersheds and natural catchments to facilitate groundwater recharge.
- Collaborate with the BEC to develop a spring revitalization program, protect properly functioning springs, and restore and protect springs where riparian conditions are nonfunctional and/or functional-at risk or water quality conditions are degraded from impacts using implementable protection measures.
- Support traditional uses of springs/seeps and riparian areas on BENM for Tribal Nations, consistent with the protection of BENM objects.
- For the portions of BENM that include the NABR groundwater protection zone, adopt management actions defined in the NABR groundwater protection zone plan.
- Follow management recommendations listed in the Utah Division of Water Quality (UDWQ) total maximum daily load (TMDL) reports on streams that are not meeting state water quality standards to improve water quality conditions.
- Adhere to Utah Division of Drinking Water restrictions on activities within public Drinking Water Source Protection zones (DWSP zones).
- Protect domestic water sources (water quality and water quantity) as defined by the U.S. Environmental Protection Agency (EPA).

2.4.6.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-5. Alternatives for Water Resources

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
28	Per 2020 ROD/MMPs Dispersed recreation management: • Limit use where the riparian area is being unacceptably damaged.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Dispersed recreation management: • Limit use where monitoring indicates that the riparian area or water quality conditions are being adversely impacted by recreational activities.	Limit or prohibit recreational activities where monitoring indicates that the riparian area or water quality conditions are being adversely impacted by those activities through implementation-level planning.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
29	No similar action.	Limit dispersed camping areas in or near riparian areas or water sources if uses related to camping are determined to be a causal factor in adverse impacts to a surface waterbody, water quality conditions, and/or riparian functions. Limitations would be those required to maintain water quality and riparian function.	Close dispersed camping areas in or near riparian areas or water sources if uses related to camping are determined to be a causal factor in adverse impacts to a surface waterbody, water quality conditions, and/or riparian functions.	Same as Alternative E.	Close dispersed camping areas near surface waterbodies if camping is determined to be a causal factor in impacts to a surface waterbody and/or riparian functions.	Limit or close dispersed camping areas in or near riparian areas or water sources if uses related to camping are determined to be a causal factor in adverse impacts to a surface waterbody, water quality conditions, and/or riparian functions. Limitations would be those required to maintain water quality and riparian function.
30	Per 2020 ROD/MMPs Minimize surface-disturbing activities in riparian areas that alter vegetative cover, result in stream channel instability or loss of channel cross sectional area, or reduce water quality, unless the action is designed for long-term benefits to riparian, wetland, or aquatic habitats (e.g., side channel restoration).	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
31	Per 2020 ROD/MMPs Water quality management: <ul style="list-style-type: none"> Vegetate disturbed soils in sites where adverse impacts would occur according to the following priorities: <ul style="list-style-type: none"> Aquatic ecosystems Riparian ecosystems 	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).
32	Per 2020 ROD/MMPs Reduce tamarisk, Russian olive, and other woody invasive species where appropriate using allowable vegetation treatments (approximately 5,000 acres would be treated over the life span of the plan). Reseed treatment areas, when appropriate, to avoid erosion damage or the re-establishment of invasive species. Additionally, reduce herbaceous invasive species where appropriate.	The agencies would collaborate with the BEC to reduce tamarisk, Russian olive, and other woody invasive species where appropriate. Reseed treatment areas with native plants, when appropriate, to avoid erosion damage or the re-establishment of invasive species. Additionally, reduce herbaceous invasive species where appropriate.	Same as Alternative B.	Same as Alternative B.	The agencies would collaborate with the BEC to reduce tamarisk, Russian olive, other woody or herbaceous invasive species, and other harmful invasive species and/or noxious weeds identified in collaboration with the BEC, where appropriate, using minimally invasive vegetation treatments. Reseed treatment areas with native plants to avoid erosion damage or the re-establishment of invasive species. All treatments would be implemented on a seasonal basis determined in collaboration with the BEC.	The agencies would collaborate with the BEC to reduce tamarisk, Russian olive, other woody or herbaceous invasive species, and other harmful invasive species and/or noxious weeds identified in collaboration with the BEC, where appropriate. Prioritize minimally invasive vegetation treatments where practicable. The agencies would coordinate with the USFWS, where appropriate, consistent with federal law and regulation. For management of vegetation treatments in riparian areas, see management actions in Section 2.4.7. Reseed treatment areas with native plants to avoid erosion damage or the re-establishment of invasive species. All treatments would be implemented on a seasonal basis determined in collaboration with the BEC.
33	Per 2020 ROD/MMPs Floodplains and riparian/aquatic areas are as follows: <ul style="list-style-type: none"> Subject to fire suppression if necessary to protect riparian habitat. Excluded from private and/or commercial use of woodland products, except for Tribal Nations' traditional purposes as determined on a site-specific basis; limited on-site collection of dead wood for campfires is allowed, as described in Section 2.17 of the 2020 ROD/MMPs. Available for habitat, range, and watershed improvements and vegetation treatments described in <i>Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement</i> (BLM 2007a). Excluded from surface disturbance by mechanized or motorized equipment (except as allowed above) and from structural development (unless there is no practical 	Floodplains and riparian/aquatic areas are as follows: <ul style="list-style-type: none"> Subject to fire suppression if necessary to protect riparian habitat. Excluded from private and/or commercial use of wood products, except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. Private collection of wood products would not be prohibited where such prohibition constitutes a substantial burden on religious practices. Available for habitat, watershed improvements, and vegetation treatments designed for long-term benefits to riparian, wetland, or aquatic habitats (e.g. side channel restoration, invasive plant removal, process-based restoration). 	Same as Alternative B with the addition that floodplains and riparian/aquatic areas are as follows: <ul style="list-style-type: none"> Excluded from surface disturbance by mechanized or motorized equipment and from structural development unless to protect BENM objects (e.g., habitat restoration). 	Same as Alternative C.	Floodplains and riparian/aquatic areas are as follows: <ul style="list-style-type: none"> Subject to fire suppression if necessary to protect riparian habitat. Excluded from private and/or commercial use of wood products, except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. Private collection of wood products would not be prohibited where such prohibition constitutes a substantial burden on religious practices. Excluded from surface disturbance by mechanized or motorized equipment and from structural development. All treatments would be implemented on a seasonal basis determined in collaboration with the BEC and Tribal Nations. 	Floodplains and riparian/aquatic areas are as follows: <ul style="list-style-type: none"> Subject to fire suppression if necessary to protect riparian habitat. Excluded from private use of wood products, except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. Private collection of wood products would not be prohibited where such prohibition constitutes a substantial burden on religious practices, such as the Religious Freedom Restoration Act of 1993, or other applicable laws. Excluded from commercial use of wood products. Available for habitat, watershed improvements, and vegetation treatments designed for long-term benefits to riparian, wetland, or aquatic habitats (e.g., side channel restoration, invasive plant removal, process-based restoration). Excluded from surface disturbance by mechanized or motorized equipment and from structural development unless to protect BENM

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	alternative and/or the development would enhance riparian/aquatic values).					objects (e.g., habitat restoration and fire suppression). Open to all treatments on a seasonal basis as determined in collaboration with the BEC and Tribal Nations.
34	<p>Per 2020 ROD/MMPs</p> <p>Cottonwood and willow harvest would be allowed for Tribal Nations' ceremonial uses through a permit system.</p> <p>Restrictions on this harvest would be implemented as necessary to achieve or maintain PFC.</p>	<p>Cottonwood and willow harvest would be allowed for Indigenous traditional or ceremonial uses only and would be managed through authorizations as follows:</p> <ul style="list-style-type: none"> When removing hazard trees from developed sites, agencies would collaborate with the BEC and Tribal Nations to provide those trees for ceremonial use. No cutting, with the exception of hazardous tree removal, is authorized within developed sites or areas. Cottonwood harvesting is limited to 0.25 cord per person per year. Willow harvesting is limited to 200 stems per person per year. Agencies would collaborate with the BEC to implement modifications to these restrictions as necessary to provide for Tribal traditional or ceremonial uses while protecting BENM objects. 	Same as Alternative B.	Same as Alternative B.	<p>Harvest of cottonwood, willow, and other traditionally used plants for ceremonial use would be allowed through notification of use through a point of contact and managed as follows:</p> <ul style="list-style-type: none"> When removing hazard trees from developed sites, agencies would coordinate with the BEC and Tribal Nations to provide those trees for ceremonial use. With the exception of hazardous tree removal, no cutting would be allowed for shade canopies and within developed sites or areas. Cottonwood harvesting is limited to 0.25 cord per person per year and willow harvesting is limited to 200 stems per person per year. Agencies would collaborate with the BEC to implement modifications to these restrictions as necessary to provide for Tribal traditional or ceremonial uses while protecting BENM objects. 	<p>Harvest of cottonwood, willow, and other traditionally used plants for ceremonial use would be allowed in accordance with applicable law and through notification of use through a point of contact and managed as follows:</p> <ul style="list-style-type: none"> When removing hazard trees from developed sites, agencies would coordinate with the BEC and Tribal Nations to provide those trees for ceremonial use. With the exception of hazardous tree removal, no cutting would be allowed to create shade and within developed sites or areas. Cottonwood harvesting would be limited to 0.25 cord per person per year, and willow harvesting would be limited to 200 stems per person per year. Agencies would collaborate with the BEC to implement modifications to these restrictions as necessary to provide for Tribal traditional or ceremonial uses while protecting BENM objects.
35	<p>Per 2020 ROD/MMPs</p> <p>Avoid or limit surface disturbance DWSP zones.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Manage discretionary uses to protect DWSP zones.	Manage discretionary uses to protect DWSP zones.
36	<p>Per 2020 ROD/MMPs</p> <p>Riparian, floodplain, and wetland management:</p> <ul style="list-style-type: none"> Prior to implementation of project activities, delineate and evaluate riparian areas and or wetlands that may be impacted. Project-specific impacts to riparian areas, floodplains, and wetlands would be analyzed at the site-specific level, and mitigation measures would be developed and implemented as necessary to prevent unnecessary and undue resource degradation. 	Prior to implementation of discretionary actions, map and evaluate riparian areas and/or wetlands that may be impacted. Discretionary actions would be designed to protect riparian areas, wetlands, and water resources.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B, except discretionary actions would be considered in collaboration with the BEC.	Prior to implementation of discretionary actions, map and evaluate riparian areas and/or wetlands that may be impacted. Discretionary actions would be designed in collaboration with the BEC to protect riparian areas, wetlands, and water resources.
37	<p>Per 2020 ROD/MMPs</p> <p>For both BLM-administered and NFS lands, no new surface-disturbing activity would be allowed within active floodplains or within 100 meters (approximately 330 feet) of riparian areas along perennial and intermittent springs and streams unless it meets at least one of the following exceptions:</p> <ul style="list-style-type: none"> The activity is a vegetation treatment that does not impair riparian function. The activity is related to development of recreational or range infrastructure that does not impair riparian function. It can be shown that all long-term impacts can be fully mitigated. The activity would benefit the riparian area. It can be shown that there are no practical alternatives and that all long-term impacts can be fully mitigated. 	<p>No new discretionary action that alters vegetative cover, results in stream channel instability or loss of channel cross sectional area, or reduces water quality would be allowed within the 100-year floodplains or within 330 feet of springs, riparian areas, and intermittent and perennial streams unless it meets at least one of the following exceptions:</p> <ul style="list-style-type: none"> The activity is a vegetation treatment that does not impair overall riparian function in a system. The activity is related to development of recreational or range infrastructure that does not impair riparian function. It can be shown that all long-term impacts can be fully mitigated. The action is designed for long-term benefits to riparian, wetland, or aquatic habitats (e.g., side channel restoration). It can be shown that 1) there are no practical alternatives, and 2) the activity is consistent with the protection of BENM objects. 	Same as Alternative B.	Same as Alternative B.	No discretionary actions that alter vegetative cover, result in stream channel instability or loss of channel cross sectional area, or reduce water quality would be allowed within 100-year floodplains or within 0.5 mile of riparian areas and along perennial and intermittent springs and streams unless absolutely necessary to protect BENM objects.	<p>No new discretionary actions that alter vegetative cover, result in stream channel instability, loss of channel cross sectional area, or reduction in water quality would be allowed within the 100-year floodplains or within 1,000 feet of springs, riparian areas, or intermittent and perennial streams unless it maintains and/or improves riparian function.</p> <p>For management of livestock grazing within 100-year floodplains or within 1,000 feet of springs, riparian areas, and intermittent and perennial streams, see management actions in Section 2.4.22.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
38	<p>Per 2020 ROD/MMPs</p> <p>If monitoring determines that a permitted activity is a causal factor in riparian areas functional—at risk or nonfunctional, steps would be taken to mitigate the impacts of that activity or temporarily restrict the activity, or, if necessary, the riparian area would be closed to that activity to provide for restoration and maintenance of riparian area PFC. In those cases where there are closures, those closures would be lifted if changes in the permitted activity provide for restoration and maintenance of riparian area PFC.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	If monitoring determines that a permitted activity is a causal factor in riparian areas functional—at risk or nonfunctional, steps would be taken on a case-by-case basis to mitigate the impacts of that activity or temporarily restrict the activity, or, if necessary, the riparian area would be closed seasonally to that activity to provide for rest, restoration, and maintenance of riparian area PFC. In those cases where there are closures, those closures would be lifted if changes in the permitted activity provide for restoration and maintenance of riparian area PFC. Time periods for closure would be determined in collaboration with the BEC.	If monitoring determines that a permitted activity is a causal factor in riparian areas functional—at risk or nonfunctional and/or riverscape health, steps would be taken through implementation on a case-by-case basis to mitigate the impacts of that activity or temporarily restrict the activity, or, if necessary, the riparian area would be closed seasonally to that activity to provide for rest, restoration, and maintenance of riparian area PFC. In those cases where there are closures, those closures would be lifted if changes in the permitted activity provide for restoration and maintenance of riparian area PFC. Time periods for closure would be determined in collaboration with the BEC.
39	<p>Per 2020 ROD/MMPs</p> <p>Requirements for a hydrologic study would be determined at the implementation level based on groundwater levels and geological conditions. Do not authorize land uses for water withdrawals that could negatively affect groundwater for seeps and springs and ensure that any authorized withdrawals would provide for the proper care and management of BENM objects.</p>	<p>Do not authorize land uses for water withdrawals that could affect groundwater for seeps and springs and ensure that any authorized withdrawals would provide for the protection of BENM objects.</p> <p>Require a hydrologic study for all proposed groundwater withdrawals within 0.25 mile of seeps, springs, water wells, public water reserves (PWRs), and other groundwater-dependent ecosystems.</p> <p>This study would be conducted by an agency hydrologist or other qualified groundwater hydrologist to determine appropriate restrictions or limitations needed to protect existing water wells; to avoid compounding groundwater depletion, impacting groundwater recharge; and to protect spring flows and spring-fed stream flows.</p>	Same as Alternative B, with the exception that it would apply within 0.5 mile of seeps, springs, water wells, PWRs, and other groundwater-dependent ecosystems and in all Cedar Mesa Sandstone recharge areas.	No new groundwater withdrawals would be permitted on BENM unless they are proposed specifically to protect BENM objects and/or Tribal Nations' traditional uses.	In collaboration with the BEC, new water withdrawals or diversions would not be authorized unless necessary to ensure the protection of BENM objects. Require a hydrologic study for all proposed groundwater withdrawals.	<p>In collaboration with the BEC, new land use permits supporting groundwater withdrawals or diversions would not be authorized unless necessary to ensure the protection of BENM objects.</p> <p>A hydrologic study would be required for all proposed discretionary land uses supporting groundwater withdrawals.</p>
40	<p>Per 2020 ROD/MMPs</p> <p>Conduct vegetation treatments in riparian areas to remove nonnative vegetation, including tamarisk and Russian olive.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.7, Vegetation).	See Management Actions Common to All Action Alternatives (Section 2.4.7, Vegetation).	See Management Actions Common to All Action Alternatives (Section 2.4.7, Vegetation).	See Management Actions Common to All Action Alternatives (Section 2.4.7, Vegetation).	See Management Actions Common to All Action Alternatives (Section 2.4.7, Vegetation).
41	<p>Manage riparian resources for PFC, which is described as the presence of adequate vegetation, landforms, or large woody debris, in accordance with the Utah Standards for Public Rangeland Health and Guidelines for Recreation Management for BLM Lands in Utah and with the Grazing Guidelines for Grazing Management (BLM 1997, 2007b).</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
42	<p>Mitigation to reduce impacts to floodplains and riparian areas include the following: (from <i>Standards for Public Land Health and Guidelines for Recreation Management for BLM Lands in Utah</i> [BLM 2007b] and BLM Riparian Manual 1737):</p> <ul style="list-style-type: none"> • Where feasible and consistent with user safety, developed travel routes would be located/relocated away from sensitive riparian/wetland areas. • Camping in riparian areas would be avoided and must be managed, monitored, and modified as conditions dictate to reduce vegetation disturbance and sedimentation. • Stream crossings would be limited in number and dictated by the topography, geology, and soil type. Design any necessary stream crossings to minimize sedimentation, soil 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>erosion, and compaction (minimize longitudinal routes along stream banks, design crossings perpendicular to the stream).</p> <ul style="list-style-type: none"> • Where necessary, control recreational use by changing the location or kind of activity, season, intensity, distribution, and/or duration. • Grazing actions to meet riparian objectives include vegetation use limits, fencing, herding, change of livestock class, temporary closures, change of season, and/or alternate development or relocation of water sources. • Any water diversions from riparian areas by the BLM or non-BLM entities would be designed and constructed to protect ecological processes and functions. Implement weed management stipulations and education to reduce spread of noxious weeds along stream corridors. 					
43	Limit activities in riparian areas, as necessary, to achieve and maintain PFC.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
44	Grazing actions to meet riparian objectives can include fencing, herding, change of livestock class, temporary closures, and/or change of livestock season of use.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
45	Preclude surface-disturbing activities within 100-year floodplains and within 100 meters of riparian areas, PWRs, and springs.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
46	RIP-8 Prioritize restoration activities in riparian systems that are functional—at risk or nonfunctional.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
47	RIP-9 Continue to apply integrated species management to accomplish riparian restoration through biological, chemical, mechanical, and manual methods (e.g., tamarisk control, willow plantings).	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
48	Acquire riparian lands and water resources (from willing sellers) to preserve and maintain riparian habitat and instream flow.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
49	Close riparian areas to wood cutting, except where permitted for traditional cultural practices identified for Native Americans or restoration to benefit riparian values.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
50	Management strategies would be implemented to restore degraded riparian communities, protect natural flow requirements, protect water quality, and manage for year-round flow.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
51	Season of Use: Season of use adjustments would be made on a case-by-case basis to achieve PFC.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
52	Per 2020 ROD/MMPs Assess watershed function using <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997); USDA Forest Service desired conditions for rangelands; riparian PFC; AIM methodology; and state water quality standards.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
53	Per 2020 ROD/MMPs Implement best management practices relative to water quality according to <i>Utah Statewide Nonpoint Source Pollution Management Plan (UDEQ 2018)</i> .	See Management Actions Common to All Action Alternatives (Section 2.4.6, Water Resources).	See Management Actions Common to All Action Alternatives (Section 2.4.6, Water Resources).	See Management Actions Common to All Action Alternatives (Section 2.4.6, Water Resources).	See Management Actions Common to All Action Alternatives (Section 2.4.6, Water Resources).	See Management Actions Common to All Action Alternatives (Section 2.4.6, Water Resources).
54	Per 2020 ROD/MMPs Provide for harvest of forest products when the activity would improve water production and/or does not adversely affect water quality.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
55	Per 2020 ROD/MMPs Manage actions on BLM-administered and NFS lands in BENM in accordance with relevant recommendations published in the State of Utah's TMDL reports.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Manage actions in BENM in accordance with relevant recommendations published in the State of Utah's TMDL reports and in collaboration with the BEC.	Manage actions in BENM in accordance with relevant recommendations published in the State of Utah's TMDL reports and in collaboration with the BEC.
56	Per 2020 ROD/MMPs During implementation-level travel planning, avoid locating new hiking and equestrian trails and reduce duplicate trails within 100 meters of water sources or on sensitive soils (including steep slopes) whenever possible and practical to minimize impacts to soil and water resources.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
57	Per 2008 Monticello RMP Collaborate with San Juan County, the State of Utah, Tribal governments, and local municipalities on management of municipal watersheds to meet local needs.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Collaborate with San Juan County, the State of Utah, Tribal governments, and local municipalities on management of municipal watersheds to meet local needs.
58	Per 1986 Manti-La Sal LRMP Riparian, Floodplain, and Wetlands Management <ul style="list-style-type: none"> • Prior to implementation of project activities, delineate and evaluate riparian areas and/or wetlands that may be impacted (Forest Service Manual [FSM] 2542). • Give preferential consideration to riparian area-dependent resources in cases of unresolvable resource conflicts (FSM 2526). • Floodplains should be identified and, as appropriate, a risk/hazard analysis performed for project sites where long-term occupancy is proposed (FSM 2527). • Protect present and necessary future facilities that cannot be located out of the 100-year floodplain by structural mitigation (deflection structures, riprap, etc.) • Implement mitigation measures when present or unavoidable future facilities are located in active floodplains to ensure that public and facility safety requirements, state water quality standards, sediment threshold limits, bank stability criteria, flood hazard reduction and instream flow standards are met during and immediately after construction. Riparian Area Management Not-Mapped (RPN): <ul style="list-style-type: none"> • Prior to implementation of project activities, delineate and evaluate riparian areas and/or wetlands that may be impacted (FSM 2526). Production of Forage (RNG): <ul style="list-style-type: none"> • Where site-specific development adversely affects long-term productivity or management, those authorized to conduct development 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	would be required to replace loss through appropriate mitigations. <ul style="list-style-type: none"> Obtain Section 404 permits when needed for proposed activities causing disturbance to floodplains and wetlands. 					
59	Per 1986 Manti-La Sal LRMP Soil and Water Resource Improvement Maintenance Watershed Protection/Improvement (WPE) <ul style="list-style-type: none"> Maintain completed watershed improvement projects until project objectives have been obtained. 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
60	Per 1986 Manti-La Sal LRMP Soil and Water Resource Improvements <ul style="list-style-type: none"> Rehabilitate disturbed areas, where feasible, that are eroding excessively and/or contributing significant sediment to perennial streams. Priorities would be set by the watershed improvement needs inventory and evaluation. Soil losses should be at or below the soil loss tolerance values (T-factors) as defined by the Natural Resources Conservation Service (NRCS) and/or as modified by the USDA Forest Service. FSM 2520. Maintain completed watershed improvement projects until project objectives have been attained. Identify, prescribe, and implement appropriate action before, during, and after landslide and/or flood events. Riparian Area Management Not-Mapped (RPN) <ul style="list-style-type: none"> Prevent or remove unacceptable debris accumulations that reduce stream channel stability and capacity. Avoid channelization of natural streams. Where channelization is necessary for flood control or other purposes, use stream geometry relationships to re-establish meanders, width/depth ratios, etc. consistent with each major stream type. Treat disturbed sites resulting from resource development or use activities to reduce sediment yields to the natural erosion rates in the shortest possible time. Stabilize streambanks that are damaged beyond natural recovery in a reasonable period with appropriate methods or procedures. Minimize significant soil compaction and disturbance in riparian ecosystems. Allow use of heavy construction equipment during periods when the soil is less susceptible to compaction or rutting. Maintain or enhance the long-term productivity of soils within the riparian ecosystem. Watershed Protection/Improvement (WPE) <ul style="list-style-type: none"> Rehabilitate excessively eroding sites by applying the appropriate watershed improvement practices. Base priorities on the watershed improvement needs inventory and USDA Forest Service evaluation process. 	Agencies would collaborate with the BEC to plan and implement stabilization of perennial streambanks that are damaged beyond natural recovery in a reasonable period with appropriate methods or procedures, where feasible. This includes the following: <ul style="list-style-type: none"> Rehabilitate disturbed areas, where feasible, that are eroding excessively and/or contributing significant sediment to perennial streams. Soil losses should be at or below the soil loss tolerance values (T-factors) as defined by the NRCS. Avoid channelization of natural streams. Where channelization is necessary for flood control or other purposes, use stream geometry relationships to re-establish meanders, width/depth ratios, etc. consistent with each major stream type. 	Same as Alternative B.	Same as Alternative B.	Same as Alternative B with the following addition: <ul style="list-style-type: none"> Incorporate Traditional Indigenous Knowledge and practices regarding managing natural streams and stream patterns, including the use of check dams. 	Agencies would collaborate with the BEC to plan and implement stabilization of perennial streambanks that are damaged beyond natural recovery in a reasonable period with appropriate methods or procedures, where feasible. This includes the following: <ul style="list-style-type: none"> Rehabilitate disturbed areas, where feasible, that are eroding excessively and/or contributing significant sediment to perennial streams. Soil losses should be at or below the soil loss tolerance values (T-factors) as defined by the NRCS. Avoid channelization of natural streams. Where channelization is necessary for flood control or other purposes, use stream geometry relationships to re-establish meanders, width/depth ratios, etc. consistent with each major stream type. Incorporate Traditional Indigenous Knowledge and practices regarding managing natural streams and stream patterns, including the use of check dams.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Research, Protection, & Interpretation of Lands & Resources (RPI)</p> <ul style="list-style-type: none"> • Manage soil and water resource activities to be compatible with the values of the unit. • Allow instrumentation to measure precipitation and climate variables needed for research study purposes. • Prohibit water developments or watershed protection activities that would detract from the purpose for which the unit was established. <p>Dark Canyon Wilderness Management (DCW)</p> <ul style="list-style-type: none"> • Where it would not impair the wilderness character, restore soil disturbances caused by human use (past mining, trail construction and use, camping, etc.) to soil loss tolerance levels commensurate with the natural ecological processes for treatment area. • Maintain sites in Code-A-Site categories light to moderate. 					
61	<p>Per 1986 Manti-La Sal LRMP Water Uses Management</p> <p>Secure favorable flows of water to accomplish the following:</p> <ul style="list-style-type: none"> • Ensure that instream flows maintain stable and efficient channels and provide for administrative and protection use. • Provide for fish and wildlife habitats, recreation, and livestock use pursuant to the Multiple Use and Sustained Yield. • Forest Service Handbook 2509.17. <ul style="list-style-type: none"> ○ Obtain through the state, where appropriate, water rights for consumptive uses and instream flows as needed for the purposes of national forest management. ○ Maintain instream flows to protect USDA Forest Service resources and uses. • FSM 2541. <ul style="list-style-type: none"> ○ Prohibit new or expansion of existing spring or other water source development and related facilities when <ul style="list-style-type: none"> ▪ loss of water results in unacceptable impacts on riparian, vegetation, fisheries, or other USDA Forest Service resources and uses development and/or facilities would result in unacceptable erosion, road damage, land instability, or disruption or damage to springs or water sources. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Secure favorable flows of water to do the following:</p> <ul style="list-style-type: none"> • Ensure that stream flows maintain stable and efficient channels and provide for administrative and protection use. • Protect BENM objects. • Obtain through the state, where appropriate, water rights for consumptive uses and instream flows. • Maintain instream flows to protect BENM objects. • Prohibit new or expansion of existing spring or other water source development and related facilities when <ul style="list-style-type: none"> ○ it would impact the PFC of riparian, wetlands, and water resources; ○ it would result in unacceptable erosion, road damage, land instability, or other types of disruption or damage; and/or ○ it would not protect BENM objects. 	<p>Secure flows of water to protect BENM objects and provide for administrative uses and do the following:</p> <ul style="list-style-type: none"> • Obtain through the state, where appropriate, water rights for consumptive uses and instream flows. • Maintain instream flows to protect BENM objects. • Prohibit new or expansion of existing spring or other water source development and related facilities when <ul style="list-style-type: none"> ○ it would impact the PFC of riparian, wetlands, and water resources; and/or ○ it would result in unacceptable erosion, road damage, land instability, or other types of disruption or damage.
62	<p>Per 1986 Manti-La Sal LRMP Water Quality Management</p> <ul style="list-style-type: none"> • Improve or maintain water quality. • Meet Utah and Colorado state water quality standards (FSM 2532). • Implement best management practices relative to water quality in all resource activities. • Nonpoint Source Water Quality Management Plan for Utah and Colorado <p>Riparian Area Management Not-Mapped (RPN)</p> <ul style="list-style-type: none"> • Vegetate disturbed soils in sites where adverse impacts would occur according to the following priorities: 	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).	See Management Actions Common to All Action Alternatives (Section 2.4.6.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> ○ Aquatic ecosystems ○ Riparian ecosystems ○ Riparian areas outside of aquatic and riparian ecosystems ● Minimize surface-disturbing activities that alter vegetative cover, result in stream channel instability, loss of channel cross sectional areas, or reduce water quality. 					
63	<p>Per 1986 Manti-La Sal LRMP Municipal Watershed Management</p> <ul style="list-style-type: none"> ● Manage municipal watersheds for discretionary uses with mitigation measures to protect the water supply for intended purposes. ● Allow projects when the proposed mitigation measures provide adequate protection. ● R-4 Supplement to FSM 2543. ● Prolong stream flow where feasible to increase water yields. 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
64	<p>Per 1986 Manti-La Sal LRMP Water Yield Improvement</p> <ul style="list-style-type: none"> ● Pursue water yield augmentation when and where research has shown that it is economical and environmentally sound. During the interim, water yield increases would be incidental to other management projects. ● Analyze the manipulation of forest types, when significant projects are proposed by other activities, for water yield benefits and impacts. 	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

2.4.7. Vegetation

2.4.7.1. GOALS AND OBJECTIVES

- In collaboration with the BEC and Tribal Nations, use **Ecological Site Descriptions/Vegetation Condition Classes (VCC)** to identify and manage for desired vegetation community composition and range of conditions for vegetation communities throughout BENM, including what communities are most appropriate for different areas, where traditional harvest can be used (in accordance with applicable law) as part of the management of BENM, and where fire and vegetation treatments can be used to return natural vegetative communities.
- Manage vegetation to support fish and wildlife habitats and healthy watersheds in collaboration with Utah Division of Wildlife Resources (UDWR), U.S. Fish and Wildlife Service (USFWS) and the BEC.
- Manage vegetation to support traditional uses, medicinal plants, and other vegetative resources identified by the BEC and Tribal Nations as being culturally important according to Tribal expertise and where consistent with the protection of BENM objects.
- Manage applicable vegetative types for multiple successional stages to provide for a high level of vegetative diversity and productivity.

2.4.7.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Collaborate with the BEC in identifying treatment priorities with the goal of **maintaining or improving** vegetation conditions to minimize uncharacteristic fire risk.
- Coordinate with the BEC to incorporate Traditional Indigenous Knowledge in the identification and management of culturally important plants, where appropriate. Culturally important plants would be managed to protect them from potential impacts from uncharacteristic fire, livestock grazing, recreation, and other discretionary actions.
- Coordinate with the BEC to incorporate Traditional Indigenous Knowledge into vegetation management, including culturally appropriate management techniques and seasons.
- Agencies would coordinate with the BEC and Tribal Nations in controlling the spread of invasive and nonnative plants. Use a combination of Traditional Indigenous Knowledge, including (to the extent practicable) Tribal Nations' policy on invasive species and agency techniques; for example, manage for a dense understory of native species with a reduction in tamarisk and improvement of cottonwood and willow regeneration. Along with other treatment options, agencies would also use whole tree extraction for removal of invasive species in riparian areas where practicable.
- Agencies would collaborate with the BEC to protect and/or enhance culturally important plant communities during fuels reduction activities.
- Agencies would collaborate with the BEC in planning vegetation treatments during the appropriate season and conditions to protect BENM objects.

2.4.7.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-6. Alternatives for Vegetation

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
65	<p>BLM-Administered Lands – No corresponding management under the No Action Alternative NFS Lands</p> <p>Per 1986 Manti-La Sal LRMP</p> <ul style="list-style-type: none"> Certain vegetative types are to be managed such that varying successional stages would be present to provide for a high level of vegetative diversity and productivity. Aspen is to be managed, with commercial or noncommercial treatments, with the goal of maintaining 13% of the forest in aspen type or increasing the aspen type toward the 19% it represented in 1915. Utilize native plant species from locally adapted seed sources in management activities when and where practical. <p>Desired Future Condition of the Forest</p> <p>Aspen</p> <ul style="list-style-type: none"> The aspen vegetation type would be managed and maintained in a condition of high productivity. Silvicultural practices treating total clones would generally be utilized, resulting in the aspen type appearing as even-aged stands but with stands in all age classes throughout the forest. <p>Engelmann Spruce – Alpine Fir</p> <ul style="list-style-type: none"> Approximately 25% of this type is suitable for intensive management through commercial timber and wood product sales. Harvesting and utilizing shelterwood or modified shelterwood systems would occur where slope stability would not be affected and where the practice would enhance vegetation diversity as well as improve wildlife habitat. The number of fir stands would be diminished as a result of some stands being converted back to aspen. <p>Ponderosa Pine</p> <ul style="list-style-type: none"> Approximately 50% of the type is suitable for intensive management using commercial timber and wood product sales. Silvicultural practices used would emphasize the high productivity of this type while considering range, wildlife, and recreational uses and values. <p>Pinyon-Juniper</p> <ul style="list-style-type: none"> Pinyon-juniper stands (about 10% of the total) on gentle slopes and land with good soils would be treated periodically to maintain early successional stages. This would help provide vegetation, scenic, and habitat as well as forage and improved watershed. Pinyon-juniper stands (about 90% of the forest) on steeper slopes and on lands with poor or rocky soils would be extensively managed and generally not treated except by natural disturbance. 	<p>Vegetation management would include all available tools, including mechanical methods, consistent with the protection of BENM objects. Emphasis would be on maintaining functional/structural plant groups and the productivity of native species and providing healthy communities and vegetation cover types for traditional/ceremonial uses, habitat, and habitat connectivity to enhance species resiliency.</p> <p>Use “light-on-the-land” treatment in designated wilderness and wilderness study areas (WSAs).</p> <p>In collaboration with the BEC, the agencies would work to identify stewardship contracts or other partnerships to reduce fuels and provide fuels wood to Tribal Nations.</p>	<p>Same as Alternative B with following additions:</p> <ul style="list-style-type: none"> If treatments are authorized in designated wilderness, USDA Forest Service recommended wilderness, WSAs, and lands managed for wilderness characteristics, use light-on-the-land methods. No chaining would be allowed on BENM. 	<p>Same as Alternative C with the following addition:</p> <ul style="list-style-type: none"> Wherever practicable, use light-on-the-land techniques throughout the entire BENM. 	<p>Vegetation management throughout BENM would emphasize Traditional Indigenous Knowledge and techniques and/or natural processes for vegetation management, including consideration of impacts to wildlife species habitat. Mechanical methods for vegetation management would be used only when necessary to protect BENM objects.</p> <p>Only native, non-genetically modified (GMO) seeds would be used for revegetation/reclamation unless necessary to protect BENM objects.</p> <p>No chaining would be allowed on BENM.</p>	<p>Vegetation management would include all available tools, including mechanical methods, consistent with the protection of BENM objects. Emphasis would be on maintaining functional/structural plant groups and the productivity of native species and providing healthy communities and vegetation cover types for traditional/ceremonial uses, habitat, and habitat connectivity to enhance species resiliency.</p> <p>Use light-on-the-land treatment in designated wilderness and WSAs. Vegetation treatments in designated wilderness would comply with regulatory requirements, require a Minimum Requirement Analysis, and would use the minimum tool required to maintain the wilderness character.</p> <p>In collaboration with the BEC, the agencies would work to identify stewardship contracts or other partnerships to reduce fuels and provide fuels wood to Tribal Nations.</p> <p>No chaining would be allowed on BENM.</p> <p>Wherever practicable, use light-on-the-land techniques throughout the entire BENM.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Riparian</p> <ul style="list-style-type: none"> Vegetative cover within the riparian component ecosystems would be maintained or diversified and enhanced as necessary to emphasize watershed, wildlife, and fisheries values. The stage of vegetative development may be locally altered to increase riparian and/or aquatic ecosystems. <p>Subalpine Forb Grassland</p> <ul style="list-style-type: none"> The subalpine forb grassland would include a diverse mixture of native and desirable introduced high forage-producing plant species. Management would maintain this complex in a healthy, vigorous condition to preclude invasion by less desirable species. <p>Gambel Oak and Mountain Shrub Types</p> <p>Per 1986 Manti-La Sal LRMP</p> <ul style="list-style-type: none"> Intensive management practices would maintain structural diversity within the woody species in at least 25% of the area cover by the Gambel oak and Mountain shrub types. Vegetative diversity within grass and forb ground cover would also be improved. In some cases, the Gambel oak would be encouraged to successional develop as an open savannah or in a high seral stage. Use preplanned prescribed fire resulting from planned or unplanned ignitions to accomplish resource management objectives, such as reducing fuel load buildup, range or wildlife habitat improvement, etc. 					
66	<p>Per 2020 ROD/MMPs</p> <p>Hazardous fuels reduction treatments would be used to restore ecosystems; protect human, natural, and cultural resources; and reduce the threat of wildfire to communities.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Hazardous fuels reduction treatments would be used to restore ecosystems; protect human, natural, and cultural resources; and reduce the threat of wildfire to communities.</p> <p>In addition to protecting human, natural, and cultural resources, fire and fuels treatments used throughout BENM would be implemented with the goal of returning to natural fire return intervals, historic vegetation conditions, and landscape characters, wherever possible, and be consistent with the protection of BENM objects. Prohibit vegetation treatments and nonstructural range improvements with a primary purpose of increasing forage for livestock.</p>	<p>Hazardous fuels reduction treatments would be used to restore ecosystems; protect human, natural, and cultural resources; and reduce the threat of wildfire to communities.</p> <p>In addition to protecting human, natural, and cultural resources, fire and fuels treatments used throughout BENM would be implemented with the goal of returning to natural fire return intervals, historic vegetation conditions, and landscape characters, wherever possible, and be consistent with the protection of BENM objects. Prohibit vegetation treatments and nonstructural range improvements with a primary purpose of increasing forage for livestock.</p>
67	<p>Per 2020 ROD/MMPs</p> <p>Prioritize treatment in high value/high risk areas (e.g., wildland-urban interface, developed recreation facilities, including campgrounds, Fire Regime Condition Class III areas).</p>	<p>Agencies would collaborate with the BEC to identify areas of high value/high risk and prioritize treatment in those areas. These could include, but are not limited to, areas that provide traditional use plants or animals, areas not meeting the desired VCC, or areas that have significant cultural resources. Traditional Indigenous Knowledge would be incorporated in guiding vegetation management, and emphasis would be on maintaining desirable future conditions of vegetation cover types for traditional/ceremonial uses and in maintaining desired Ecological Site Descriptions/VCC.</p>	<p>Agencies would prioritize treatments to reduce fire risk in areas with motorized access, high visitation, and/or developed recreation facilities; in areas without motorized access, high visitation, and/or developed recreation facilities, would prioritize treatments as described in Alternative B.</p>	<p>Vegetation management would be prioritized as described under Alternative B. Throughout BENM, agencies would prioritize the use of treatments using traditional Indigenous techniques and/or natural processes for vegetation management. Mechanical treatments would be used only when necessary to protect BENM objects.</p>	<p>Agencies would coordinate with the BEC and Tribal Nations to identify areas of high value/high risk and prioritize treatment in those areas and that consider the importance of seasonality. These could include, but are not limited to, areas that provide traditional use plants or animals, areas not meeting the desired VCC, or areas that have significant cultural resources. Traditional Indigenous Knowledge would be prioritized in guiding vegetation management. Agencies, in collaboration with the BEC, would prioritize the use of treatments using traditional Indigenous techniques and/or natural processes for vegetation management. Mechanical treatments other than chaining would be used only when necessary to protect BENM objects.</p>	<p>Agencies would coordinate with the BEC and Tribal Nations to identify areas of high value/high risk and prioritize fuels treatment in those areas and that consider the importance of seasonality. These could include, but are not limited to, areas that provide traditional use plants or animals, areas not meeting the desired VCC, areas that have significant cultural resources, areas of high visitation, and/or developed recreation sites and facilities. Traditional Indigenous Knowledge would be prioritized in guiding vegetation management. Agencies, in collaboration with the BEC, would prioritize the use of treatments using traditional Indigenous techniques and/or natural processes for vegetation management.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
68	<p>Per 2020 ROD/MMPs</p> <p>Use native plant species from locally adapted seed sources in management activities when and where practical.</p> <p>Nonnative plant species have the potential to cause systems to move outside of their historic range of variation; therefore, the use of nonnative species should be justified to indicate how their use is important for maintaining or restoring a cover type to functioning conditions.</p>	<p>Agencies would collaborate with the BEC when determining appropriate seed mixes for revegetation efforts. Priority would be on the use of native seeds based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, agencies would collaborate with the BEC to identify desirable nonnative seeds that may be used in limited situations to protect BENM objects.</p>	Same as Alternative B.	<p>Same as Alternative B, with the following exception:</p> <ul style="list-style-type: none"> Agencies would collaborate with the BEC when determining appropriate seed mixes for revegetation efforts. Only the use of native seeds would be allowed. 	<p>Agencies would collaborate with the BEC when determining appropriate seed mixes to provide for the revegetation of native and/or culturally important or traditionally harvested species. Priority would be on the use of native seeds for restoration based on availability, adaptation, and probability of success. Where probability of success or adapted seed availability is low, agencies would collaborate with the BEC to identify nonnative, non-GMO seeds that may be used to protect BENM objects.</p>	<p>Agencies would collaborate with the BEC when determining appropriate seed mixes to provide for the revegetation of native and/or culturally important or traditionally harvested species. Priority would be on the use of native seeds for restoration based on availability, adaptation, and probability of success. Where probability of success or adapted seed availability is low, agencies would collaborate with the BEC to identify nonnative, non-GMO seeds that may be used to protect BENM objects.</p>
69	<p>Per 2020 ROD/MMPs</p> <p>Cooperating agreements with other federal, state, local, and private organizations would be developed to control invasive nonnative species, control insect pest species, and implement fuels treatments and wildland-urban interface risk assessments and management.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
70	<p>Per 2020 ROD/MMPs</p> <p>Pack stock and riding stock users on BLM-administered and NFS lands would be required to use certified weed-seed-free feed.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Livestock grazing operations and pack stock and riding stock users on BENM would be required to use certified weed-seed-free feed. Where possible, precautions would be taken to limit weed seed transfer on hooves, boots, boats, wheel axles, and vehicles.</p>	<p>Pack stock and riding stock users on BENM would be required to use certified weed-seed-free feed. Where possible, precautions would be taken to limit weed seed transfer on hooves, boots, boats, wheel axles, and vehicles.</p>
71	<p>Per 2020 ROD/MMPs</p> <p>Restoration and rehabilitation activities would be required to use certified weed-seed-free seed mixes, mulch, fill, etc.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	<p>Restoration and rehabilitation activities would be required to use certified weed-seed-free seed mixes, mulch, fill, etc.</p>
72	<p>Per 2020 ROD/MMPs</p> <p>The power washing of equipment used for permitted or administrative uses would be required in areas with known weed populations or vectors to known weed populations to help control noxious weeds.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	<p>The power washing of equipment used for permitted or administrative uses would be required after use in areas with known weed populations or vectors to known weed populations to help control noxious weeds.</p>
73	<p>Per 2020 ROD/MMPs</p> <p>The agencies would provide for the management, protection, and access to vegetation types important to Tribal Nations' ceremonial or other traditional uses.</p>	<p>The agencies would provide for the management, protection, and access to vegetation types important to Tribal Nations' ceremonial or other traditional uses to the greatest extent possible consistent with applicable law.</p>	Same as Alternative B.	Same as Alternative B.	<p>The agencies would collaborate with the BEC and Tribal Nations to provide for the monitoring, management, protection, and access to vegetation types important to Indigenous ceremonial or other traditional uses.</p> <p>Agencies would collaborate with the BEC and Tribal Nations on the identification of areas for seasonal restrictions to vegetation management and vegetation gathering as applicable to provide for resource rest or to allow for traditional uses or ceremonies.</p>	<p>The agencies would collaborate with the BEC and Tribal Nations to provide for the monitoring, management, protection, and access to vegetation types important to Indigenous ceremonial or other traditional uses.</p> <p>The agencies would collaborate with the BEC and Tribal Nations on the identification of areas for seasonal restrictions to vegetation management and vegetation gathering as applicable to provide for resource rest or to allow for traditional uses or ceremonies.</p>
74	<p>Per 2020 ROD/MMPs</p> <p>Maintain or increase existing levels of vegetation treatments. Treatment priorities would be identified to make progress in moving areas in VCC III to VCC II and VCC II to VCC I.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
75	<p>Per 2020 ROD/MMPs</p> <p>Areas that meet <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997) or USDA Forest Service desired conditions for rangelands would be open to private seed gathering and plant collection.</p>	<p>Commercial and private seed collection would be allowed through permits. Agencies would collaborate with the BEC on management of seed collection, including collection for traditional, medicinal, and/or ceremonial uses; scientific collection; and the BLM's Seeds of Success management program.</p>	Same as Alternative B.	<p>Same as Alternative B with the following exception:</p> <ul style="list-style-type: none"> No commercial seed gathering or plant collection would be allowed. Private seed collection would be allowed through permits. 	<p>No commercial seed gathering or plant collection would be allowed. Private seed collection and plant collection would be allowed through permits—for example, through notification of use through a point of contact. Agencies would coordinate with the BEC on management of and cultural appropriateness of seed collection, including collection for traditional, medicinal, and/or ceremonial uses; scientific collection; and the BLM's Seeds of Success management program.</p>	<p>No commercial seed gathering or plant collection would be allowed. Private seed collection and plant collection would be allowed in accordance with applicable law. Agencies would coordinate with the BEC on management of and cultural appropriateness of seed collection, including collection for traditional, medicinal, and/or ceremonial uses; scientific collection; and the BLM's Seeds of Success management program.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
76	Per 2020 ROD/MMPs The entire BENM or certain localities may be closed to seed gathering as necessary to provide for sustainable annual seed production of native plants. An exception to this would be made to allow for private seed gathering and plant collection for Tribal Nations' traditional, medicinal, and ceremonial purposes.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	The agencies would collaborate with the BEC to identify areas in BENM that would be closed to seed gathering as necessary to provide for sustainable annual seed production of native plants. An exception to this would be made where such closures constitute a substantial burden on religious practices, including seed gathering and plant collection for Tribal Nations' traditional, medicinal, and ceremonial purposes.	The agencies would collaborate with the BEC to identify areas in BENM that would be closed to seed gathering as necessary to provide for sustainable annual seed production of native plants. An exception to this would be made where such closures constitute a substantial burden on religious practices, including seed gathering and plant collection for Tribal Nations' traditional, medicinal, and ceremonial purposes.
77	Per 2008 Monticello RMP Invasive and nonnative weed species (as identified in Table 3.59 of the PRMP, Invasive and Noxious Weeds of San Juan County [BLM 2008b]) would be controlled, and the infestation and spread of new invasive species prevented through cooperative agreements and implementation of the principles in BLM weed management policies and action plans.	See Management Common to All Action Alternatives (Section 2.4.7.2).	See Management Common to All Action Alternatives (Section 2.4.7.2).	See Management Common to All Action Alternatives (Section 2.4.7.2).	See Management Actions Common to All Action Alternatives (Section 2.4.7.2).	See Management Actions Common to All Action Alternatives (Section 2.4.7.2).
78	Per 2008 Monticello RMP Prevention measures (SOPs and mitigation measures) from the 2007 ROD <i>Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States PEIS</i> (BLM 2007a) and associated document are incorporated. Those best management practices are located in Appendix B and mitigation measures are in Table 2 of that ROD.	Agencies would implement applicable vegetation management and associated best management practices as directed by current agency-approved vegetation management plans, as amended.	Same as Alternative B.	Same as Alternative B.	Agencies would collaborate with the BEC on herbicide use or other control methods (i.e., introduced species) as part of vegetation management projects.	For vegetation management and restoration projects and for projects with the potential to introduce invasive species, the agencies would collaborate with the BEC on herbicide use or other control methods (i.e., introduced species) as part of vegetation management projects in accordance with established agency, county, and future invasive/pest management plans.
79	Per 2008 Monticello RMP The following sagebrush communities are prioritized for treatment: Harts Draw, Beef Basin, and Shay Mesa.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
80	Per 2008 Monticello RMP Treat greasewood in Comb Wash, Butler Wash, Indian Creek, and South and North Cottonwood Washes, to improve ground cover, biodiversity, and water quality.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
81	Per 2008 Monticello RMP Maintain existing land treatments, to meet RMP objectives and <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997). Any new land treatments developed in addition to those listed would also be maintained as necessary to meet RMP objectives and <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> .	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	In collaboration with the BEC, maintain existing vegetation treatments and design new vegetation treatments to protect BENM objects.	In collaboration with the BEC, maintain existing vegetation treatments and design new vegetation treatments to protect BENM objects.
82	Per 2020 ROD/MMPs Fuels work would be allowed in the Dark Canyon Wilderness only if it were determined that it would maintain or enhance wilderness characteristics.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Fuels and vegetation management in designated wilderness, WSAs, and lands managed for wilderness characteristics would only be allowed if they were determined to be consistent with the protection of BENM objects and maintain or enhance long-term wilderness character or characteristics, as applicable.	Fuels and vegetation management in designated wilderness, WSAs, and lands managed for wilderness characteristics would be allowed if they were determined to be consistent with the protection of BENM objects and maintain or enhance long-term wilderness character or characteristics, as applicable.
83	No similar management.	No similar management.	No similar management.	No similar management.	The agencies and the BEC would work together to identify the importance of seasonality for vegetation management and treatments, harvest, and protection.	The agencies and the BEC would work together to identify the importance of seasonality for vegetation management and treatments, harvest, and protection.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
84	No similar management.	No similar management.	No similar management.	No similar management.	Agencies would collaborate with the BEC and Tribal Nations to co-identify measures to implement during drought. These could include, but are not limited to the following: <ul style="list-style-type: none"> • Limitations on seed collection • Additional requirements for restoration and/or erosion control • Changes in vegetation management • Limitations on discretionary activities 	Agencies would collaborate with the BEC and Tribal Nations to co-identify measures to implement during drought. These could include, but are not limited to the following: <ul style="list-style-type: none"> • Limitations on seed collection • Additional requirements for restoration and/or erosion control • Changes in vegetation management • Limitations on discretionary activities

2.4.8. Forestry and Woodlands

2.4.8.1. GOALS AND OBJECTIVES

- Agencies would collaborate with the BEC and consult with Tribal Nations to incorporate Traditional Indigenous Knowledge to maintain and/or promote continued health, diversity, and resiliency of forest structural stages, including old growth.

2.4.8.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with BEC and Tribal Nations to incorporate Traditional Indigenous Knowledge to establish and implement forest health and forest management standards and guidelines to assess conditions and guide management decisions for wood products.
- When initiating vegetative management treatments in forested cover types, provide for a full range of seral stages by forested cover type that achieves a mosaic of habitat conditions and diversity.
- Aspen is to be managed with the goal of maintaining or increasing the aspen forest type.
- Agencies, in collaboration with the BEC, would identify stands or areas with old-growth characteristics and management practices to achieve old-growth management direction where applicable. Agencies, in collaboration with the BEC, would prepare an inventory and plan for managing stands with old-growth characteristics.
- Agencies, in collaboration with the BEC, would follow forest health and forest management standards and guidelines to assess conditions and guide management decisions for wood products and to preserve the benefits of carbon sequestration and air quality from healthy forests. Traditional Indigenous Knowledge would be applied, as applicable.
- Where possible, agencies would prioritize making fuelwood and forestry products resulting from fuels and vegetation projects readily available to Indigenous people and other members of the public in accordance with applicable law. All wood product harvest would require an appropriate authorization. Agencies would coordinate with the BEC, Tribal Nations, local governments, Forestry, Fire, and State Lands (FFSL) and other organizations to support the collection, storage, and transportation of fuelwood products to communities, including using programs like the Wood for Life Program and/or community wood banks.
- All lands in BENM would be designated as lands not suited for timber production (i.e., growing, harvesting, and regenerating crops of trees for commercial use); however, timber management would be used as appropriate to provide for the protection of BENM objects.
- Authorizations for private use of wood products would continue to be issued to the public in accordance with applicable law, consistent with the availability of wood products and the protection of other resource values. Agencies would coordinate with the BEC and Tribal Nations to identify appropriate areas for wood product harvest and to provide fuelwood for members of the Tribal Nations. This coordination would also, if appropriate, include identifying areas for seasonal or multiyear closures to allow regeneration of woodlands or to provide for traditional or ceremonial uses as appropriate.

2.4.8.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-7. Alternatives for Forestry and Woodlands

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
85	Per 2020 ROD/MMPs Zones in BENM considered for private use of woodland products (Map B-9 and Map B-18 in Appendix B of the 2020 ROD/MMPs): Harts Draw and Salt Creek Mesa; South Cottonwood, North Comb Ridge, Cedar Mesa, and White Canyon. See Appendix A, Figure 2-1.	With the exception of all wilderness, wilderness study areas (WSAs), Research Natural Areas, and the Canyon Rims Special Recreation Management Area (SRMA), the entire BENM would be available for private wood product use, unless otherwise specified in this alternative. Agencies would collaborate with the BEC and Tribal Nations when identifying specific areas within BENM that would be open or closed on a seasonal or multiyear basis to allow for resource rest. Limited on-site collection of dead wood for	Same as Alternative B.	Same as Alternative B.	Agencies would collaborate with the BEC and Tribal Nations to identify specific areas within BENM that would be open or closed to wood product harvest permanently or on a seasonal or multiyear basis to allow for resource rest. Limited on-site collection of dead wood for campfires would be allowed in WSAs, IRAs, and wilderness areas, unless otherwise specified in this alternative.	BENM would be generally available for wood product harvest in accordance with applicable law, with the exception of the following areas or as otherwise specified in the Proposed Plan: <ul style="list-style-type: none"> • Designated wilderness • WSAs • Research Natural Areas • Dark Canyon Management Area • Indian Creek Management Area

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
		<p>campfires would be allowed in wilderness, WSAs, and inventoried roadless areas (IRAs) unless otherwise specified in this alternative.</p> <p>Acreage open to wood product harvest: 930,910 Acreage closed to wood product harvest: 433,148</p> <p>See Appendix A, Figure 2-2.</p>				<ul style="list-style-type: none"> Area above the east rim of Indian Creek, including the Needles Overlook and Anticline Overlook Livestock/wildlife exclosures Cultural sites Developed recreation sites and areas <p>Limited on-site collection of dead wood for campfires would be allowed in wilderness, WSAs, and IRAs, except in Dark Canyon Management Area within the Remote Zone, Cedar Mesa Backpacking Sub-Area, White Canyon Canyoneering Sub-Area, Indian Creek Management Area, Indian Creek Area of Critical Environmental Concern, Lavender Mesa Area of Critical Environmental Concern, a portion of Cottonwood Canyon near Bluff and a portion of Outlaw Canyon near Bluff.</p> <p>Acreage open to wood product harvest in accordance with applicable law: 859,983</p> <p>Acreage closed to wood product harvest: 504,076</p> <p>See Appendix A, Figure 2-3.</p> <p>Agencies, in collaboration with the BEC, can close or place restrictions on the areas that are available for wood product harvest on a seasonal or multiyear basis through implementation-level planning. Closures and restrictions would focus on areas where site-specific analysis indicates the continuing harvest of wood products would 1) impact the following, including but not limited to, a) the diversified vegetative community, b) soil stability, c) vegetation cover, d) the sagebrush ecosystem, e) effects to co-occurring species, f) cultural resources, or g) sensitive wildlife habitat; or 2) would no longer provide removal of pinyon pine and juniper in areas where encroachment is occurring.</p> <p>Consistent monitoring for impacts, including soil erosion and vegetation cover would be needed to establish baseline for restrictions.</p>
86	Per 2020 ROD/MMPs Cottonwood and willow harvest would be allowed for Tribal Nations' ceremonial uses only by permit. Restrictions on this permitted harvest would be implemented as necessary to achieve or maintain PFC and to maintain or improve threatened and endangered species or special status species, wildlife, and aquatic habitat.	Management not carried forward. See Section 2.4.6, Water Resources.	Management not carried forward. See Section 2.4.6, Water Resources.	Management not carried forward. See Section 2.4.6, Water Resources.	Management not carried forward. See Section 2.4.6, Water Resources.	Management not carried forward. See Section 2.4.6, Water Resources.
87	Per 2020 ROD/MMPs On BLM-administered lands, allow wood product harvest in areas where the BLM has approved fuels treatment or habitat treatment projects (unless otherwise prohibited).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).
88	Per 2020 ROD/MMPs Permits for private use of wood products would continue to be issued to the public, consistent with the availability of wood products and the protection of other resource values.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
89	Per 2020 ROD/MMPs NFS lands would be designated as unsuitable for timber production and would be withdrawn from that use to allow those lands to meet other	Agencies would collaborate with the BEC and Tribal Nations when identifying criteria and/or areas for commercial timber harvest to meet resource objectives and protect BENM objects.	Same as Alternative B.	Same as Alternative B.	Agencies would collaborate with the BEC to identify criteria and/or areas for commercial timber harvest if activities protect BENM objects. This would include identifying opportunities to	Commercial timber harvest would only be allowed if the proposed activity would ensure protection of BENM objects. The agencies would collaborate with the BEC to identify criteria

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	resource purposes, including proper care and management of BENM objects. This would not preclude pre-commercial and commercial harvest to meet other resource objectives.	This would include identifying opportunities to use forestry/wood product harvest to improve or restore healthy forest conditions and/or to provide economic benefits to local communities when consistent with protecting BENM objects.			use forestry/wood product harvest to improve or restore healthy forest conditions. Emphasis would be placed on not providing for commercial timber harvest on BENM unless deemed necessary to protect BENM objects, and in collaboration with the BEC and Tribal Nations.	and/or appropriate areas for commercial timber harvest, including opportunities to use forestry/wood product harvest to improve or restore healthy forest conditions. Commercial timber harvest would be considered when it advances the protection of BENM objects and ecological restoration as determined in collaboration with the BEC and Tribal Nations.
90	Per 2020 ROD/MMPs Within designated woodland harvest areas, private use woodland harvest on BLM-administered and NFS lands would be allowed in areas with pinyon pine and juniper encroachment where site-specific analysis indicates that harvest would be useful for restoration of the diversified vegetative community.	Encourage private use wood product harvest in areas with pinyon pine and juniper encroachment where site-specific analysis indicates that harvest would be useful for restoration of the diversified vegetative community.	Same as Alternative B.	Same as Alternative B.	Private use wood product harvest would be allowed through an authorization system within designated harvest areas. In collaboration with the BEC, designated harvest areas would be designated with emphasis on areas with pinyon pine and juniper encroachment and where site-specific analysis indicates that harvest would be useful 1) for restoration of the diversified vegetative community; 2) for protection of the sagebrush ecosystem; and 3) where effects to co-occurring species can be minimized, cultural resources can be avoided in the harvest, and the removal of pinyon pine and juniper is deemed necessary.	See wood product harvest management in subsequent rows.
91	Per 2020 ROD/MMPs Provide for woodland harvest to support fuels treatment projects, as needed.	Same as Alternative A (see Section 2.4.17, Fire Management).	Same as Alternative A (see Section 2.4.17, Fire Management).	Same as Alternative A (see Section 2.4.17, Fire Management).	Provide for wood product harvest to support fuels treatment projects, as needed, and in collaboration with the BEC.	Provide for wood product harvest to support fuels treatment projects, as needed, and in collaboration with the BEC.
92	Per 2020 ROD/MMPs Exclude all WSAs and IRAs from woodland product use except for limited on-site collection of dead wood for campfires.	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).
93	Per 2020 ROD/MMPs Exclude woodland product harvest from all developed recreation sites, livestock/wildlife exclosures, cultural sites, and the Indian Creek SRMA, including on-site collection of dead wood for campfires.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Exclude wood product harvest from all developed recreation sites, livestock/wildlife exclosures, and cultural sites.	See management above.
94	Per 2020 ROD/MMPs Exclude floodplains and riparian and aquatic areas from woodland product use except for Tribal Nations' ceremonial purposes as determined on a site-specific basis.	Exclude floodplain, riparian, and aquatic areas from wood product use except for Tribal Nations' traditional and/or ceremonial uses. Agencies would collaborate with the BEC and Tribal Nations on identification of those uses.	Same as Alternative B.	Same as Alternative B.	Exclude floodplains, riparian and aquatic areas, and springs from wood product use except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. Private collection of wood products would not be prohibited where such prohibition constitutes a substantial burden on religious practices. Agencies would collaborate with the BEC and culturally affiliated Tribal Nations on identification of those uses.	Prohibit floodplains, riparian and aquatic areas, and springs from wood product use except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. Private collection of wood products would not be prohibited where such prohibition constitutes a substantial burden on religious practices. Agencies would collaborate with the BEC and Tribal Nations on identification of those uses.
95	Per 2020 ROD/MMPs Existing limitations on off-road travel for wood gathering could be modified as necessary to maintain long-term sustainability or facilitate wood gathering where resource impacts are not a concern.	Cross-country OHV travel for wood gathering would not be allowed on BENM. On NFS lands only: at the discretion of the Responsible Official, off-road travel would be allowed up to 150 feet off the road with an authorization.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	Cross-country OHV travel for wood gathering would not be allowed on BENM.
96	Per 2020 ROD/MMPs Prior to authorizing private woodland product harvest, the agencies would ensure that the activity is consistent with the proper care and management of BENM objects.	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).
97	Per 2020 ROD/MMPs If monitoring of vegetation cover and soil erosion indicates that woodland harvest is having potentially irretrievable or irreversible impacts to	Where monitoring of vegetation cover and soil erosion indicates that wood product harvest is having impacts to natural or cultural resources or is conflicting with protecting BENM objects, the agencies would collaborate with the BEC when	Same as Alternative B.	Same as Alternative B.	Where monitoring of vegetation cover and soil erosion indicates that wood product harvest is having adverse impacts to natural or cultural resources or is conflicting with BENM objects, the agencies would collaborate with the BEC to alter	See management above.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	natural or cultural resources or is conflicting with BENM objects, the Authorized Officer (BLM)/Responsible Official (USDA Forest Service) would alter the designated harvest area or harvest season as necessary to allow for resource reclamation and/or to protect that resource or resource use.	altering the designated harvest area or harvest season as necessary to protect the resource and provide rest.			the designated harvest area or harvest season as necessary to allow for resource rest or reclamation and/or to protect that resource or resource use. Consistent monitoring for soil erosion and vegetation cover would be needed to establish baselines in the designated harvest areas.	
98	Per 2020 ROD/MMPs On BLM-administered lands, the Authorized Officer (BLM) would limit OHV access for wood gathering to designated routes or may grant OHV travel off designated routes if consistent with the objects of BENM. This determination would be made based on monitoring of existing vegetation cover and soils erosion at the site-specific project level.	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.8.2).
99	NFS Lands Per 1986 Manti-La Sal LRMP Timber Resource Management <ul style="list-style-type: none"> Manage timberlands suitable for commercial harvest for timber or wood-fiber productions. Provide for timber stand improvement, reforestation in sale area improvement plans, and wildlife habitat improvement following seasonal restrictions in active northern goshawk nesting areas. Manage timberlands not suitable for commercial harvest to maintain forest cover species, but emphasis should be on production of other forest resources and uses. Use clearcuts as appropriate on any forest cover type with potential for impact or impacted by insects or disease. Assure that even-aged conifer stands scheduled to be harvested during the planning period would generally have reached the culmination of mean annual increment of growth. Production of Forage (RNG) <ul style="list-style-type: none"> 01 Maintain and manage noncommercial forested inclusions to provide a high level of forage production, wildlife habitat, and diversity. 02 Use mechanical, chemical, or prescribed fire to alter timber stands and increase herbaceous yield or cover in areas where harvest methods are impractical or demand does not exist. 03 Manage aspen stands or mixed fir habitat types at the appropriate ecological stage that provides high herbaceous yield and cover. Silvicultural Examination and Prescription <ul style="list-style-type: none"> 01 Combine appropriate management activities for the timber type to provide the acceptable range of management intensity for timber production. 02 Planned vegetative management treatments in the mature and/or old structural groups in a landscape that is at or below the desired percentage of land area in mature and old structural stages (40% conifer, 30% aspen) should be designed to maintain or enhance the characteristics of these structural stages. 	NFS lands The USDA Forest Service would collaborate with the BEC when selecting and applying all silvicultural treatments (including even-aged harvest and clearcutting, not exceeding 40 acres). These would be evaluated on a case-by-case basis by the agency forester/silviculturist in coordination with the BEC to ensure implementation incorporates Traditional Indigenous Knowledge and is consistent with the protection of BENM objects. All treatment units and project design features would be reviewed with the BEC prior to implementation. Within 5 years of plan approval, identify and map forest stands with old-growth forest characteristics or those developing old-growth characteristics. Promote continued and accelerated development of late-successional and old-growth habitat by treating early to mid-seral stage forest stands that have the potential to become late-successional and old-growth habitat. If soil map units indicate treatment areas are within sensitive soils, consider restricting logging or wood product removal requirements to assure controlling soil erosion is within acceptable levels. Acceptable logging systems and methods would be evaluated on a site-by-site basis with the agency hydrologist and silviculturist, in collaboration with the BEC. Clearcutting on NFS lands would be prohibited as silvicultural practice, except where used to regenerate aspen. Agencies would design and implement forest management activities to blend with the natural landscape. Agencies would allow conventional logging equipment only on slopes less than 30% to avoid detrimental soil impacts. Salvage or sanitation of dead and/or dying trees would be done only when the salvage would move the stand toward a more ecologically resilient condition and to protect BENM objects.	NFS lands Same as Alternative B.	NFS lands Same as Alternative B with the following exception: <ul style="list-style-type: none"> USDA Forest Service would limit the maximum size opening created by silvicultural treatment in ponderosa pine and mixed-conifer forest to 2 acres. 	The USDA Forest Service would collaborate with the BEC in the selection and application of all silvicultural treatments. These would be evaluated on a case-by-case basis by the agency forester/silviculturist and in collaboration with BEC Tribal Forestry or Knowledge Holder representation to ensure prescribed activities incorporate Traditional Indigenous Knowledge and are consistent with desired cultural landscape value(s) for a given area. Within 5 years of plan approval, identify and map forest stands with old-growth forest characteristics or those developing old-growth characteristics. Promote continued and accelerated development of late-successional and old-growth habitat by treating early to mid-seral stage forest stands that have the potential to become late-successional and old-growth habitat. If soil map units indicate treatment areas contain sensitive soils, consider restricting logging or wood product removal requirements to assure controlling soil erosion is within acceptable levels. Acceptable logging systems and methods would be evaluated on a site-by-site basis with the agency hydrologist and silviculturist, and in collaboration with the BEC. Clearcutting for timber harvest on BENM would be prohibited. Forestry management activities would be designed to blend with the natural landscape. Agencies would collaborate with the BEC on additional standards of maximum size openings for silvicultural treatments, as consistent with federal regulations Agencies would collaborate with the BEC on additional standards of maximum size openings for silvicultural treatments, as consistent with federal regulations. Agencies would allow conventional logging equipment only on slopes less than 30% to avoid detrimental soil impacts. Projects involving salvage of dead and/or dying trees would be evaluated in collaboration with the BEC and only when the salvage would move the stand toward a more ecologically resilient condition to protect BENM objects.	The USDA Forest Service would collaborate with the BEC in the selection and application of all silvicultural treatments. These would be evaluated on a case-by-case basis by the agency forester/silviculturist and in collaboration with BEC Tribal Forestry or Knowledge Holder representation to ensure prescribed activities incorporate Traditional Indigenous Knowledge and are consistent with desired cultural landscape value(s) for a given area. Within 5 years of plan approval, identify and map forest stands with old-growth forest characteristics or those developing old-growth characteristics. Promote continued and accelerated development of late-successional and old-growth habitat, where feasible, by treating early to mid-seral stage forest stands that have the potential to become late-successional and old-growth habitat. If soil map units indicate treatment areas contain sensitive soils, consider logging and wood product removal restrictions and stipulations to ensure soil erosion is within acceptable levels. Acceptable logging systems and methods would be evaluated on a site-by-site basis with the agency hydrologist and silviculturist, and in collaboration with the BEC. Clearcutting for timber harvest on BENM would be prohibited. Vegetation management activities would be designed to blend with the natural landscape. Agencies would collaborate with the BEC on additional standards of maximum size openings for silvicultural treatments, consistent with federal regulations Agencies would allow conventional logging equipment only on slopes less than 30% to avoid detrimental soil impacts. Projects involving salvage of dead and/or dying trees would be evaluated in collaboration with the BEC and only when the salvage would move the stand toward a more ecologically resilient condition to protect BENM objects.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> G. Limit the maximum size opening created by timber sales to 40 acres unless 1) approved by the regional forester after a 60-day public review period, or 2) salvaging openings created by natural events such as fire, insect or disease attack, and windthrow. Maximum created opening size in northern goshawk habitat should not exceed 2 acres in ponderosa pine and 1 acre in spruce/fir. O3 Manage timber product removal and utilization to meet forest discretionary use requirements. C. Logging or wood product removal requirements to assure controlling soil erosion within acceptable levels: <ul style="list-style-type: none"> On slopes less than 20% allow conventional logging systems and equipment where soil surveys or soil data are unavailable. On slopes less than 40% allow conventional logging systems and equipment where soil surveys or soil data are available to design erosion mitigation needs. Utilize high floatation equipment on slopes up to 60% or cable or aerial systems on any slope. 					
100	<p>Per 2020 ROD/MMPs</p> <p>Planned vegetative management treatments (excluding unplanned and unwanted wildland fire) in the mature and/or old structural groups in a landscape that is at or below the desired percentage of land area in mature and old structural stages (40% conifer and 30% aspen) should be designed to maintain or enhance the characteristics of these structural stages.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
101	<p>NFS Lands</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>When initiating vegetative management treatments in forested cover types, leave a minimum of 200 snags/100 acres in the ponderosa pine and aspen cover types and 300 snags/100 acres in the mixed-conifer cover type.</p> <p>The minimum preferred size of snags is 18 inches DBH and 30 feet tall. If the minimum number of snags is unavailable, green trees should be substituted. If the minimum size is unavailable, use the largest trees available on-site. The number of snags should be present at the stand level on average and, where they are available, distributed over each treated 100 acres.</p>	<p>NFS lands</p> <p>Same as Alternative A.</p>	<p>NFS lands</p> <p>Same as Alternative A.</p>	<p>NFS lands</p> <p>Same as Alternative A.</p>	<p>When initiating vegetative management treatments in forested cover types, minimum snag numbers and size standards would be determined by the agencies and in collaboration with the BEC, with consideration for the cultural and ecological importance of snags.</p>	<p>When initiating vegetative management treatments in forested cover types the agencies, in collaboration with the BEC, would determine minimum snag numbers and size standards, with consideration for the cultural and ecological importance of snags.</p>
102	<p>NFS Lands</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>When initiating vegetative management treatments, prescriptions should be designed to retain a minimum of 30 down logs (12-inch mid-point diameter and 8 feet long) and 50 tons of coarse woody debris/10 acres in the ponderosa pine cover type, 50 down logs and 100 tons of coarse woody debris/10 acres in mixed-conifer cover type, and 50 down logs and 30 tons of coarse woody debris/10 acres in the aspen cover type.</p>	<p>NFS lands</p> <p>Same as Alternative A.</p>	<p>NFS lands</p> <p>Same as Alternative A.</p>	<p>NFS lands</p> <p>Same as Alternative A.</p>	<p>When initiating vegetative management treatments, minimum down log numbers and size standards would be determined by the agencies and the BEC.</p>	<p>When initiating vegetative management treatments, minimum down log numbers and size standards would be determined by the agencies and the BEC.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
103	NFS Lands Per 1986 Manti-La Sal LRMP Insect and Disease Management or Suppression <ul style="list-style-type: none"> Prevent or suppress epidemic insect and disease populations that threaten forest and/or range land with an integrated pest management approach consistent with resource management objectives. 	NFS lands Same as Alternative A.	NFS lands Same as Alternative A.	NFS lands Same as Alternative A.	Prevent or suppress epidemic insect and disease populations that threaten forest and/or range land with an integrated pest management approach, developed in collaboration with the BEC and consistent with resource management objectives and protection of BENM objects.	Manage insect and disease populations with an integrated pest management approach, developed in collaboration with the BEC to reduce or prevent epidemics consistent with resource management objectives and protection of BENM objects.
104	NFS Lands Per 1986 Manti-La Sal LRMP Forest and Range Research <ul style="list-style-type: none"> Cooperate with the Intermountain Forest and Range Experiment Station to accomplish research. Protect surface resource conditions to prevent alteration of research projects. 	NFS lands Same as Alternative E.	NFS lands Same as Alternative E.	NFS lands Same as Alternative E.	NFS lands Agencies would collaborate with the BEC, Tribal Nations, the Intermountain Region, and the Rocky Mountain Research Station to plan and execute research where consistent with protecting BENM objects. This includes protecting surface resource conditions to prevent alteration of research projects. Research, monitoring, and management would integrate with regional and global studies to include the regional health of populations and account for potential impacts of climate change range shifts.	No similar management.
105	No similar management.	No similar management.	No similar management.	No similar management.	Coordinate with the BEC and Tribal Nations to identify, where appropriate, traditionally harvested trees and their uses, monitor populations and locations of these species, and impacts to vegetation and wildlife species.	Coordinate with the BEC and Tribal Nations to identify, where appropriate, traditionally harvested trees and their uses, monitor populations and locations of these species, and impacts to vegetation and wildlife species.

2.4.9. Lands with Wilderness Characteristics (applies to BLM-administered lands only)

2.4.9.1. GOALS AND OBJECTIVES

- Protect wilderness characteristics (appearance of naturalness and outstanding opportunities for primitive and unconfined recreation or solitude) of non-wilderness study area (WSA) lands with wilderness characteristics (LWC) as appropriate, considering manageability and the context of competing resource demands.

2.4.9.2. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-8. Alternatives for Lands with Wilderness Characteristics

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
106	Per 2008 Monticello RMP Manage 48,954 acres of non-WSA LWC for their wilderness characteristics (Appendix A, Figure 2-4) in four individual areas: Dark Canyon (11,595 acres), Mancos Mesa (5,030 acres), Nokai Dome East (18,629 acres), and Grand Gulch (13,700 acres). The following management would apply: <ul style="list-style-type: none"> OHV travel limited to designated roads and trails. There are no routes designated within the acres protected for their wilderness characteristics. ROW avoidance areas. Unavailable for private and commercial woodland harvest except for on-site collection of dead wood for campfires. Available for range, watershed, or habitat improvements and vegetation treatments if beneficial or non-impairing to wilderness characteristics and would meet Visual 	Manage 97,403 acres of non-WSA LWC to protect their wilderness characteristics while allowing for compatible uses. Management would include the following (Appendix A, Figure 2-5): <ul style="list-style-type: none"> OHV limited. VRM Class II. ROW avoidance areas. Available for authorized private wood product harvest if beneficial or non-impairing to wilderness characteristics and if it would meet VRM Class II objectives. Available for vegetation, range, watershed, or habitat improvements if beneficial or non-impairing to wilderness characteristics, and if it would meet VRM Class II objectives. All existing facilities could be maintained at their current level but may be removed at the agencies' discretion. 	Same as Alternative B with the following exceptions (Appendix A, Figure 2-5): <ul style="list-style-type: none"> VRM Class I. ROW exclusion area. OHV closed. 	All lands in BENM that have been inventoried as having wilderness characteristics (approximately 421,965 acres) would be managed to protect their wilderness characteristics while allowing for compatible uses (Appendix A, Figure 2-6). Same management prescriptions as Alternative C.	All lands in BENM that have been inventoried as having wilderness characteristics (approximately 421,965 acres) would be managed to protect their wilderness characteristics while allowing for compatible uses (Appendix A, Figure 2-6). Additional standards for wilderness characteristics and lands that meet these characteristics would be developed in collaboration with the BEC to ensure that standards are guided by Traditional Ecological Knowledge and Tribal expertise. Management would include the following: <ul style="list-style-type: none"> OHV limited. Limitations on management actions and recreation use would be designed with consideration of seasonality in collaboration with the BEC. VRM Class I. ROW exclusion areas. 	Manage 205,594 acres of non-WSA LWC to protect their wilderness characteristics (i.e., to only allow for discretionary uses that do not adversely impact the unit's wilderness characteristics and are consistent with the protection of BENM objects). Management would include the following (Appendix A, Figure 2-7): <ul style="list-style-type: none"> OHV closed. VRM Class I. ROW exclusion areas. Available for authorized private wood product harvest, in accordance with applicable law, if beneficial to or would not diminish wilderness characteristics and if it would meet VRM Class I objectives. Available for vegetation, range, watershed, or habitat improvements if beneficial or non-impairing to wilderness characteristics, and if it would meet VRM Class I objectives.

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>Resource Management (VRM) Class II objectives.</p> <ul style="list-style-type: none"> VRM Class II for surface-disturbing activities. All existing improvements could be maintained at their current level. Fire suppression would be through light-on-the-land techniques. 	<ul style="list-style-type: none"> Fire suppression would be through light-on-the-land or Minimum Impact Suppression Tactics (MIST). 			<ul style="list-style-type: none"> Available for authorized private wood product harvest if beneficial or non-impairing to wilderness characteristics and if it would meet VRM Class I objectives. Available for vegetation, watershed, soil, or habitat improvements if beneficial or non-impairing to wilderness characteristics, and if it would meet VRM Class I objectives. All existing facilities could be maintained at their current level but may be removed at the discretion of the agencies and in collaboration with the BEC. Fire suppression would be through light-on-the-land tactics or MIST. 	<ul style="list-style-type: none"> All existing facilities could be maintained at their current level but may be removed at the agencies' discretion. Fire suppression would be through light-on-the-land or MIST. <p>Manage 216,371 acres to minimize impacts to wilderness characteristics (i.e., to allow for discretionary uses only in a manner that minimize impacts to the unit's wilderness characteristics and are consistent with the protection of BENM objects). Management would include the following:</p> <ul style="list-style-type: none"> Seek to avoid impacts from discretionary uses to these units of wilderness characteristics; where those impacts cannot be avoided, adopt design features and other conditions to minimize such impacts. The authorized officer should consider compensatory mitigation for those impacts that cannot be avoided and minimized. Prohibit impacts from discretionary uses to a unit's wilderness characteristics if those impacts would diminish the size and/or the manageability of the unit. If further wilderness character inventories are conducted, the BLM would collaborate with the BEC to incorporate Traditional Ecological Knowledge and Tribal expertise.

2.4.10. Special Designations

2.4.10.1. GOALS AND OBJECTIVES

- Areas of critical environmental concern (ACECs)
 - In collaboration with the BEC, manage areas as ACECs where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; other natural systems or processes; or to protect life and safety from natural hazards.
- TCPs
 - In collaboration with the BEC, designate and manage TCPs to protect tangible and intangible cultural resources, practices, and access for culturally affiliated Tribal Nations.
- Wild and scenic rivers (WSRs)
 - To the extent of the BLM's authority (limited to BLM-administered lands and waters within the river corridor), maintain and enhance the free-flowing character and water quality, preserve and enhance the outstandingly remarkable values (ORVs), and allow no activities within the river corridor that would be inconsistent with identified river values or impact or alter the tentative classification of those river segments determined suitable for congressional designation into the National Wild and Scenic River (NWSR) System until Congress acts on the designation.
 - Protect the free-flowing nature and water quality of the river/segment, the tentative classification level, and prevent impairment of the ORVs within 0.25 mile from the high water mark on each side of the river not to exceed 320 acres per mile. On the San Juan River the area would be 0.25 mile from the high water mark on the north side not to exceed 160 acres per mile. On the San Juan River, the BLM has jurisdiction on the lands north of the river, and the Navajo Nation has jurisdiction on the south side of the river. The BLM would coordinate with the Navajo Nation in developing consistent management of the river.
 - WSRs determined as eligible or suitable for designation under the Wild and Scenic Rivers Act would continue to be managed in accordance with BLM Manual 6400.
- WSAs
 - Manage FLPMA Section 603 WSAs in a manner that does not impair their suitability for congressional designation into the National Wilderness Preservation System.
 - WSAs would continue to be managed per applicable BLM guidance, including management as Visual Resource Management (VRM) Class I.
- Designated wilderness
 - Wilderness character and values are enhanced or maintained in Congressionally designated wilderness areas in accordance with the Wilderness Act.

2.4.10.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with the BEC on management of all designated wilderness areas consistent with federal law, regulation, and policy.

- Dark Canyon Wilderness
 - Additional management for Dark Canyon Wilderness is contained in the 1986 Manti-La Sal LRMP.
- USDA Forest Service inventoried roadless areas (IRAs)
 - All IRAs that are partially or entirely within BENM would be managed to be consistent with the 2001 Roadless Rule (36 CFR 294) and the 1986 Manti-La Sal LRMP.
- Cliff Dwellers Pasture Research Natural Area (RNA) (USDA Forest Service)
 - Management of Cliff Dwellers Pasture RNA would be managed per its establishment record and the 1986 Manti-La Sal LRMP.
 - Collaborate with the BEC regarding management of the Cliff Dwellers Pasture RNA consistent with federal law and policy.

2.4.10.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-9. Alternatives for Special Designations

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
107	<p>Per 2020 ROD/MMPs</p> <ul style="list-style-type: none"> • San Juan River ACEC (Appendix A, Figure 2-8) • Vehicle access, including OHVs/mechanized, limited to designated routes. • Unavailable for private and/or commercial use of woodland products except for limited on-site collection of dead wood for campfires; woodland use within the floodplain would be limited to collection of driftwood for campfires. • Available for livestock use October 1–May 31. Grazing must incorporate rest-rotation and/or deferred management systems. Riparian areas must meet or exceed PFC to the extent affected by grazing. • Available for watershed, range, and wildlife habitat improvements and vegetation treatments. • Managed to limit recreation use if wildlife values are being adversely impacted. • Camping closed in areas as necessary to protect cultural, wildlife, and natural processes. • Designated access trails to cultural sites as necessary to protect cultural resources. • No camping in cultural sites. • Ropes and other climbing aids not allowed for access to sites, cultural sites, and nesting raptors. <p>All areas intersected by the San Juan Hill Recreation Management Zone (RMZ) are ROW avoidance areas.</p> <p>Recreation management prescriptions identified for the San Juan Hill RMZ would also be followed and are consistent with the management in Section 2.4.20, Recreation and Visitor Services</p> <p>Per 2008 Monticello RMP</p> <p>San Juan River ACEC – Relevant and Important Values: Scenic, Cultural, Fish and Wildlife, Natural Systems and Processes, and Geological Features</p> <p>The San Juan River (5,174 acres [1,555 within Planning Area]) (Appendix A, Figure 2-8) is designated as an ACEC. The acreage has been reduced to exclude the San Juan River Segment 5 area, which was determined suitable for inclusion into the NWSR System (see the Wild and Scenic River section of the 2008 Monticello</p>	<p>The San Juan River ACEC would not be carried forward. This area would be managed under the San Juan River Special Recreation Management Area.</p>	<p>Same as Alternative B.</p>	<p>Same as Alternative B.</p>	<p>The San Juan River (5,174 acres [1,555 within Planning Area]) is designated as an ACEC. The ACEC would be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • San Juan River ACEC (Appendix A, Figure 2-11) • Vehicle access, including OHVs/mechanized, limited to designated routes. • Unavailable for private and/or commercial use of wood products except for limited on-site collection of dead wood for campfires; woodland use within the floodplain would be limited to collection of driftwood for campfires. • Available for livestock use October 1–May 31. Grazing must incorporate rest-rotation and/or deferred management systems. Riparian areas must meet or exceed PFC to the extent affected by grazing. • Available for watershed, range, wildlife habitat improvements, and vegetation treatments. • Managed to limit recreation use if wildlife values are being adversely impacted. • Camping closed in areas as necessary to protect cultural, wildlife, and natural processes. • Designated access trails to cultural sites as necessary to protect cultural resources. • No camping in cultural sites. • Ropes and other climbing aids not allowed for access to structures, cultural sites, and nesting raptors. <p>San Juan River ACEC – Relevant and Important Values: Scenic, Cultural, Fish and Wildlife, Natural Systems and Processes, and Geological Features</p> <p>Vehicle access, including OHVs/mechanized, limited to designated routes.</p> <p>Unavailable for private and/or commercial use of wood products except for limited on-site collection of dead wood for campfires; woodland use within the floodplain would be limited to collection of driftwood for campfires.</p> <p>Available for livestock use October 1–May 31. Grazing must incorporate rest-rotation and/or deferred management systems. Riparian areas must meet or exceed PFC to the extent affected by grazing.</p>	<p>The San Juan River (5,174 acres [1,555 within Planning Area]) (Appendix A, Figure 2-12) is designated as an ACEC. Relevant and Important Values: Scenic, Cultural, Fish and Wildlife, Natural Systems and Processes, and Geological Features</p> <p>The ACEC would be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Unavailable for private and/or commercial use of wood products except for limited on-site collection of dead wood for campfires; woodland use within the floodplain would be limited to collection of driftwood for campfires. • Available for livestock use October 1–May 31. Grazing must incorporate rest-rotation and/or deferred management systems. Riparian areas must meet or exceed PFC to the extent affected by grazing. • Available for watershed, range, wildlife habitat improvements, and vegetation treatments. • Managed to limit recreation use if wildlife values are being adversely impacted. • Camping closed in areas as necessary to protect cultural, wildlife, and natural processes. • Designated access trails to cultural sites as necessary to protect cultural resources. • Managed as a ROW exclusion area.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>RMP for management prescriptions.) The ACEC would be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Vehicle access, including OHVs/mechanized, limited to designated routes. • Unavailable for private and/or commercial use of woodland products except for limited on-site collection of dead wood for campfires; woodland use within the floodplain would be limited to collection of driftwood for campfires. • Available for livestock use October 1–May 31. Grazing must incorporate rest-rotation and/or deferred management systems. Riparian areas must meet or exceed PFC to the extent affected by grazing. • Available for watershed, range, and wildlife habitat improvements and vegetation treatments. <p>West Montezuma Creek to private land managed as VRM Class II.</p> <p>West of accreted land at the Town of Bluff to River Mile (RM) 9 managed as VRM Class III.</p> <p>Managed to limit recreation use if wildlife values are being adversely impacted.</p> <p>Camping closed in areas as necessary to protect cultural, wildlife, and natural processes.</p> <p>Designated access trails to cultural sites as necessary to protect cultural resources.</p> <p>No camping in cultural sites.</p> <p>Ropes and other climbing aids not allowed for access to sites, cultural sites, and nesting raptors.</p> <p>All areas intersected by the San Juan River SRMA are ROW avoidance areas.</p> <p>Recreation management prescriptions identified under the San Juan River SRMA in Section 2.4.20, Recreation and Visitor Services, would also be followed and is consistent with the management outlined above.</p> <p>ACEC-54</p> <p>A cultural resources management plan would be written for the San Juan River.</p>				<p>Available for watershed, range, wildlife habitat improvements and vegetation treatments.</p> <p>Upstream of Bluff managed as VRM Class I.</p> <p>Area formerly managed as San Juan Hill RMZ managed as VRM Class I.</p> <p>Managed as a ROW exclusion area.</p> <p>Managed to limit recreation use if wildlife values are being adversely impacted.</p> <p>Camping closed in areas as necessary to protect cultural, wildlife, and natural processes.</p> <p>Designated access trails to cultural sites as necessary to protect cultural resources.</p> <p>No camping in cultural sites.</p> <p>Ropes and other climbing aids not allowed for access to structures, cultural sites, and nesting raptors.</p> <p>A cultural resource management plan would be written for the San Juan River.</p>	
108	<p>Per 2020 ROD/MMPs</p> <p>Lavender Mesa ACEC (Appendix A, Figure 2-8)</p> <p>Managed to provide a baseline for rangeland studies through research and experiments.</p> <p>Excluded from land treatments or other improvements except for test plots and facilities necessary for study of the plant communities and restoration/reclamation activities.</p> <p>No campfires allowed.</p> <p>Managed to limit recreation use if vegetation communities are being adversely impacted.</p> <p>Managed as VRM Class II.</p> <p>Helicopter access allowed for scientific study and heliportable equipment.</p> <p>ROW avoidance area. Retained in public ownership.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Lavender Mesa ACEC</p> <p>Acres: 649 (Appendix A, Figure 2-11)</p> <p>Managed to provide a baseline for rangeland studies through research and experiments.</p> <p>Excluded from land treatments or other improvements, except for test plots and facilities necessary for study of the plant communities and restoration/reclamation activities.</p> <p>No campfires allowed.</p> <p>Limit recreation use if vegetation communities are being adversely impacted.</p> <p>Limit recreation use if cultural resources or scenic values are being damaged.</p> <p>Managed as VRM Class II.</p> <p>Helicopter access limited to scientific study and heliportable equipment.</p> <p>ROW avoidance area.</p>	<p>Lavender Mesa ACEC – Relevant and Important Value: Scenic and Relict Vegetation</p> <p>Acres: 649 (Appendix A, Figure 2-12)</p> <p>The ACEC would be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Managed to provide a baseline for rangeland studies through research and experiments. • Excluded from land treatments or other improvements, except for test plots and facilities necessary for study of the plant communities and restoration/reclamation activities. • Campfires would be prohibited. • Limit recreation use if vegetation communities are being adversely impacted. • Limit recreation use if cultural resources or scenic values are being damaged. • Managed as VRM Class II.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Excluded from private or commercial use of woodland products, including limited on-site collection of dead wood for campfires.</p> <p>Unavailable for livestock grazing, including grazing by saddle stock and pack animals allowed for access.</p> <p>Excluded from wildlife habitat improvements.</p> <p>Excluded from watershed control structures.</p> <p>Appropriate management response to wildland fire in accordance with the Moab District Fire Plan.</p> <p>Closed to OHV use.</p> <p>Managed to limit recreation use if cultural resources or scenic values are being damaged.</p> <p>SRPs: Commercial use; competitive events; vending; and OHV, mechanized, and equestrian uses would not be allowed. All organized groups/activities must coordinate with the BLM. In general, for all groups/activities, an SRP or letter of agreement would be required if an organized group/activity group size exceeds 12 individuals.</p>				<p>Closed to authorized or personal use of wood products.</p> <p>Unavailable for livestock grazing, including grazing by saddle stock and pack animals allowed for access.</p> <p>Excluded from wildlife habitat improvements.</p> <p>Excluded from watershed control structures.</p> <p>Appropriate management response to wildland fire in accordance with the agency-approved fire management plan (FMP).</p> <p>Closed to OHV use.</p>	<ul style="list-style-type: none"> • Helicopter access limited to scientific study, emergency access and heliportable equipment. • ROW avoidance area. • Closed to private use of wood products and dead and down wood collection for campfires. • Unavailable for livestock grazing, including grazing by saddle stock and pack animals allowed for access. • Excluded from wildlife habitat improvements. • Excluded from watershed control structures. • Appropriate management response to wildland fire in accordance with the agency-approved FMP. • Closed to OHV use.
109	<p>Per 2020 ROD/MMPs</p> <p>Shay Canyon ACEC (Appendix A, Figure 2-8)</p> <p>OHV and mechanized travel limited to designated routes.</p> <p>No surface disturbance for vegetation, watershed, or wildlife treatments/improvements.</p> <p>Grazing restricted to trailing only.</p> <p>With the exception of side canyons, hiking limited to existing and designated trails.</p> <p>Campfires not allowed.</p> <p>Unavailable for private or commercial use of woodland products, including on-site collection of dead wood for campfires.</p> <p>Recreation use may be limited if cultural and paleontological resources are impacted.</p> <p>Managed as VRM Class II. Closed to camping.</p> <p>ROW avoidance area.</p> <p>SRPs: Competitive events; vending; and OHV, mechanized, and equestrian uses would not be allowed. All commercial and organized groups/activities must coordinate with the BLM. In general, for all events/activities, an SRP or letter of agreement would be required if an organized group/activity group size exceeds 35 individuals (day use only) (2020 ROD/MMPs).</p>	Shay Canyon ACEC would not be carried forward.	Same as Alternative B.	Same as Alternative B.	Same as Alternative A.	<p>Shay Canyon ACEC – Relevant and Important Value: Cultural resources and paleontological resources (Appendix A, Figure 2-12)</p> <p>The ACEC would be managed with the following prescriptions:</p> <ul style="list-style-type: none"> • OHV and mechanized travel limited to designated routes. • No surface disturbance for vegetation, watershed, or wildlife treatments/improvements. • Grazing restricted to trailing only. • With the exception of side canyons, hiking limited to existing and designated trails. • Campfires would be prohibited. • Unavailable for private or commercial use of woodland products, including on-site collection of dead wood for campfires. • Recreation use may be limited if cultural and paleontological resources are impacted. • Managed as VRM Class II. • Closed to camping. • ROW avoidance area. • SRPs: Competitive events; vending; and OHV, mechanized, and equestrian uses would not be allowed. All commercial and organized groups/activities must coordinate with the BLM. In general, for all events/activities, an SRP or letter of agreement would be required if an organized group/activity group size exceeds 25 individuals (day use only) (2020 ROD/MMPs).
110	<p>Per 2008 Monticello RMP:</p> <p>Valley of the Gods ACEC – Relevant and Important Value: Scenic</p> <p>ACEC-58</p> <p>Valley of the Gods (22,716 acres) (Appendix A, Figure 2-8) is designated as an ACEC and is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • Managed as VRM Class I. 	<p>Valley of the Gods ACEC – Relevant and Important Value: Scenic</p> <p>ACEC-58</p> <p>22,716 acres (Appendix A, Figure 2-9)</p> <p>Managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I, except for 57 acres of highway access portals managed as VRM Class II. • Available for vegetation treatments when consistent with VRM Class I. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative B, except that campfires would not be allowed, and the Passage Zone would be managed as VRM II.	<p>Valley of the Gods ACEC – Relevant and Important Value: Scenic</p> <p>ACEC-58</p> <p>22,716 acres (Appendix A, Figure 2-12)</p> <p>Managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I, except for the Passage Zone which would be managed as VRM II • Available for vegetation treatments when consistent with VRM Class designation

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> Available for vegetation treatments when consistent with VRM Class I. Unavailable for private and/or commercial use of woodland products. The BLM would pursue acquisition of state inholdings in this ACEC. OHV use limited to designated roads and trails. ROW exclusion area. No campfires allowed. 	<ul style="list-style-type: none"> Closed to authorized or personal use of wood products. ROW exclusion area. Campfires would only be allowed in agency-provided rings in designated sites. 				<ul style="list-style-type: none"> Closed to authorized use of wood products and dead and down wood collection for campfires. ROW exclusion area. Campfires would be prohibited.
111	<p>Per 2008 Monticello RMP: Indian Creek ACEC – Relevant and Important Value: Scenic ACEC-50</p> <p>Indian Creek (3,856 acres) (Appendix A, Figure 2-8) is designated as an ACEC and is managed with the following prescriptions:</p> <ul style="list-style-type: none"> Managed as VRM Class I. Available for geophysical work if VRM Class I can be met. Unavailable for private and/or commercial use of woodland products, except for limited on-site collection of dead wood for campfires. Available for livestock use. Closed to OHV use. All revegetation must be with native species naturally occurring in the vicinity. Managed to limit recreation use if scenic values are being damaged. Retained in public ownership. ROW avoidance area. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Indian Creek ACEC – Relevant and Important Value: Scenic ACEC-50</p> <p>Acres: 3,856 (Appendix A, Figure 2-11)</p> <p>Managed with the following prescriptions:</p> <ul style="list-style-type: none"> VRM Class I. Closed to authorized or personal use of wood products, except for limited on-site collection of dead wood for campfires. Closed to OHV use. All revegetation would be with native species naturally occurring in the ecological site, based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, agencies would collaborate with the BEC to identify desirable nonnative seeds that may be used in limited situations to protect BENM objects. Limit recreation use if scenic values are being damaged. ROW exclusion area. 	<p>Indian Creek ACEC – Relevant and Important Value: Scenic ACEC-50</p> <p>Acres: 3,856 (Appendix A, Figure 2-12)</p> <p>Managed with the following prescriptions:</p> <ul style="list-style-type: none"> VRM Class I. Closed to authorized use of wood products except for limited on-site collection of dead wood for campfires. Closed to OHV use. All revegetation would be with native species naturally occurring in the ecological site, based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, agencies would collaborate with the BEC to identify desirable nonnative seeds that may be used in limited situations to protect BENM objects. Limit recreation use if scenic values are being damaged. ROW exclusion area.
112	No similar management.	No similar management.	No similar management.	<p>John's Canyon Paleontological ACEC (1,542 acres) – Relevant and Important Value: Paleontological, Cultural</p> <p>Surface-disturbing activities would be limited to those necessary to protect BENM objects.</p> <p>Surface-disturbing activities would require paleontological surveys prior to implementation.</p> <p>Limit recreation use if cultural resources are being damaged. ROW exclusion area.</p> <p>Appropriate management response to wildland fire in accordance with the agency-approved FMP.</p> <p>OHV limited.</p>	<p>John's Canyon Paleontological ACEC (11,465 acres) – Relevant and Important Value: Paleontological, Cultural, Scenic, Fish and Wildlife, Threatened Species (Navajo sedge [<i>Carex specuicola</i>])</p> <p>Surface-disturbing activities would be limited to those necessary to protect BENM objects.</p> <p>Surface-disturbing activities would require paleontological surveys prior to implementation.</p> <p>Limit recreation use if vegetation communities are being adversely impacted.</p> <p>Limit recreation use if cultural resources or scenic values are being damaged.</p> <p>Managed as VRM Class I</p> <p>ROW exclusion area</p> <p>Appropriate management response to wildland fire in accordance with the agency-approved FMP.</p> <p>Vegetation management actions would require surveys for threatened and endangered plant species and avoidance of those species prior to implementation.</p> <p>OHV limited.</p>	No similar management.
113	No similar management.	No similar management.	No similar management.	<p>Aquifer Protection ACEC (1,012,371 acres) – Relevant and Important Value: Natural System/Aquifer Recharge, Scenic, Cultural, Paleontological</p> <p>Surface-disturbing activities would be limited to those necessary to protect BENM objects.</p>	<p>Aquifer Protection ACEC (85,856 acres) – Relevant and Important Value: Natural System/Aquifer Recharge, Scenic, Cultural, Paleontological</p> <p>Surface-disturbing activities would be limited to those necessary to protect BENM objects.</p>	<p>Aquifer Protection ACEC (85,856 acres) – Relevant and Important Value: Natural System/Aquifer Recharge, Scenic, Cultural, Paleontological</p> <p>Managed with the following prescriptions: Surface-disturbing activities would be limited to those necessary to protect BENM objects.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
				<p>Manage discretionary uses to avoid adversely impacting vegetation communities and groundwater-dependent ecosystems.</p> <p>Management response to wildland fire would be in accordance with the agency-approved FMP.</p> <p>OHV Limited.</p> <p>Require a hydrologic study for all proposed groundwater withdrawals.</p> <p>Prohibit new storage tanks for hazardous materials. Avoid use of hazardous materials, unless otherwise addressed in this management plan.</p> <p>Collaborate with the BEC on the development of mitigation requirements and best management practices (BMPs) for discretionary uses.</p>	<p>Manage discretionary uses to avoid adversely impacting vegetation communities and groundwater-dependent ecosystems.</p> <p>Management response to wildland fire would be in accordance with the agency-approved FMP.</p> <p>OHV limited.</p> <p>VRM Class I in Outback and Remote Zones. VRM Class II in Front Country and Passage Zones.</p> <p>Require a hydrologic study for all proposed groundwater withdrawals.</p> <p>Prohibit new storage tanks for hazardous materials. Avoid use of hazardous materials, unless otherwise addressed in this management plan.</p> <p>Collaborate with the BEC on the development of mitigation requirements and BMPs for discretionary uses.</p>	<p>Manage discretionary uses to avoid adversely impacting vegetation communities and groundwater-dependent ecosystems.</p> <p>Management response to wildland fire would be in accordance with the agency-approved FMP.</p> <p>VRM: See Section 2.4.13.3 for VRM management.</p> <p>Prioritize the completion of a hydrologic study for this ACEC.</p> <p>Prohibit new storage tanks for hazardous materials. Avoid use of hazardous materials, unless otherwise addressed in this management plan.</p> <p>Collaborate with the BEC on the development of mitigation requirements and BMPs for discretionary uses.</p>
114	<p>Per 2008 Monticello RMP</p> <p>Suitable – Scenic:</p> <ul style="list-style-type: none"> • Colorado River Segment 2 • Colorado River Segment 3 <p>Suitable – Wild:</p> <ul style="list-style-type: none"> • Dark Canyon • San Juan River Segment 5 <p>Identified as not suitable:</p> <ul style="list-style-type: none"> • Arch Canyon • Fable Valley • Indian Creek • San Juan River Segment 1 • San Juan River Segment 2 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Suitable WSR segments would continue to be managed according to the tentative classifications and suitability recommendations in the 2008 Monticello RMP. WSR evaluations would be continued in collaboration with the BEC regarding designations.</p> <p>Suitable – Scenic (Appendix A, Figure 2-11):</p> <ul style="list-style-type: none"> • Colorado River Segment 2 • Colorado River Segment 3 <p>Suitable – Wild (Appendix A, Figure 2-10):</p> <ul style="list-style-type: none"> • Dark Canyon • San Juan River Segment 5 <p>Identified as not suitable:</p> <ul style="list-style-type: none"> • Arch Canyon • Fable Valley • Indian Creek • San Juan River Segment 1 • San Juan River Segment 2 	<p>Suitable WSR segments would continue to be managed according to the tentative classifications and suitability recommendations in the 2008 Monticello RMP. WSR evaluations would be continued in collaboration with the BEC regarding designations.</p> <p>Suitable – Scenic (Appendix A, Figure 2-13):</p> <ul style="list-style-type: none"> • Colorado River Segment 2 • Colorado River Segment 3 <p>Suitable – Wild (Appendix A, Figure 2-13):</p> <ul style="list-style-type: none"> • Dark Canyon • San Juan River Segment 5 <p>Identified as not suitable:</p> <ul style="list-style-type: none"> • Arch Canyon • Fable Valley • Indian Creek • San Juan River Segment 1 • San Juan River Segment 2
115	<p>Per 2008 Monticello RMP</p> <p>Colorado River Segment 2 (Appendix A, Figure 2-8)</p> <p>Colorado River Segment 2 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Scenic • Size: 809 acres, 759 within the Planning Area • Location: State lands near RM 44 to approximately RM 38.5 (5.5 miles). • Total RM: 6.8 • BLM RM: 6.8 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class II. • Motorized boat use allowed on the river. • ROW avoidance area. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Colorado River Segment 2 (Appendix A, Figure 2-11)</p> <p>Colorado River Segment 2 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Scenic • Size: 809 acres, 759 within the Planning Area • Location: State lands near RM 44 to approximately RM 38.5 (5.5 miles). • Total RMs: 6.8 • BLM RMs: 6.8 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Motorized boat use allowed on the river. • ROW exclusion area. 	<p>Colorado River Segment 2 (Appendix A, Figure 2-13)</p> <p>Colorado River Segment 2 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Scenic • Size: 809 acres, 759 within the Planning Area • Location: State lands near RM 44 to approximately RM 38.5 (5.5 miles). • Total RMs: 6.8 • BLM RMs: 6.8 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Motorized boat use allowed on the river. • ROW exclusion area.
116	<p>Per 2008 Monticello RMP</p> <p>Colorado River Segment 3 (Appendix A, Figure 2-8)</p> <p>Colorado River Segment 3 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Colorado River Segment 3 (Appendix A, Figure 2-11)</p> <p>Colorado River Segment 3 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Scenic 	<p>Colorado River Segment 3 (Appendix A, Figure 2-13)</p> <p>Colorado River Segment 3 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Scenic

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> • Recommendation: Suitable—Scenic • Size: 987 acres, 752 within Planning Area • Location: From approximately RM 37.5 at state land to the boundary of Canyonlands National Park near RM 31 (6.5 miles). • Total RMs: 6.5 • BLM RMs: 6.5 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use. • Motorized boat use allowed on the river. • ROW exclusion area. 				<ul style="list-style-type: none"> • Size: 987 acres, 752 within Planning Area • Location: From approximately RM 37.5 at state land to the boundary of Canyonlands National Park near RM 31 (6.5 miles). • Total RMs: 6.5 • BLM RMs: 6.5 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use (see Section 2.4.21, Travel and Transportation Management; Appendix A, Figures 2-45 and 2-51; Appendix H), with the exception of the final 0.2 mile of the Chicken Corners Road. • Motorized boat use allowed on the river. • ROW exclusion area. 	<ul style="list-style-type: none"> • Size: 987 acres, 752 within Planning Area • Location: From approximately RM 37.5 at state land to the boundary of Canyonlands National Park near RM 31 (6.5 miles). • Total RMs: 6.5 • BLM RMs: 6.5 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use (see Section 2.4.21, Travel and Transportation Management; Appendix A, Figures 2-46 and 2-52; Appendix H), with the exception of the final 0.2 mile of the Chicken Corners Road, which would be OHV limited. • Use of permitted motorized boats allowed on the river. • ROW exclusion area.
117	<p>Per 2008 Monticello RMP</p> <p>Dark Canyon (Appendix A, Figure 2-8)</p> <p>The Dark Canyon segment is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Wild. • Size: 1,888 acres, 1,887 within Planning Area • Location: USDA Forest Service boundary to Glen Canyon NRA below Young’s Canyon. • Total RMs: 13.6 • BLM RMs: 6.4 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Dark Canyon (Appendix A, Figure 2-11)</p> <p>The Dark Canyon segment is identified as suitable for designation into the NWSR System. The segment specifics include:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Wild. • Size: 1,888 acres, 1,887 within Planning Area • Location: USDA Forest Service boundary to Glen Canyon NRA below Young’s Canyon. • Total RMs: 13.6 • BLM RMs: 6.4 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use (see Section 2.4.21, Travel and Transportation Management; Appendix A, Figure 2-45 and 2-51; see Appendix H). • ROW exclusion area. 	<p>Dark Canyon (Appendix A Figure 2-13)</p> <p>The Dark Canyon segment is identified as suitable for designation into the NWSR System. The segment specifics include:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Wild. • Size: 1,888 acres, 1,887 within Planning Area • Location: USDA Forest Service boundary to Glen Canyon NRA below Young’s Canyon. • Total RMs: 13.6 • BLM RMs: 6.4 <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use (see Section 2.4.21, Travel and Transportation Management; Appendix A, Figure 2-46 and 2-52; see Appendix H). • ROW exclusion area.
118	<p>Per 2008 Monticello RMP</p> <p>San Juan River Segment 5 (Appendix A, Figure 2-8)</p> <p>WSR-17</p> <p>San Juan River Segment 5 is identified as suitable for designation into the NWSR System. The segment specifics include the following:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Wild. • Size: 1,875 acres (1,247 within Planning Area) • Location: RM 28 to Glen Canyon NRA at RM 45 • Total RMs: 17.3 • BLM RMs 17.3 <p>WSR-18</p> <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use. • ROW exclusion area. 	Same as Alternative E.	<p>Same as Alternative E except:</p> <ul style="list-style-type: none"> • Downstream motorized boat travel is allowed at low, wakeless speed. Upstream travel is prohibited, except for emergency purposes. 	Same as Alternative C.	<p>WSR-17</p> <p>San Juan River Segment 5 is identified as suitable for designation into the NWSR System. The segment specifics include:</p> <p>Recommendation: Suitable—Wild.</p> <ul style="list-style-type: none"> • Size: 1,875 acres (1,247 within Planning Area) • Location: RM 28 to Glen Canyon NRA at RM 45 • Total RMs: 17.3 • BLM RMs: 17.3 • BENM RMs: 11 <p>WSR-18</p> <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use. • ROW exclusion area. • Motorized boat use not allowed on the river. 	<p>WSR-17</p> <p>San Juan River Segment 5 is identified as suitable for designation into the NWSR System (Appendix A, Figure 2-13). The segment specifics include:</p> <ul style="list-style-type: none"> • Recommendation: Suitable—Wild. • Size: 1,875 acres (1,247 within Planning Area) • Location: RM 28 to Glen Canyon NRA at RM 45 • Total RMs: 17.3 • BLM RMs: 17.3 • BENM RMs: 11 <p>WSR-18</p> <p>This segment is managed with the following prescriptions:</p> <ul style="list-style-type: none"> • VRM Class I. • Closed to OHV use. • ROW exclusion area. • Use of permitted motorized boats not allowed on the river.
119	<p>USDA Forest Service WSRs</p> <p>An eligibility study was conducted for stream segments on the Manti-La Sal National Forest in 2003 with several subsequent reevaluations. The USDA Forest Service completed a final EIS and signed the ROD for the <i>Wild and Scenic River Suitability Study for National Forest System Lands in Utah</i> in 2008. The study evaluated the</p>	No additional WSR inventory would occur on stream segments on NFS lands under the Proposed RMP/Final EIS.	No additional WSR inventory would occur on stream segments on NFS lands under the Proposed RMP/Final EIS.	No additional WSR inventory would occur on stream segments on NFS lands under the Proposed RMP/Final EIS.	No additional WSR inventory would occur on stream segments on NFS lands under the Proposed RMP/Final EIS.	No additional WSR inventory would occur on stream segments on NFS lands under the Proposed RMP/Final EIS.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	suitability of 86 eligible rivers (840 miles) on the national forests in the State of Utah, including the 10 rivers or systems identified as eligible in the Manti-La Sal National Forest, for recommendation for inclusion in the NWSR System. The USDA Forest Service determined that no river segments in what is now BENM were suitable for inclusion in the NWSR System; therefore, no stream segments are managed as suitable or eligible.					
120	<p>Per 2008 Monticello RMP WSA-2</p> <p>The Monticello Field Office manages nine WSAs (Appendix A, Figure 2-8) (368,000 acres as identified in the Statewide Report to Congress (365,872 GIS acres): Mancos Mesa (50,846 acres), Grand Gulch Instant Study Area (ISA) Complex (105,194), Road Canyon (52,344), Fish Creek Canyon (46,097), Cheese Box Canyon (14,871), Dark Canyon ISA Complex (67,840), Butler Wash (22,051), Indian Creek (6,469), and South Needles (159).</p> <p>Per 2020 ROD/MMPs</p> <p>If WSAs within BENM are released by Congress, the agencies would conduct a land use plan amendment of this Proposed RMP/Final EIS with accompanying NEPA analysis to determine how those lands would be managed.</p> <p>BENM includes all of the Bridger Jack Mesa (5,233 acres), Fish Creek Canyon (318 acres), and Mule Canyon (6,014 acres) WSAs (Appendix A, Figure 2-8).</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>BENM manages 11 WSAs (Appendix A, Figure 2-13), 381,760 acres as identified in the Statewide Report to Congress (377,118 GIS acres): Mancos Mesa (50,846 acres), Grand Gulch WSA (105,194 acres), Road Canyon (52,344 acres), Fish Creek Canyon (46,097 acres), Mule Canyon (6,014 acres), Cheese Box Canyon (14,871 acres), Dark Canyon WSA (67,840 acres), Butler Wash (24,312 acres), Bridger Jack Mesa (5,233 acres), Indian Creek (6,469 acres), and South Needles (159 acres).</p> <p>When any WSA, in whole or in part, is released from wilderness consideration by Congress, continue past management of such released lands, unless otherwise specified by Congress in its releasing legislation, in a manner to ensure protection of BENM objects, the following would occur:</p> <ul style="list-style-type: none"> • Re-inventories for wilderness characteristics of all released WSAs not designated as wilderness; all lands determined to have wilderness characteristics, in collaboration with BEC, would immediately be managed to protect wilderness characteristics. <p>Until the above are completed, and all steps necessary have been completed to establish management of the released areas moving forward, no proposals/actions would occur in the released areas unless essential for the protection of BENM objects.</p> <p>Following such interim steps, the agencies, in collaboration with the BEC and Tribal Nations, would conduct an amendment to the Proposed RMP/Final EIS, with accompanying NEPA analysis, to determine how those lands would be managed in the long term.</p>	<p>BENM manages 11 WSAs (Appendix A, Figure 2-13), 381,760 acres as identified in the Statewide Report to Congress (377,118 GIS acres): Mancos Mesa (50,846 acres), Grand Gulch WSA (105,194 acres), Road Canyon (52,344 acres), Fish Creek Canyon (46,097 acres), Mule Canyon (6,014 acres), Cheese Box Canyon (14,871 acres), Dark Canyon WSA (67,840 acres), Butler Wash (24,312 acres), Bridger Jack Mesa (5,233 acres), Indian Creek (6,469 acres), and South Needles (159 acres).</p> <p>When any WSA, in whole or in part, is released from wilderness consideration by Congress, continue past management of such released lands, unless otherwise specified by Congress in its releasing legislation, in a manner to ensure protection of BENM objects, the following would occur:</p> <ul style="list-style-type: none"> • Re-inventories for wilderness characteristics of all released WSAs not designated as wilderness; all lands determined to have wilderness characteristics, in collaboration with BEC, would immediately be managed to protect wilderness characteristics. <p>Until the above are completed, and all steps necessary have been completed to establish management of the released areas moving forward, no proposals/actions would occur in the released areas unless essential for the protection of BENM objects.</p> <p>Following such interim steps, the agencies, in collaboration with the BEC and Tribal Nations, would conduct an amendment to the Proposed RMP/Final EIS, with accompanying NEPA analysis, to determine how those lands would be managed in the long term.</p>
121	Per 2020 ROD/MMPs WSAs would continue to be managed per BLM Manual 6330, including being managed as VRM Class I, closed to OHV use, and ROW exclusion areas.	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).
122	<p>Per 2020 ROD/MMPs</p> <p>Bridger Jack Mesa WSA (Appendix A, Figure 2-8).</p> <p>The Bridger Jack Mesa area would be managed as part of the Indian Creek Special Recreation Management Area.</p> <p>Unavailable for livestock grazing, including grazing by saddle stock and pack animals allowed for access.</p> <p>Unavailable for private and/or commercial use of woodland products, including on-site collection of dead wood for campfires.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Campfires would be restricted to fire rings, where available. If not available, Leave No Trace principles should be practiced.</p> <p>SRPs: Competitive events, vending, and OHV and mechanized uses would not be allowed. All organized events/activities must coordinate with the BLM. In general, for all events/activities, an SRP or letter of agreement would be required if an organized event/activity group size exceeds 12 individuals or eight pack animals.</p>					
123	<p>Per 2020 ROD/MMPs Mule Canyon WSA (Appendix A, Figure 2-8).</p> <p>Stock use (in canyon) would not be allowed, with the exception of stock associated with permitted livestock grazing.</p> <p>SRPs: Competitive events, vending, and OHV and mechanized use would not be allowed. All organized events/activities must involve BLM coordination. In general, for all events/activities, an SRP or letter of agreement would be required if an organized event/activity group size exceeds 12 individuals (limited to 12 individuals in canyon). If monitoring indicates significant impacts to BENM objects, group size thresholds would be reduced during implementation-level planning. Any group size limits developed during implementation-level planning that exceed those described above would also require a plan amendment.</p> <p>An Individual Special Recreation Permit for private, noncommercial special area use would continue to be required for in-canyon day and overnight use. Group size is limited to 12.</p> <p>Camping: In-canyon camping could be limited to certain designated areas if resource or cultural damage occurs. Dispersed vehicle camping would not be allowed in the WSA.</p> <p>Campfires would not be allowed.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).
124	<p>Per 2008 Monticello RMP</p> <p>Within the area managed by the Monticello Field Office, there is an area totaling 2,261 acres contiguous to the Butler Wash WSA that was studied as a boundary variation during the wilderness review mandated by Congress in FLPMA Sections 603(a) and (b). These lands were addressed in the <i>Utah BLM Statewide Wilderness Final Environmental Impact Statement</i> (BLM 1990) and were recommended for congressional wilderness designation in the <i>Utah Statewide Wilderness Study Report</i> (October 1991). This recommendation was forwarded by the president of the United States to Congress in 1993. The lands would continue to be managed in a manner that does not impair their suitability for congressional designation in accordance with FLPMA Section 603(c). Subject to valid existing rights, the only case-by-case actions that would be considered would be those where it is determined that wilderness suitability would not be adversely impacted. Lands within this administratively endorsed area are not under interim management policy management. RMP decisions protect those lands until Congress acts.</p>	No similar action.	No similar action.	No similar action.	No similar action.	No similar action.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
125	Per 2008 Monticello RMP WSA management prescriptions, as stipulated in the interim management policy, would take precedence over other management prescriptions throughout this Proposed RMP/Final EIS, unless the other management prescriptions are more restrictive.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	WSA management prescriptions, as stipulated in WSA policy, would take precedence over other management prescriptions throughout this Proposed RMP/Final EIS, unless the other management prescriptions are more restrictive.	WSA management prescriptions, as stipulated in WSA policy, would take precedence over other management prescriptions throughout this Proposed RMP/Final EIS, unless the other management prescriptions are more restrictive.
126	Per 2008 Monticello RMP WSAs are managed as VRM Class I.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	WSAs are managed as VRM Class I.
127	Per 2008 Monticello RMP One way in the Fish Creek WSA totaling 0.08 mile would remain conditionally open to motorized recreation use in order to access the Moon House site. In addition, four ways would remain available for administrative access only and are not available for motorized recreation use: <ul style="list-style-type: none"> • Two ways in the Grand Gulch ISA-Pine Canyon and Slickhorn Units totaling 3.1 miles and located east of Pine Canyon and Point Lookout areas. • One way in the Fish Creek WSA-Lower Baullie Mesa totaling 4.93 miles. • One way in the Road Canyon WSA-Perkins Point totaling 2.67 miles. 	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).
128	Per 2008 Monticello RMP The Hole-in-the-Rock Trail is managed for heritage tourism in consultation with the Utah State Historic Preservation Office (SHPO) and Native American Tribes, as well as interested stakeholder groups.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	The Hole-in-the-Rock Trail is managed for heritage tourism in consultation with the Utah SHPO, interested stakeholder groups, the BEC, and Tribal Nations.	The Hole-in-the-Rock Trail is managed for heritage tourism in consultation with the Utah SHPO, interested stakeholder groups, the BEC, and Tribal Nations.
129	Per 2008 Monticello RMP Segments of the Hole-in-the-Rock Trail would be identified and evaluated for historic integrity and appropriate use.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	As part of implementation-level planning, segments of the Hole-in-the-Rock Trail would be identified and evaluated for historic integrity and appropriate use.	As part of implementation-level planning, segments of the Hole-in-the-Rock Trail would be identified and evaluated for historic integrity and appropriate use.
130	Per 2008 Monticello RMP Landmark (sites, features) would be interpreted only if the action would not impact the values of the site/landmark.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Landmark (structures, features) on historic trails would be interpreted only if the action would not impact the values of the site/landmark. This would be determined in collaboration with the BEC.	Landmark (structures, features) on historic trails would be interpreted only if the action would not impact the values of the site/landmark. This would be determined in collaboration with the BEC.
131	Per 1986 Manti-La Sal LRMP Dark Canyon Wilderness (USDA Forest Service) Specific management actions for Dark Canyon Wilderness can be found in the 1986 Manti-La Sal LRMP.	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).
132	Per 1986 Manti-La Sal LRMP IRAs USDA Forest Service Specific management actions for the IRAs can be found in the 1986 Manti-La Sal LRMP.	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).
133	Per 1986 Manti-La Sal LRMP Cliff Dwellers Pasture RNA USDA Forest Service Specific management actions for the RNA can be found in the 1986 Manti-La Sal LRMP.	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).	See Management Actions Common to All Action Alternatives (Section 2.4.10.2).

Note: ACECs pertain to BLM-administered lands only.

2.4.11. Wildlife and Fisheries

2.4.11.1. GOALS AND OBJECTIVES

- Manage to protect large undisturbed blocks of terrestrial and aquatic habitat and, where possible, consolidate and create larger protected blocks of habitat to ensure habitat connectivity.
- Maintain, enhance, and/or restore native aquatic, avian, and terrestrial habitat by improving quality, increasing quantity/connectivity. For biologically diverse and healthy ecosystems, consider spatial and temporal habitat needs (e.g., seasonal, migratory, nest/brood).
- Promote and restore healthy riparian habitat and riverscapes throughout BENM.
- Maintain and preserve aquatic connectivity through land acquisition and maintenance of instream flows.
- Facilitate fish and wildlife researchers to coordinate with agency biologists to contribute to a greater understanding of species abundance and distribution within the Monument.

2.4.11.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with the BEC to identify and avoid or minimize adverse impacts to native aquatic, avian, and terrestrial species habitat, connectivity, and movement.
- Manage habitat for species conservation to incorporate Tribal and Utah statewide conservation strategies, in coordination with UDWR and USFWS.
- During the active nesting period, conduct surveys and/or habitat analysis for nesting migratory birds and raptors prior to implementation of projects. If priority bird species (USFWS Birds of Conservation Concern [BCC], Utah Species of Greatest Conservation Need (SGCN) or Special Status Species) or Culturally Important Species are indicated, avoid or minimize discretionary actions that would impact nesting birds for the duration of the nesting period. Agencies would collaborate with the USFWS, BEC, and Tribal Nations to identify avoidance and mitigation requirements at the project-specific implementation level. Vegetation management timing and activities would account for key life history requirements for resident and migratory birds, including avoiding and minimizing impacts.
- Maintain, enhance, and/or restore habitat through vegetation management or other actions (e.g., instream habitat improvement and process-based restoration) to support sustainable populations of native aquatic, avian, and terrestrial wildlife species.
- Collaborate with the BEC and local, state, federal, and Tribal partners for inventory and monitoring and in program and project design to address management issues affecting terrestrial and aquatic wildlife species and their habitats across jurisdictional boundaries.
- Provide for habitat for populations of the native and existing vertebrate and invertebrate species found on BENM lands.
- Collaborate with the BEC, Tribal Nations, and the State of Utah in management of habitats for species important to Tribal Nations (identified according to Traditional Ecological Knowledge and Tribal expertise), including their prey, cover, forage, habitat, and connectivity, and for species from the Utah Wildlife Action Plan as amended/updated.
- Agencies would collaborate with the BEC and the State of Utah to incorporate Traditional Indigenous Knowledge to manage crucial big game habitat during key seasons. This could include closure of habitat areas to visitation or to certain uses (e.g., OHVs and commercial filming) on a seasonal basis to provide for resource rest, protect wildlife during key life history periods, or to allow for traditional/ceremonial use.
- Agencies would collaborate with the BEC and USFWS to incorporate Traditional Indigenous Knowledge to determine seasonal restrictions on land use authorizations affecting wildlife habitat.
- Agencies would implement, as appropriate, best management practices (BMPs) to avoid, minimize, and/or mitigate impacts to wildlife species on BENM (Appendix G).

2.4.11.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-10. Alternatives for Wildlife and Fisheries

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
134	<p>BLM-Administered Lands Per 2020 ROD/MMPs</p> <p>Wildlife habitat objectives would be considered in all reclamation activity. Priority would be given to meeting or making progress toward meeting <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997) or USDA Forest Service desired conditions for rangelands.</p> <p>NFS Lands Per 1986 Manti-La Sal LRMP Wildlife Habitat Management</p> <ul style="list-style-type: none"> • Provide for habitat for management indicator species. 	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<ul style="list-style-type: none"> • Maintain and/or improve habitat and habitat diversity for minimum viable populations of existing vertebrate wildlife species. <ul style="list-style-type: none"> ○ Manage vegetative composition so as to maintain at least 50% of current (1980) habitat for existing and approved introduced wildlife species. • Planned vegetative management treatments in the mature and/or old structural groups in a landscape that is at or below the desired percentage of land area in mature and old structural stages (40% conifer, 30% aspen) should be designed to maintain or enhance the characteristics of these structural stages to provide for habitat needs of cavity-nesting birds, raptors, and small animals as follows: <ul style="list-style-type: none"> ○ Coordination with project work or resource uses. ○ Selecting and utilizing live trees to create snags. <ul style="list-style-type: none"> ▪ A snag is defined as a completely or partially dead standing tree at least 4 inches DBH and at least 6 feet in height. ▪ Maintain various size classes of standing snags with the approximate density per 100 acres based on broad vegetative types. <ul style="list-style-type: none"> – No./100 Acres – Ponderosa pine 200 (18 inches DBH and 30 feet tall) – Mixed conifer (spruce/fir/Douglas-fir) 300 (18 inches DBH and 30 feet tall) – Aspen 200 (8 inches DBH and 15 feet tall) – Pinyon-juniper 15 – Riparian 120 • Manage down timber to provide habitat for wildlife. • When initiating vegetative management treatments, prescriptions should be designed to retain the following minimum amount and size of down logs and woody debris: ponderosa pine-30 logs/10 acres and 50 tons/10 acres coarse woody debris, mixed conifer 50 logs/10 acres and 100 tons/10 acres coarse woody debris, and aspen 50 logs/10 acres and 30 tons/10 acres coarse woody debris. • Manage waters capable of supporting self-sustaining fish populations to provide for those populations. • Manage stream habitat to at least 50% of potential where existing self-sustaining fisheries occur. • Proposed management activities which may cause unfavorable conditions in existing fisheries would include mitigation measures. <p>Wildlife Habitat Improvement and Maintenance</p> <ul style="list-style-type: none"> • Maintain or improve habitat capability through direct treatment of vegetation, soil, and/or water. • Manage noncommercial aspen stands in mixed age groups to provide a source of forage. 					

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> • Give wildlife funding priority to habitat improvement projects which are jointly or cooperatively funded with the states. • Use both commercial and noncommercial silvicultural practices to accomplish wildlife habitat objectives. • Maintain a medium to high edge contrast between tree stands created by even-aged management. • Contrast by age class, measured by H high, M medium, and L low. • Provide for conservation pools and, as appropriate, recreation facilities to meet resource protection needs in projects for new reservoir construction or reconstruction of existing reservoirs. • Conservation pools would be required where a potential exists for carry over fisheries and recreation use is appropriate. <p>Semi-primitive Recreation Use (SPR)</p> <ul style="list-style-type: none"> • Manage wildlife and fish habitat to be compatible with the recreation use. Locate structural and design nonstructural improvements to meet Visual Quality Objectives. • Maintain at least 30% of shrub plants in mature age and at least 10% in young age classes. • Maintain at least two shrub species on shrublands capable of growing two or more shrub species. <p>Riparian Area Management Not-Mapped (RPN)</p> <ul style="list-style-type: none"> • Provide habitat diversity through vegetation treatments, and/or structural developments in conjunction with other resource activities, designed to maintain or approve wildlife or fisheries habitat. • Provide habitat for viable populations of native vertebrate species of fish and wildlife within existing ranges. • Maintain a current fish habitat inventory in cooperation with state wildlife agencies. • Provide for instream flows to support a sustained yield of natural fisheries resources. <p>Municipal Water Supply (MWS)</p> <ul style="list-style-type: none"> • Permanent wildlife openings or other habitat improvements may be installed, provided they can be done without adversely affecting water quality. 					
135	<p>Per 1986 Manti-La Sal LRMP Watershed Protection/Improvement (WPE)</p> <ul style="list-style-type: none"> • Provide big game forage and habitat needs through manipulation of habitat or wildlife structures, providing they do not result in damage to the watershed. <p>Research, Protection, and Interpretation of Lands and Resources (RPI)</p> <ul style="list-style-type: none"> • Prohibit any direct wildlife habitat manipulation that would detract from those values for which the unit is established. • Manage, to the extent possible, potential existing long-term impacts on potential or existing units consistent or compatible with 	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	wildlife and fish habitat prescriptions from adjacent management units. Location of Utility Corridors (UC) • Manage, to the extent possible, consistent or compatible with wildlife and fish habitat prescriptions from adjacent management units.					
136	Per 2020 ROD/MMPs Ground-disturbing actions that adversely impact fish and wildlife species and habitats would be avoided where possible. Where unavoidable disturbances are required, the BLM and USDA Forest Service would follow current agency policy regarding the application of appropriate minimization and mitigation measures.	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).
137	Per 2020 ROD/MMPs Maintain, restore, and/or improve critical habitat requirements for native fish and amphibian and aquatic species, including restoration and enhancement of backwater, side channel, and floodplain habitats. Manage habitat to minimize disturbance except when conducting riparian and aquatic habitat improvement projects.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Maintain, restore, and/or improve critical habitat requirements for native fish and amphibian and aquatic species, including restoration and enhancement of backwater, side channel, and floodplain habitats, and monitoring of groundwater condition, water quality, and cumulative effects on watershed health. Manage habitat to minimize disturbance. Maintain or provide habitat for culturally and ecologically important species, including monitoring of forage, prey species, hiding cover, migration routes, and connectivity. Manage crucial habitat for these species to minimize disturbance with the exception of habitat maintenance projects or vegetation treatments that are expected to benefit culturally and ecologically important species.	Maintain, restore, and/or improve important habitat requirements for native fish and amphibian and aquatic species, including process-based restoration, restoration and enhancement of backwater, side channel, and floodplain habitats, and monitoring of groundwater condition, water quality, and cumulative effects on watershed health. Manage habitat to minimize disturbance. Maintain or provide habitat for culturally and ecologically important species, including monitoring of forage, prey species, hiding cover, migration routes, and connectivity. Manage crucial habitat for these species to minimize disturbance with the exception of habitat maintenance projects or vegetation treatments that are expected to benefit culturally and ecologically important species.
138	No management restrictions related to recreational water pumping and purification.	Same as Alternative A.	Agencies, in collaboration with the BEC would monitor waterbodies to restrict recreational water pumping and purification for SRPs and Individual Special Recreation Permits, as necessary, to maintain existing habitat for aquatic organisms.	Same as Alternative C except encouragement for recreationists to not pump from any water sources.	The agencies, working collaboratively with the BEC, would monitor water resources to identify whether water pumping for recreational use needs to be limited in any specific areas in order to protect BENM objects, as informed by Traditional Indigenous Knowledge.	The agencies, working collaboratively with the BEC, and as informed by Traditional Indigenous Knowledge, would monitor water resources to identify whether water pumping for recreational use needs to be limited in any specific areas in order to protect BENM objects.
139	See the Cedar Mesa Special Recreation Management Area (SRMA) (see Section 2.4.20, Recreation and Visitor Services).	See Cedar Mesa SRMA (see Section 2.4.20, Recreation and Visitor Services).	See Cedar Mesa SRMA (see Section 2.4.20, Recreation and Visitor Services).	Prohibit swimming in in-canyon stream/pool habitat in BENM.	Prohibit bathing in in-canyon stream/pool habitat in BENM except where inconsistent with the Religious Freedom Restoration Act or other applicable laws. Bathing in canyon stream/pool habitat would not be prohibited where such prohibition constitutes a substantial burden on religious practices.	Prohibit bathing in in-canyon stream/pool habitat in BENM except where inconsistent with the Religious Freedom Restoration Act or other applicable laws. Bathing in canyon stream/pool habitat would not be prohibited where such prohibition constitutes a substantial burden on religious practices.
140	Per 2020 ROD/MMPs In areas lacking proper water distribution or natural water sources, allow for installation of precipitation catchments (guzzlers) or the development of springs on rangelands.	In areas lacking proper water distribution or natural water sources, allow for maintenance of existing and installation of new precipitation catchments (guzzlers) or the development of springs. Maintenance should include replacement of nonfunctioning systems.	Same as Alternative B.	Allow the maintenance of existing precipitation catchments but do not allow the installation of new precipitation catchments unless necessary to protect BENM objects. Maintenance should include replacement of nonfunctioning systems.	Allow the maintenance of existing precipitation catchments but do not allow the installation of new precipitation catchments unless necessary to protect BENM objects (e.g., in places heavily accessed by culturally and ecologically important wildlife). Maintenance should include replacement of nonfunctioning systems. Livestock access to precipitation catchments would be prohibited. Precipitation catchments would be installed in a manner that ensures wildlife do not become entrapped within the catchment structure.	Allow the maintenance of existing precipitation catchments but do not allow the installation of new precipitation catchments unless necessary to protect BENM objects (e.g., in places heavily accessed by culturally and ecologically important wildlife). Maintenance should include replacement of nonfunctioning systems. Livestock access to precipitation catchments specifically built for wildlife would be prohibited. Precipitation catchments would be installed in a manner that ensures wildlife do not become entrapped within the catchment structure.

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141	<p>NFS Lands</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>For macroinvertebrates, improve to and maintain a good or above Density Index (DAT) of 1.1 to 1.7, a standing crop of 1.6 to 4.0, and a Biotic Condition Index (BCI) of 75 or above, based on techniques developed by UDWQ (MMI and RIVPACS) or comparable methods.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
142	<p>BLM-Administered Lands Per 2020 ROD/MMPs</p> <p>Maintain or provide habitat requirements for deer and elk, including forage areas, hiding cover, and migration routes when detected. Manage crucial deer and elk habitat to minimize disturbance except when conducting habitat projects for big game.</p> <p>NFS Lands</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Deer and Elk</p> <ul style="list-style-type: none"> • Maintain adequate hiding cover around calving areas. • Optimum habitat mix for the daily normal range is 25% hiding cover, 15% thermal cover, 10% hiding or thermal cover, and 50% foraging area. • In areas of historic water shortage during the dry season of the year, develop water as appropriate. • Manage key deer and elk habitat so as to minimize disturbance during the period of use. 	Collaborate with the BEC and the State of Utah to maintain or provide habitat requirements for big game species important to Tribal Nations and/or State of Utah designated crucial habitat. This would include forage areas, hiding cover, and migration routes. Manage to have no net loss of these habitats.	Same as Alternative B.	Same as Alternative B.	Collaborate with BEC to maintain or provide habitat for culturally and ecologically important species, including monitoring of forage, prey species, hiding cover, migration routes, and connectivity. Manage crucial habitat for these species to minimize disturbance with the exception of habitat maintenance projects or vegetation treatments that are expected to benefit culturally and ecologically important species.	Collaborate with BEC and UDWR to maintain or provide habitat for culturally and ecologically important species, including monitoring of forage, prey species, hiding cover, migration routes, and connectivity. Manage crucial habitat for these species to minimize disturbance with the exception of habitat maintenance projects or vegetation treatments that are expected to benefit culturally and ecologically important species.
143	<p>Per 2020 ROD/MMPs</p> <p>Provide habitat needs for Abert's squirrel in ponderosa pine habitat. Maintain occupied habitats to produce good habitat condition (one squirrel/10 acres) to very good habitat condition (two to four squirrels/10 acres). Maintain and/or improve habitat conditions on at least 60% of the ponderosa pine habitat type.</p> <p>NFS Lands</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Abert's Squirrel</p> <ul style="list-style-type: none"> • Habitat in ponderosa pine; silvicultural prescriptions for ponderosa pine on the Monticello Ranger District should consider management as follows: <ul style="list-style-type: none"> ○ Protect habitat by maintaining occupied sites to produce good to very good habitat. ○ Maintain and/or improve good (one squirrel/10 acres) to very good (two to four squirrels/10 acres) habitat conditions on at least 60% of the total ponderosa pine habitat type. Stands heavily diseased or insect infested would be considered on a site-by-site basis to determine improvement needs. • Use slash and silvicultural practices that deter shrub growth and provide ponderosa pine reproduction but do not encourage habitat for rodents that compete for Abert's squirrel habitat components. • Leave Gambel oak over 6 inches DBH in association with ponderosa pine. 	Maintain Abert's squirrel ponderosa pine habitat components related to nest/feed trees basal area, canopy cover, and understory based on best available science and Traditional Indigenous Knowledge.	Same as Alternative B.	Same Alternative B.	Maintain Abert's squirrel ponderosa pine habitat components based on best available Western and Indigenous science, Tribal policies, and Traditional Indigenous Knowledge.	Maintain Abert's squirrel ponderosa pine habitat components related to nest/feed trees basal area, canopy cover, and understory based on best available Western and Indigenous science, Tribal policies, and Traditional Indigenous Knowledge.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> Based on Wildlife Society Bulletin 12:408-44, 1984. 					
144	<p>Per 2020 ROD/MMPs</p> <p>Agencies would work with stakeholder and volunteer groups to educate climbers on methods to protect significant natural and cultural resources.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	<p>Per 2020 ROD/MMPs</p> <p>Agencies would work with stakeholder and volunteer groups to educate climbers on methods to protect significant natural and cultural resources.</p>
145	<p>Per 2020 ROD/MMPs</p> <p>From April 1 to July 31, or if nesting birds are observed, avoid or minimize surface-disturbing activities and vegetation-altering projects and broad scale use of pesticides in identified and occupied priority migratory bird habitat.</p>	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	During observed active nesting periods for raptors and migratory birds (as identified by monitoring), proposed projects would be required to conduct surveys for nesting birds; if nesting birds are observed, avoid or minimize surface-disturbing activities and vegetation-altering projects, and use of pesticides in identified and occupied broad scale migratory bird habitat. Agencies would collaborate with the BEC and Tribal Nations to identify avoidance and mitigation requirements at the project-specific implementation level.	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).
146	<p>Per 2008 Monticello RMP Migratory Birds</p> <ul style="list-style-type: none"> Comply with the MBTA and implement Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) during all activities to protect habitat for migratory birds. Management would emphasize birds listed on the current USFWS BCC (USFWS 2002 or as updated), and Partners in Flight priority species (as updated). As specific habitat needs and population distribution to BCC and Partners in Flight priority species the Partners In Flight Avian Conservation Strategy (UDWR 2000, as updated) priority species are identified, the BLM would use adaptive management strategies to further conserve habitat and avoid impacts to these species. During nesting season for migratory birds (May 1–July 30), avoid or minimize surface-disturbing activities and vegetative-altering projects and broad scale use of pesticides in identified occupied priority migratory bird habitat. Prioritize the maintenance and/or improvement of lowland riparian, wetlands, and low and high desert shrub communities, which are the four most important and used habitat types by migratory birds in the Monticello PA. Prevent the spread of invasive and nonnative plants, especially cheatgrass, salt cedar, and Russian olive. Strive for a dense understory of native species with a reduction in salt cedar and improvement of cottonwood and willow regeneration. As a supplement to comply with Executive Order 13186, the Bird Habitat Conservation Areas identified in the Coordinated Implementation Plan for Bird Conservation in Utah (2005, or as updated) would receive priority for conducting bird habitat conservation projects through cooperative funding initiatives such as the Intermountain West Joint Venture. 	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.11.2).

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	<ul style="list-style-type: none"> Land use decisions that concern migratory birds and their habitats would consider the goals and objectives established in respective bird conservation strategies: bird conservation plans and the Utah Wildlife Action Plan. Management of habitat for species conservation would incorporate statewide conservation strategies. 					
147	<p>Per 2008 Monticello RMP Bighorn Sheep</p> <ul style="list-style-type: none"> Five mesa tops (56,740 acres) within the crucial bighorn sheep habitat have been identified as areas of potential conflict between bighorn sheep and activities that cause surface disturbance, resulting in permanent loss of bighorn sheep habitat. Bighorn sheep habitat improvement projects would be prioritized in these areas. Livestock grazing and associated range improvement projects are not allowed on the five mesa tops. Any future proposal for a change in kind of livestock from cattle to sheep in crucial desert bighorn sheep habitat would be denied in order to prevent competition for forage and the transmission of disease from domestic to wild sheep. Adhere to the recommendations in the BLM Bighorn Sheep Rangeland Management Plan (BLM 1993, as revised) and the Utah BLM Statewide Desert Bighorn Sheep Management Plan (BLM 1996, as revised), where practicable. 	<p>Same as Alternative A with the following exception:</p> <ul style="list-style-type: none"> Any future proposal for a change in the kind of livestock from cattle to sheep would be evaluated based on best available science. Proposals in crucial desert bighorn sheep habitat would be denied in order to prevent competition for forage and the transmission of disease from domestic to wild sheep. 	Same as Alternative B.	Same as Alternative B.	<p>Five mesa tops within crucial bighorn sheep habitat referenced in Presidential Proclamation 10285 have been identified as areas of potential conflict between bighorn sheep and activities that cause surface disturbance resulting in permanent loss of bighorn sheep habitat. Bighorn sheep habitat improvement projects would be prioritized in these areas. Continued monitoring of bighorn sheep priority habitat, connectivity corridors, population size, health, long-term viability, and conflicts with surface-disturbing activities would proceed in collaboration with the BEC and Tribal and agency programs. Continued monitoring of the five mesa tops and other existing and potential bighorn sheep habitat sites would be conducted in coordination with the BEC.</p> <p>Livestock grazing and associated range improvement projects are not allowed on the five mesa tops and would not be allowed in any habitat priority areas or connectivity corridors for bighorn sheep identified by future monitoring.</p> <p>In order to prevent competition for forage and the transmission of disease from domestic to wild sheep, no change in the kind of livestock from cattle to sheep in crucial desert bighorn sheep habitat would be allowed.</p> <p>No allotments would be converted from cows and horses to domestic sheep or goats within at least a 10-mile buffer of bighorn sheep habitat and connectivity corridors to reduce risk of disease transmission. For any allotments proposed to be converted from cows or horses to domestic sheep or goats, the agencies would notify the BEC prior to any transfer being approved, so the BEC can provide Traditional Indigenous Knowledge to inform the decision about the proper care and management of bighorn sheep. The agencies would collaborate with the BEC and BEC Tribal teams to incorporate any Traditional Indigenous Knowledge regarding required separation or buffer zones to protect bighorn sheep.</p> <p>Adhere to the recommendations in the BLM Bighorn Sheep Rangeland Management Plan (BLM 1993, as revised) and the Utah BLM Statewide Desert Bighorn Sheep Management Plan (BLM 1996, as revised), and Tribal policies regarding bighorn sheep stewardship, where practicable.</p>	<p>Five mesa tops on BLM-administered lands (56,740 acres) within crucial bighorn sheep habitat referenced in Presidential Proclamation 10285 have been identified as areas of potential conflict between bighorn sheep and activities that cause surface disturbance resulting in permanent loss of bighorn sheep habitat. Bighorn sheep habitat improvement projects would be prioritized in these areas. Continued monitoring of bighorn sheep priority habitat, connectivity corridors, population size, health, long-term viability, and conflicts with surface-disturbing activities would proceed in collaboration with the BEC and Tribal and agency programs. Continued monitoring of the five mesa tops and other existing and potential bighorn sheep habitat sites would be conducted in coordination with the BEC.</p> <p>Livestock grazing and associated range improvement projects are not allowed on the five mesa tops and would not be allowed in any habitat priority areas or connectivity corridors for bighorn sheep identified by future monitoring.</p> <p>No allotments would be converted from cows and horses to domestic sheep or goats within at least a 10-mile buffer of bighorn sheep habitat or within crucial desert bighorn sheep habitat within BENM and connectivity corridors to reduce risk of disease transmission and competition for forage. For any allotments proposed to be converted from cows or horses to domestic sheep or goats, the agencies would notify the BEC prior to any transfer being approved, so the BEC can provide Traditional Indigenous Knowledge to inform the decision about the proper care and management of bighorn sheep. The agencies would collaborate with the BEC and BEC Tribal teams to incorporate any Traditional Indigenous Knowledge regarding required separation or buffer zones to protect bighorn sheep.</p> <p>On BLM-administered lands only:</p> <ul style="list-style-type: none"> Adhere to the recommendations in the BLM Bighorn Sheep Rangeland Management Plan, as revised (BLM 1993) and the Utah BLM Statewide Desert Bighorn Sheep Management Plan, as revised (BLM 1996), and Tribal policies regarding bighorn sheep stewardship, where practicable.
148	<p>Per 2008 Monticello RMP Introduction, Transplantation, Augmentation, and Re-establishment</p> <p>The BLM would continue to cooperate with and provide support to UDWR in reintroducing native fish and wildlife species into historic or suitable</p>	Agencies would collaborate with the BEC, UDWR, and USFWS in the introduction, transplantation, augmentation, and re-establishment of native species. Priority would be given to species that provide for traditional uses and ceremonies.	Same as Alternative B.	Same as Alternative B.	Agencies would coordinate with the BEC, Tribal Nations, UDWR, and USFWS in the introduction, transplantation, augmentation, and re-establishment of both native and naturalized species to include, but not be limited to, pronghorn, desert bighorn sheep, wild turkey, beaver, chukar, Colorado River cutthroat trout,	Agencies would coordinate with the BEC, Tribal Nations, UDWR, and USFWS in the introduction, transplantation, augmentation, and re-establishment of both native and naturalized species to include, but not be limited to, pronghorn, desert bighorn sheep, wild turkey, beaver, chukar, Colorado River cutthroat trout,

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	<p>ranges, as determined appropriate through case-by-case NEPA analysis.</p> <p>Introduction, transplantation, augmentation, and re-establishment of both native and naturalized species would be considered and would include but may not be limited to pronghorn, desert bighorn sheep, wild turkey, beaver, chukar, Colorado River cutthroat trout, and endangered Colorado River fish species.</p>				<p>and endangered Colorado River fish species. Priority would be given to species that provide for traditional uses and ceremonies. Introduction, transplantation, or re-establishment programs would require prior genetic and disease monitoring.</p>	<p>and endangered Colorado River fish species. Priority would be given to species that provide for traditional uses and ceremonies. Introduction, transplantation, or re-establishment programs would require prior genetic and disease monitoring.</p>
149	<p>BLM-Administered Lands Per 2008 Monticello RMP Habitat Improvements and Protection</p> <ul style="list-style-type: none"> In areas lacking proper water distribution or natural water sources, allow for installation of precipitation catchments (guzzlers) or the development of springs on rangelands. Adhere to BLM fence standards to allow wildlife movement when fences are being developed or maintained. Wildlife habitat objectives would be considered in all reclamation activity. Priority would be given to meeting <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997). Adhere to the recommendations in the BLM's <i>Habitat Management Guides for the American Pronghorn Antelope</i> (1980, as revised), wherever practicable. Ground-disturbing and permitted activities carried out in all seasonal wildlife protection areas would be subject to special conditions regulating use during certain seasons. These seasonal conditions would not impact maintenance and operation activities for mineral production or hunting during a recognized hunting season established by UDWR. Ground-disturbing actions in crucial habitats would be avoided where practical. Where unavoidable disturbances are required, the BLM would follow BLM Washington Office Guidance (IM 2005-069) on application of compensatory measures. <p>NFS Lands Per 1986 Manti-La Sal LRMP Big Game Habitat General Big Game Winter Range (GWR)</p> <ul style="list-style-type: none"> Provide big game habitat needed to help achieve the big game population objectives identified in interagency herd unit plans. Maintain at least 30% of shrub plants in mature age, and at least 10% in young age classes. Maintain at least two shrub species on sites capable of growing two or more shrub species. Maintain habitat capability at a level at least 50% of potential for big game. Activities or uses which induce human activity within the area may be modified, rescheduled, or denied if the combination of accumulated impacts on vegetation, behavior, and/or 	<p>See previous management for installation of guzzlers/catchments.</p> <p>Agencies would collaborate with the BEC in determining fence locations and establishing and/or updating fence standards as necessary to allow wildlife movement within movement corridors. Traditional Indigenous Knowledge would be used in conjunction with agency data and standards to inform this process.</p> <p>Discretionary actions carried out in wildlife habitat would be subject to special conditions regulating use during certain seasons. Agencies would collaborate with the BEC to incorporate Traditional Indigenous Knowledge to develop these seasonal restrictions.</p>	Same as Alternative B.	Same as Alternative B.	<p>Agencies would coordinate with the BEC and Tribal Nations to determine fence locations and establish fence standards to allow wildlife movement within existing or potential movement corridors. Traditional Indigenous Knowledge would be used in conjunction with agency data and standards to inform this process.</p> <p>Discretionary actions carried out in wildlife protection areas would be subject to special conditions regulating use, especially during certain seasons. Agencies would coordinate with the BEC and Tribal Nations to incorporate Traditional Indigenous Knowledge to develop any closures or seasonal restrictions.</p>	<p>Agencies would coordinate with the BEC and Tribal Nations to determine fence locations and establish fence standards to allow wildlife movement within existing or potential movement corridors. Traditional Indigenous Knowledge would be used in conjunction with agency data and standards to inform this process.</p> <p>Discretionary actions carried out in important wildlife habitat would be subject to special conditions regulating use, especially during certain seasons. Agencies would coordinate with the BEC and Tribal Nations to incorporate Traditional Indigenous Knowledge to develop any closures or seasonal restrictions.</p>

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	<p>mitigation reduce effective habitat use below 80% of base year 1980 capacity of this unit.</p> <p>General Big Game Winter Range (GWR)</p> <ul style="list-style-type: none"> As appropriate, permit special uses if they do not conflict with big game wintering. <p>Production of Forage (RNG)</p> <ul style="list-style-type: none"> Balance wildlife use with grazing capacities and habitat. Acquire key big game winter range or wildlife habitat easements within or adjacent to NFS lands. 					
150	<p>Per 2008 Monticello RMP</p> <p>Seasonal Wildlife Protection Areas</p> <p>In addition to any other special conditions that may be in effect, crucial big game habitats are subject to special conditions regulating use during certain seasons. These seasonal conditions would not impact maintenance and operations activities for mineral production or hunting during a recognized hunting season established by UDWR.</p> <p>Special conditions for the seasonal wildlife protection areas include the following for all land use authorizations, with the exception of private woodland harvest:</p> <ul style="list-style-type: none"> No use of low-flying aircraft Closed to the following uses, among others, (refer to Appendix B of the 2008 Monticello RMP) during the established season: <ul style="list-style-type: none"> Permitted or commercial OHV use may be limited in number of participants and duration depending on the event. No use of pyrotechnics, shooting, etc. during permitted filming because of noise impacts. 	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).	See Management Actions Common to All Action Alternatives (Section 2.4.11.2).
151	<p>Per 2008 Monticello RMP</p> <p>Bighorn Sheep Lambing and Rutting Areas</p> <p>FWL-30</p> <p>Adhere to special conditions (FWL-29 and Appendix B of the 2008 Monticello RMP) on 317,487 acres (Appendix A, Figure 2-14) from April 1 to June 15 for lambing, and from October 15 to December 15 for rutting.</p>	<p>Bighorn Sheep Lambing and Rutting Areas</p> <p>Adhere to special conditions from April 1 to June 15 for lambing and October 15 to December 15 for rutting on 387,631 acres. The seasonal wildlife protection areas include the following for all land use authorizations, with the exception of private wood product harvest:</p> <ul style="list-style-type: none"> No use of low-flying aircraft. Closed to the following uses, among others (refer to Appendix F) during the established season: <ul style="list-style-type: none"> Permitted or commercial OHV use may be limited in number of participants and duration, depending on the event. No use of pyrotechnics, shooting, etc. during permitted filming because of noise impacts. <p>See Appendix A, Figure 2-15.</p> <p>See Appendix G.</p>	Same as Alternative B.	Same as Alternative B.	<p>Bighorn Sheep Lambing and Rutting Areas</p> <p>Adhere to special conditions in Alternative B, then develop special conditions with the BEC and Tribal Nations from April 1 to June 15 for lambing, and from October 15 to December 15 for rutting, or when lambing and rutting are observed on 387,631 acres.</p>	<p>Bighorn Sheep Lambing and Rutting Areas</p> <p>On 387,631 acres of bighorn sheep lambing and rutting areas, the following special conditions for all land use authorizations are required from April 1 to June 15 for lambing and October 15 to December 15 for rutting:</p> <ul style="list-style-type: none"> No use of low-flying aircraft. Activities subject to requirements described in Appendix F (with the exception of private wood harvest). <p>As appropriate, agencies would develop additional special conditions in collaboration with the BEC, Tribal Nations, and UDWR.</p> <p>See Appendix A, Figure 2-15.</p>
152	<p>Per 2008 Monticello RMP</p> <p>Deer Winter Range</p> <p>Adhere to special conditions (FWL-29 and Appendix B of the 2008 Monticello RMP) on 210,402 acres (Appendix A, Figure 2-14) from November 15 to April 15.</p>	<p>Same as Alternative A, with the exception that it would apply to 642,917 acres.</p> <p>Special conditions for the seasonal wildlife protection areas include the following for all land use authorizations, with the exception of private wood product harvest:</p> <ul style="list-style-type: none"> No use of low-flying aircraft. 	Same as Alternative B.	Same as Alternative B.	<p>Deer Winter Range</p> <p>Adhere to special conditions as developed in collaboration with the BEC and Tribal Nations on 642,917 acres from November 15 to April 15 or where deer wintering behavior is observed.</p>	<p>Deer Winter Range</p> <p>On 642,917 acres of deer winter range the following special conditions for all land use authorizations are required from November 15 to April 15 or when deer wintering behavior is observed:</p> <ul style="list-style-type: none"> No use of low-flying aircraft.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
		<ul style="list-style-type: none"> • Closed to the following uses, among others, during the established season: <ul style="list-style-type: none"> ○ Permitted or commercial OHV use may be limited in number of participants and duration, depending on the event. ○ No use of pyrotechnics, shooting, etc. during permitted filming because of noise impacts. <p>See Appendix A, Figure 2-16. See Appendix G.</p>				<ul style="list-style-type: none"> • Activities subject to requirements described in Appendix F (with the exception of private wood harvest). <p>As appropriate, agencies would develop additional special conditions in collaboration with the BEC, Tribal Nations and UDWR. See Appendix A, Figure 2-16.</p>
153	<p>Per 2008 Monticello RMP Elk Winter Range</p> <p>Adhere to special conditions (see also FWL-29 and Appendix B of the 2008 Monticello RMP) on 51,160 acres (Appendix A, Figure 2-14) from November 15 to April 15.</p>	<p>Same as Alternative A, except that it would apply to 375,586 acres.</p> <p>Special conditions for the seasonal wildlife protection areas include the following for all land use authorizations, with the exception of private wood product harvest:</p> <ul style="list-style-type: none"> • No use of low-flying aircraft. • Closed to the following uses, among others, during the established season: <ul style="list-style-type: none"> ○ Permitted or commercial OHV use may be limited in number of participants and duration, depending on the event. ○ No use of pyrotechnics, shooting, etc. during permitted filming because of noise impacts. <p>See Appendix A, Figure 2-17. See Appendix G.</p>	Same as Alternative B.	Same as Alternative B.	<p>Elk Winter Range FWL-34</p> <p>Adhere to special conditions as developed in collaboration with the BEC and Tribal Nations on 375,586 acres (Appendix A, Figure 2-17) from November 15 to April 15 or when elk wintering behavior is observed.</p>	<p>Elk Winter Range</p> <p>On 375,586 acres of elk winter range (Appendix A, Figure 2-17) the following special conditions for all land use authorizations would be required from November 15 to April 15 or when elk wintering behavior is observed:</p> <ul style="list-style-type: none"> • No use of low-flying aircraft. • Activities subject to requirements described in Appendix F (with the exception of private wood harvest). <p>As appropriate, agencies would develop additional special conditions in collaboration with the BEC, Tribal Nations and UDWR.</p>
154	No similar management.	Trail cameras would be allowed in BENM following existing laws, regulations, and policy, including state law. Seasonal or geographic closures would be coordinated with the BEC.	Same as Alternative B, with the exception that trail cameras would be allowed in BENM through permit only and when consistent with maintaining the privacy of traditional ceremonial uses. Use of trail cameras would be coordinated with the BEC.	Trail cameras would be prohibited in BENM.	Trail cameras would be allowed in BENM through permit only and when consistent with maintaining the privacy of traditional ceremonial uses. Use of trail cameras would be coordinated through the BEC. Trail cameras should not be used for, or data shared for, the purpose of trophy hunting.	Trail cameras would be allowed in BENM following existing laws, regulations, and policy, including state law. Seasonal or geographic closures would be coordinated with the BEC and UDWR.

2.4.12. Special Status Species

2.4.12.1. GOALS AND OBJECTIVES

- Manage special status species habitat to maintain and improve viable species populations, implement recovery actions, eliminate threats, and/or prevent federal listing.
- Ensure management actions support the protection of special status species and their habitats, including culturally identified species and their habitats, to maintain and improve viable species populations, connectivity and movement needs, prey species, and forage.
- Avoid adverse impacts to special status species habitat, connectivity, movement, and prey species or forage.
- Collaborate with the BEC to identify special status species of cultural priority to each Tribe of the BEC; develop a plan for protecting these species using Traditional Ecological Knowledge and Tribal expertise.

2.4.12.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Manage habitat for species conservation to incorporate Tribal and Utah statewide conservation strategies, in coordination with UDWR and the USFWS. Consider national or global conservation strategies in habitat management.
- Collaborate with the BEC to maintain, protect, or enhance habitats (including but not limited to designated critical habitat) of federally listed threatened, endangered, or candidate plant or animal species to actively promote recovery to the point that they no longer need listing or prevent the listing of species under the ESA.
- Collaborate with the BEC to maintain, protect, or enhance habitats of the BLM state director's sensitive species list, USDA Forest Service sensitive species list, Regional Forester's species of conservation concern (SCC) list, USFWS BCC list, and species of cultural importance to culturally affiliated Tribal Nations (as determined through collaboration with the BEC) to ensure that discretionary actions by the agencies are consistent with the conservation needs of these species and do not contribute to the need to list any of these species under provisions of the ESA.
- Preserve, restore, or protect habitat connectivity and unrestricted special status species movement between ecological zones, seasonal use areas, and other areas important for sustainable populations. Allow construction of aquatic organism barriers if the benefit of nonnative species control and special status species protection is greater than the loss in connectivity and doing so is consistent with the protection of BENM objects.

- Preserve, restore, or protect native habitat through vegetation management, low-tech process-based restoration, or other actions to support sustainable populations of special status species. Habitat treatments would be coordinated with the BEC and agency resource programs to ensure consistency with protecting BENM objects.
- Traditional use gathering of special status species plants would be managed through permit—for example, notification of use through a point of contact system, in collaboration with the BEC, in accordance with applicable law.
- Agencies would collaborate with the BEC and other research partners to monitor prey base for raptors.
- The effects of seasonality would be considered for limits on management and discretionary actions that might impact special status species and their habitats and for management actions and treatments to protect these species and habitats.

2.4.12.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-11. Alternatives for Special Status Species

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
155	<p>Per 2020 ROD/MMPs</p> <p>Raptor management would be guided by the practices in Appendix E of the 2020 ROD/MMPs, utilizing seasonal and spatial buffers, as well as mitigation, to maintain and enhance raptor nesting and foraging habitat, while allowing other resource uses.</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Prohibit forest vegetation manipulation within active northern goshawk nest areas (30 acres) during the active nesting period (March 1–September 30).</p> <p>In active northern goshawk nest areas, restrict USDA Forest Service management activities and human uses for which the USDA Forest Service issues permits (does not include livestock permits) during the active nesting season unless it is determined that the disturbance is not likely to result in nest abandonment.</p>	<p>Agencies would collaborate with the BEC when developing seasonal restrictions and spatial buffers for raptor nesting and foraging habitats. At a minimum, the restrictions and spatial buffers would comply with <i>Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances</i> (Romin and Muck 2002) and /or ESA species recovery plans.</p>	Same as Alternative B.	Same as Alternative B.	Same as Alternative B, with the inclusion of restrictions, and spatial buffers would also comply with Tribal standards, as applicable with federal law, for raptor nesting and habitat protection.	<p>Agencies would collaborate with the BEC when developing seasonal restrictions and spatial buffers for raptor nesting and foraging habitats. At a minimum, the restrictions and spatial buffers would comply with Tribal standards, as consistent with federal law, and <i>Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances</i> (Romin and Muck 2002) and /or ESA species recovery plans.</p>
156	<p>Per 2020 ROD/MMPs</p> <p>Agencies would post or otherwise provide educational information to reduce climbing and canyoneering impacts on active raptor nests.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies, in collaboration with the BEC, would post or otherwise provide educational information to reduce climbing and canyoneering impacts on active raptor nests.	Agencies, in collaboration with the BEC, would post or otherwise provide educational information to reduce climbing and canyoneering impacts on active raptor nests.
157	<p>Per 2020 ROD/MMPs</p> <p>Raptor management would be guided by the use of raptor BMPs (Appendix E of 2020 ROD/MMPs), utilizing seasonal and spatial buffers and mitigation to maintain and enhance raptor nesting and foraging habitat while allowing other resource uses.</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Avoid activities that could cause abandonment of active golden eagle nests.</p>	<p>Collaborate with the BEC and Tribal Nations when closing active raptor nesting areas to visitation as necessary to provide nesting success. This would include, if necessary, the temporary closure of OHV route access to nesting areas, as well as the closure of trails and climbing routes where active nests are located.</p>	Same as Alternative B.	Same as Alternative B.	<p>Ropes and other climbing aids are not allowed for access to nesting raptors. Coordinate with Tribal Nations and the BEC to close active raptor nesting areas to visitation as necessary to provide for nesting success. This would include, if necessary, the temporary or permanent closure of any OHV route access to nesting areas, as well as the temporary or permanent closure of trails and climbing routes where active nests are located or nesting behavior is observed. Temporary and/or permanent closures would be considered during implementation-level planning.</p>	<p>Ropes and other climbing aids are prohibited for accessing nesting raptors. Collaborate with Tribal Nations and the BEC to close active raptor nesting areas to visitation as necessary to provide for nesting success. This would include, if necessary, the temporary or permanent closure of any OHV route access to nesting areas, as well as the temporary or permanent closure of trails and climbing routes where active nests are located or nesting behavior is observed. Temporary and/or permanent closures would be considered during implementation-level planning.</p>
158	<p>Per 2020 ROD/MMPs</p> <p>Protect bat roosting, hibernating, and breeding habitat from disturbance. AMLs would be monitored/surveyed prior to reclamation in accordance with UDWR and the Utah Division of Oil, Gas and Mining Abandoned Mine Reclamation Program Memorandum of Understanding: Conservation and Management of Bats in Abandoned Mines in Utah (UDWR</p>	<p>Agencies would collaborate with the BEC when determining to seasonally restrict activities that impact bat roosting, hibernating, and breeding habitat.</p>	Same as Alternative B.	Same as Alternative B.	<p>Same as Alternative B with the exception of the following:</p> <ul style="list-style-type: none"> • Seasonal restrictions could include closing cave and cavern access to prevent disturbance and disease transmission. 	<p>Agencies would collaborate with the BEC when determining whether to seasonally restrict activities that impact bat roosting, hibernating, and breeding habitat.</p> <ul style="list-style-type: none"> • Seasonal restrictions could include closing cave and cavern access to prevent disturbance and disease transmission.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	2015). If bats are present, bat gates would be installed unless human safety is at risk.					
159	No similar action.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would collaborate with the BEC when determining requirements for bat-friendly designs for all new construction (e.g., no obstacles across the top of water sources).	Agencies would collaborate with the BEC when determining requirements for bat-friendly designs for all new construction (e.g., no obstacles across the top of water sources).
160	Per 2020 ROD/MMPs Prohibit commercial overnight use in designated Mexican spotted owl (MSO) nesting areas (i.e., Protected Activity Centers [PACs]) from March 1 to August 31.	Education and interpretation would be used to inform visitors of appropriate behaviors to minimize impacts to nesting MSO. Casual overnight users would be encouraged to not use PAC areas. Commercial guides would not be allowed to use PAC areas for overnight use from March 1 to August 31. There would be no designated campsites in PACs. If adverse impacts are occurring to MSO occupied habitat (more than 50 people a day in the area of impact, visitors camping in sensitive areas): <ul style="list-style-type: none"> • Group size limits may be implemented. • Camping may be limited to designated sites. • Permits may be required to access affected areas. 	Same as Alternative B.	Same as Alternative B, with the exception that overnight use in the MSO PAC would be prohibited from March 1 to August 31.	Same as Alternative B with the following exceptions: <ul style="list-style-type: none"> • No recreational use, including overnight use, would be allowed in MSO PAC areas from March 1 to August 31 or when nesting behavior is observed. • There would be no camping in MSO PAC areas. • Wood harvesting would be prohibited in MSO PAC areas and within 100 feet of designated MSO habitat. • If adverse impacts are occurring to MSO occupied habitat, the following would be determined in collaboration with the BEC: <ul style="list-style-type: none"> ○ Group size limits may be implemented. ○ Camping may be closed, if needed. ○ Permits may be required to access affected areas. 	Education and interpretation would be used to inform visitors of appropriate behaviors to minimize impacts to nesting MSO. Casual overnight users would be encouraged to not use PAC areas. Commercial guides would not be allowed to use PAC areas for overnight use from March 1 to August 31. If adverse impacts are occurring to MSO occupied habitat or PACs: <ul style="list-style-type: none"> • Group size limits may be implemented using the best available information to protect PACs. • Camping may be limited to designated sites or closed if needed.
161	Per 2020 ROD/MMPs In suitable northern goshawk nesting habitat, complete territory occupancy surveys prior to management actions. When an active nest area is identified, identify the active nest area (generally 30 acres), two alternative nest areas, and three replacement nest areas where USDA Forest Service vegetation management is designed to maintain or improve desired nest area habitat. Determine the level of northern goshawk field survey needed. Complete surveys for territory occupancy within suitable habitat. Surveys would be completed during the nesting and/or post-fledging period and must be conducted at least 1 year prior to implementation of management actions. When an active nest area has been identified, identify two alternate nest areas and three replacement nest areas. Per 1986 Manti-La Sal LRMP Forest vegetative manipulation within active, alternate, and replacement northern goshawk nest areas should be designed to maintain or improve desired nest area habitat.	See raptor management above.	See raptor management above.	See raptor management above.	See raptor management above.	See raptor management above.
162	Per 1986 Manti-La Sal LRMP and 2020 ROD/MMPs When non-vegetative management activities are proposed that would result in loss of suitable goshawk habitat, sufficient mitigation measures would be employed to ensure an offset of the loss.	See raptor management above.	See raptor management above.	See raptor management above.	See raptor management above.	See raptor management above.
163	Per 2020 ROD/MMPs Maintain, restore, and/or improve critical habitat requirements for threatened and endangered (T&E) fish, including restoration and enhancement of backwater, side channel, and floodplain habitats. Manage habitat to minimize	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Maintain, restore, and/or improve special status aquatic species habitat and connectivity, including restoration and enhancement of backwater, side channel, and floodplain habitats. Manage habitat to ensure no net loss of habitat, except for short-term impacts during riparian and	Maintain, restore, and/or improve special status aquatic species habitat and connectivity. Manage habitat for riverscape health to ensure no net loss of habitat, except for short-term impacts during riparian and aquatic habitat projects that would procure a long-term benefit. Examples

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	disturbance except when conducting riparian and aquatic habitat projects.				aquatic habitat projects that would procure a long-term benefit.	include low-tech process-based restoration; restoration and enhancement of backwater, side channel, and floodplain habitats; and invasive plant species treatment.
164	<p>Per 2008 Monticello RMP</p> <p>T&E species conservation measures would be used for all surface-disturbing activities to comply with the ESA and BLM Manual 6840. Appendices B, E, I, and M of the 2008 Monticello RMP apply. The species include California condor, MSO, southwestern willow flycatcher, yellow-billed cuckoo, bonytail, Colorado pikeminnow, humpback chub, razorback sucker, and Navajo sedge.</p> <p>In the 2008 Monticello RMP:</p> <ul style="list-style-type: none"> • Appendix B includes stipulations applicable to surface-disturbing activities regarding the 10 listed and candidate species. • Appendix E includes USFWS correspondence. • Appendix I provides wildland fire protection/management measures for special status species. • Appendix M provides the finalized conservation measures and BMPs for T&E species resulting from programmatic Section 7 consultation with the USFWS (2007). 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would collaborate with the BEC and USFWS in applying special species conservation measures for all activities to comply with the ESA and BLM Manual 6840, <i>Special Status Species Management</i> .	Agencies would collaborate with the BEC and USFWS in applying special species conservation measures for all activities to comply with the ESA and BLM Manual 6840, <i>Special Status Species Management</i> , or the most up to date policy.
165	<p>Per 2008 Monticello RMP</p> <p>Inventories and monitoring studies would be conducted in order to determine special status plant and animal species locations, potential habitat, population dynamics, and existing and potential threats.</p>	Agencies would collaborate with the BEC when developing pre-activity monitoring requirements for special status plant and animal species and important plant and animal species for traditional uses and ceremonies. Projects with the potential to impact these species would be designed to avoid impacts to these species and/or to achieve a no net loss of the species and their habitats, habitat connectivity, forage, and prey species.	Same as Alternative B.	Same as Alternative B.	Agencies would collaborate with the BEC in the development of pre-activity monitoring requirements for special status plant and animal species and endemic plants and animal species for traditional and ceremonial use. Projects with the potential to impact these species would be designed to avoid impacts to these species and/or achieve a no net loss of the species, their habitats, and habitat connectivity, forage, and/or prey species.	Agencies would collaborate with the BEC in the development of pre-activity monitoring requirements for special status plant and animal species and important plants and animal species for traditional and ceremonial use. Projects with the potential to impact these species would be designed to avoid impacts to these species and/or achieve a no net loss of the species, their habitats, and habitat connectivity, forage, and/or prey species.
166	<p>Per 2008 Monticello RMP</p> <p>The protection of species and potential and/or occupied habitat for special status species would be considered and implemented prior to any authorization or action by the BLM that could alter or disturb such habitat.</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Manage habitat for recovery of endangered and threatened species.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.12.2).	See Management Actions Common to All Action Alternatives (Section 2.4.12.2).	See Management Actions Common to All Action Alternatives (Section 2.4.12.2).	See Management Actions Common to All Action Alternatives (Section 2.4.12.2).	See Management Actions Common to All Action Alternatives (Section 2.4.12.2).
167	<p>Per 2008 Monticello RMP</p> <p>No management action would be permitted on BLM-administered lands that would jeopardize the continued existence of species that are listed, proposed for listing, or candidates for listing under the ESA.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	No management action would be permitted that would jeopardize the continued existence of species that are listed, proposed for listing, or candidates for listing under the ESA.	No management action would be permitted that would jeopardize the continued existence of species that are listed, proposed for listing, or candidates for listing under the ESA.
168	<p>Per 2008 Monticello RMP</p> <p>The BLM would follow and implement the guidelines and management recommendations presented in species recovery or conservation plans (as updated), or alternative management strategies developed in consultation with the USFWS.</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Implement activities to meet the USDA Forest Service's share of approved recovery plans.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
169	Per 2008 Monticello RMP The BLM would support and implement where possible current and future sensitive species conservation agreements, including the Colorado River Cutthroat Trout Conservation Agreement and Strategy and Conservation Agreement for the roundtail chub, bluehead sucker, and flannelmouth sucker.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	The agencies included in sensitive species' conservation agreement and in collaboration with the BEC, would implement the agreement's provisions. This includes the Colorado River Cutthroat Trout Conservation Agreement and Strategy and Conservation Agreement for the roundtail chub, bluehead sucker, and flannelmouth sucker.	The agencies included in sensitive species' conservation agreement and in collaboration with the BEC, would implement the agreement's provisions. This includes the Colorado River Cutthroat Trout Conservation Agreement and Strategy and Conservation Agreement for the roundtail chub, bluehead sucker, and flannelmouth sucker.
170	Per 2008 Monticello RMP The BLM would continue to work with the USFWS and others to ensure that plans and agreements are updated to reflect the latest scientific data.	See Management Actions Common to All Alternatives.	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).
171	Per 2008 Monticello RMP The BLM would work cooperatively with the USFWS and UDWR to obtain and/or maintain maps of current occupied and potential habitats for special status species.	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).
172	Per 2008 Monticello RMP The BLM would work with UDWR to implement the <i>Utah Wildlife Action Plan</i> (UDWR 2005) to coordinate management decisions that would conserve native species and prevent the need for additional listings.	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).	See Management Common to All Action Alternatives (Section 2.4.12.2).
173	Per 2008 Monticello RMP Translocations of population augmentation of special status species would be allowed to aid in conservation and recovery efforts. Necessary habitat manipulations and monitoring would be implemented to ensure successful translocation efforts.	Special status species native to BENM would be allowed to be translocated to aid in conservation and recovery efforts. Necessary habitat manipulations and monitoring would be implemented to ensure successful translocation efforts.	Same as Alternative B.	Same as Alternative B.	Special status species native to BENM would be allowed to be translocated to aid in conservation and recovery efforts only when culturally appropriate and if appropriate genetic and disease monitoring has been conducted prior to translocation. Necessary habitat manipulations and monitoring would be implemented to ensure successful translocation efforts.	Special status species native to BENM would be allowed to be translocated to aid in conservation and recovery efforts only when culturally appropriate and if appropriate genetic and disease monitoring has been conducted prior to translocation. Necessary habitat manipulations and monitoring would be implemented to ensure successful translocation efforts.
174	Per 2008 Monticello RMP Retain potential/occupied special status species habitat in federal ownership. Acquisition of potential/occupied special status species habitat would be a high priority. These acquired/exchanged lands would be managed according to BLM land management prescriptions for special status species.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
175	Per 2008 Monticello RMP Gunnison Prairie Dogs Site-specific analysis would be conducted to determine presence or absence of prairie dog colonies within potential/occupied habitat (Map 14 in Appendix A of 2008 Monticello RMP). Colonies would be protected from surface-disturbing activities with the use of BMPs. Site-specific analysis would mitigate impacts from other BLM-authorized activities.	Site-specific inventory would be conducted to determine presence or absence of prairie dog colonies within potential/occupied habitat. Projects with the potential to impact colonies would be designed to avoid impacts and/or achieve a no net loss of the species and their habitats.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B, with exception of the following: • Projects with the potential to impact colonies would be designed to avoid impacts and/or achieve a no net loss of the species, their habitats, habitat connectivity, forage, and predators that rely on prairie dogs.	Site-specific inventory would be conducted to determine presence or absence of Gunnison prairie dog colonies within potential/occupied habitat. Projects with the potential to impact colonies would be designed in collaboration with UDWR and the BEC to avoid impacts and/or achieve a no net loss of the species, their habitats, habitat connectivity, forage, and predators that rely on prairie dogs.
176	Per 2008 Monticello RMP Habitat for MSO and flannelmouth sucker (Arch Canyon) In Arch Canyon, OHV use is limited to the designated route up to the NFS lands boundary, a total of 8 miles one way. Organized and commercial groups would be required to obtain a Special Recreation Use Permit. This permit would allow access on the designated route up to the NFS lands boundary except from March 1 through August 31. During	See Arch Canyon Recreation Management Zone (RMZ) management in Section 2.4.20, Recreation and Visitor Services for MSO management.	See Arch Canyon RMZ management in Section 2.4.20, Recreation and Visitor Services for MSO management.	See Arch Canyon RMZ management in Section 2.4.20, Recreation and Visitor Services for MSO management.	See Arch Canyon RMZ management in Section 2.4.20, Recreation and Visitor Services for MSO management.	See Arch Canyon RMZ management in Section 2.4.20, Recreation and Visitor Services for MSO management.

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
this period, access would be limited to 7.5 miles of the designated route. Therefore, during this period motorized access would not be allowed within 0.5 mile of the NFS lands boundary.					

2.4.13. Visual Resource Management, Night Skies, and Soundscapes

2.4.13.1. GOALS AND OBJECTIVES

- Manage federal lands to protect the quality of scenic (visual) values in BENM in collaboration with the BEC.
- Manage federal lands to protect the quality of night skies and natural soundscapes in BENM in collaboration with the BEC.
- Manage federal lands according to the assigned BLM VRM class objectives on BLM-administered lands and scenic integrity objectives (SIO) on NFS lands.
 - BLM
 - VRM Class I objective: To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention (wilderness, WSAs, wild sections of WSRs, and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape are assigned VRM Class I).
 - VRM Class II objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.
 - VRM Class III objective: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
 - VRM Class IV objective: To provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.
 - USDA Forest Service
 - Very High–Unaltered: The valued scenic character “is” intact with only minute, if any, deviations. Generally provides for ecological change only.
 - High–Appears Unaltered: Landscapes where the valued scenic character “appears” intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the scenic character so completely, and at such scale, that they are not evident.
 - Moderate–Slightly Altered: Noticeable deviations must remain visually subordinate to the scenic character being viewed.
 - Low–Moderately Altered: Deviations begin to dominate the valued scenic character being viewed but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles outside of the landscape being viewed.
 - Very Low–Heavily Altered: Deviations may strongly dominate the valued scenic character. They may not borrow from valued attributes such as size, shape, edge effect, and pattern of natural openings; vegetative type changes; or architectural styles within or outside the landscape being viewed. Deviations, however, must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.

2.4.13.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Manage BENM to maintain and enhance ecologically sound, resilient, and visually appealing natural and cultural landscapes that sustain the scenic character in ways that contribute to visitors’ sense of place and connection with nature.
- Collaborate with the BEC in the management of visual resources, soundscapes, and dark night skies according to Traditional Indigenous Knowledge as provided by the BEC and Tribal Nations, where appropriate.
- Manage BLM-administered lands using the VRM system according to VRM class objectives and manage scenic resources on NFS lands using the Scenery Management System (SMS) to meet or exceed SIOs or VRM objectives.
- For NFS lands, scenery would be managed to preserve the natural and cultural attributes of BENM’s scenic character (see Appendix R). All management actions would maintain or move toward the assigned SIOs (Appendix A, Figure 2-23).
- To the extent practicable and consistent with the protection of BENM objects, restore natural visual contrasts remaining from past land uses that are inconsistent with VRM classes and SIOs.
- Agencies would collaborate with the BEC to inventory and monitor night skies and soundscapes within BENM to identify general trends and specific effects from BLM- and USDA Forest Service–managed uses within BENM.
- Agencies would collaborate with the BEC when developing a night skies management plan and soundscapes management plan to mitigate effects from BENM uses, including education about night skies (e.g., celestial observations), unimpeded natural viewsapes, soundscapes, culturally important viewsheds, and their importance to BENM and Tribal Nations. The agencies would seek to work with neighboring federal agencies, such as the NPS, in developing night skies and soundscapes management plans.
 - Collaborate with the BEC to survey existing impacts to night skies, soundscapes, and visual resources and identify those that damage or degrade culturally affiliated Tribes’ cultural practices requiring darkness and natural viewsapes.
- Reclaim landscapes, restore native vegetation, and rehabilitate waterways and riparian areas to enhance natural and historical scenic values that have been significantly degraded.

2.4.13.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-12. Alternatives for Visual Resource Management, Night Skies, and Soundscapes

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
177	<p>Per 2008 Monticello RMP VRM-1 411,245 acres are managed as VRM Class I (Appendix A, Figure 2-18). These areas include the following:</p> <p>WSAs:</p> <ul style="list-style-type: none"> 13 WSAs (389,440 acres): Mancos Mesa (51,440 acres), Grand Gulch Instant Study Area Complex (37,810), Road Canyon (52,420), Fish Creek Canyon (46,440), Mule Canyon (5,990), Cheese Box Canyon (15,410), Dark Canyon Instant Study Area Complex (62,040), Butler Wash (22,030), Bridger Jack Mesa (5,290), Indian Creek (6,870), South Needles (160), and the Butler Wash Lands Administratively Endorsed Area. <p>ACECs:</p> <ul style="list-style-type: none"> Valley of the Gods Indian Creek San Juan River <p>WSRs:</p> <ul style="list-style-type: none"> Dark Canyon Suitable River Segment Colorado River Suitable Segment 3 San Juan River Suitable Section 3 San Juan River Suitable Segment 5 	<p>VRM Class I for BLM-administered lands and SIO Very High for NFS lands</p> <p>410,236 acres of BLM-administered lands are managed as VRM Class I (Appendix A, Figure 2-19). These areas include the following:</p> <ul style="list-style-type: none"> WSAs Indian Creek ACEC Valley of the Gods ACEC (excluding highway access portals [57 acres]) Dark Canyon WSR suitable river segment San Juan WSR Suitable Segment 5 Colorado River WSR Suitable Segment 2 Colorado River WSR Suitable Segment 3 <p>46,858 acres of NFS lands are managed with an SIO of Very High. These areas include the following:</p> <ul style="list-style-type: none"> Designated wilderness 	<p>VRM Class I for BLM-administered lands and SIO Very High for NFS lands</p> <p>507,746 acres are managed as VRM Class I (Appendix A, Figure 2-20). These areas include the following:</p> <ul style="list-style-type: none"> Same as Alternative B with the exception that the following would also be managed as VRM Class I: <ul style="list-style-type: none"> LWC managed for those characteristics. 	<p>VRM Class I for BLM-administered lands and SIO Very High for NFS lands</p> <p>804,406 acres are managed as VRM Class I (Appendix A, Figure 2-21). These areas include the following:</p> <ul style="list-style-type: none"> Same as Alternative B with the exception that the following would also be managed as VRM Class I: <ul style="list-style-type: none"> LWC managed for those characteristics. 	<p>1,336,694 acres are managed as VRM Class I and SIO Very High (Appendix A, Figure 2-22). These areas include the following:</p> <ul style="list-style-type: none"> Remote Zone Outback Zone 	<p>VRM Class I for BLM-administered lands and SIO Very High for NFS lands</p> <p>596,030 acres are managed as VRM Class I (Appendix A, Figure 2-23). These areas include the following:</p> <ul style="list-style-type: none"> WSAs LWC managed to protect those characteristics. Indian Creek ACEC Valley of the Gods ACEC (excluding Passage Zone) Dark Canyon WSR Suitable river segment San Juan WSR Suitable Segment 5 Colorado River WSR Suitable Segment 2 Colorado River WSR Suitable Segment 3 <p>46,858 acres of NFS lands are managed with an SIO of Very High. These areas include the following:</p> <ul style="list-style-type: none"> Designated wilderness
178	<p>Per 2008 Monticello RMP VRM-2 304,949 acres are managed as VRM Class II, including but not limited to the following (Appendix A, Figure 2-18):</p> <ul style="list-style-type: none"> ACECs: <ul style="list-style-type: none"> Lavender Mesa Shay Canyon San Juan River (portions) WSRs: <ul style="list-style-type: none"> Colorado River Suitable Segment 2 Other areas: <ul style="list-style-type: none"> Mesa tops for Tables of the Sun Comb Ridge Management Zone of Cedar Mesa Special Recreation Management Area (SRMA) Indian Creek SRMA from Indian Creek ACEC south to NFS lands boundary and Davis and Lavender Canyons Harmony Flat White Canyon area Dripping Canyon/Chicken Corners area Non-WSA areas with wilderness characteristics (Dark Canyon, Mancos Mesa, Grand Gulch) Lockhart Basin 	<p>VRM Class II for BLM-administered lands and SIO High for NFS lands</p> <p>646,619 acres of BLM-administered lands are managed as VRM Class II, including the following (Appendix A, Figure 2-19):</p> <ul style="list-style-type: none"> LWC managed for those characteristics. Valley of the Gods ACEC highway access portals (57 acres). All BLM-administered lands within BENM not specifically managed as VRM Class I or VRM Class III would be managed as VRM Class II. All NFS lands within BENM not managed as SIO Very High would be managed as SIO High. 	<p>VRM Class II for BLM-administered lands and SIO High for NFS lands</p> <p>549,685 acres are managed as VRM Class II, including the following (Appendix A, Figure 2-20):</p> <ul style="list-style-type: none"> Same as Alternative B, with the following exception: <ul style="list-style-type: none"> LWC managed for those characteristics would be managed as VRM Class I. 	<p>VRM Class II for BLM-administered lands and SIO High for NFS lands</p> <p>270,394 acres are managed as VRM Class II, including the following (Appendix A, Figure 2-21):</p> <ul style="list-style-type: none"> Same as Alternative B, with the following exception: <ul style="list-style-type: none"> LWC managed for those characteristics would be managed as VRM Class I. 	<p>VRM Class II for BLM-administered lands and SIO High for NFS lands.</p> <p>312,695 acres are managed as VRM Class II and SIO High, including the following (Appendix A, Figure 2-22):</p> <ul style="list-style-type: none"> Front Country Zone Passage Zone 	<p>VRM Class II for BLM-administered lands and SIO High for NFS lands</p> <p>459,390 acres of BLM-administered lands are managed as VRM Class II, including the following (Appendix A, Figure 2-23):</p> <ul style="list-style-type: none"> Portion of Valley of the Gods ACEC overlying the Passage Zone. All BLM-administered lands within BENM not specifically managed as VRM Class I or VRM Class III would be managed as VRM Class II. <p>242,933 acres of NFS lands are managed with an SIO of High. These areas include the following:</p> <ul style="list-style-type: none"> All NFS lands in BENM outside of designated wilderness.
179	<p>Per 2008 Monticello RMP VRM-3 212,623 acres are managed as VRM Class III, including but not limited to the following (Appendix A, Figure 2-18):</p> <ul style="list-style-type: none"> ACECs: <ul style="list-style-type: none"> San Juan River Sections 2 and 4 	<p>VRM Class III for BLM-administered lands</p> <p>18,144 acres of BLM-administered lands are managed as VRM Class III, including the following (Appendix A, Figure 2-19):</p> <ul style="list-style-type: none"> Existing communication sites (500-foot buffer). Lands within 0.25 mile of U.S. 191. 	<p>VRM Class III for BLM-administered lands</p> <p>Same as Alternative B.</p>	<p>VRM Class III for BLM-administered lands</p> <p>516 acres are managed as VRM Class III, including the following (Appendix A, Figure 2-21):</p> <ul style="list-style-type: none"> Existing communication sites (500-foot buffer). Existing ROW corridors. Bluff Airport. 	<p>No BLM-administered lands on BENM would be managed as VRM Class III, with exceptions for temporary research projects that would terminate within 2 years of initiation.</p> <p>Rehabilitation would begin at the end of the 2-year period. During the temporary project, the manager may require phased mitigation to</p>	<p>VRM Class III for BLM-administered lands</p> <p>19,681 acres of BLM-administered lands are managed as VRM Class III, including the following (Appendix A, Figure 2-23):</p> <ul style="list-style-type: none"> Existing communication sites (500-foot buffer). Lands within 0.75 mile of U.S. 191.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Other areas:</p> <ul style="list-style-type: none"> • Cedar Mesa SRMA (portions) <ul style="list-style-type: none"> ○ Moqui Canyon ○ North Cottonwood area ○ North of Utah State Route 95 in the South Cottonwood area ○ Grand Flat area ○ Beef Basin (portions) ○ Gravel, Long, and Short Canyon areas ○ Other areas illustrated on Map 1 in Appendix A of the 2008 Monticello RMP 	<ul style="list-style-type: none"> • Acquired lands with existing infrastructure if that infrastructure is inconsistent with VRM Class I or Class II. • Existing ROW corridors. • ROW open areas. • Indian Creek Corridor Recreation Management Zone (RMZ), Trail of the Ancients RMZ, Bicentennial Highway RMZ (portion [3,723 acres]), Sand Island RMZ, Goosenecks RMZ (portion [61 acres]). • Bluff Airport. 			<p>better conform with prescribed VRM objectives. Any new BENM buildings and infrastructure must be designed in accordance with VRM Class I and II objectives.</p> <p>The USDA Forest Service would manage all NFS lands to Very High and High SIO and co-define requirements of Very High and High SIO when possible.</p>	<ul style="list-style-type: none"> • Acquired lands with existing infrastructure if that infrastructure is inconsistent with VRM Class I or Class II. • ROW open areas. • Portions of the Indian Creek Management Area, Cedar Mesa Management Area, White Canyon Management Area, Valley of the Gods Management Area that are in the Front Country Zone. This would not apply to areas managed as WSAs. • A portion of the Front Country zone near Goosenecks State Park. • Bluff Airport. • No NFS lands within BENM would be managed as SIO Moderate.
180	Per 2008 Monticello RMP VRM-4 143,845 acres would be managed as VRM Class IV, as illustrated in Appendix A, Figure 2-18.	VRM Class IV Same as Alternative E.	VRM Class IV Same as Alternative E.	VRM Class IV Same as Alternative E.	VRM Class IV No BLM-administered lands in BENM would be managed as VRM Class IV and no NFS lands within BENM would be managed as SIO Low or Very Low.	VRM Class IV No BLM-administered lands in BENM would be managed as VRM Class IV and no NFS lands within BENM would be managed as SIO Low or Very Low.
181	Per 1986 Manti-La Sal LRMP USDA Forest Service resource uses or activities should meet the adopted Visual Quality Objectives (VQOs) (as displayed in Appendix F of the 1986 Manti-La Sal LRMP).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
182	Per 1986 Manti-La Sal LRMP Rehabilitate existing projects and areas which do not meet the adopted VQO(s) specified for each management unit. Set priorities for rehabilitation considering the following: <ul style="list-style-type: none"> • Relative importance of the site and amount of deviation from adopted VQO. Foreground areas have highest priority • Length of time it would take natural processes to reduce the visual impacts so that they meet the adopted VQO. • Length of time it would take rehabilitation measures to meet the adopted VQO. • Benefits to other resource management objectives gained through rehabilitation. 	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
183	Per 1986 Manti-La Sal LRMP Achieve landscape enhancement through addition, deletion, or alteration of landscape elements. Examples of these include <ul style="list-style-type: none"> • the addition of vegetation species to introduce unique form, color, texture of existing vegetation; or • vegetation manipulation to open up vistas or screen out undesirable views. 	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
184	Per 1986 Manti-La Sal LRMP Developed Recreation Sites (DSR) and Undeveloped Motorized Recreational Use (UDM) On-site VQO is partial retention or modification.	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
185	Per 1986 Manti-La Sal LRMP Meet USDA Forest Service-directed VQOs except where habitat improvement activities occur. Treated sites must be returned to the planned VQO within 10 years.	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
186	Per 1986 Manti-La Sal LRMP Watershed Protection/ Improvement (WPE) Short-term VQO is rehabilitation; in the long term, it should meet the adopted VQO.	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
187	Per 1986 Manti-La Sal LRMP Research, Protection, and Interpretation of Lands and Resources (RPI) The VQO on all units is generally preservation.	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
188	Per 1986 Manti-La Sal LRMP Special Land Designation Manage generally for a partial retention VQO.	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).	See Management Actions Common to All Action Alternatives (Section 2.4.13.2).
189	Per 2020 ROD/MMPs The following management would be implemented to minimize impacts to night skies: <ul style="list-style-type: none"> Limit the use of artificial lighting during nighttime operations to only those determined necessary for the safety of operations and personnel. Utilize shielding and aiming techniques and limit the height of light poles to reduce glare and avoid light shining above horizon(s). Use lights only where needed, use light only when needed, and direct all lighting on-site. No permanent lighting would be allowed in VRM Class I areas. Use motion sensors, timers, or manual switching for areas that require illumination but are seldom occupied. Any authorized facilities would use the best technology available to minimize light emissions. Reduce lamp brightness and select lights that are not broad spectrum or bluish in color. Use lamp types such as sodium lamps, which are less prone to atmospheric scattering. Require a lightscape management plan where an extensive amount of long-term lighting is proposed. 	The following management would be implemented to manage for the benefit of night skies: <ul style="list-style-type: none"> All lighting directed on-site only. Only allow artificial lighting when necessary for safety No broad spectrum or bluish lights. No permanent lighting in Very High or High SIO (USDA Forest Service) and VRM Class I and VRM Class II areas (BLM). Motion-activated lighting would be utilized when feasible. Use of sodium lamps to the extent possible to reduce atmospheric scattering. Shielding and aiming of all lights required. 	Same as Alternative B.	Same as Alternative B.	Same as Alternative B with the following addition: <ul style="list-style-type: none"> Collaborate with the BEC to survey existing impacts to night skies, soundscapes, and visual resources and identify those that damage or degrade culturally affiliated Tribes' cultural practices requiring darkness and natural viewscapes. 	The following management would be implemented at facilities and agency-permitted actions to manage for the benefit of night skies: <ul style="list-style-type: none"> All lighting directed on-site only. Only allow artificial lighting when necessary for safety. No broad spectrum or bluish lights. No permanent lighting in Very High or High SIO (USDA Forest Service) and VRM Class I and VRM Class II areas (BLM). Motion-activated lighting would be used when feasible. Use of sodium lamps to the extent possible to reduce atmospheric scattering. Shielding and aiming of all lights required.

BUILT ENVIRONMENT

2.4.14. Cultural Resources

2.4.14.1. GOALS AND OBJECTIVES

- Work with the BEC and Tribal Nations to identify and evaluate properties of cultural significance, TCPs, American Indian sacred sites, cultural landscapes, trails, Traditional Indigenous Knowledge about cultural landscapes, and traditionally significant vegetation and forest products (FLPMA Sections 103I, 201(a), and 201(c); NHPA Section 110 (a); ARPA, Section 14 (a)). Preserve and protect cultural resources and ensure that they are available for appropriate uses by present and future generations (FLPMA Sections 103(c), 201(a), and 202(c); NHPA Section 110(a); ARPA Section 14(a)). Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration or from other resource uses (FLPMA Section 103(c) and NHPA Sections 106 and 110(a)(2)).
- Ensure that BENM resources important for cultural and traditional needs, as well as for subsistence practices and economic support of Tribal communities, are available and sustainable.
- Ensure cultural resources, including sacred sites, plant populations and communities, and sacred landscapes are managed in accordance with applicable law, executive orders, policy, and other applicable directives. Management actions should preserve or enhance their ecological condition, setting for solitude, privacy, quiet, and scenic character of the cultural landscape of BENM.
- Agencies would collaborate with the BEC and Tribal Nations to identify and evaluate properties of cultural significance, such as sacred sites, cultural landscapes, and TCPs, and to develop priorities for cultural surveys and inventories.

- Manage BENM natural resources such as water, wildlife, plants, trees, and other resources to support cultural uses by culturally affiliated Tribal Nations.

2.4.14.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would manage cultural resources for present and future generations in collaboration with the BEC as they relates to scientific, educational, recreational, and traditional Tribal uses of these cultural landscapes.
- Agencies would collaborate with the BEC to develop a comprehensive interpretive plan or plans for the Planning Area (see Section 2.4.15, Cross-Cultural Education and Outreach). The interpretive plan(s) would follow the agencies' and the BEC's collective education vision, goals, themes, strategies, and opportunities for BENM. The plan would include a long-range implementation strategy that includes partnership development, staffing needs, and program costs.
- Agencies would collaborate with the BEC and Tribal Nations to either stabilize ancestral sites with standing architecture or allow them to complete their natural life cycles, where appropriate. Stabilization would only be considered for sites where it is necessary to protect site values, as determined through collaboration with the BEC and Tribal Nations and in consultation under 54 USC 306108 and the implementing regulations at 36 CFR 800.
- Cultural resources that are eligible for the NRHP, including archaeological sites, historic sites, cultural landscapes, districts, and TCPs that are managed according to NHPA would continue to be maintained and managed to preserve their NRHP characteristics and integrity of location, design, setting, materials, workmanship, feeling, or association.
- To ensure cultural resources, including sacred sites, traditional use plant populations and communities, and sacred landscapes, are managed appropriately, agencies would collaborate with the BEC and Tribal Nations to implement management actions to preserve or enhance their condition; setting for solitude, privacy, and quiet; ecological status; and scenic character. Seasonal attributes would be incorporated in management actions, where applicable, that reflect Tribal Traditional Indigenous Knowledge around seasons, such as rest.
- To enhance cultural resource resilience to fire, wildfire protection activities and fuels management projects would implement techniques and outcomes, incorporating Traditional Indigenous Knowledge, to benefit cultural resource preservation and resiliency.
- In collaboration with the BEC and Tribal Nations, identify appropriate measures to protect cultural resources, as appropriate, from deterioration due to natural forces, visitation, or from authorized or unauthorized use.
- Agencies would proactively manage sites to protect cultural resources, to the extent possible, from effects that might be accelerated from climate change, as appropriate, such as wildfire, in collaboration with the BEC and Tribal Nations.
- Agencies would collaborate with the BEC and Tribal Nations so that Tribal perspectives and traditional knowledge become integral components of BENM management actions and decisions, where applicable.
- Agencies would collaborate with the BEC to facilitate educational opportunities within Tribal communities with youth groups, elders, or other similar groups, including coordinating on the development of facilities.
- Provide Tribal Nations and affected communities that maintain cultural or religious ties to BENM use and access to sacred sites, cultural landscapes, and traditionally significant vegetation and forest products consistent with the protection of BENM objects and to the extent practicable by law.
- Agencies would collaborate with the BEC to identify sites where recreational visitation may be causing an impact and address those impacts, including educating recreational visitors about Indigenous descendant community connections to BENM cultural resources and etiquette to avoid or limit impacts to cultural resources, and, where necessary, controlling and/or limiting recreational visitation.
- Agencies would collaborate with the BEC on appropriate interpretation and education of the public about cultural resources as part of a living landscape, as objects of BENM, and their connections to descendant communities.
- Agencies would provide opportunities for volunteers to partner with the agencies and the BEC to identify, study, and monitor sites. This would include partnering with the USDA Forest Service Heritage Program, Tribal Nations, and volunteer organizations.
- Agencies would collaborate with the BEC and Tribal Nations to identify cultural resource management projects or settings that provide educational opportunities for Tribal youth.
- Agencies would collaborate with the BEC and Tribal Nations to identify cultural resources on BENM that might be recognized only by those who know traditional practices and develop management strategies to protect them, according to Traditional Indigenous Knowledge and Tribal expertise.
- Agencies would meet semiannually with Tribal Nations to collaborate, partner, and ensure that important resources or places are available for Tribal use, consistent with applicable law, and are protected from authorized and unauthorized uses.
- Agencies would keep all sensitive cultural information confidential and safeguarded from public release to the extent allowed by law. This includes locations of cultural resource sites, traditional beliefs, LiDAR data, and cultural and traditional activities.
- To ensure the BEC and Tribal Nations and their representatives can conduct ceremonial activities and gatherings in private, agencies would collaborate with the BEC in identifying temporary closures or use restrictions as needed.
- Tribal access to culturally valued BENM resources would be consistent with the Religious Freedom Restoration Act and other applicable laws. Collection of BENM resources would not be prohibited where such prohibition constitutes a substantial burden on religious practices.

2.4.14.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-13. Alternatives for Cultural Resources

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
190	<p>Per 2020 ROD/MMPs</p> <p>An activity-level cultural resources management plan (CRMP) would be developed within 2 years of the completion of the 2020 ROD/MMPs in coordination with Tribes, the MAC, the BEC, consulting parties, and other interested stakeholders. The CRMP would provide site-specific, implementation-level direction to effectively manage recreation and other uses while protecting the integrity of significant cultural resources. This plan would include the following:</p> <ul style="list-style-type: none"> • Developing methods for identifying and evaluating cultural resources in collaboration with the BEC, including TCPs, American Indian sacred sites, cultural landscapes, and traditionally significant vegetation and forest products. • A monitoring and stabilization plan for cultural resource sites allocated to Public Use (Developed or Undeveloped). In collaboration with the BEC, Tribal Nations, and consulting parties, identification of criteria for sites and areas currently receiving visitation or may receive visitation in need of restricted access, allocation to Public Use (Developed or Undeveloped), stabilization, protective measures (e.g., fences and/or surveillance equipment), education, and/or interpretation. • Coordination with the MAC, the BEC, Tribal Nations, consulting parties, and recreational and volunteer groups to assist with monitoring, education, and interpretation. • Site-specific criteria for addressing SRP applications requesting visitation to cultural resource sites. 	<p>An activity-level CRMP would be developed after the completion of this Proposed RMP/Final EIS in collaboration with the BEC and Tribal Nations. The CRMP would provide site-specific, implementation-level direction to effectively manage uses while protecting the integrity of significant cultural resources. This plan would include the following:</p> <ul style="list-style-type: none"> • Developing methods for identifying and evaluating cultural resources in collaboration with the BEC, including culturally important or religiously significant areas, Tribal Nations' sacred sites, cultural landscapes, and traditionally significant vegetation and forest products. • A monitoring and stabilization plan for cultural resource sites allocated to Public Use (Developed or Undeveloped). In collaboration with the BEC, Tribal Nations, and consulting parties, identification of criteria for sites and areas currently receiving visitation or that may receive visitation in need of restricted access, allocation to Public Use (Developed or Undeveloped), stabilization, protective measures (e.g., fences and/or surveillance equipment), education, and/or interpretation. This plan includes inventorying existing stabilization at sites. • Collaboration with the BEC, Tribal Nations, consulting parties, and recreational and volunteer groups to assist with monitoring, education, and interpretation. • In consultation with the BEC, identify management parameters for each category of allocated sites. • Allow Tribal Nations' noncommercial traditional use of vegetation and forest and wood products for the collection of herbs, medicines, traditional use items, or items necessary for traditional, religious, or ceremonial purposes, as consistent with the Religious Freedom Restoration Act and other applicable laws. 	Same as Alternative B.	Same as Alternative B.	<p>A CRMP would be developed within 2 years of the completion of this Proposed RMP/Final EIS in coordination with the BEC, Tribal Nations, and other culturally affiliated Tribal Nations. The CRMP would include site-specific, implementation-level direction to effectively manage uses while protecting the integrity of significant cultural resources. The CRMP would include the following:</p> <ul style="list-style-type: none"> • Management tools and methods that include, where appropriate, Tribal protocols for identifying and evaluating cultural resources in collaboration with the BEC and Tribal Nations, including TCPs, Tribal Nations' sacred sites, cultural landscapes, Traditional Indigenous Knowledge about cultural landscapes and traditionally significant plants, wildlife, minerals, and tree species. • A timeline for the completion of priority cultural and historic resource inventories in collaboration with the BEC and Tribal Nations. • Annual survey requirements, using Western scientific and Indigenous methodologies, developed in collaboration with BEC. • A monitoring and stabilization plan for cultural resource sites. In collaboration with the BEC, identification of criteria and risk factors for sites and areas, including but not limited to areas currently receiving visitation or that are impacted by visitation, grazing, climate change, and vegetation management. Identification of mitigation measures, including but not limited to stabilization, protective measures (e.g., fences and/or surveillance equipment), grazing limits, exclosures, avoidance, protection of the water table, education, or interpretation. • An interpretation plan, with an emphasis on education goals identified in collaboration with the BEC for sites allocated for specific uses. • Coordination with the BEC and Tribal Nations, consulting parties, and recreational and volunteer groups to assist with monitoring, education, and interpretation. • Site-specific criteria for addressing SRP applications and other permits/authorizations for visitation to cultural resource sites. • A schedule for resource rest, including cultural sites, created in collaboration with the Tribal Nations. Collaborative management meetings and activities would respect ceremonial times of the year and respect rest for BEC and Tribal representatives. • An earth-to-sky based framework, recognizing the interrelatedness of the entire cultural landscape of BENM to the Tribes of the BEC. • A collaborative strategic plan by the Tribes of the BEC, the BLM, and USDA Forest Service to jointly identify funding to conduct cultural resource inventories. 	<p>A CRMP/historic property plan (HPP) would be developed within 2 years of the completion of this Proposed RMP/Final EIS in coordination with the BEC and other culturally affiliated Tribal Nations. The CRMP/HPP would include site-specific, implementation-level direction to effectively manage uses while protecting the integrity of cultural resources and recognizing the interrelatedness of the cultural landscape in an earth-to-sky-based framework. The CRMP/HPP would include the following:</p> <ul style="list-style-type: none"> • Management tools and methods that include, where appropriate, Tribal protocols for identifying and evaluating cultural resources in collaboration with the BEC and Tribal Nations, including TCPs, Tribal Nations' sacred sites, cultural landscapes, Traditional Indigenous Knowledge about cultural landscapes and traditionally significant plants, wildlife, minerals, and tree species. • A timeline for the completion of priority cultural and historic resource inventories in collaboration with the BEC and Tribal Nations. • Annual survey requirements, using Western scientific and Indigenous methodologies, developed in collaboration with BEC. • A monitoring and stabilization plan for cultural resource sites. In collaboration with the BEC, identification of criteria and risk factors for sites and areas, including but not limited to areas currently receiving visitation or that are impacted by visitation, grazing, climate change, and vegetation management. Identification of mitigation measures, including but not limited to stabilization, protective measures (e.g., fences and/or surveillance equipment), grazing limits, exclosures, avoidance, protection of the water table, education, or interpretation. • Coordination with the BEC and Tribal Nations, consulting parties, and recreational and volunteer groups to assist with monitoring, education, and interpretation. • A schedule for resource rest, including cultural sites, created in collaboration with the Tribal Nations. Collaborative management meetings and activities would respect ceremonial times of the year and respect rest for BEC and Tribal representatives. • A collaborative strategic plan by the Tribes of the BEC, the BLM, and USDA Forest Service to jointly identify funding to conduct cultural resource inventories. • Agencies would collaborate with the BEC and Tribal Nations to identify and develop management strategies to protect, restore, and maintain culturally significant resources, such as sacred sites, TCPs, plant communities and gathering areas, wood gathering locations, and springs. This may include co-stewardship of certain plant resources, pursuant to

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
						<p>Traditional Ecological Knowledge and traditional cultural practices of the Tribal Nations of the BEC.</p> <ul style="list-style-type: none"> • During implementation-level planning, agencies would collaborate with the BEC to develop a database with maps for fire-sensitive cultural resources (including wildlife and plants associated with cultural practices) and make it available for fire management, fuels reduction planning, and resource protection during fire management activities. • The agencies would work with Tribal Nations to create a comprehensive agreement to assist with efficient repatriation of Indigenous human remains and cultural items under the Native American Graves Protection and Repatriation Act. Consistent with federal law, this agreement should be guided by Traditional Indigenous Knowledge regarding the proper care of ancestral human remains, including ancient human remains. The agreement should reflect Tribal values. Human ancestral remains should remain in place where found and should generally not be disinterred or disturbed. This may require agencies to establish barriers preventing the public from coming into contact with ancestral remains, including paleoanthropological remains. All remains discovered in BENM should be evaluated on a case-by-case basis in collaboration with Tribal Nations, the BEC, and the appropriate cultural advisors from each Tribe. Upon discovery of ancestral human remains in BENM, the appropriate Tribal Nations and the BEC should be notified immediately, as per federal law.
191	<p>Per 2020 ROD/MMPs</p> <p>Protective measures would be established and implemented for sites, structures, objects, and traditional use areas that are important to Tribes with historical and cultural connections to the land to maintain the viewsheds and intrinsic values, as well as the auditory, visual, and aesthetic settings of the resources. Protection measures for undisturbed cultural resources and their natural settings would be developed in compliance with regulatory mandates and Tribal consultation (see Appendix H).</p>	<p>Protective measures would be established and implemented in collaboration with the BEC for sites, structures, objects, and traditional use areas that are important to Tribal Nations with historical and cultural connections to the land to maintain the viewsheds and intrinsic values, as well as the auditory, visual, and aesthetic settings of the resources.</p> <p>Protection measures for undisturbed cultural resources and their natural settings would be developed in compliance with regulatory mandates and BEC consultation (see Appendix C).</p>	Same as Alternative B.	Same as Alternative B.	<p>Protective measures would be established and implemented in coordination with the BEC, the Tribal Nations, and other culturally affiliated Tribal Nations for sites, structures, objects, and traditional use areas that are important to Tribal Nations with historical and cultural connections to the land to maintain the viewsheds and intrinsic values, as well as the auditory, visual, and aesthetic settings of the resources.</p> <p>Protection measures for undisturbed cultural resources and their natural settings would be developed in compliance with regulatory mandates and in collaboration with the BEC. Coordinate law enforcement efforts with the BEC and Tribal Nations to protect cultural sites and historic properties.</p>	<p>Protective measures would be established and implemented in collaboration with the BEC, the Tribal Nations, and other culturally affiliated Tribal Nations for sites, structures, objects, and traditional use areas that are important to Tribal Nations with historical and cultural connections to the land to maintain the viewsheds and intrinsic values, as well as the auditory, visual, and aesthetic settings of the resources.</p> <p>Protection measures for undisturbed cultural resources and their natural settings would be developed in compliance with regulatory mandates and in collaboration with the BEC. Coordinate with the BEC, Tribal Nations, and county and state law enforcement to identify areas that would benefit from increased law enforcement efforts to protect cultural sites and historic properties.</p>
192	<p>Per 2020 ROD/MMPs</p> <p>The agencies would proactively reduce hazardous fuels or mitigate the potential hazard around archaeological and cultural sites that are susceptible to destruction by fire from prescribed fire or wildfire. Management response to fire would follow guidelines described Section 2.3 of each unit's monument management plan in the 2020 ROD/MMPs and in current implementation-level fire management planning documents.</p>	<p>The agencies, in coordination with the BEC, would proactively reduce hazardous fuels or mitigate the potential hazard around cultural sites, including archaeological sites that are susceptible to destruction from prescribed burns or wildfire. Management response to fire would follow guidelines described in Section 2.4.17, Fire Management, and in current implementation-level fire management planning documents.</p>	Same as Alternative B.	Same as Alternative B.	<p>The agencies, in coordination with the BEC and Tribal Nations, would proactively reduce hazardous fuels or mitigate the potential hazard around cultural sites, including archaeological sites that are susceptible to destruction from prescribed burns. Management response to fire would follow guidelines described in Section 2.4.17, Fire Management, and in current implementation-level fire management planning documents. Hazardous fuels mitigation and fire mitigation would use traditional Tribal methods where feasible.</p>	<p>The agencies, in collaboration with the BEC and Tribal Nations, would proactively reduce hazardous fuels or mitigate the potential hazard around cultural sites, including archaeological sites that are susceptible to destruction from prescribed burns. Management response to fire would follow guidelines described in Section 2.4.17, Fire Management, and in current implementation-level fire management planning documents. Hazardous fuels mitigation and fire mitigation would use traditional Tribal methods where feasible.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
193	Per 2020 ROD/MMPs Unauthorized use of domestic pets and pack animals would not be allowed in cultural resources (including archaeological resources) except for historic roads and trails. Where problems occur, the agencies would evaluate posting signs to notify visitors of restrictions.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Unauthorized use of domestic pets and pack animals would not be allowed in cultural resource areas (including archaeological resources) except for historic roads and trails. Where problems occur, the agencies would evaluate posting signs to notify visitors of restrictions and explore protective measures like leash requirements.	Unauthorized use of domestic pets and pack animals would not be allowed in cultural resource areas (including archaeological resources) except for historic roads and trails. Where problems occur, the agencies would evaluate posting signs to notify visitors of restrictions and explore protective measures.
194	Per 2020 ROD/MMPs Camping would not be allowed within cultural resources (including archaeological resources).	Protective measures related to potential recreation impacts include the following: Camping would not be allowed within archaeological resources and other cultural resources. <ul style="list-style-type: none"> • Campfires would not be allowed in archaeological sites. An exception may be made to allow campfires in archaeological sites for culturally affiliated Tribes to accommodate Tribal Nations' traditional, medicinal, and ceremonial purposes and practices. • Ropes and climbing aids (e.g., bolts, fixed anchors, webbing) would not be allowed to access archaeological resources and other cultural resources unless used for scientific purposes with a permit, for administrative (Tribal and agency) access, or for emergencies. • Agencies would collaborate with the BEC in restricting unstaffed aircraft system (UAS or drone) use during times when private religious ceremonies are being conducted and during sensitive times for wildlife species. • Cultural sites are considered open to visitation unless closed. They may be closed to visitation when their condition is determined to be at risk or when they contain visitor safety hazards. Agencies would work with the BEC to determine the best way to implement closures and how to manage the potential impact of closing sites. • Agencies would consult with the BEC and Tribal Nations to identify seasons for closure for culturally significant areas, as appropriate, to allow for resource rest and to provide for traditional and ceremonial uses. • No entry by visitors would be allowed into the interior rooms of standing structural sites, except those structures specifically identified as open to entry. Where practicable, standing structural sites would be signed to indicate this restriction. Entry would be restricted to permitted access for scientific purposes, administrative access (either Tribal or agency), or emergencies. 	Same as Alternative B with the following exceptions: <ul style="list-style-type: none"> • Agencies would monitor sites and, if impacts from visitation are impacting site integrity, those sites could be closed either seasonally or year-round. 	Same as Alternative B with the following exceptions: <ul style="list-style-type: none"> • No entry by visitors would be allowed into the interior rooms of standing structural sites. Where practicable, standing structural sites would be signed to indicate this restriction. • Entry would be restricted to permitted access for scientific purposes, administrative access (either Tribal or agency), or emergencies. 	Protective measures related to potential recreation impacts include the following: <ul style="list-style-type: none"> • Camping would not be allowed within archaeological resources and other cultural resources. Campfires would not be allowed in archaeological sites. An exception may be made to allow campfires in archaeological sites for culturally affiliated Tribes to accommodate Tribal Nations' traditional, medicinal, and ceremonial purposes and practices. • Ropes and climbing aids (e.g., bolts, fixed anchors, webbing) would not be allowed to access archaeological resources and other cultural resources unless done for scientific purposes in accordance with an agency-issued permit or to address an emergency. Agencies would collaborate with the BEC on proposed permits for scientific purposes. • UAS landings/takeoffs allowed only when specifically authorized by the agencies after collaboration with the BEC. • No entry by visitors would be allowed into the interior rooms of standing structural sites, except those structures specifically identified as open to entry. Where practicable, standing structural sites would be signed to indicate this restriction. Entry would be restricted to permitted access for scientific purposes, administrative access (either Tribal or agency), or emergencies. • Agencies would consult with the BEC and Tribal Nations to identify seasons for closure for culturally significant areas as appropriate to allow for resource rest and to provide for traditional and ceremonial uses. 	Protective measures related to potential recreation impacts include the following: <ul style="list-style-type: none"> • Camping would not be allowed within archaeological sites and other cultural resource sites. Campfires would not be allowed in archaeological sites. An exception may be made to allow campfires in archaeological sites for culturally affiliated Tribes to accommodate Tribal Nations' traditional, medicinal, and ceremonial purposes and practices. • Ropes and climbing aids (e.g., bolts, fixed anchors, webbing) would not be allowed to access archaeological resources and other cultural resources unless done for scientific purposes in accordance with an agency-issued permit or to address an emergency. Agencies would collaborate with the BEC on proposed permits for scientific purposes. • UAS landings/takeoffs in archaeological and cultural resource sites allowed only when specifically authorized by the agencies after collaboration with the BEC. • No entry by visitors would be allowed into the interior rooms of standing structural sites, except those structures specifically identified as open to entry. Where practicable, standing structural sites would be signed to indicate this restriction. Entry would be restricted to permitted access for scientific purposes, administrative access (either Tribal or agency), or emergencies. • Agencies would consult with the BEC and Tribal Nations to identify seasons for closure for culturally significant areas as appropriate to allow for resource rest and to provide for traditional and ceremonial uses.
195	Per 2020 ROD/MMPs As funding is available, the agencies would conduct Class III cultural resource inventories in a manner that complies with Section 110 of the NHPA and Section 14 of ARPA. Priorities for inventory include the following (in this order): <ul style="list-style-type: none"> • Group 1: Areas that receive heavy public use and/or those that lack intensive inventory in relation to current standards. • Group 2: Areas that need records clarification or updating. 	As funding is available, the agencies would conduct Class III cultural resource inventories in a manner that complies with Section 110 of the NHPA and Section 14 of ARPA and would collaborate with the BEC to gather information on the importance of cultural resources to Tribal Nations, including ethnographic work and traditional knowledge, documentation aspects, recognition of important traditional use areas, and culturally important plants. Agencies would also collaborate with the BEC on the prioritization of information gathering.	Same as Alternative B.	Same as Alternative B.	The agencies would conduct Class III cultural resource inventories in a manner that complies with Section 110 of the NHPA and Section 14 of ARPA and would collaborate with the BEC to identify funding and gather information on the importance of cultural resources to Tribal Nations and other culturally affiliated Tribal Nations, including ethnographic work and traditional knowledge, culturally appropriate documentation, recognition of important traditional use areas, and culturally important plants. Agencies would also collaborate with the	The agencies would conduct Class III/Intensive level cultural resource inventories in a manner that complies with Section 110 of the NHPA and Section 14 of ARPA and would collaborate with the BEC to identify funding and gather information on the importance of cultural resources to Tribal Nations and other culturally affiliated Tribal Nations, including ethnographic work and traditional knowledge, culturally appropriate documentation, recognition of important traditional use areas, and culturally important plants. Agencies would also

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> Group 3: Areas with little or no previous inventory. <p>These inventory priorities may change in response to changing conditions; uses and input from researchers, educators, and Tribes; or other changed circumstances such as changes in travel management implementation guidelines. Inventory and site documentation would conform to the standards listed in BLM Manual 8100; the BLM would also allow the use of additional field recording protocols in response to research goals and designs, special management, and/or other needs as identified in the future.</p>				BEC on the prioritization of information gathering and the appropriateness of information sharing.	collaborate with the BEC on the prioritization of information gathering and the appropriateness of information sharing.
196	<p>Per 2020 ROD/MMPs</p> <p>Collaborate with Tribal Nations to allocate cultural resources to uses. Within recreation management zones (RMZs) that have a frontcountry focus (as discussed in Appendix I of the 2020 ROD/MMPs), work with the Tribes to allocate other public sites that would be categorized as either Developed Public Use or Undeveloped Public Use for sites that allow a sense of discovery. Within RMZs that have a backcountry focus, sites would generally be categorized as Scientific Use, Traditional Use, Public Use (Undeveloped). These allocations would be consistent with recreational outcome-based goals and objectives for these RMZs. Additional criteria for future allocation of sites are provided in Appendix G of the 2020 ROD/MMPs.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would collaborate with the BEC to identify which additional cultural resource sites to prioritize for allocation to uses through area- or resource-specific implementation-level plans to be completed prior to the broader CRMP. Any other cultural resources would be allocated in the CRMP. Based on levels of use, type of site, and sensitivity of sites, as determined in collaboration with the BEC and Tribal Nations, sites would be categorized as Developed Public Use, Undeveloped Public Use, Scientific Use, Traditional Use, or Public Use (Undeveloped).	Agencies would collaborate with the BEC to identify which additional cultural resource sites to prioritize for allocation to uses through area- or resource-specific implementation-level plans to be completed prior to the broader CRMP/HPP. Any other cultural resources would be allocated in the CRMP/HPP. Based on levels of use, type of site, and sensitivity of sites, as determined in collaboration with the BEC and Tribal Nations, sites would be categorized as Developed Public Use, Undeveloped Public Use, Scientific Use, Traditional Use, or Public Use (Undeveloped).
197	<p>Per 2020 ROD/MMPs</p> <p>The agencies would allocate the following cultural sites as Public Use (Developed) because they are currently managed as Public Use sites and are currently subject to high visitation:</p> <ul style="list-style-type: none"> Newspaper Rock Shay Canyon Butler Wash Developed Roadside Mule Canyon Kiva River House Butler Wash Panel Arch Canyon Great House complex House on Fire Moon House Doll House Ruin Hole-in-the-Rock Trail San Juan Hill Butler Wash Dinosaur Tracksite Lower Butler Wash Panel Salvation Knoll 	<p>The agencies would collaborate with the BEC to develop management direction for Public Use (Developed) sites. The agencies would consult with the BEC, Tribal Nations, the MAC, and the public, as appropriate, to add or remove sites to this list as necessary. The following cultural sites would be allocated as Public Use (Developed):</p> <ul style="list-style-type: none"> Same as Alternative A, with the addition of the following: <ul style="list-style-type: none"> Sand Island Upper and Lower Panels The Citadel Dry Wash Caves Sites within the Comb Ridge RMZ chosen in coordination with the BEC Sites in the Beef Basin Extensive Recreation Management Area chosen in coordination with the BEC <p>The following sites, if acquired, would be allocated for Public Use (Developed):</p> <ul style="list-style-type: none"> Seven Kivas Cave Towers <p>The following sites would be allocated as Public Use Undeveloped:</p> <ul style="list-style-type: none"> Sites located within the Cedar Mesa Canyons RMZ chosen in collaboration with the BEC 	<p>The agencies would collaborate with the BEC to develop management direction for Public Use (Developed) sites. The agencies would consult with the BEC, Tribal Nations, the MAC, and the public, as appropriate, to add or remove sites to this list as necessary. The following cultural sites would be allocated as Public Use (Developed):</p> <ul style="list-style-type: none"> Same as Alternative A, with the addition of the following: <ul style="list-style-type: none"> Sand Island Upper and Lower Panels The Citadel Dry Wash Caves <p>The following sites, if acquired, would be allocated for Public Use (Developed):</p> <ul style="list-style-type: none"> Seven Kivas Cave Towers <p>The following site would be allocated as Public Use (Undeveloped):</p> <ul style="list-style-type: none"> Shay Canyon 	Same as Alternative C.	<p>The agencies would collaborate with the BEC to develop management direction for Public Use (Developed) sites. The agencies would consult with the BEC, Tribal Nations, the MAC, and the public, as appropriate, to add or remove sites to this list as necessary.</p> <p>The following cultural sites would be allocated as Public Use (Developed):</p> <ul style="list-style-type: none"> Same as Alternative A with the addition of the following: <ul style="list-style-type: none"> Dry Wash Caves 	<p>The agencies would collaborate with the BEC to develop management direction for Public Use (Developed) sites. The agencies would consult with the BEC, Tribal Nations, the MAC, and the public, as appropriate, to add or remove sites to this list as necessary.</p> <p>The following cultural sites would be allocated as Public Use (Developed) because they are currently managed as Public Use sites and are currently subject to high visitation:</p> <ul style="list-style-type: none"> Newspaper Rock Shay Canyon Butler Wash Developed Roadside Mule Canyon Kiva River House Butler Wash Panel Arch Canyon Great House complex House on Fire Moon House Doll House Hole-in-the-Rock Trail San Juan Hill Butler Wash Dinosaur Tracksite Lower Butler Wash Panel Salvation Knoll Dry Wash Caves Sand Island Upper and Lower Panels
198	<p>Per 2020 ROD/MMPs</p> <p>When identified by Tribes as necessary for ceremonies and gatherings, implement actions to minimize potential conflicts with other resource uses that could interfere with</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	When identified by the BEC or Tribal Nations as necessary for ceremonies and gatherings, implement actions to minimize potential conflicts with other resource uses that could interfere with ceremonies and gatherings.	When identified by the BEC or Tribal Nations as necessary for ceremonies and gatherings, implement actions to minimize potential conflicts with other resource uses that could interfere with ceremonies and gatherings.

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
ceremonies and gatherings. Sensitive cultural information would be kept confidential and safeguarded from release to the extent allowed by law.				Sensitive cultural information would be kept confidential and safeguarded from release to the extent allowed by law.	Sensitive cultural information would be kept confidential and safeguarded from release to the extent allowed by law.

2.4.15. Cross-Cultural Education and Outreach

2.4.15.1. GOALS AND OBJECTIVES

- Ensure that Traditional Indigenous Knowledge and Tribal Nations' ways of knowing are given equal consideration with knowledge derived from a Western scientific paradigm by incorporating Tribal expertise when designing research and educational programs for BENM.
- Ensure the protection of all cultural resources, including those associated with Tribal Nations as well as other occupants of the landscape.
- Establish a reciprocal relationship between Tribes and federal land managers regarding sharing of Traditional Indigenous Knowledge with information collected within a Western scientific paradigm.
- Implement education and interpretation to provide the public a greater respect and understanding of the importance of BENM and the connections between descendant communities and the cultural landscapes of BENM.
- Incorporate Traditional Indigenous Knowledge in the following ways:
 - Consider the intergenerational connection of those that came before and those that have yet to come to this landscape and the responsibility of land management to these generations.
 - Recognize the sacred responsibility to and relationship with the landscape; facilitate access for repatriation to the landscape for communities with ancestral connections to BENM.
 - Acknowledge humans and human actions as part of nature and natural processes with honorable and respectful harvest of resources traditionally used by Indigenous communities as a part of reciprocity-based land management consistent with protection of BENM objects.

2.4.15.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with Tribal Nations to develop interpretive messages and educational materials that tell the history of BENM from the Tribal Nations' perspective and their relationship to these sacred lands.
- Collaborate with the BEC to develop a comprehensive interpretive plan or plans for BENM. The interpretive plan(s) would follow BLM and USDA Forest Service guidelines and define the BLM's and USDA Forest Service's overall interpretation and education vision, goals, themes, strategies, and opportunities. The interpretive plan would include a long-range implementation strategy that includes partnership development, staffing needs, and program costs.
- Highlight BEC Tribal Nations' connections to distant areas visible in BENM; culturally important plants; culturally important vantage points; high interest or unique geological, paleontological, biological, archaeological, or historical features for public information; and, as appropriate, develop interpretive information for these sites.
- Coordinate with the MAC and local government during implementation-level development of plans, including interpretive plan(s).
- Collaborate with the BEC for the development of an interdisciplinary Traditional Knowledge Institute under the collaborative management of Tribal Nations and federal agencies with the following emphasis areas:
 - A natural history program that may include traditional Indigenous perspectives on plants, animals, geology, paleontology, astronomy, and water resources, as well as a BENM catalog that includes Tribal Nations' names, traditional uses, and narratives surrounding natural resources in the area. This catalog would help preserve Traditional Indigenous Knowledge and, as appropriate, serve as a foundation for educational programs and interpretation throughout BENM.
 - Curriculum development with an emphasis on Traditional Indigenous Knowledge. Scientific data that are generated in BENM would be used to create curricula for people and provide Traditional Indigenous Knowledge for educational purposes. Curricula would be reviewed by individual Tribal Nations to be shared outside of their communities so that culturally sensitive information is not made public.
 - Develop opportunities to engage Tribal youth in the culture and traditions of the Bears Ears landscape, as well as the protection and management of BENM to cultivate a shared understanding of BENM's context and a shared stewardship for its resources.
 - Collaborate with the BEC for the development of a cultural ranger program that emphasizes a Traditional Indigenous Knowledge approach to the cultural landscape. This program would be open to Tribal members and would support site monitoring and training of site stewards.
 - In collaboration with the BEC, develop training for agency employees about specialized knowledge and issues important to Tribes of the BEC, such as cultural sensitivity protocols, Tribal legal rights, treaty obligations, Tribal sovereignty, traditional Indigenous perspectives on BENM, and the application of Traditional Indigenous Knowledge in management decision-making.
 - Collaborate with the BEC to facilitate educational opportunities at BENM with Tribal communities, youth, elders, or other similar groups, including the development of a Tribal learning center and learning spaces and places such as the Kigalia Guard Station.
 - Collaborate with the BEC to develop agency training opportunities for members of Tribal Nations on land management topics, including but not limited to NEPA, lands and realty, cadastral surveys, wildfire and fuels management, and heritage resources for better understanding of federal processes.
- Collaborate with the BEC and local governments in the consideration of the need for and location of a visitor center or visitor centers as part of future implementation-level planning.

- Collaborate with the BEC to develop outfitter and guide training to educate SRP and special use permit (SUP) holders and participants about the cultural history of BENM, visitor etiquette education, and cultural resources important to the protection of BENM objects.
- Collaborate with the BEC to provide educational outreach and interpretation of terrestrial and aquatic wildlife, including species of traditional importance to Tribal Nations.
- Collaborate with the BEC to identify opportunities to educate the public about the importance of the soundscape to protect BENM objects and etiquette regarding the respectful use of the land and minimizing additional noise.
- Collaborate with the BEC to create interpretive materials that highlight Tribal Nations' connections to distant areas visible from vantage points within BENM.
- Collaborate with the BEC to provide educational outreach and interpretation about paleontological resources, including the importance of their protection and preservation.

2.4.15.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-14. Alternatives for Cross-Cultural Education and Outreach

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
199	No corresponding management under Alternative A.	<p>Agencies would:</p> <p>Collaborate with the BEC to develop an interpretation plan, with an emphasis on on-site interpretation. Highlight Tribal Nations' connections to distant areas visible in BENM; culturally important plants; culturally important vantage points; high interest or unique geological, paleontological, biological, archaeological, or historical features for public information; and, as appropriate, develop interpretive information for these sites.</p> <p>For NFS lands, see also management for the Recreation Opportunity Spectrum.</p> <p>Management related to established People At One Time/acre or mile not carried forward.</p> <p>The management areas from the 1986 Manti-La Sal LRMP would not be carried forward.</p>	<p>Same as Alternative B, except that on BLM-administered lands, on-site interpretation would mostly be confined to cultural sites allocated for Public Use (Developed) and the Sand Island Recreation Management Zone (RMZ), Trail of the Ancients RMZ, Indian Creek Corridor RMZ, Bicentennial Highway RMZ, and Goosenecks RMZ. On NFS lands, this would be applied to Routed Natural and Semi-Primitive Motorized.</p> <p>Interpretation in other areas without recreational development and/or motorized access would be off-site interpretation unless on-site guidance is required to address impacts to BENM objects. For NFS lands, this would apply to Semi-Primitive Non-Motorized and Primitive.</p>	Same as Alternative C.	<p>Agencies would collaborate with the BEC to develop an interpretation plan for recreational visitors to BENM, with an emphasis on on-site interpretation in Front Country and Passage Zones.</p> <p>Interpretation would highlight BEC Tribal Nations' connections to distant areas visible in BENM; culturally important plants; culturally important vantage points; high interest or unique geological, paleontological, biological, archaeological, or historical features for public information; and, as appropriate, develop interpretive information for these sites.</p> <p>The interpretation plan would comply with implementation plans associated with the Proposed RMP/Final EIS.</p> <p>Interpretation in Outback and Remote Zones would be off-site interpretation unless on-site guidance is required to address impacts to BENM objects.</p>	<p>Collaborate with the BEC to develop an interpretation plan. An emphasis would be educating recreational visitors on respectful visitation to cultural sites and protecting BENM objects. The agencies would also seek to work with neighboring federal agencies, such as the NPS, in development of an interpretation plan.</p> <p>On-site interpretation would mostly be confined to cultural sites allocated for Public Use (Developed) and areas managed as Front Country, Passage, and Outback Zones. The agencies would collaborate with the BEC on the placement of educational signs in management areas to educate the public about culturally significant plants, BENM objects, and Leave No Trace practices. Provide for universal design (e.g., inclusion of Indigenous languages in exhibits and accessibility, as applicable) to the extent practicable and consistent with the protection of BENM objects.</p> <p>Interpretation in areas managed as Remote Zone without recreational development and/or motorized access would be off-site interpretation unless on-site guidance is required to address impacts to the protection of BENM objects.</p> <p>Include site-specific criteria for addressing SRP applications and other permits/authorizations for visitation to cultural resource sites.</p>
200	No corresponding management under Alternative A.	<p>The BLM would work with the BEC to develop an interpretive plan specific to the Cedar Mesa area. The plan would identify themes and stories that the Tribal Nations want to convey to visitors but would primarily focus on information regarding cultural and natural resources protection. The plan would also identify methods (signs, printed materials, audio-visual methods) appropriate for each RMZ. Physical infrastructure to support interpretation would be emphasized under this alternative.</p>	<p>Same as Alternative B except physical infrastructure would be mostly limited to the Trail of the Ancients RMZ. Emphasis for interpretation and education would be via Individual Special Recreation Permits (ISRPs) and off-site means.</p>	Same as Alternative E.	<p>Same as Alternative B, with the exception that the emphasis for interpretation and education would be via ISRP and off-site means for the entire Cedar Mesa area.</p>	<p>The BLM would work with the BEC to develop an interpretive plan specific to the Cedar Mesa area. The plan would identify themes and stories that the Tribal Nations want to convey to visitors but would primarily focus on information regarding cultural and natural resources protection. The plan would also identify methods (signs, printed materials, audio-visual methods) appropriate for each Sub-Area. Physical infrastructure to support interpretation would be emphasized in the Front Country Zones. The emphasis for interpretation and education would be via ISRP and off-site means for the Remote Zone.</p>
201	No corresponding management under Alternative A.	No similar management.	No similar management.	No similar management.	<p>Use on-the-ground presence (agencies, Tribal ranger programs, site stewards, volunteers) as a tool to protect public lands, protect BENM objects, and provide visitor education regarding the proper care and stewardship of the cultural landscape. Collaborate with Tribal Nations to</p>	<p>Use on-the-ground presence (agencies' rangers, Tribal ranger programs, site stewards, volunteers) as a tool to protect public lands, protect BENM objects, and provide visitor education regarding the proper care and stewardship of the cultural landscape.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					engage and, where feasible and in accordance with applicable law, contract Tribal site stewards and volunteers to assist with public engagement	Collaborate with Tribal Nations to engage and, where feasible and in accordance with applicable law, contract Tribal site stewards and volunteers to assist with public engagement.

2.4.16. Air Quality

2.4.16.1. GOALS AND OBJECTIVES

- Protect and enhance air quality and air quality–related values (e.g., visibility) by ensuring that all authorized uses on public lands comply with and support federal, state, and local laws and regulations for protecting air quality.
- The Clean Air Act gives Class I areas special air quality and visibility protection. Recognizing this special protection, the agencies would collaborate with the NPS to limit adverse impacts to air quality and visibility in Class I airsheds.
- Minimize fugitive dust within BENM by enacting management as appropriate to protect soil resources and minimize erosion.
- Incorporate Traditional Ecological Knowledge and Tribal expertise of the BEC and Tribal Nations to protect air quality as a culturally important value of the BENM cultural landscape along with best available science to monitor, protect, and enhance air quality and air quality–related values (e.g., visibility) to maintain visual resources and dark night skies priorities and values identified in the 2022 BEITC LMP.

2.4.16.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Manage emissions and discretionary actions in BENM to enhance air quality; maintain wilderness character for designated wilderness; and to protect BENM objects.
- Agencies would collaborate with the BEC in identifying opportunities for climate change resiliency, in accordance with climate change research and Traditional Indigenous Knowledge, wherever practicable.
- Manage emissions and discretionary actions in BENM to ensure compliance with state and federal air quality standards.
- Collaborate with the BEC, Tribal Nations, local and county governments, and local communities to protect and enhance air quality within BENM.

2.4.16.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-15. Alternatives for Air Quality

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
202	Per 2008 Monticello RMP The Best Available Control Technology, recommended by Utah Division of Air Quality (UDAQ), would be applied as needed to meet air quality standards.	In collaboration with UDAQ, BEC, and Tribal Nations, the agencies would implement BMPs, emission controls, and site-specific mitigation measures, as appropriate, to reduce emissions and enhance air quality.	Same as Alternative B.	Same as Alternative B.	In collaboration with UDAQ, the EPA, the BEC, and Tribal Nations, the agencies would implement applicable federal and/or state air pollution laws, regulations, and plans; emission controls; and site-specific mitigation measures, as appropriate, to reduce emissions and enhance air quality. This includes, but is not limited to emissions of pollutants like methane.	In collaboration with UDAQ, the EPA, the BEC, and Tribal Nations, the agencies would implement applicable federal and/or state air pollution laws, regulations, and plans; emission controls; and site-specific mitigation measures, as appropriate, to reduce emissions and enhance air quality. This includes, but is not limited to emissions of pollutants like methane.
203	Per 2008 Monticello RMP Prescribed burns would be consistent with the UDEQ permitting process and timed in conjunction with meteorological conditions so as to minimize smoke impacts.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would collaborate with the BEC, Tribal Nations, and UDEQ to time and implement prescribed burns in conjunction with meteorological conditions to minimize smoke impacts, particularly to sensitive receptors.	Agencies would collaborate with the BEC, Tribal Nations, and UDEQ to time and implement prescribed burns in conjunction with meteorological conditions to minimize smoke impacts, particularly to sensitive receptors.
204	Per 2008 Monticello RMP The BLM would comply with Utah Administrative Code (UAC) Regulation R307–205, which prohibits the use, maintenance, or construction of roadways without taking appropriate dust abatement measures.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would comply with UAC R307–205, which prohibits the use, maintenance, or construction of roadways without taking appropriate dust abatement measures.	Agencies would comply with UAC R307–205, which prohibits the use, maintenance, or construction of roadways without taking appropriate dust abatement measures.
205	Per 2008 Monticello RMP The BLM would comply with the current smoke management MOA between the BLM, the USDA Forest Service, and UDAQ. The MOA, in accordance with UAC Regulation R301-204,	The agencies would comply with the Utah Smoke Management Plan, which requires reporting size, date of burn, fuel type, and estimated air emissions from each prescribed burn.	Same as Alternative B.	Same as Alternative B.	The agencies would comply with the Utah Smoke Management Plan, which requires reporting size, date of burn, fuel type, and estimated air emissions from each prescribed burn. Collaborate with the BEC and Tribal Nations to	The agencies would comply with the Utah Smoke Management Plan, which requires reporting size, date of burn, fuel type, and estimated air emissions from each prescribed burn. Collaborate with the BEC and Tribal Nations to

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	requires reporting the size, date of burn, fuel type, and estimated air emissions from each prescribed burn.				ensure that prescribed burns are conducted in a way that is culturally appropriate, including seasonal appropriateness.	ensure that prescribed burns are conducted in a way that is culturally appropriate, including seasonal appropriateness.
206	Per 2008 Monticello RMP The BLM would manage emissions to prevent deterioration to air quality in Class I airsheds.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	The agencies would manage emissions to prevent adverse impact to air quality in Class I airsheds.	The agencies would manage emissions to prevent adverse impact to air quality in Class I airsheds.
207	Per 2008 Monticello RMP The BLM would continue to work cooperatively with state, federal, and Tribal entities in developing air quality assessment protocols to address cumulative impacts and regional air quality issues.	Agencies would collaborate with the BEC, Tribal Nations, the NPS, and other state and federal agencies to develop air quality assessment protocols to address cumulative impacts to haze, dark skies, and other regional air quality issues.	Same as Alternative B.	Same as Alternative B.	Agencies would collaborate with the BEC, Tribal Nations, the NPS, and other state and federal agencies to develop air quality assessment protocols to address cumulative impacts of haze and other airborne pollutants on dark night skies and regional air quality. Agencies would collaborate with the BEC and Tribal Nations to ensure that air quality assessment protocols are conducted in a way that is culturally appropriate, including seasonal appropriateness, and consistent with the cultural resources implementation plan.	Agencies would collaborate with the BEC, Tribal Nations, the NPS, and other state and federal agencies to develop air quality assessment protocols to address cumulative impacts of haze and other airborne pollutants on visibility and regional air quality. Agencies would collaborate with the BEC and Tribal Nations to ensure that air quality assessment protocols are conducted in a way that is culturally appropriate, including seasonal appropriateness, and consistent with the cultural resources implementation plan.
208	Per 2008 Monticello RMP The BLM would continue to work cooperatively with the Utah Airshed Group to manage emissions from wildland and prescribed fire activities.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would collaborate with the BEC, Tribal Nations, and the Utah Airshed Group to manage emissions from wildland and prescribed fire activities.	Agencies would collaborate with the BEC, Tribal Nations, and the Utah Airshed Group to manage emissions from wildland and prescribed fire activities.
209	Per 2008 Monticello RMP National Ambient Air Quality Standards are enforced by UDAQ, with EPA oversight. Special requirements to reduce potential air quality impacts would be considered on a case-by-case basis in processing land use authorizations.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Agencies would consider special requirements to reduce potential air quality impacts on a case-by-case basis in processing land use authorizations.	Agencies would consider special requirements to reduce potential air quality impacts on a case-by-case basis in processing land use authorizations.
210	Per 2008 Monticello RMP The BLM would utilize BMPs and site-specific mitigation measures, when appropriate, based on site-specific conditions, to reduce emissions and enhance air quality. Examples of these types of measures can be found in the Four Corners Air Quality Task Force Report of Mitigation Options (2007).	See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	See Management Actions Common to All Action Alternatives (Section 2.4.16.2).
211	Per 2008 Monticello RMP Project-specific analyses would consider use of quantitative air quality analysis methods (i.e., modeling), when appropriate, as determined by the BLM, in consultation with state, federal, and Tribal entities.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Project-specific analyses would consider use of quantitative air quality analysis methods (e.g., emissions inventory or modeling), when the project has substantial emissions as determined by the agencies, in collaboration with the BEC, Tribal Nations, and state and federal agencies.	Project-specific analyses would consider use of quantitative air quality analysis methods (e.g., emissions inventory or modeling), when the project has substantial emissions as determined by the agencies, in collaboration with the BEC, Tribal Nations, and state and federal agencies.
212	Per 1986 Manti-La Sal LRMP Air Resource Management Meet state and federal air quality objectives. Forest Service Manual 2121. Developed Recreation Sites (DSR) Manage facilities in and adjacent to recreation sites to maintain acceptable levels of air quality. Dark Canyon Wilderness Management (DCW) Protect air quality values from adverse effects from air pollution.	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.16.2).	Management not carried forward. See Management Actions Common to All Action Alternatives (Section 2.4.16.2).
213	As appropriate, quantitative analysis of potential air quality impacts would be conducted for project-specific developments.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
214	Prescribed burns would be consistent with the UDEQ permitting process and timed so as to minimize smoke impacts.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
215	Comply with UAC Regulation R446-1. The best air quality control technology, per guidance from UDAQ, would be applied to actions on public lands as needed to meet air quality standards.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
216	Comply with UAC Regulation R446-1-4.5.3, which prohibits the use, maintenance, or construction of roadways without taking appropriate dust abatement measures. Compliance would be obtained through special stipulations as a requirement on new projects and through the use of dust abatement control techniques in problem areas.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
217	Manage all BLM and BLM-authorized activities to maintain air quality within the thresholds established by the State of Utah Ambient Air Quality Standards and to ensure that those activities continue to keep the area as attainment, meet Prevention of Significant Deterioration Class II standards, and protect the Class I airshed of the national parks (e.g., Arches and Canyonlands National Parks).	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
218	Comply with the current smoke management memorandum of understanding between the BLM, USDA Forest Service, and UDAQ. The memorandum of understanding, in accordance with UAC Regulation R446-1-2.4.4, requires reporting the size, date of burn, fuel type, and estimated air emissions from each prescribed burn.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
219	The BLM would continue to work cooperatively with state, federal, and Tribal entities in developing air quality assessment protocols to address cumulative impacts and regional air quality issues.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
220	The BLM would continue to work cooperatively with the Utah Airshed Group to manage emissions from wildland and prescribed fire activities.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
221	National Ambient Air Quality Standards are enforced by UDAQ, with EPA oversight. Special requirements to reduce potential air quality impacts would be considered on a case-by-case basis in processing land use authorizations.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
222	The BLM would utilize BMPs and site-specific mitigation measures, when appropriate, based on site-specific conditions, to reduce emissions and enhance air quality. Examples of these types of measures can be found in the Four Corners Air Quality Task Force <i>Report of Mitigation Options</i> (2007).	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
223	Project-specific analyses would consider use of quantitative air quality analysis methods (i.e., modeling), when appropriate, as determined by the BLM, in consultation with state, federal, and Tribal entities.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

2.4.17. Fire Management

2.4.17.1. GOALS AND OBJECTIVES

- Firefighter and public safety are the primary goals in all fire management decisions and actions. The agencies, in collaboration with the BEC and Tribal Nations, would implement a consistent, safe, and cost-effective fire management program through appropriate planning, staffing, training, and equipment.
- Fires would be managed to account for firefighter and public safety and protect benefits and values that are consistent with the protection of BENM objects.
- Fuels would be proactively managed by the agencies in collaboration with the BEC in BENM to protect BENM objects.

2.4.17.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would collaborate with the BEC and Tribal Nations when planning fuels treatments in the appropriate conditions and areas to protect BENM objects.
- Through implementation-level fire management planning, fire management objectives and actions would be established for every area with burnable vegetation, based on sound science and Traditional Indigenous Knowledge, with consideration of other resource objectives.
- Agencies would coordinate with the BEC, Tribal Nations, and state and local government in developing implementation-level fire plans.
- Agencies would collaborate with the BEC to protect culturally modified trees during vegetation treatments and fire suppression, as practicable.
- Emergency Stabilization and Rehabilitation (ESR) and restoration efforts following wildfires would be implemented to protect and sustain resources, including cultural resources, public health and safety, and community infrastructure.
- The agencies would work with the BEC, other partners, and impacted groups and individuals to reduce risks from wildfires to communities and to restore ecosystems.
- Wildland fire would be used to protect, maintain, and enhance resources, and when possible, would be allowed to function in its natural ecological role.
- Appendix D identifies the different fire management allowed for BLM-administered lands on BENM.
- The agencies would use best and current available tools, including Traditional Indigenous Knowledge, sound science, and the Wildland Fire Decision Support System (WFDSS), in making strategic and tactical decisions for fire incidents.
- Agencies, in collaboration with the BEC, would protect and/or enhance culturally important plant populations and communities during vegetation treatments.

2.4.17.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-16. Alternatives for Fire Management

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
224	<p>Per 2020 ROD/MMPs</p> <p>Protection of human life would be the primary fire management priority. Establishing a priority among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources would be based on human health and safety, the values to be protected, and the costs of protection. Fire management decisions and actions would consider the following:</p> <ul style="list-style-type: none"> • Protection of cultural resources and/or cultural landscapes. • Maintaining existing healthy ecosystems. • High priority subbasins or watersheds, including watersheds that are impaired or that support important natural or cultural resources. • Habitat needs of threatened, endangered, or special status species. • Protection of recreation sites. • Protection of property. 	<p>Same as Alternative A with the following additions:</p> <ul style="list-style-type: none"> • Protection of riparian, wetland, and water resources would be a priority. • Where practicable, wood/biomass generated by vegetation treatments would be made available for Tribal and public use. • Protection of other identified BENM objects. 	<p>Same as Alternative B.</p>	<p>Same as Alternative B with the following addition:</p> <ul style="list-style-type: none"> • Agencies would avoid the construction of fire lines within 50 feet of all riparian, wetland, and water resources unless necessary to protect human life and/or BENM objects. 	<p>Protection of human life would be the primary fire management priority. Establishing a priority among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources would be based on human health and safety, the values to be protected, and the costs of protection. Fire management decisions and actions would consider the following:</p> <ul style="list-style-type: none"> • Protection of cultural resources and/or cultural landscapes. • Maintaining existing healthy ecosystems and environmental and ecological resources. • High priority subbasins or watersheds, including watersheds that are impaired or that support important natural or cultural resources. • Habitat, connectivity, and migration needs of threatened, endangered, or special status species, including culturally important species. • Protection of riparian, wetland, and water resources would be a priority. • Agencies would avoid the construction of fire lines within 50 feet of all riparian, wetland, and 	<p>Protection of human life would be the primary fire management priority. Establishing a priority among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources would be based on human health and safety, the values to be protected, and the costs of protection. In addition to protecting human life, fire management decisions and actions would consider the following:</p> <ul style="list-style-type: none"> • Protection of cultural resources and/or cultural landscapes. • Maintaining existing healthy ecosystems and environmental and ecological resources. • High priority subbasins or watersheds, including watersheds that are impaired or that support important natural or cultural resources. • Habitat, connectivity, and migration needs of threatened, endangered, or special status species, including culturally important species. • Protection of riparian, wetland, and water resources would be a priority.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					<p>water resources; critical habitat; and cultural sites unless necessary to protect human life and/or BENM objects.</p> <ul style="list-style-type: none"> • Foam retardant or any other chemical spraying would not be used for fire suppression within 300 feet of perennial waterbodies (riparian areas, wetlands, springs) except for protection of human lives. Potential damage to other ecological or cultural resources should be considered when using foam retardant. • Where practicable, wood/biomass generated by vegetation treatments would be made available for Tribal and public use. • Protection of recreation sites. • Protection of property. 	<ul style="list-style-type: none"> • Agencies would avoid the construction of fire lines within 50 feet of all riparian, wetland, and water resources; critical habitat; and cultural sites unless necessary to protect human life and/or BENM objects. • Foam retardant or any other chemical spraying would not be used for fire suppression within 300 feet of perennial waterbodies (riparian areas, wetlands, springs) except for protection of human lives. Potential damage to other ecological or cultural resources should be considered when using foam retardant. • Where practicable, wood/biomass generated by vegetation treatments would be made available for Tribal and public use. • Protection of recreation sites. • Protection of property.
225	<p>Per 2020 ROD/MMPs</p> <p>Wildfires may be managed to meet resource objectives except when the following resources and values may be negatively impacted and there are no reasonable resource protection measures to protect such resources and values:</p> <ul style="list-style-type: none"> • Areas known to be highly susceptible to postfire cheatgrass or invasive weed invasion • Important terrestrial and aquatic habitats • Riparian habitat • Non-fire-adapted vegetation communities • Sensitive cultural resources • Areas of soil with high or very high erosion hazard • Administrative sites • Developed recreation sites • Communication sites 	<p>Same as Alternative A, with the following additions:</p> <ul style="list-style-type: none"> • Traditional use sites that might be vulnerable to damage from fire. • Areas of special spiritual significance to Indigenous communities. • Fire management in areas of traditional use that might be vulnerable to fire would be identified by the BEC and would emphasize Traditional Ecological Knowledge and traditional techniques. 	Same as Alternative B.	Same as Alternative B.	<p>Wildfires may be managed to meet resource objectives, except when the following resources and values may be impacted, and there are no reasonable resource protection measures to protect such resources and values:</p> <ul style="list-style-type: none"> • Areas known to be highly susceptible to postfire cheatgrass or invasive weed invasion. • Important terrestrial and aquatic habitats. • Habitat connectivity and migration corridors. • Riparian habitat. • Non-fire-adapted vegetation communities. • Sensitive cultural resources. • Areas of soil with high or very high erosion hazard. • Administrative sites. • Developed recreation sites. • Communication sites. • Traditional use sites that might be vulnerable to damage from fire. • Areas of special cultural significance to Indigenous communities that would be vulnerable to damage from fire. • Fire management in areas of traditional use that might be vulnerable to fire would be identified by the BEC and would emphasize Traditional Indigenous Knowledge and traditional techniques. 	<p>Wildfires may be managed to meet resource objectives. When the following resources and values may be impacted, and there are no reasonable resource protection measures to protect such resources and values, then wildfires may be suppressed:</p> <ul style="list-style-type: none"> • Areas known to be highly susceptible to postfire cheatgrass or invasive weed invasion. • Important terrestrial and aquatic habitats. • Habitat connectivity and migration corridors. • Riparian habitat. • Non-fire-adapted vegetation communities. • Sensitive cultural resources. • Areas of soil with high or very high erosion hazard. • Administrative sites. • Developed recreation sites. • Communication sites. • Traditional use sites that might be vulnerable to damage from fire. • Areas of special cultural significance to Indigenous communities that would be vulnerable to damage from fire. • Fire management in areas of traditional use that might be vulnerable to fire would be identified by the BEC and would emphasize Traditional Indigenous Knowledge and traditional techniques.
226	<p>Per 2020 ROD/MMPs</p> <p>Fuels work in the Arch Canyon IRA would be consistent with the 2001 Roadless Rule (36 CFR 294).</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
227	<p>Per 2020 ROD/MMPs</p> <p>All prescribed burns would require coordination with agency biologists to ensure compliance with the MBTA and ESA.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
228	<p>Per 2020 ROD/MMPs</p> <p>Initial attack and fire suppression: Restrict heavy equipment line construction in riparian areas unless other values are at risk. Avoid aquatic and riparian ecosystems with this equipment to the extent possible.</p>	<p>Initial attack and fire suppression:</p> <ul style="list-style-type: none"> • Restrict heavy equipment line construction in riparian areas unless life, property, and/or BENM objects are at risk. • Avoid aquatic and riparian ecosystems with this equipment to the extent possible (2020 ROD/MMPs). 	Same as Alternative B.	Same as Alternative B.	<p>Initial attack and fire suppression:</p> <ul style="list-style-type: none"> • Heavy equipment would not be used in riparian areas unless absolutely necessary to protect human life and/or resiliency of BENM objects. 	<p>Initial attack and fire suppression:</p> <ul style="list-style-type: none"> • Heavy equipment would not be used in riparian areas unless necessary to protect human life, property, and/or BENM objects.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
229	Per 2020 ROD/MMPs Mechanical treatments would be allowed only in those areas where the BLM has determined that it would be consistent with the proper care and management of BENM objects.	Management not carried forward (see Section 2.4.7, Vegetation).	Management not carried forward (see Section 2.4.7, Vegetation).	Management not carried forward (see Section 2.4.7, Vegetation).	Management not carried forward (see Section 2.4.7, Vegetation).	Management not carried forward (see Section 2.4.7, Vegetation).

2.4.18. Health and Safety

2.4.18.1. GOALS AND OBJECTIVES

- Agencies would strive to ensure that human health and safety is maintained on public lands.

2.4.18.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Use, transportation, storage, and disposal of hazardous materials would comply with the applicable federal and state laws. Use of pesticides and herbicides would be used only in accordance with their registered uses and within limitations imposed by agency guidance, developed in collaboration with the BEC.
- Agencies would collaborate with the BEC to effectively manage hazardous risks on public lands to protect the health and safety of public land users, stewards, and wildlife; protect natural, environmental, and cultural resources; minimize future hazardous and related risks, costs, and liabilities; and mitigate physical hazards in compliance with all applicable laws, regulations, and policies.
- Agencies would collaborate with the BEC, Tribal Nations, federal and state agencies, and county and local governments in planning and implementing search and rescue operations. Emergency situations such as search and rescue operations would be prioritized as necessary to provide for the protection of the health and safety of public land users to the extent possible.
- Agencies would collaborate with the BEC to ensure that human health and safety concerns on the public lands they manage are appropriately mitigated.
- The agencies would work with the BEC, Tribal Nations, and other partners to identify and address physical safety and environmental hazards at all AML sites on public lands.
- The agencies would collaborate with the BEC to identify and clean up unauthorized disposals and other areas in BENM.
- The BEC and the agencies would collaborate to identify and monitor potential radioactive contamination in BENM, including monitoring of vegetation, fish and wildlife, and water quality. Where radioactive contamination is detected, appropriate mitigation measures would be identified by the agencies in collaboration with the BEC at the implementation stage.

2.4.18.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-17. Alternatives for Health and Safety

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
230	Per 2008 Monticello RMP Human Health and Safety The BLM would strive to ensure that human health and safety concerns on the public lands it administers are appropriately mitigated if determined hazardous.	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).
231	Per 2008 Monticello RMP AMLs In conformance with the BLM's long-term strategies and national policies regarding AMLs, this Proposed RMP/Final EIS recognizes the need to work with our partners toward identifying and addressing physical safety and environmental hazards at all AML sites on public lands. In order to achieve this goal, a state strategy, titled <i>Utah Abandoned Mine Land Multi-Year Work Plan</i> , has been written. National program criteria for determining site priorities were used to develop the work plan. The following criteria would be established to assist in determining priorities for site and area mitigation and reclamation.	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>AML Physical Safety Program Priorities:</p> <ul style="list-style-type: none"> Highest priority would be cleaning up AML sites where (a) a death or injury has occurred, (b) the site is situated on or in immediate proximity to developed recreation sites and areas with high visitor use, or (c) upon formal risk assessment, a high or extremely high risk level is indicated: <ul style="list-style-type: none"> AMLs would be factored into future recreation management area designations, land use planning assessments, and all applicable use authorizations. The site is presently listed or is eligible for listing in the Abandoned Mine and Site Cleanup Module Database. AML hazards should be, to the extent practicable, mitigated or remediated on the ground during site development. AML water quality program priorities are where the state has identified the watershed as a priority based on 1) one or more water laws or regulations; 2) threat to public health or safety; 3) threat to the environment; 4) the project reflects a collaborative effort with other land managing agencies; 5) the site is presently listed or is eligible for listing in the Abandoned Mine and Site Cleanup Module Database; and 6) the project would be funded by contributions from collaborating agencies. 					
232	<p>Per 2008 Monticello RMP Acquisitions/ Exchanges</p> <p>These priorities would be maintained and updated as needed in the state AML strategy.</p> <p>The BLM would identify and clean up unauthorized dumping and shooting areas in the [Planning Area] as required to comply with applicable state, local, and federal regulations. These would include areas such as the unauthorized shooting range west of Blanding, dumps near Hovenweep, the Monticello Airport, and Paiute Knoll.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).	See Management Actions Common to All Action Alternatives (Section 2.4.18.2).

2.4.19. Lands and Realty

2.4.19.1. GOALS AND OBJECTIVES

- Ensure lands and realty actions are consistent with the protection of BENM objects.

2.4.19.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Subject to valid existing rights, BENM is withdrawn from all forms of entry, location, selection, sale, or other disposition under the public land laws or laws applicable to the BLM and USDA Forest Service from location, entry, and patent under the mining laws, and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of BENM.
- Nothing in this Proposed RMP/Final EIS would revoke any existing withdrawal, reservation, or appropriation; however, BENM would be the dominant reservation.
- Acquisition of lands or interests therein within BENM would be pursued with willing sellers or by donation where it would provide for the protection of the objects for which BENM was designated. Any acquired lands would be managed as a portion of BENM in the same manner as adjacent lands in BENM unless they require specific management related to the protection of BENM objects.
- Agencies would collaborate with the BEC on lands and realty actions, including seasonality and resource rest.
- Agencies would work with private landowners on reasonable access as consistent with Proclamation 10285.
- Per BLM Manual 6330, USDA Forest Service Manual (FSM) 2300, and congressional action, WSAs and wilderness areas would be exclusion areas for any ROWs (FLPMA Section 501(a)). As per State of Utah v. Andrus, October 1, 1979 (Cotter Decision), the BLM would grant reasonable access to state lands for economic purposes on a case-by-case basis, consistent with the protection of BENM objects.

2.4.19.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-18. Alternatives for Lands and Realty

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
233	<p>Per 2020 ROD/MMPs</p> <p>The Indian Creek Unit would be open for ROWs except for the following exclusion and avoidance areas (Appendix A, Figure 2-24), and the Shash Jaa Unit would be a BLM ROW and USDA Forest Service Special Use Authorization avoidance area (Appendix A, Figure 2-20) with the following exceptions:</p> <ul style="list-style-type: none"> • Exclusion areas (11,376 acres) <ul style="list-style-type: none"> ○ Bridger Jack Mesa WSA ○ Mule Canyon WSA ○ Fish Creek Canyon WSA ○ Designated wilderness • Avoidance areas (124,505 acres): <ul style="list-style-type: none"> ○ Shay Canyon ACEC ○ Developed recreation sites ○ Designated utility corridors ○ Active floodplains, riparian areas, springs, and public water reserves ○ Lavender Mesa ACEC 	<p>On BLM-administered lands, ROW open areas would include (5,477 acres) (Appendix A, Figure 2-25):</p> <ul style="list-style-type: none"> • Indian Creek Corridor Recreation Management Zone • Utah State Route (SR) 95 • Utah SR-162 • Utah SR-261 • Utah SR-275 • Utah SR-276 • Utah SR-316 <p>ROW exclusion areas would include (407,038 acres) (Appendix A, Figure 2-25):</p> <ul style="list-style-type: none"> • Designated wilderness • WSAs • All suitable WSR segments classified as wild • Indian Creek ACEC and Valley of the Gods ACEC <p>The rest of the BLM-administered lands in BENM would be ROW Avoidance (662,439 acres) (Appendix A, Figure 2-25).</p>	<p>Same as Alternative E, with the following exception:</p> <ul style="list-style-type: none"> • ROW exclusion areas (505,935 acres) would include (Appendix A, Figure 2-26) <ul style="list-style-type: none"> ○ Indian Creek ACEC and Valley of the Gods ACEC; <p>ROW avoidance areas (569,020 acres) (Appendix A, Figure 2-22)</p>	<p>Same as Alternative E, with the following exception:</p> <ul style="list-style-type: none"> • ROW exclusion areas (805,329 acres) would include (Appendix A, Figure 2-27) <ul style="list-style-type: none"> ○ four areas in Lockhart Basin, ○ Indian Creek ACEC, ○ John's Canyon Paleontological ACEC, and ○ Valley of the Gods ACEC. <p>ROW avoidance areas (269,787 acres) (Appendix A, Figure 2-27)</p>	<p>On BLM-administered lands, ROW exclusion areas (1,058,613 acres) would include the following (Appendix A, Figure 2-28):</p> <ul style="list-style-type: none"> • Designated wilderness • WSAs • Lands managed for wilderness characteristics • All suitable WSR segments classified as wild or scenic • Indian Creek ACEC, John's Canyon Paleontological ACEC • San Juan River ACEC, and Valley of the Gods ACEC • All areas managed as VRM Class I <p>ROW avoidance areas (16,342 acres) (Appendix A, Figure 2-28)</p>	<p>On BLM-administered lands, ROW open areas (5,477 acres) would include the following (Appendix A, Figure 2-25):</p> <ul style="list-style-type: none"> • Utah SR-95 • Utah SR-162 • Utah SR-261 • Utah SR-275 • Utah SR-276 • Utah SR-316 • Portion of Indian Creek Management Area that overlies the Front Country Zone <p>ROW exclusion areas (597,624 acres) would include the following (Appendix A, Figure 2-29):</p> <ul style="list-style-type: none"> • Designated wilderness • WSAs • All suitable WSR segments classified as wild or scenic • Indian Creek ACEC and Valley of the Gods ACEC (excluding highway access portals [56 acres]) • Lands managed for wilderness characteristics • All areas managed as VRM Class I <p>The rest of the BLM-administered lands in BENM would be ROW Avoidance (472,017 acres) (Appendix A, Figure 2-29).</p>
234	No corresponding management under Alternative A.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>On NFS lands, ROW (Special Use) exclusion areas would include the following (46,343 acres):</p> <ul style="list-style-type: none"> • Designated wilderness <p>Other NFS lands within BENM would be USDA Forest Service Special Use Authorization avoidance areas (242,697 acres) (Appendix A, Figure 2-28).</p>	<p>On NFS lands, ROW (Special Use) exclusion areas would include the following (46,343 acres):</p> <ul style="list-style-type: none"> • Designated wilderness <p>Other NFS lands within BENM would be USDA Forest Service Special Use Authorization avoidance areas (242,697 acres) (Appendix A, Figure 2-29).</p>
235	<p>Per 2020 ROD/MMPs</p> <p>ROWs may be issued for maintenance and improvement of existing roads and where necessary to access non-federal inholdings so long as impacts to BENM objects can be avoided or mitigated.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>ROWs or SUPs may be granted/authorized to access non-federal inholdings so long such a grant/permit is consistent with the protection of BENM objects and in accordance with federal law.</p>	<p>ROWs or SUPs may be granted/authorized to access non-federal inholdings so long as such a grant/permit is consistent with the protection of BENM objects and in accordance with federal law.</p>
236	<p>Per 2020 ROD/MMPs</p> <p>To request a ROW within an avoidance area, an applicant would be required to meet, at a minimum, one of the following criteria:</p> <ul style="list-style-type: none"> • The applicant can demonstrate that there is no practicable route outside of the unit. <p>The proposed ROW would be consistent with the proper care and management of the objects of BENM.</p>	<p>To request a ROW within an avoidance area, an applicant would be required to meet the following criteria:</p> <ul style="list-style-type: none"> • The applicant can demonstrate that there is no practicable/reasonably necessary route outside of the area. <p>The proposed ROW would be consistent with protecting BENM objects.</p>	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	<p>To request a ROW or SUP within an avoidance area, an applicant would be required to meet the following criteria:</p> <ul style="list-style-type: none"> • The extent of the ROW or SUP would be the minimum necessary to achieve the ROW/SUP purpose. • The applicant can demonstrate that there is no practicable/reasonable route outside of the area. <p>The proposed ROW/SUP would be consistent with protecting BENM objects.</p>
237	<p>Per 2008 Monticello RMP ROW</p> <p>Applications for new ROWs on public lands would be considered and analyzed on a case-by-case basis, taking into consideration areas identified for avoidance and exclusion. Proposals would be reviewed for consistency with planning decisions</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>and evaluated under requirements of applicable laws for resource protection.</p> <p>Consider lands available for ROWs except for exclusion and avoidance areas.</p> <p>Exclusion Areas: 402,985 acres in Planning Area</p> <ul style="list-style-type: none"> • WSAs (377,118 acres): (Mancos Mesa, Grand Gulch Instant Study Area Complex, Road Canyon, Fish Creek Canyon, Mule Canyon, Cheese Box Canyon, Dark Canyon Instant Study Area Complex, Butler Wash, Bridger Jack Mesa, Indian Creek, and South Needles) • Lands administratively endorsed for wilderness by Butler Wash North WSA • Valley of the Gods ACEC (22,716 acres) • San Juan River Segment 5 • Colorado River Segment 3 <p>Avoidance Areas: 147,742 acres in Planning Area</p> <ul style="list-style-type: none"> • Indian Creek ACEC (3,856 acres) • Shay Canyon ACEC (119 acres) • Lavender Mesa ACEC (649 acres) • Non-WSA with wilderness characteristics 48,954 acres: (Dark Canyon, Nokai Dome East, Grand Gulch, and Mancos Mesa). • Comb Ridge Cultural Special Management Area of Cedar Mesa Special Recreation Management Area (42,356 acres) • San Juan River Special Recreation Management Area (except for WSR Segment 5, which is an exclusion area) (2,141 acres) • Colorado River Segment 2 (759 acres) • Developed recreation sites • Floodplains • Riparian areas and springs • Public water reserves 					
238	<p>Per 1986 Manti-La Sal LRMP ROWs and Land Adjustments</p> <p>Acquire ROWs for Forest Development Roads and trails that cross private land.</p> <p>Ensure that properties are equal in value on both offered and selected tracts in proposed land exchanges or made equal in cash payment not to exceed 25% of federal value (FLPMA).</p> <p>Classify lands or interest in lands for acquisition where lands are valuable for NFS purposes according to the following priorities:</p> <ul style="list-style-type: none"> • Where lands or ROWs are needed to meet resource management goals and objectives. • Lands that provide habitat for threatened and endangered species of animals and plants. • Lands having historical or cultural resources, outstanding scenic values, or critical ecosystems, when these resources are threatened by change of use or when management may be enhanced by public ownership. • When suitable for development by the private sector, if development (e.g., residential, agricultural, industrial, recreational) is in the public interest. • When important or unique resource (e.g., wetlands, floodplains, essential big game winter range, threatened or endangered 	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>species habitat, historical or cultural resources, critical ecosystems) effects are mitigated by reserving interests to protect the resource or by exchange where other critical resources to be acquired are considered to be of equal or greater value.</p> <p>Effect jurisdictional transfers which achieve the following objectives:</p> <ul style="list-style-type: none"> • Reduce duplication of efforts by users and agencies in terms of time, cost, and coordination. • Improve or maintain user access to the administering agency. • Decrease travel and enhance management. • Improve public understanding of applicable laws, regulations, policies, and procedures. • Create more effective work units. • Reduce administrative cost. <p>Key Big Game Winter Range (KWR) and General Big Game Winter Range (GWR)</p> <ul style="list-style-type: none"> • Acquire private lands or obtain wildlife habitat easements needed for big game winter range. <p>Location of Utility Corridors (UC)</p> <p>Considerations of proposed future corridor designations should follow the process and definitions established in Appendix D of the 1986 Manti-La Sal LRMP.</p> <p>Utility corridors are excluded from wilderness (WDN) and RNAs.</p> <p>Avoid the following management units unless studies that the impact of the corridor can be mitigated:</p> <ul style="list-style-type: none"> • Developed Recreation Sites • Riparian (RPN) • Research, Protection, and Interpretation (RPI), and Municipal Water Supply (MWS) • Administrative Sites and Special Use • Semi-primitive Recreation (SPR) 					
239	<p>Per 2020 ROD/MMPs</p> <p>Minimum impact filming criteria: Filming would be allowed in all areas, provided the following criteria are met:</p> <ul style="list-style-type: none"> • The project would not adversely impact sensitive habitat or species. • The project would not adversely impact American Indian sacred site(s), nor adversely affect NRHP-eligible sites. • The project would not involve the use of pyrotechnics more than a campfire in an appropriate setting. • Filming would be allowed in all areas, provided impacts to land, air, or water can be avoided, mitigated, or reclaimed and all regulatory requirements can be met (e.g., Wilderness Act, ESA) • The project would not involve the use of explosives. • The project, if it involves the use of livestock or exotic animal species, would provide certified weed-free feed for those animals and would include provisions for containment and/or capture of animals. 	<p>Minimum impact filming criteria: Commercial filming would be allowed in all areas with the exception of designated wilderness, provided the following criteria are met:</p> <ul style="list-style-type: none"> • The project would not adversely impact sensitive habitat or species. • The project would not adversely impact Tribal Nations' sacred site(s), nor adversely affect NRHP-eligible sites. • The project would not involve use of pyrotechnics or explosives more than a campfire in an appropriate setting. • The project, if it involves use of livestock or exotic animal species, would provide certified weed-free feed for those animals and would include provisions for containment and/or capture of animals. • The project would not involve extensive restriction of public access. • Limited filming would be allowed in areas with the following sensitive resources provided that impacts to these sensitive resources can be avoided, mitigated, or reclaimed: <ul style="list-style-type: none"> ○ Historic, cultural, or paleontological sites ○ Tribal Nations' sacred sites 	<p>Same as Alternative B with the following exception:</p> <ul style="list-style-type: none"> • Aircraft and unstaffed aircraft systems (UASs or drones) would not be allowed for commercial filming permits. 	<p>Same as Alternative E.</p>	<p>No commercial filming would be allowed.</p>	<p>Filming that causes an appreciable disturbance to BENM resources or takes place in Tribal Nations' sacred sites would be prohibited.</p> <p>Filming would be allowed in accordance with applicable laws and in collaboration with the BEC in other circumstances, provided the following criteria are met:</p> <ul style="list-style-type: none"> • Filming may not extend beyond 14 consecutive days. • A maximum of 20 people, cast and crew. • A maximum of 12 vehicles. • No set construction. • The project would not involve use of pyrotechnics or explosives more than a campfire in an appropriate setting. • The project, if it involves use of livestock, would provide certified weed-free feed for those animals and would include provisions for containment and/or capture of animals. • The project would not involve extensive restriction of public access. <p>Criteria for use of motorized aircraft (e.g., helicopter, fixed wing, hot air balloons, UASs) would be as follows:</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> • The project would not involve extensive restriction of public access. • Limited filming would be allowed in areas with the following sensitive resources, provided that impacts to these sensitive resources can be avoided, mitigated, or reclaimed: <ul style="list-style-type: none"> ○ Historic, cultural, or paleontological sites ○ American Indian sacred sites ○ Sensitive soils ○ Air quality ○ Sensitive species or habitat ○ Relict environments ○ Wetlands, floodplains, or riparian areas ○ Water quality ○ Wildlife habitat ○ ACECs ○ Wilderness, WSAs, and lands managed to protect wilderness characteristics • Use of heavy equipment would be allowed, provided that any resource damage can be avoided, mitigated, or reclaimed. • Criteria for use of aircraft (helicopter, fixed wing, hot air balloons, excluding UASs/drones) would be as follows: <ul style="list-style-type: none"> ○ No landing or refueling would be conducted within WSAs and designated wilderness areas. ○ Use of aircraft in an area with wildlife concerns would be allowed if a survey or inventory by an approved biologist demonstrates that animals are not present or, if animals are present, aircraft use is not proposed for more than 1 day and does not exceed the frequency of two projects per 30-day period. ○ Use of aircraft in areas with high recreational use, WSAs, or areas close to residences is proposed for no more than 2 days and does not exceed the frequency of three 2-day projects per 30-day period. ○ Aircraft use proposed within 0.5 mile of any designated campground would be during low-use times (i.e., weekdays and not during major holidays between 8:00 a.m. and 6:00 p.m.). ○ No landing, taking off, or dropping or picking up any material or supplies with a flying apparatus or operating aircraft within designated wilderness. Film permittees would observe Federal Aviation Administration flight advisory(s) for flying over designated wilderness. 	<ul style="list-style-type: none"> ○ Sensitive soils ○ Air quality ○ Special status species or habitat ○ Relict environments ○ Wetlands, water resources, or riparian areas ○ Water quality ○ Wildlife habitat ○ ACECs ○ WSAs, and lands managed to protect wilderness characteristics • Use of heavy equipment would be allowed, provided that any resource damage can be avoided, mitigated, or reclaimed. • Criteria for use of aircraft (helicopter, fixed wing, hot air balloons, excluding UASs) would be as follows: <ul style="list-style-type: none"> ○ No landing or refueling would be conducted within WSAs. ○ Use of aircraft in an area with wildlife concerns would be allowed if a survey or inventory by an approved biologist demonstrates that animals are not present or, if animals are present, aircraft use is not proposed for more than 1 day and does not exceed the frequency of two projects per 30-day period. ○ Use of aircraft in areas with high recreational use, WSAs, or areas close to residences is proposed for no more than 2 days and does not exceed the frequency of three 2-day projects per 30-day period. ○ Aircraft use proposed within 0.5 mile of any designated campground would be during low-use times. 				<ul style="list-style-type: none"> • Use of aircraft in an area with wildlife concerns would be allowed if a survey or inventory by an approved biologist demonstrates that animals are not present or, if animals are present, aircraft use is not proposed for more than 1 day and does not exceed the frequency of two projects per 30-day period. • Use of aircraft in areas with high recreational use, WSAs, or areas close to residences is proposed for no more than 2 days and does not exceed the frequency of three 2-day projects per 30-day period. • Aircraft use proposed within 0.5 mile of any designated campground would be during low-use times.
240	<p>Per 2020 ROD/MMPs</p> <p>Additional minimum impact filming criteria for WSAs on BLM-administered lands:</p> <ul style="list-style-type: none"> • If the WSA is designated as wilderness during ongoing filming, the filming would cease until the BLM determines whether, and under what criteria, filming may continue. • The project would not involve the use of more than 20 livestock in these locations. Impacts from livestock can be avoided, mitigated, or reclaimed. • The project would not involve 15 or more production vehicles. Vehicles would only be 	<p>Same as Alternative A with the following exception:</p> <ul style="list-style-type: none"> • No landing, taking off, or dropping or picking up any material or supplies with a flying apparatus. 	Same as Alternative B.	Same as Alternative E.	No filming permits would be issued in WSAs.	<p>Additional minimum impact filming criteria for WSAs on BLM-administered lands are as follows:</p> <ul style="list-style-type: none"> • If the WSA is designated as wilderness during ongoing filming, the filming would cease until the BLM determines whether, and under what criteria, filming may continue. • The project would not involve the use of more than 20 livestock in these locations, and impacts from livestock can be avoided, mitigated, or reclaimed. • Vehicles would only be allowed on WSA or designated wilderness boundary roads. • Filming may not extend beyond 10 days.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>allowed on WSA or designated wilderness boundary roads.</p> <ul style="list-style-type: none"> The project would not involve more than 50 people within these areas. The activity within these areas would not continue in excess of 10 days. 					<ul style="list-style-type: none"> No landings, take offs, dropping off or picking up any material or supplies with motorized aircraft, including UASs, would be allowed unless under other permitting authority.
241	<p>Per 2020 ROD/MMPs</p> <p>The agencies would give land exchanges with the State of Utah priority consideration in terms of acquiring land consistent with the management of BENM objects.</p>	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
242	<p>Per 2020 ROD/MMPs</p> <p>Retain existing designated corridors. Do not designate new corridors.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	<p>Retain the following existing designated corridors:</p> <ul style="list-style-type: none"> U.S. Highway 163 Corridor U.S. Highway 191 Corridor <p>Do not designate new corridors.</p>
243	<p>Per 2008 Monticello RMP</p> <p>The BLM would not transfer out of federal ownership any habitat for listed threatened or endangered species or any habitat for non-listed special status species if it could be determined that such an action would lead to the need to list any species as threatened or endangered. Acquisition of potential/occupied special status species habitat would be high priority. These acquired/exchanged lands would be managed according to BLM land management prescriptions for special status species.</p>	See Management Actions Common to All Action Alternatives in Section 2.4.12.2 (Special Status Species).	See Management Actions Common to All Action Alternatives in Section 2.4.12.2 (Special Status Species).	See Management Actions Common to All Action Alternatives in Section 2.4.12.2 (Special Status Species).	See Management Actions Common to All Action Alternatives in Section 2.4.12.2 (Special Status Species).	See Management Actions Common to All Action Alternatives in Section 2.4.12.2 (Special Status Species).
244	<p>Per 2008 Monticello RMP Land Tenure Adjustments (LTAs)</p> <p>Lands would be considered for 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 as outlined by BLM LTA criteria:</p> <ul style="list-style-type: none"> 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 would result in a net gain of important and manageable resources on public lands such as crucial wildlife habitat, important cultural sites, quality riparian areas, live water, listed species habitat, or areas key to productive ecosystems. Such changes would ensure public access to lands in areas where access is needed and cannot otherwise be obtained. Such changes would promote effective management and meet essential resource objectives through landownership consolidation. Such changes would 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 (i.e., habitat management plans). Acquisitions would be managed in the same manner as adjoining lands unless they are acquired for a specific purpose (i.e., wildlife habitat, buffer zones near other federal lands). 	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> • A priority section for acquisition would be Utah State Section 2, T39S, R9E to acquire culturally sensitive lands in the McLoyd Canyon–Moon House area. • Give land exchanges with the State of Utah priority consideration to resolve inholdings issues. The BLM would recognize the mission, goals, and objectives of the State of Utah as they relate to the values and resources of state-owned lands. The Monticello Field Office would work cooperatively with the State of Utah in identifying opportunities for LTAs that may assist the state in furthering its mission. These agreements must comply with applicable law and policy; consider fair market values; consider LTA criteria; and comply with goals and objectives for resource management prescribed in the [2008] RMP. They would be processed on a case-by-case basis, with consideration given to the goals, objectives, and decisions of this [2008] RMP. 					
245	<p>Per 2008 Monticello RMP Recreation and Public Purpose Act and Other Authorizations for Disposal Lands conveyed to state or local governments or nonprofit organizations under the Recreation and Public Purpose Act may include those identified in LTAs. In addition, requests for lands other than those identified could be considered for disposal provided the proposed use would provide a greater public benefit than that which the current management provides, and that the action is otherwise consistent with this Proposed RMP/Final EIS. Examples may include, but are not limited to local government or nonprofit recreational and public purpose facilities such as public shooting ranges, landfills, motocross tracks, and racetracks. Other authorizations for disposal include the Airport and Airway Improvement Act, state selections under the Enabling Act, and other authorities.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).
246	<p>Per 2008 Monticello RMP Wind and Solar Development</p> <p>ROW applications for wind or solar energy development would incorporate BMPs and provisions contained in the 2005 <i>Record of Decision: Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments</i> (BLM 2005a) or 2012 Western Solar Plan.</p> <p>Both wind and solar energy development are authorized by ROW grants.</p>	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	No wind and solar energy developments would be allowed within BENM.	No commercial development of wind and solar energy would be allowed within BENM. Small developments needed to power facilities used to manage BENM would be allowed on a case-by-case basis in collaboration with the BEC and in accordance with applicable law, such as the small solar array that powers the Kane Gulch Ranger Station.
247	<p>Per 2008 Monticello RMP Withdrawal Processing and Review</p> <p>Review agency withdrawals and prior Classification and Multiple Use Act classifications according to schedules prepared by the BLM Utah State Office or upon special BLM or agency request. Review other-agency withdrawals (24,140 acres) and withdrawals found to be obsolete can be removed. New withdrawal applications are processed upon request from the BLM or other federal agencies, but</p>	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).	See Management Actions Common to All Action Alternatives (Section 2.4.19.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>withdrawals can be made only by the Secretary or Congress.</p> <p>Support from the BLM Utah State Office and Washington Office would be needed for requests for withdrawal.</p> <p>Interdisciplinary staff support would be needed for coordination and development of site-specific mitigation. Coordination with surface owners, surface-administering agencies, or the State of Utah may also be required.</p> <p>Coordination with the USFWS would be required where threatened or endangered species are involved.</p>					
248	<p>Per 1986 Manti-La Sal LRMP Special Use Management (Non-recreation)</p> <p>Act on special use applications according to the following priorities:</p> <ul style="list-style-type: none"> • Land and use activity requests relating to public safety, health, and welfare (e.g., highways, power lines, public service). • Land and use activities contributing to increased economic activity associated with National Forest resources (e.g., oil and gas). • Land and use activities that benefit only private users (e.g., road permits, ROWs for power line telephones). • Encourage burying utility and lines, except when: <ul style="list-style-type: none"> ○ Visual Quality Objectives of the area can be met using an overhead line. ○ Burial is not feasible due to soil erosion or geological hazard or unfavorable geological conditions. ○ Greater long-term site disturbance would result. ○ It is not technically feasible or economically reasonable. ○ Approve special use applications for areas adjacent to developed sites only when the proposed use is compatible with the purpose and use of the developed site. • An application for permit may be denied if the authorizing officer determines the following: <ul style="list-style-type: none"> ○ The proposed use would be inconsistent or incompatible with the purpose(s) for which the lands are managed. ○ The proposed use would not be in the public interest. ○ The applicant is not qualified. ○ Use would be inconsistent with applicable federal and/or state law. ○ The applicant does not or cannot demonstrate technical or financial capability. <p>Undeveloped Motorized Recreational Use (UDM) and Riparian Area Management (RPN)</p> <ul style="list-style-type: none"> • Permit special uses that are complementary and compatible with the kind and level of development within the unit. <p>Municipal Water Supply (MWS)</p> <ul style="list-style-type: none"> • Permit only those special uses that would not impair water quality or quantity. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	<p>Issuance of SUPs on NFS lands would be allowed throughout BENM if consistent with protecting BENM objects.</p> <p>Consideration of SUPs would be done in coordination with the BEC.</p>	<p>Issuance of SUPs on NFS lands would be allowed throughout BENM if consistent with federal regulations found at 36 CFR 251 and protecting BENM objects.</p> <p>Consideration of SUPs would be done in coordination with the BEC.</p>

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>Watershed Protection/Improvement (WPE)</p> <ul style="list-style-type: none"> • Permit special uses that are compatible with the objectives of the unit and allow appropriate motorized access. • Structural watershed improvements damaged by surface-disturbing activities would be rehabilitated. <p>Research, Protection, and Interpretation of Lands & Resources (RPI)</p> <ul style="list-style-type: none"> • Use SUPs or cooperative agreements as appropriate to authorize and document scientific activity. • Permit use as appropriate for scientific and educational purposes. • Discourage or prohibit any uses that contribute to impairment of the values for which the unit is established. • Permit only those uses authorized by wilderness legislation, which cannot be reasonably met on non-wilderness lands. <p>Special Land Designations</p> <ul style="list-style-type: none"> • Approve special use applications for areas adjacent to existing special land designation units only when the proposed use is compatible with the purpose and use of the existing unit. 					

2.4.20. Recreation and Visitor Services

2.4.20.1. GOALS AND OBJECTIVES

- Manage recreation resources while protecting BENM objects, including cultural and natural resources, wildlife habitats, and vegetation, consistent with implementation-level plans identified in this Proposed RMP/Final EIS.
- In collaboration with the BEC, provide for visitor services, including interpretation, information, and education. Emphasize and educate visitors on Leave No Trace and Visit with Respect practices for all recreation activities throughout BENM.
- Manage recreation to protect human health and safety.
- In collaboration with the BEC, manage recreation use in a manner that supports and respects Tribal Nations' traditional uses, values, and perspectives.
- Consistent with Traditional Indigenous Knowledge, BENM would be stewarded as a sacred place, and visitors should be taught to visit the landscape in culturally appropriate ways. Education of visitors would emphasize the potential impacts of recreational activities and visitation to BENM objects to support management of BENM objects. Agencies, in collaboration with the BEC, would carefully manage recreation uses to protect the important cultural value of this landscape for the BEC and Tribal Nations and to respect Tribal Nation traditional uses, values, and perspectives.
- Manage BENM to provide for the protection of natural quiet, where practicable.

2.4.20.2. MANAGEMENT ACTIONS COMMON TO ALL ALTERNATIVES

- Administer BLM SRPs and USDA Forest Service Recreation SUPs to protect BENM objects, preserve natural resources, manage visitor use, conserve the identified recreation objectives, and provide for the health and safety of visitors.
- Agencies would collaborate and seek recommendation, guidance, and Traditional Indigenous Knowledge from the BEC. Agencies would also seek information and advice from the MAC when developing recreation area management plans (RAMPs).
- Agencies would collaborate with the BEC and county, state, and Tribal law enforcement on annual law enforcement strategies and through interim plan reviews to ensure that any management guidelines or prescriptions in this plan are followed by visitors to BENM.
- Collaborate with the BEC when creating or updating recreational permit systems.
- Agencies would implement resource rest during certain times of the year as informed by Traditional Indigenous Knowledge.
- Permits would include stipulations educating users about the rules and regulations of BENM and applicable penalties and fines for permit violations.

- Recreation infrastructure that is consistent with the protection of BENM objects would remain available for use. If site-specific impacts exist, recreation infrastructure may be closed or rerouted. Any closures would be identified in collaboration with the BEC and Tribal Nations in accordance with applicable law.
- Pets are prohibited in or at any alcoves, rock writing sites, archaeological sites, or additional sites identified by the agencies, in collaboration with the BEC. Pets must not harass or harm wildlife, stock animals, or cattle. Pets must not harass visitors or other visitors' pets. Pets are prohibited from swimming in springs and potholes. Pet waste disposal requirements would be identical to human waste disposal requirements.
- Campfire restrictions may be modified due to drought risk, fire risk, and presence of or proximity to BENM objects that could be damaged or destroyed by fire.
- In collaboration with the BEC, during the development of implementation-level plans and area management plans (similar to RAMPs referred to in BLM policy), the agencies would identify and restore existing dispersed campsites and redundant and user-created ("social") trails and routes that are impacting BENM objects.
- All visitors to BENM would be encouraged to practice Leave No Trace principles and Visit with Respect guidelines.

2.4.20.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-19. Alternatives for Recreation and Visitor Services

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
249	<p>Per 2020 ROD/MMPs</p> <p>Designate the following special recreation management areas (SRMAs) and extensive recreation management areas (ERMAs) and identify the following recreation management zones (RMZs) (Appendix A, Figure 2-35); see Appendix E for specific recreation objectives, desired recreation setting characteristics, and the management framework for each (Appendix A, Figure 2-30):</p> <ul style="list-style-type: none"> • Indian Creek SRMA (2020 Indian Creek Monument Management Plan [MMP]) • Indian Creek ERMA (2020 Indian Creek MMP) • Shash Jáa SRMA: Trail of the Ancients RMZ, South Elks/Bears Ears RMZ, Arch Canyon RMZ, Arch Canyon Backcountry RMZ, McLoyd Canyon-Moon House RMZ, San Juan Hill RMZ, The Points RMZ, and Doll House RMZ (2020 Shash Jáa MMP) <p>Per 2008 Monticello RMP</p> <p>Approximately 423,678 acres are included within seven SRMAs: San Juan River (2,815 acres within Planning Area); Dark Canyon (30,810 acres); White Canyon (2,825 acres); Tank Bench (2,721 acres); Beef Basin (17,191 acres); Indian Creek (48,937 acres); and Cedar Mesa (326,090 acres), which includes management zones for Grand Gulch NHL (37,388 acres).</p> <p>Acres adjusted to reflect 2020 ROD/MMPs boundary adjustments.</p> <p>Management REC-12</p> <p>Benefits Based Management Goals and Objectives have been written for most SRMAs (Appendix K of the 2008 Monticello RMP).</p>	<p>Designate the following SRMAs and RMZs (Appendix A, Figure 2-36) and manage to achieve the objectives found in Appendix E:</p> <ul style="list-style-type: none"> • Indian Creek SRMA (74,783 acres) <ul style="list-style-type: none"> ◦ Indian Creek Corridor RMZ (3,459 acres) • San Juan River SRMA (5,355 acres) <ul style="list-style-type: none"> ◦ San Juan Hill RMZ (1,717 acres) ◦ Sand Island RMZ (278 acres) • Cedar Mesa SRMA (344,628 acres) <ul style="list-style-type: none"> ◦ Cedar Mesa Backpacking RMZ (34,833 acres) • Comb Ridge RMZ (21,980 acres) • Arch Canyon RMZ (3,344 acres) • Trail of the Ancients RMZ (7,063 acres) • Moon House RMZ (318 acres) • Canyon Rims SRMA (7,413 acres) <p>Designate the following ERMAs and RMZs (Appendix A, Figure 2-36) and manage to achieve the objectives found in Appendix E:</p> <ul style="list-style-type: none"> • Dark Canyon ERMA (40,829 acres) • Dark Canyon Backpacking RMZ (18,799 acres) • White Canyon ERMA (124,827 acres) • White Canyon Canyoneering RMZ (7,222 acres) • Natural Bridges Overflow RMZ (1,458 acres) • Bicentennial Highway RMZ (4,178 acres) • Valley of the Gods ERMA (45,763 acres) • Goosenecks RMZ (96 acres) • Beef Basin ERMA (25,083 acres) • Fable Valley RMZ (7,870 acres) <p>Within the identified SRMAs, manage for 1) the primary activities to achieve the identified experiences and benefits; 2) the physical, social, and operational settings within each area and the activities that occur within them (see Appendix E); and 3) protecting BENM objects.</p> <p>Within the identified ERMAs, manage to maintain recreation activities, commensurate with other resources, with a focus on protecting BENM objects.</p> <p>Agencies would collaborate with the BEC in the development of RAMPs for BENM recreation management areas (RMAs). These plans could include temporary closure of areas as necessary,</p>	Same as Alternative B.	<p>Designate the following Management Areas and Management Zones (Appendix A, Figure 2-37) and manage to achieve the objectives found in Appendix E:</p> <ul style="list-style-type: none"> • Indian Creek Management Area (67,310 acres) <ul style="list-style-type: none"> ◦ Indian Creek Corridor Management Zone (3,459 acres) • San Juan River Management Area (5,350 acres) <ul style="list-style-type: none"> ◦ Sand Island Management Zone (278 acres) • Cedar Mesa Management Area (348,043 acres) • Cedar Mesa Backpacking Management Zone (38,177 acres) • Comb Ridge Management Zone (21,980 acres) • Trail of the Ancients Management Zone (7,063 acres) • Natural Bridges Overflow Management Zone (1,458 acres) • Moon House Management Zone (318 acres) • Canyon Rims Management Area (7,414 acres) • Dark Canyon Management Area (18,802 acres) • White Canyon Management Area (7,222 acres) • Valley of the Gods Management Area (34,389 acres) <p>Within the identified Management Area, manage to maintain recreation activities, commensurate with other resources, with a focus on protecting BENM objects.</p> <p>The BLM and the BEC would coordinate to develop management plans for these areas. These plans could include temporary closure of areas as necessary, including to preclude disturbance during traditional and/or ceremonial uses.</p> <p>In the interim, existing implementation-level decisions, including but not limited to existing permit systems, allocations, group size limits, camping restrictions, fire pan requirements, fire restrictions, pet restrictions, SRP requirements, and human waste restrictions applied to the RMAs in Alternative A, including those captured in the 2008 Monticello RMP, the 2008 Moab RMP, the 2020 RMP/MMPs, the 2014 Monticello</p>	<p>Landscape-level management zones would be used to manage visitation and other recreation uses in a manner that would protect BENM objects. The following management zones would be designated (Appendix A, Figure 2-38):</p> <ul style="list-style-type: none"> • Front Country Zone (18,995 acres): <ul style="list-style-type: none"> ◦ This zone would be the focal point for visitation and located close to communities and along major paved roads that traverse BENM. This zone would offer day use opportunities from nearby communities via the paved travel corridors that traverse BENM. The Front Country Zone would accommodate the primary visitation infrastructure, including parking areas, toilets, interpretation sites, overlooks, trails, and related facilities needed for existing and anticipated uses and to educate the public about the cultural history and ongoing relationship of the BEC and Tribal Nations to BENM. Existing high visitation destinations such as Mule Canyon Kiva, Butler Wash Ruins Overlook and Trail, and the Newspaper Rock panel are included to provide for necessary improvements and to accommodate expected visitation. Lands and resources close to towns such as Monticello, Blanding, Bluff, and Mexican Hat are included to provide for economic opportunities for local communities. The Front Country Zone would be monitored by agency staff and Tribal rangers to ensure that management prescriptions are followed. ◦ In collaboration with the BEC, existing developed recreation sites/facilities/trails would be maintained or improved and the development of new sites/facilities/trails would be allowed if consistent with the protection of BENM objects to encourage visitor stewardship, address current and expected visitor use, and provide education and interpretation. ◦ The following group size limits would remain in effect until implementation-level management plans are developed for the Front Country Zone: Group size limitations of 10 OHV/mechanized vehicles, 25 individuals, or 15 pack animals. 	<p>Landscape-level management zones would be used to manage visitation and other recreation uses in a manner that would protect BENM objects. The following management zones would be designated (Appendix A, Figure 2-39):</p> <ul style="list-style-type: none"> • Front Country Zone (21,407 acres): <ul style="list-style-type: none"> ◦ Zone Objectives: This zone is the primary place within BENM for the agencies, in collaboration with the BEC and other Tribal Nations, to educate visitors about connections to the Bears Ears landscape over millennia including ongoing and continuing traditional use of the Bears Ears region. Because this zone is located along paved highways and scenic byways, it would be the focal point for visitation and would accommodate the primary visitation infrastructure in BENM. Allowable recreational facilities in the Front Country Zone include parking areas, toilets, interpretation sites, ranger stations, developed campgrounds, overlooks, trails, and related infrastructure needed to manage existing and anticipated uses. Lands and resources close to towns are included to provide for easily accessible recreation and visitation. ◦ Campfires would be restricted to metal fire rings. ◦ Existing and new developed campgrounds would be allowed in Front Country Zones. New developed campgrounds would be considered in collaboration with the BEC and must be consistent with the protection of BENM objects. • Passage Zone (25,959 acres): <ul style="list-style-type: none"> ◦ Zone Objectives: This zone would contain travel routes used as thoroughways and access to limited recreation destinations. This zone would provide a less focused and developed visitor experience than the Front Country Zone due to the condition of routes and distance from communities. ◦ In collaboration with the BEC, basic facilities and administrative sites would be provided where necessary for education, interpretation, and protection of BENM

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	including to preclude disturbance during traditional and/or ceremonial uses.		Campground Business Plan, 2017 San Juan River Business Plan, and the 2019 Cedar Mesa Business Plan, would stay in place.	<ul style="list-style-type: none"> ○ Campfires would be restricted to fire rings where metal fire rings are available. In dispersed camping areas with no metal fire rings, campfires would be limited to fire pans and campfire ash should be hauled away. ○ Existing and new developed campgrounds would be allowed in Front Country Zones. New developed campgrounds would be considered in collaboration with the BEC. ● Passage Zone (7,498 acres): <ul style="list-style-type: none"> ○ This zone would contain secondary travel routes used as throughways and access to limited recreation destinations. This zone would provide a less focused and developed visitor experience than the Front Country Zone due to the condition of routes and distance from communities. ○ In collaboration with the BEC, basic facilities would be provided where necessary for education, interpretation, and protection of BENM objects. Existing developed recreation sites/facilities/trails would be maintained or improved. ○ Existing and new developed campgrounds would be allowed in the Passage Zone. New developed campgrounds would be considered in collaboration with the BEC. ○ Designated routes would be re-evaluated through future implementation-level travel planning, in collaboration with the BEC. Maintained and unmaintained designated routes currently in the Passage Zone include but are not limited to the following routes: Elk Ridge Road, Upper Comb Wash Road, Comb Wash Road, Bears Ears Road, Snow Flat Road, Valley of the Gods Road, Butler Wash Road, and South Elks Road. ○ New facilities/sites/trails would be designed to be unobtrusive and meet visual objectives to ensure they do not adversely impact the viewscape and soundscape and are culturally appropriate. ○ In collaboration with the BEC, the agencies would place educational signs and placards in recreation areas to educate the public about culturally significant plants, BENM objects, and Leave No Trace practices. ○ The following group size limits would remain in effect until implementation-level management plans are developed for the Passage Zone: Group size limitations of 10 OHV/mechanized vehicles, 25 individuals, or 15 pack animals. ○ Campfires would be limited to fire pans. Rock fire rings would be prohibited. ● Outback Zone (265,299 acres): <ul style="list-style-type: none"> ○ This zone would provide a natural, undeveloped, and self-directed visitor experience while allowing access to trailheads and dispersed camping. Interpretive materials would be provided only when necessary for education and the protection of BENM objects. BENM objects, TCPs, wilderness areas, WSAs, and LWC that are managed to protect wilderness characteristics would be avoided whenever possible. 	<ul style="list-style-type: none"> ○ Existing developed recreation sites/facilities/trails would be maintained or improved. ○ New developed campgrounds would be considered in this zone in collaboration with the BEC. ○ Campfires would be limited to fire pans or metal fire rings. ● Outback Zone (542,361 acres): <ul style="list-style-type: none"> ○ Zone Objectives: This zone would provide an unsupported backcountry visitor experience that allows for dispersed camping and limited facilities such as backcountry trailheads and educational signage where needed to protect BENM objects. In this zone the agencies, in collaboration with the BEC, would educate visitors about the enhanced stewardship responsibility to protect BENM objects in the Remote and Outback Zones, where there is less physical infrastructure to protect BENM objects. This zone also allows for motorized and mechanized travel to access backcountry trailheads serving the Remote Zones. ○ New developed campgrounds would be prohibited in Outback Zones. ○ Recreation facilities such as trails, trailhead markers, toilets and informational kiosks would be allowed only when necessary for the protection of BENM objects. ○ Campfires would be limited to fire pans and metal fire rings unless campfires are otherwise prohibited. ● Remote Zone (774,589 acres): <ul style="list-style-type: none"> ○ Zone Objectives: This zone would provide a natural and undeveloped experience for non-motorized and non-mechanized recreation with an emphasis on protecting the most fragile and least-accessible areas within the cultural landscape through distance from roads and developed trails. Where needed, this protection would be supplemented by permit systems and off-site education. This zone includes wilderness areas, WSAs, LWC that are managed to protect wilderness characteristics, and unroaded areas outside of special designations. Facilities would be the minimum infrastructure required to protect resources at risk. ○ No new sites or facilities would be developed in the Remote Zone. The agencies, working collaboratively with the BEC, could develop and/or designate individual trails and/or a hiking trail system where consistent with protecting BENM objects. Signs would be allowed where necessary to protect BENM objects and public safety. ○ Where not prohibited by Management Areas or Sub-Area management, campfires would be limited to fire pans on BLM-administered lands <p>In addition to the zones above, designate the following Management Areas to provide additional management (Appendix A, Figure 2-40) and manage to achieve the objectives found in Appendix E:</p>

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
				<ul style="list-style-type: none"> ○ New developed campgrounds would be prohibited in Outback Zones. Existing developed campgrounds in Outback Zones could be maintained. ○ Designated routes would be re-evaluated through future implementation-level travel planning in collaboration with the BEC. Maintained and unmaintained designated routes currently in the Outback Zone include but are not limited to the following routes: Indian Creek Corridor to Needles (paved), Bridger Jack Mesa/Beef Basin Road, Dark Canyon Plateau, Woodenshoe Road (from Glen Canyon to USDA Forest Service boundary), Deer Flat Road, Tables of the Sun, Bullet Canyon Road, Slickhorn Road, John's Canyon, Black Rock Road, River House Road, Muley Point Road, Elk Ridge Road, North Long Point Road, Kigalia Point Road, South Long Point Road, Woodenshoe Point Road, Butts Point Road, Cream Pots Road, Hammond Canyon Overlook Road, Dry Mesa Road, Causeway Road, North Cottonwood Road, Stevens Canyon, Bayles Ranch Access Road, Boy Scout Camp Access Road, and Maverick Point. ○ No new sites/facilities would be developed in the Outback Zone. Minor recreation facilities such as trails, trailhead markers, and informational kiosks would be allowed in existing recreation sites only when necessary for the protection of BENM objects. ○ Mechanized travel would be allowed on the Bluff River Trail and designated OHV routes and trails. New mechanized trails would not be allowed in the Outback Zone. ○ Campfires would be limited to fire pans. Rock fire rings would be prohibited. ● Remote Zone (1,072,587 acres): <ul style="list-style-type: none"> ○ This zone would provide a natural, undeveloped, and self-directed visitor experience with an emphasis on facilitating landscape-level protections by connecting low-elevation areas to high-elevation areas. This zone is intended to connect remote and undeveloped areas on surrounding lands managed by other federal agencies. This zone includes wilderness areas, WSAs, LWC that are managed to protect wilderness characteristics, TCPs, LWC, other unroaded areas outside of special designations, and generally areas with a high concentration of cultural sites away from roads. ○ No new sites/facilities/trails would be developed in the Remote Zone; existing trails could be designated through implementation-level planning where consistent with protecting BENM objects. Signs would be allowed where necessary to protect BENM objects and after other management actions have been exhausted. ○ Designated routes would be re-evaluated through future implementation-level travel planning, in collaboration with the BEC. Maintained and unmaintained designated routes currently in the Remote Zone include but are not limited to the following routes: Lockhart Basin Road, North Long Point Road, 	<ul style="list-style-type: none"> ● Indian Creek Management Area (75,036 acres) ● San Juan River Management Area (5,343 acres) ● San Juan Hill Sub-Area (1,693 acres) ● Cedar Mesa Management Area (341,523 acres) ● Cedar Mesa Backpacking Sub-Area (34,834 acres) ● Comb Ridge Sub-Area (23,380 acres) ● Arch Canyon Sub-Area (3,344 acres) ● Moon House Sub-Area (318 acres) ● Dark Canyon Management Area (20,665 acres) ● White Canyon Management Area (118,452 acres) ● White Canyon Canyoneering Sub-Area (7,025 acres) ● Natural Bridges Overflow Sub-Area (1,659 acres) ● Valley of the Gods Management Area (34,395 acres) <p>Within the identified Management Areas, maintain recreation activities, consistent with protection of BENM objects and, where appropriate other BENM resources.</p> <p>Agencies would collaborate with the BEC in the development of area management plans for BENM Management Areas. These plans could include temporary closure of areas as necessary, including to preclude disturbance during traditional and/or ceremonial uses.</p> <p>Lands not identified in the Management Areas above may be designated as a Management Area in the future based on intensity of use and the need to protect BENM objects. The designation of new management areas would be analyzed through the plan amendment process.</p> <p>Management Area objectives, management actions, and implementation-level decisions are found in Appendix E.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					<p>Dark Canyon Plateau Road, Clay Hills Road, Collins Trailhead Road, Step/Pine Trailhead Road, Todie Flat Trailhead Road, Sheiks Canyon Trailhead Road, Government Trailhead Road, Slickhorn Trailhead Road, Cigarette Springs Trailhead Road, Fish/Owl Trailhead Road, Texas Flat Road, Jacobs Chair Road, Shay Mountain, Vega Creek/North Cottonwood, Maverick Point, Davis Pocket, Ruin Canyon, Beef Basin Wash, Deadman Point, Dry Mesa, Milk Ranch Point, Indian Creek, Shay Mesa, and Reservoir Canyon.</p> <ul style="list-style-type: none"> o Mechanized travel would be allowed on designated OHV routes and trails. New mechanized trails would not be allowed in the Remote Zone. o Campfires would be limited to fire pans. Rock fire rings would be prohibited <p>In all zones, in collaboration with the BEC, the agencies would maintain, reroute, improve, repair, and/or close and rehabilitate disturbed areas including but not limited to dispersed campsites and existing routes and trails which are impacting BENM objects. The agencies would assess all non-designated routes and trails for compliance and would take all necessary compliance actions to prevent unauthorized use from occurring.</p> <p>In all zones, developed campsites are unavailable for private and/or commercial use of wood products, including on-site collection of dead wood for campfires.</p> <p>In all zones, campfire restrictions may be modified due to drought risk, fire risk, and presence of or proximity to BENM objects that could be damaged or destroyed by fire.</p> <p>In all zones, mechanized and motorized use is limited to designated routes. Designated routes would remain open and may be re-evaluated during implementation-level travel planning.</p> <p>Management plans would be developed for all zones, including recreation and interpretation plans, in order to protect BENM objects.</p> <p>In all zones, climbing on cultural sites, including structures, is prohibited.</p> <p>In all zones, management prescriptions would be altered by the agencies, in collaboration with the BEC, if necessary to protect BENM objects.</p> <p>RAMPs or other specific management plans or directives would be developed for areas of BENM that experience year-round or seasonal use that requires greater management prohibitions to protect BENM objects. Examples include areas of special designations, such as TCPs, ACECs, or other cultural and/or resource-specific requirements guided by Monument proclamations or other federal laws.</p>	
250	The Recreation Opportunity Spectrum (ROS) would be used to manage portions of BENM managed by the USDA Forest Service to manage the settings and opportunities for recreation and to guide management actions. See Appendix A, Figure 2-33.	The ROS would be used to manage portions of BENM managed by the USDA Forest Service to manage the settings and opportunities for recreation and to guide management actions. See Appendix A, Figure 2-34.	Same as Alternative B.	Same as Alternative B.	No similar action.	No similar action.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
251	<p>Per 2008 Monticello RMP</p> <p>ERMA</p> <p>REC-141</p> <p>ERMA lands are managed to provide an undeveloped setting where visitors can disperse and recreate in a generally unregulated manner, as long as the use is consistent with other resource values.</p> <p>REC-142</p> <p>Manage all lands within the PA, not within a SRMA (either initially or through subsequent action as described above) as the Monticello ERMA.</p> <p>REC-143</p> <p>Any portions of an ERMA subject to other management prescriptions (i.e., ACEC, WSA, etc.) would be managed according to those prescriptions.</p> <p>REC-144</p> <p>Monitor the ERMA to determine if more intensive recreational management is required to protect resource values and preserve the recreational experience.</p> <p>REC-145</p> <p>Encourage Leave No Trace and Tread Lightly principles throughout the ERMA.</p> <p>REC-146</p> <p>ERMA lands may be designated as SRMAs in the future based on intensity of use and would be analyzed through the plan amendment process.</p> <p>REC-147</p> <p>Minimal facilities may be constructed in the ERMA as needed to ensure visitor health and safety, reduce user conflict, and protect resources.</p> <p>REC-148</p> <p>Mesa Top Camping (other than Cedar Mesa):</p> <p>Limit Bears Ears Road to designated camping only from the intersection of Utah State Route 275 to the USDA Forest Service boundary.</p> <p>Limit the Deer Flat Road to designated camping only for the first 4 miles from Utah State Route 275.</p> <p>Coordinate with Glen Canyon NRA on building a campground at Muley Point or pursue a land exchange for Muley Point in order to develop a campground.</p> <p>REC-149</p> <p>Within the ERMA, dispersed vehicle camping is allowed only in previously disturbed areas within 150 feet of designated routes (on each side of a centerline). If use is such that undue environmental impacts are taking place, the BLM would close and rehabilitate damaged areas. This use would not include areas within WSAs (379,418 acres) or non-WSA areas with wilderness characteristics (48,803 acres), WSR corridors, ACECs, or threatened and endangered/special status species habitats.</p>	<p>BLM Non-RMA lands</p> <p>REC-141</p> <p>Non-RMA lands throughout BENM would be managed to provide an undeveloped setting where visitors can disperse and recreate in a generally unregulated manner, as long as the use is consistent with the protection of BENM objects.</p> <p>REC-143</p> <p>Any portions of non-RMA lands subject to other management prescriptions (i.e., ACEC, WSA, etc.) would be managed according to those prescriptions.</p> <p>REC-144</p> <p>Not carried forward.</p> <p>REC-146</p> <p>Non-RMA lands may be designated as RMAs in the future based on intensity of use and the need to protect BENM objects and would be analyzed through the plan amendment process.</p> <p>REC-149</p> <p>Non-RMA lands would be open to dispersed camping, unless otherwise closed by the agencies. If monitoring indicates adverse impacts to BENM objects, the agencies would close areas to dispersed camping and would restore the impacted areas. In OHV closed areas, only non-motorized modes of travel would be allowed to access the dispersed camping opportunities.</p> <p>REC-147</p> <p>Recreation facilities may be constructed in the non-RMA lands as needed to ensure visitor health and safety, reduce user conflict, and protect resources.</p>	<p>BLM Non-RMA lands,</p> <p>Same as Alternative B.</p>	<p>BLM Non-RMA lands,</p> <p>Same as Alternative B.</p>	<p>No similar management.</p>	<p>No similar management.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	Where monitoring identifies resource impacts, future implementation-level plans could consider designation of specific camp sites.					
252	<p>2020 ROD/MMPs</p> <p>Doll House RMZ</p> <p>No camping would be allowed in the RMZ. Human waste must be packed out. Campfires would not be allowed.</p> <p>Unavailable for private and/or commercial use of woodland products, including on-site collection of dead wood for campfires.</p> <p>No people would be allowed inside or on top of structures.</p>	<p>Doll House RMZ</p> <p>No camping would be allowed in the RMZ. Unavailable for private and/or commercial use of wood products, including on-site collection of dead wood for campfires.</p> <p>Solid human waste must be packed out and disposed of at appropriate facilities. Campfires would not be allowed.</p> <p>Prohibit visitors inside or on top of archaeological structures. Pets and pack animals would not be allowed in the RMZ.</p>	Same as Alternative B.	<p>Same as Alternative B with the following addition:</p> <ul style="list-style-type: none"> No new SUPs would be issued to the Doll House Management Zone, and existing permits would not be renewed. 	The agencies would collaborate with the BEC to ensure that management of Doll House site is consistent with Traditional Indigenous Knowledge and Tribal expertise.	<p>Doll House</p> <p>No camping would be allowed. Unavailable for private and/or commercial use of wood products, including on-site collection of dead wood for campfires.</p> <p>Solid human waste must be packed out and disposed of at appropriate facilities. Campfires would not be allowed.</p> <p>Prohibit visitors inside or on top of archaeological structures. Pets and pack animals would not be allowed.</p> <p>The agencies would collaborate with the BEC to ensure that management of Doll House site is consistent with Traditional Indigenous Knowledge and Tribal expertise.</p>
253	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	<p>Moon House RMZ</p> <p>RMZ Objective: Manage the Moon House RMZ to protect Moon House and other cultural sites located within the RMZ. Use permits and trailhead materials to promote an ethic of stewardship while allowing hiking and cultural site visitation recreation activities. Maintain a predominantly remote physical and social recreation settings.</p> <p>The Moon House RMZ occurs within the Fish Creek Canyon WSA and is managed under current WSA policy, as follows:</p> <ul style="list-style-type: none"> Visitation would be by Individual Special Recreation Permits (ISRPs) only. All permit restrictions under Alternative A would be kept in place until development of the RAMP. Visitors would not be allowed to enter the interior corridor of Moon House. Solid human waste must be packed out and disposed of at appropriate facilities. Hiking to the Moon House site would be limited to the designated trail. Hiking to other sites in the RMZ may also be limited to existing and designated trails if determined necessary. The RMZ would be closed to pack animals and pets. Campfires would not be allowed. No overnight use would be allowed. 	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).
254	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).	<p>San Juan River</p> <p>Goals and Objectives</p> <p>Protect Monument objects, including rock writing panels near campgrounds and river access.</p> <p>Coordinate and integrate management with the Navajo Nation, BEC, and NPS to ensure protection of natural and cultural resources.</p> <p>Allow for boating and rafting activities regulated through permit issuance.</p> <p>Grazing</p> <ul style="list-style-type: none"> Same as Alternative B for the San Juan River SRMA (see Appendix E). <p>Camping</p> <ul style="list-style-type: none"> Same as Alternative B for the San Juan River SRMA (see Appendix E). 	See management actions in Appendix E (Supporting Information for Recreation and Visitor Services Decisions).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					<ul style="list-style-type: none"> The BLM would collaborate with the BEC, Tribal Nations, and the State of Utah to manage camping and other recreational activities to be consistent with the protection of BENM objects. <p>Prior to the development of management criteria specific to the Sand Island area, the following general allowable uses and management actions apply:</p> <ul style="list-style-type: none"> Minimal visitor services at Sand Island ramp areas would be provided for visitor health and safety and resource protection. <p>Planning and Coordination:</p> <ul style="list-style-type: none"> A memorandum of understanding would be signed between the NPS/GCNRA and the Navajo Nation. This memorandum would include details on the numbers of campsites and their associated permit restrictions. <p>Permits</p> <ul style="list-style-type: none"> Permits are required for all recreational river trips. SRPs may be issued to commercial companies on a 5-year designated basis and may be issued to private users through an annual lottery system. The following group size limits would remain in effect until a San Juan River zone management plan is developed. Trip size is limited to 25 people total (including crew) for private trips. Commercial group size limits on the San Juan River would remain at 33 people (25 passengers plus eight guides) per trip. <p>Campfires</p> <ul style="list-style-type: none"> Unavailable for wood product use, except for limited on-site collection of dead wood for campfires. Woodland use within the floodplain is limited to collection of driftwood for campfires. Campfires allowed only with a fire pan. <p>Human Waste</p> <ul style="list-style-type: none"> Same as Alternative B for the San Juan River SRMA (see Appendix E). <p>SRPs</p> <ul style="list-style-type: none"> Same as Alternative B for the San Juan River SRMA (see Appendix E). <p>Pets</p> <ul style="list-style-type: none"> Same as Alternative B for the San Juan River SRMA. <p>Vegetation</p> <ul style="list-style-type: none"> Same as Alternative B for the San Juan River SRMA (see Appendix E). 	
255	<p>Per 2008 Monticello RMP</p> <p>Manage recreation to meet Utah's rangeland health standards guided by the Standards for Public Land Health and Guidelines for Recreation Management (Appendix K of the 2008 Monticello RMP). The guidelines describe the procedures that should be applied to achieve standards for rangeland health within the recreation program.</p> <p>Recognize that various levels of regulations and limits are necessary. Restrictions and limitations</p>	<p>BMPs</p> <p>Manage recreation to protect BENM objects with the following actions:</p> <ul style="list-style-type: none"> Recognize that various levels of restrictions and limits are necessary. Restrictions and limitations on public uses would be as minimal as possible without compromising the protection of BENM objects. Place visitor use infrastructure near population centers, highway corridors, and high use areas. 	<p>BMPs</p> <p>Same as Alternative B with the following exceptions:</p> <ul style="list-style-type: none"> Recognize that various levels of restrictions and limits are necessary. Restrictions and limitations on public uses would be consistent with the protection of BENM objects. Place visitor use infrastructure near population centers, highway corridors, and high use areas. Provide restrooms and other facilities that 	<p>BMPs from Alternative A carried forward until implementation-level planning is completed.</p>	<p>Manage recreation to protect BENM objects with the following actions:</p> <ul style="list-style-type: none"> Limit or control activities where damage by recreational uses is observed or anticipated through specialized management tools such as physical barriers, signs, and designated campsite areas. If necessary, agencies would require permits (e.g., ISRPs or Recreation Use Permits) or fees, implement area closures, or place limitations on the number of users and duration of use. Commercial and private use 	<p>Manage recreation to protect BENM objects with the following actions:</p> <ul style="list-style-type: none"> Emphasize Leave No Trace, Tread Lightly, and Visit with Respect visitation, camping, and travel techniques throughout BENM. In collaboration with the BEC, the agencies would maintain, reroute, improve, repair, and/or close and rehabilitate disturbed areas. Coordinate management of recreation use with the BEC, Tribal Nations, other agencies, and state and local governments to provide

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>on public uses should be as minimal as possible without compromising the primary goal.</p> <p>Use on-the-ground presence (e.g., BLM, site stewards, volunteers) as a tool to protect public lands.</p> <p>Limit or control activities where long-term damage by recreational uses is observed or anticipated through specialized management tools such as designated campsites, permits, area closures, and limitations on the number of users and duration of use. Revise RAMPs as necessary to maintain public land health.</p> <p>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.</p> <p>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.</p> <p>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 that would be adequate for anticipated uses at designated campgrounds, trailheads, and other areas where there is a concentration of recreational users.</p> <p>Emphasize Leave No Trace camping and travel techniques throughout the Monticello PA.</p> <p>Consider and, where appropriate, implement management methods to protect natural and cultural resources and, while giving consideration to community and economic impacts, implement management methods to maintain or enhance recreation opportunities. Management methods may include limitation of visitor numbers, camping and travel controls, implementation of fees, alteration of when use takes place, and other similar actions as they are approved through normal BLM procedures.</p> <p>Coordinate management of recreation use with other agencies, state and local governments, and Tribal units to provide public benefits, help assure public safety, and make effective use of staff and budget resources.</p> <p>Recreational OHV and mechanized travel would be consistent with route and area designations described in the travel management decisions. The BLM would work with agency and government officials and permit holders to develop procedures, protocols, permits, or other types of authorization, as appropriate, to provide reasonable access for non-recreational use of OHVs for military, search and rescue, emergency, administrative, and permitted uses.</p> <p>OHV access for game retrieval would follow all area and route designations. (There would be no off-road retrieval.)</p> <p>Dispersed camping, where allowed when not specifically restricted, may be closed seasonally</p>	<p>Provide restrooms and other facilities that would be adequate for anticipated uses at designated campgrounds, trailheads, and other areas where there is a concentration of recreational users.</p> <ul style="list-style-type: none"> Limit or control activities where damage by recreational uses is observed or anticipated through specialized management tools such as site hardening, construction of developed campsites, barricades/fences, signs, and designated campsites. If necessary, agencies would require permits, implement area closures, or place limitations on the number of users and duration of use. Revise RAMPs as necessary to maintain public land health and safety. Use on-the-ground presence (agency staff, site stewards, volunteers) as a tool to protect public lands, with a priority on staffing visitor centers and developed sites. Coordinate with the BEC, Tribal Nations, federal and state agencies, and county and local governments in recreation planning and managing traffic, search and rescue operations, trash control and removal, and public safety. Consider utilizing management methods, including construction of trailheads or facilities, and if necessary, limitation of numbers, types, timing, and duration of use where necessary to protect natural and cultural resources and maintain the quality of experience of various user groups. Emphasize Leave No Trace, Tread Lightly and Visit with Respect visitation, camping, and travel techniques throughout BENM. Coordinate on the management of recreation use with the BEC, Tribal Nations, other agencies, and state and local governments to provide public benefits, help assure public safety, and make effective use of staff and budget resources. 	<p>would be adequate for anticipated uses at designated campgrounds, trailheads, and other areas where there is a concentration of recreational users.</p> <ul style="list-style-type: none"> Limit or control activities where damage by recreational uses is observed or anticipated through specialized management tools such as permits, designated campsites, and limitations on the number of users and duration of use. If necessary, areas may be closed to recreational use. Revise RAMPs as necessary to maintain public land health and safety. Use on-the-ground presence (agency staff, site stewards, volunteers) as a tool to protect public lands with a priority on staffing visitor centers and permit compliance. 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 creating allocated permit systems that specify types, timing, and duration of use. 		<p>allocations would be adaptive to ensure protection of BENM objects.</p> <ul style="list-style-type: none"> In collaboration with the BEC, agencies would develop a BENM permit system, as necessary, to include user education about BENM's cultural landscape, the rules and regulations of BENM, and where users are subject to penalties and fines for permit violations. The following additional permits would apply: <ul style="list-style-type: none"> Permits would be required for private overnight and day use in all canyons. Unless otherwise provided in this Proposed RMP/Final EIS, the following group size limits would remain in effect until implementation-level management plans are developed for management zones: <ul style="list-style-type: none"> Day use group size (private and commercial) would be limited to 15 people. Overnight group size (private and commercial) would be limited to eight people. Coordinate with the BEC, Tribal Nations, federal and state agencies, and county and local governments in recreation planning and managing traffic, search and rescue planning/operations, trash control and removal, and public safety. BEC involvement in these activities would be primarily to advise on the proper care and management of BENM objects impacted by recreation, traffic, and trash control and removal. Consider using management methods, including development of trailheads or facilities, and, if necessary, limitations of numbers, types, timing, and duration of use where necessary to protect natural and cultural resources and maintain the quality of experience of various user groups. (Same as Alternative B.) Emphasize Leave No Trace, Tread Lightly, and Visit with Respect visitation, camping, and travel techniques throughout BENM. (Same as Alternative B.) Coordinate management of recreation use with the BEC, Tribal Nations, other agencies, and state and local governments to provide public benefits, help assure public safety, and make effective use of staff and budget resources. Place visitor use infrastructure near population centers, highway corridors, and high use areas. Provide limited restrooms and other facilities at designated campgrounds, trailheads, and other areas where there is a concentration of recreational users. Major developments such as visitor centers and developed camping areas would be located on the periphery of BENM and in or near local communities. 	<p>public benefits, help assure public safety, and make effective use of staff and budget resources.</p> <ul style="list-style-type: none"> Major developments such as visitor centers would, where practicable, be developed on the periphery of BENM and in or near local communities.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	or as impacts or environmental conditions warrant.					
256	<p>Per 2008 Monticello RMP Management of Existing and Development of Future Recreation Facilities Develop or improve development of recreation sites as prioritized below:</p> <ul style="list-style-type: none"> • Kane Gulch Ranger Station (40 acres). • Sand Island Campground (21 acres). • Mexican Hat launch site (20 acres). • Hamburger Rock Campground (20 acres). • Comb Wash Campground (10 acres). • Butler Wash Ruins (60 acres). • Mule Canyon Indian Ruin (10 acres). • Three Kiva Pueblo (10 acres). • Shay Mountain Vista Campground (20 acres). • Indian Creek Recreational and Camping Facilities as outlined in the Indian Creek Recreation Corridor Plan (BLM 2005b). • The BLM would work with NABR to develop an overflow camping area. No campfires would be allowed in overflow camping areas. • The BLM would work with Canyonlands National Park Needles District to develop an overflow camping area. <p>Per 1986 Manti- La Sal LRMP NFS Lands Management of Developed Recreation Sites Manage sites identified for developed recreation during the planning period under the Developed Recreation Site (DRS) management unit prescription. Construct, reconstruct, and maintain developed sites in accordance with the established ROS classification for the management unit. Site Development Scale by ROS Class:</p> <ul style="list-style-type: none"> • Semi-Primitive Motorized: Not to exceed Class 2 • Roaded Natural: Class 3 <p>Maintain facilities in safe condition. Replace facilities when rehabilitation costs are 50% or more of replacement costs or existing facilities cease to be compatible with site design or ROS classification. Maintain developed sites in accordance with regionally acceptable work standards. Recreation Site Construction and Rehabilitation</p> <ul style="list-style-type: none"> • Developed Recreation Sites (DRS) <ul style="list-style-type: none"> ○ Develop appropriate facilities where the present facilities are not meeting the demand and where facilities meet the highest net public benefit. ○ Provide facilities that are accessible to disabled persons in proportion to the anticipated number of users with disabilities. ○ Facilities proposed for construction or reconstruction that lie within identified 100-year floodplains would be evaluated as to the specific flood hazards and values involved with the unit. 	<p>Seasonal closures of recreational facilities would be considered to allow for resource rest and/or traditional uses or ceremonies. These seasonal closures would be identified in collaboration with the BEC and Tribal Nations. For recreation facilities, agencies would implement the following management:</p> <ul style="list-style-type: none"> • Provide for universal accessibility to the extent practicable and consistent with the protection of BENM objects and desired recreation settings. • Evaluate specific flood hazards within identified 100-year floodplains. • Provide for site protection, efficient maintenance, and user convenience. • Design and develop sites to ensure that developed capacity meets the anticipated demand, where appropriate. • If developed recreation facilities are needed to manage wilderness, WSAs, lands managed to protect wilderness characteristics, and suitable WSRs to complement wilderness management objectives, ensure those sites are external to those areas, unless necessary to the protection of BENM objects and are otherwise consistent with applicable law and agency policy. • Restrict uses that cause noise levels that create a public nuisance and are inconsistent with desired recreation experience. Preclude camping in undeveloped sites within 0.25 mile of developed fee sites within BENM. <p>REC-15 Collaborate with the BEC to develop, maintain, or improve the following recreation sites to encourage visitor stewardship and to support protection of BENM objects:</p> <ul style="list-style-type: none"> • BENM education center near Kigalia Guard Station • Doll House • Dry Wash Caves • Lewis Lodge Overlook Trail • Kane Gulch Ranger Station (40 acres) • Sand Island Campground (21 acres) • Hamburger Rock Campground (20 acres) • Comb Wash Campground (10 acres) • Butler Wash Interpretive Trail (60 acres) • Mule Canyon Interpretive Site (10 acres) • Shay Mountain Vista Campground (20 acres) • Newspaper Rock Interpretive Site • Donnelly Canyon Day Use Area • North Cottonwood Trailhead • Bridger Jack Mesa Dispersed Area • Superbowl Campground and Group Site • Creek Pasture Campground and Group Site • Indian Creek Falls Group Sites • OHV staging areas (Falls Missile and White Canyon) • Grand Flat Campground • Muley Point/Moki Dugway • Swinging Bridge River Access • Needles Overlook 	Same as Alternative B.	<p>Existing facilities (see Appendix E) would be maintained at their current level until implementation-level or site-specific planning is completed. New facilities would only be developed if specifically necessary to protect BENM objects. Levels of maintenance or improvement for existing facilities would also be determined in implementation-level plans. Facilities that do not serve an administrative, resource protection, public education, or public safety purpose would be removed. All facilities would be appropriate to the desired recreation settings characteristics for that location.</p>	<p>Seasonal closures of these facilities would be considered to allow for resource rest and/or traditional uses or ceremonies. These seasonal closures would be identified in collaboration with the BEC and Tribal Nations. For recreation facilities, agencies and the BEC would implement the following management:</p> <ul style="list-style-type: none"> • Provide for universal accessibility (i.e., inclusion of Indigenous languages in exhibits and Americans with Disabilities Act (ADA) accessibility, as applicable) to the extent practicable and consistent with the protection of BENM objects. • Evaluate specific flood hazards within identified 100-year floodplains. • No new developed recreation facilities in Outback or Remote Zones. <p>Restrict uses that cause noise levels that create a public nuisance and are inconsistent with future implementation-level plans (e.g., cultural, night skies, soundscapes). Dispersed camping areas would not be designated within 0.25 mile of developed fee camping areas within BENM. Develop, maintain, or improve the following recreation sites to encourage visitor stewardship and to support protection of BENM objects, in collaboration with the BEC and consistent with all implementation plans:</p> <ul style="list-style-type: none"> • Dry Wash Caves • Kane Gulch Ranger Station (40 acres) • Sand Island Campground (21 acres) • Newspaper Rock Interpretive Site <p>Existing recreation sites would be maintained to protect BENM objects. Subject to applicable law and valid existing rights, the BLM and USDA Forest Service would remove recreation facilities that do not serve an administrative, public safety, recreational, cultural, or historic purpose or that do not provide for the protection of BENM objects.</p>	<p>Recreation sites and facilities would be used to encourage visitor stewardship and to support protection of BENM objects, in collaboration with the BEC and consistent with all implementation-level plans. Seasonal closures of recreational facilities would be considered to allow for resource rest and/or traditional uses or ceremonies. These seasonal closures would be identified in collaboration with the BEC and Tribal Nations. For recreation facilities, agencies in collaboration with the BEC would implement the following management:</p> <ul style="list-style-type: none"> • Provide for universal design (e.g., inclusion of Indigenous languages in exhibits and accessibility, as applicable) to the extent practicable and consistent with the protection of BENM objects. • Evaluate specific flood hazards within identified 100-year floodplains. • Restrict uses that cause noise levels that create a public nuisance and are inconsistent with future implementation-level plans (e.g., cultural, night skies, soundscapes). • New facilities/sites/trails would be designed to be unobtrusive and meet visual objectives to ensure they do not adversely impact the viewscape and soundscape and are culturally appropriate. <p>Subject to applicable law and valid existing rights, the BLM and USDA Forest Service would remove recreation facilities that do not serve an administrative, public safety, recreational, cultural, or historic purpose or that are not consistent with the protection of BENM objects.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> Design facilities and access to provide site protection, efficient maintenance, and user convenience. Design and develop sites to ensure that developed capacity meets the anticipated demand. Construct and reconstruct existing and new developed sites in accordance with the guidelines in FSM 2331. Design, construct, and operate developed sites that are adjacent to or provide access points into a wilderness to complement wilderness management objectives. Undeveloped Motorized Recreation Sites (UDM) <ul style="list-style-type: none"> Inventory dispersed sites as potential developed recreation sites, and, as appropriate, reclassify as Developed Recreation Site (DRS) management units when substantial demand exists and based on an orderly development program. 	<ul style="list-style-type: none"> Anticline Overlook Bluff River Trail Pedestrian Trailheads Climbing Access Points Motorized Trailheads <p>Additional facilities could be developed to protect BENM objects. Subject to applicable law and valid existing rights, the BLM and USDA Forest Service would remove recreation facilities that do not serve an administrative, public safety, recreational, cultural, or historic purpose or that do not provide for the protection of BENM objects.</p>				
257	<p>Per 2020 ROD/MMPs</p> <p>No camping allowed within 200 feet of isolated springs or water sources to allow wildlife and livestock access to water.</p> <p>Discourage dispersed camping in riparian areas functional—at risk if camping is determined to be the causal factor.</p>	See management action for dispersed camping below.	See management action for dispersed camping below.	See management action for dispersed camping below.	See management action for dispersed camping below.	See management action for dispersed camping below.
258	<p>Per 2008 Monticello RMP General Recreation Management</p> <p>The following actions require a signed agreement with the specified agency:</p> <ul style="list-style-type: none"> Manage the BLM portion of the Colorado River in coordination with Canyonlands National Park and the BLM Moab Field Office. Manage the BLM portion of the San Juan River in coordination with the Glen Canyon NRA and Navajo Nation. Manage the BLM portion of Dark Canyon Complex in coordination with the Manti-La Sal National Forest and Glen Canyon NRA. 	Management carried forward through agreements.	Management carried forward through agreements.	Management carried forward through agreements.	<p>General Recreation Management</p> <p>Partner with agencies, organizations, and Tribes that manage and/or monitor up- or downstream portions of the Colorado River, including but not limited to Tribal Nations, Canyonlands National Park, and the BLM Moab Field Office to manage the portion of the Colorado River that is in BENM.</p> <p>Partner with agencies, organizations, and Tribes that manage and/or monitor up- or downstream portions of the San Juan River, including but not limited to Tribal Nations and Glen Canyon NRA, to manage the portion of the San Juan River that passes through BENM.</p> <p>Manage Dark Canyon in coordination with the Glen Canyon NRA.</p>	Management carried forward through agreements.
259	<p>Per 2008 Monticello RMP General Recreation REC-13</p> <p>No camping within 200 feet of isolated springs to allow space for wildlife to access water.</p> <p>REC-14</p> <p>No camping is allowed within cultural sites or archaeological resources as defined in ARPA.</p>	<p>Management not carried forward. Addressed specifically in the RMAs.</p> <p>Management not carried forward. See Section 2.4.6, Water Resources, and Section 2.4.14, Cultural Resources.</p>	<p>Management not carried forward. Addressed specifically in the RMAs.</p> <p>Management not carried forward. See Section 2.4.6, Water Resources, and Section 2.4.14, Cultural Resources.</p>	<p>Management not carried forward. Addressed specifically in the Management Areas.</p> <p>Management not carried forward. See Section 2.4.6, Water Resources, and Section 2.4.14, Cultural Resources.</p>	<p>Management not carried forward. Addressed specifically in the RMAs.</p> <p>Management not carried forward. See Section 2.4.6, Water Resources, and Section 2.4.14, Cultural Resources.</p>	<p>Management not carried forward. Addressed specifically in the Management Areas.</p> <p>Management not carried forward. See Section 2.4.6, Water Resources, and Section 2.4.14, Cultural Resources.</p>
260	<p>Per 2020 ROD/MMPs</p> <p>An implementation-level RAMP/business plan would be developed for BENM within 3 years following the cultural resources management plan. This implementation-level plan would restrict camping to designated sites if the following criteria apply:</p> <ul style="list-style-type: none"> There are conflicting resource impacts that cannot be mitigated (e.g., cultural resources, visual, wildlife impacts). There are recurring issues with human waste, trash, campfires, and expanded disturbance 	See Management Actions Common to All Action Alternatives (Section 2.4.20.2).	See Management Actions Common to All Action Alternatives (Section 2.4.20.2).	See Management Actions Common to All Action Alternatives (Section 2.4.20.2).	See Management Actions Common to All Action Alternatives (Section 2.4.20.2).	See Management Actions Common to All Action Alternatives (Section 2.4.20.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	that are best addressed through additional management.					
261	<p>Per 1986 Manti-La Sal LRMP NFS Lands Dispersed Recreation Management</p> <p>Describe, as appropriate, high interest or unique geological, paleontological, biological, archaeological, or historical features for public information and, as appropriate, develop interpretive information for these sites.</p> <p>Provide opportunities for Roaded Natural Appearing, Semi-Primitive Motorized, and Semi-Primitive Non-Motorized recreation uses.</p> <p>Classify areas as to whether vehicular travel use is restricted.</p> <p>Specify vehicular travels restrictions, if any, based on vehicle travel use management (FSM 2350).</p> <p>Restrict use and/or rehabilitate dispersed sites where unacceptable environmental damage is occurring.</p> <p>Close sites that cannot be maintained in Code-A-Site categories Light, Moderate, or Heavy campsite condition (USDA Forest Service Research Paper PNW-209, 1976).</p> <p>Rehabilitate sites that are in Code-A-Site category Extreme.</p> <p>Limit camping near lakes and streams or in watersheds as necessary to protect riparian and aquatic ecosystems and to maintain the quality of the recreation experience.</p> <p>Manage dispersed recreation activities and use of trails in dispersed areas to not exceed the established People At One Time/acre or mile of site or trail capacity.</p> <p>Maximum use and capacity levels are by: Undeveloped Motorized Recreation Sites (UDM)</p> <p>Emphasize Semi-Primitive Non-Motorized, Semi-Primitive Motorized, and Roaded Natural recreation opportunities.</p> <p>Close specific land areas or travel routes either permanently or seasonally to maintain compatibility with adjacent area management or to prevent resource damage, for economic reasons, to prevent conflicts of use, and provide for user health and safety.</p> <p>Manage motorized vehicle use (including snowmobiles) on and off Forest Development Roads and trails.</p> <p>Provide facilities, as appropriate, including Development</p> <p>Level 1 or 2 campgrounds. Trailheads, local roads, parking lots, and signing may also be provided.</p> <p>Semi-primitive Recreation Use (SPR)</p> <p>Manage for semi-primitive recreation opportunities.</p> <p>Close all or part of the unit to motorized use when such use is incompatible with the recreation resource activities and or uses of the unit.</p>	No similar management.	No similar management.	No similar management.	No similar management.	See Management Actions by Alternative under Cross-Cultural Education and Outreach (Section 2.4.15.3).

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>Open specific closed areas to travel routes seasonally as appropriate with specific authorization to accomplish resource management activities and/or uses. Close or restrict.</p> <p>Open the unit or selected roads and/or trails for motorized use recreation when such use is compatible with the ROS Class of the unit.</p> <p>Closure or restriction to motorized use does not apply when authorized by permit or contract or to any federal, state, or local officer, or member of an organized rescue or fire fighting force in the performance of an official duty.</p> <p>Provide facilities such as foot and horse trails, Level 1 campgrounds, and necessary signing as appropriate for the protection of resources.</p> <p>Manage site use and occupancy to maintain sites so as not to exceed Code-A-Site category "Heavy Impact."</p> <p>Key Big Game Winter Range (KWR) Manage recreational activities so they do not conflict with wildlife use of habitat.</p> <p>Close management units to vehicular travel and to snowmobile use during the critical use season.</p> <p>Do not provide parking or trailhead facilities during winter. General Big Game Winter Range (GWR)</p> <p>Manage recreational activities so they do not conflict with wildlife use of habitat.</p> <p>Restrict snowmobile use to designated routes if conflicts with wintering animals occur.</p> <p>Restrict vehicular travel on non-roaded areas if conflicts with habitat needs develop.</p> <p>Production of Forage (RNG) and Wood-fiber Production and Harvest (TBR) and Riparian Area Management Not- Mapped (RPN)</p> <p>Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roaded Natural, and Rural recreation opportunities may be provided.</p> <p>Wood-fiber Production and Harvest (TBR) Prohibit recreation use (e.g., snowmobiles, vehicular travel, cross-county skiing) where needed to protect forest plantations.</p> <p>Municipal Water Supply (MWS) Close all or portions of the unit to vehicular travel except as authorized.</p> <p>Allow light dispersed recreation, such as hiking, but not overnight camping.</p> <p>Require compliance with the "Pack In, Pack Out" policy. Watershed Protection/Improvement (WPE)</p> <p>Provide for current recreation uses that do not conflict with watershed improvement objectives.</p> <p>Close treated or proposed watershed improvement areas to vehicular travel (except over snow).</p> <p>Close to motorized vehicles as needed.</p> <p>On units where structural watershed improvements have been made, vehicular travel use would be restricted (except over-snow travel).</p>					

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Manage dispersed recreation opportunities:</p> <p>On potential MMA units consistent or compatible with prescriptions from adjacent management units.</p> <p>On existing MMA units to avoid conflicts with mineral activities and provide for public safety.</p> <p>Riparian Area Management Not-Mapped (RPN) and Research, Protection, and Interpretation of Lands and Resources (RPI)</p> <p>Semi-Primitive NON-motorized, Semi-Primitive Motorized, Roaded Natural, and Rural recreation opportunities may be provided.</p> <p>Prohibit or restrict motorized vehicle use as appropriate.</p> <p>Limit or restrict camping in existing or proposed units as necessary.</p> <p>Provide, as appropriate, signing for interpretation and protection of specific special interest areas.</p> <p>Dark Canyon Wilderness Management (DCW)</p> <p>Emphasize primitive recreation opportunities for isolation, solitude, and self-reliance.</p> <p>Manage use to provide a low incidence of contact with other groups or individuals and to prevent unacceptable changes to the biophysical resources.</p> <p>Use and capacity levels are as follows:</p> <p>Trail encounters are usually less than six other parties per day.</p> <p>Campsite encounters are usually less than three other parties per day.</p> <p>Restrict use on and/or rehabilitate dispersed sites where unacceptable environmental damage is occurring.</p> <p>Close sites that cannot be maintained in Code-A-Site categories Light to Moderate.</p>					
262	See RMA management.	Solid human waste would be required to be carried out only in those specific areas where applicable, as noted in this RMP/EIS.	Same as Alternative B.	Same as Alternative E.	The agencies, working collaboratively with the BEC, would monitor impacts from solid human waste to identify whether solid human waste removal needs to be required in any specific areas to protect BENM objects, including cultural resources and wildlife, as informed by Traditional Indigenous Knowledge.	The agencies, working collaboratively with the BEC, would monitor impacts from solid human waste to identify whether solid human waste removal needs to be required in any specific areas to protect BENM objects, including cultural resources and wildlife, as informed by Traditional Indigenous Knowledge. If warranted, the agencies may require the removal of solid human waste through adaptive management.
263	<p>Per 2008 Monticello RMP</p> <p>Management of Existing and Development of Future Recreation Facilities</p> <p>REC-5</p> <p>Existing developed recreation sites would be maintained. New sites/facilities/trails would be developed in response to user demand, amenity value, and critical resource protection needs.</p> <p>REC-10</p> <p>Grazing is excluded from developed recreation sites.</p> <p>REC-11</p> <p>Developed recreation facilities are unavailable for private and/or commercial use of woodland</p>	<p>Developed recreation facilities may be closed seasonally to allow for resource rest and/or traditional uses or ceremonies. These seasonal closures would be identified in collaboration with the BEC and Tribal Nations.</p> <p>REC-10</p> <p>Grazing is excluded from developed recreation facilities, which includes developed campgrounds, developed trailheads, and cultural sites that are Public Use (Developed). See also Section 2.4.22, Livestock Grazing.</p> <p>REC-11</p> <p>Same as Alternative A.</p> <p>REC-5</p> <p>Existing developed recreation facilities would be maintained, and new recreation facilities would</p>	<p>Recreation facilities may be closed seasonally to allow for resource rest and/or traditional uses or ceremonies. These seasonal closures would be identified in collaboration with the BEC and Tribal Nations and, where applicable, managed through permit systems.</p> <p>REC-10</p> <p>Same as Alternative B.</p> <p>REC-11</p> <p>Same as Alternative A.</p> <p>REC-5</p> <p>Existing developed recreation facilities would be maintained. New recreation facilities would be developed only in cultural sites allocated for Public Use (Developed) and the Sand Island RMZ, Trail of the Ancients RMZ, Indian Creek Corridor</p>	<p>REC-10</p> <p>Same as Alternative B. REC-5</p> <p>Same as Alternative A until implementation-level planning is completed.</p> <p>REC-11</p> <p>Same as Alternative A until implementation-level planning is completed.</p>	<p>Grazing is excluded from developed recreation facilities, which includes developed campgrounds, developed trailheads, and cultural sites that are Public Use (Developed). See also Section 2.4.22, Livestock Grazing.</p> <p>Developed recreation facilities are unavailable for private and/or commercial use of wood products, including on-site collection of dead wood for campfires.</p> <p>Existing developed recreation facilities would be maintained as needed to address visitor impacts and critical resource protection needs. Developed recreation facilities would be removed if inconsistent with the protection of BENM objects. In collaboration with the BEC, new recreation facilities would be developed only in Front</p>	<p>Grazing is excluded from developed campgrounds, developed trailheads, and cultural sites that are Public Use (Developed). See also Section 2.4.22, Livestock Grazing.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	products, including on-site collection of dead wood for campfires.	be developed to address visitor impacts, and protect BENM objects.	RMZ, Bicentennial Highway RMZ, and Goosenecks RMZ. On NFS lands, this would be applied to Roaded Natural and Semi-Primitive Motorized areas to protect BENM objects.		Country and Passage Zones as necessary to protect BENM objects.	
264	Per 2008 Monticello RMP Continue existing reservations issued to the BLM for all existing developed recreation sites and facilities. Issue similar protective reservations for all new recreation facilities.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
265	Per 1986 Manti-La Sal LRMP Research, Protection, and Interpretation of Lands and Resources (RPI) Permit, as appropriate, construction of developed recreation or interpretive facilities. Preclude camping in undeveloped sites within 0.25 mile of developed fee sites, where appropriate.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
266	Per 2020 ROD/MMPs No camping allowed within 200 feet of isolated springs or water sources to allow wildlife and livestock access to water. Discourage dispersed camping in riparian areas functional—at risk if camping is determined to be the causal factor Camping: Until analyzed in an implementation-level plan or until dispersed camping sites are designated, camping would be encouraged in previously disturbed sites.	No camping within 200 feet of springs and water improvements, unless in designated areas, to allow space for wildlife and livestock to access water. Dispersed camping may be closed seasonally or as impacts or environmental conditions warrant.	Same as Alternative B.	No camping within 0.25 mile of springs and water improvements, unless in designated sites, to allow space for wildlife and livestock to access water.	Dispersed camping: <ul style="list-style-type: none"> The agencies would inventory and monitor dispersed camping. No dispersed camping would be allowed within 0.25 mile of surface water, unless in an existing or designated campsite or area. No dispersed camping would be allowed within 0.25 mile of a developed campground. The agencies, working collaboratively with the BEC, would designate campsites and areas to help guide and focus visitors to appropriate places. The designated campsites and areas would be designed to protect BENM objects, including cultural resources, wildlife, and water resources, as informed by Traditional Indigenous Knowledge. The agencies, working collaboratively with the BEC, would identify areas that are available to dispersed camping and areas that are unavailable to dispersed camping. The agencies, working collaboratively with the BEC, would remove and reclaim existing campsites and areas, as necessary, to protect BENM objects, including cultural resources, wildlife, and water resources, as informed by Traditional Indigenous Knowledge. 	Dispersed camping: <ul style="list-style-type: none"> The agencies would inventory and monitor dispersed camping sites and areas. No dispersed camping would be allowed within 0.25 mile of surface water, unless in an existing or designated campsite or area. No dispersed camping would be allowed within 0.5 mile of a developed recreation area. The agencies, working collaboratively with the BEC, would identify areas through implementation-level planning that are available to dispersed camping and areas that are limited to designated sites. The agencies, working collaboratively with the BEC, would designate campsites and areas to help guide and focus visitors to appropriate places. The campsites and areas would be designed to protect BENM objects, including cultural resources, wildlife, and water resources, as informed by Traditional Indigenous Knowledge. The agencies, working collaboratively with the BEC, would remove and reclaim existing campsites and areas, as necessary, to protect BENM objects, including cultural resources, wildlife, and water resources, as informed by Traditional Indigenous Knowledge.
267	Per 2020 ROD/MMPs Camping fees would be charged if deemed necessary to provide facilities and services. ISRPs (BLM) and SUPs (USDA Forest Service) for private, noncommercial special area use would be required following current Federal Lands Enhancement Modernization Act authority and agency permit and fee administration policy. SRPs would be required for Moon House, the Mule Canyon WSA (in canyon), Butler Wash hiking, and Lower Fish Creek.	Management not carried forward. Addressed specifically in the RMAs and USDA Forest Service units.	Management not carried forward. Addressed specifically in the RMAs and USDA Forest Service units.	Management not carried forward. Addressed specifically in the Management Areas and USDA Forest Service units.	Camping fees would be charged if deemed necessary to provide facilities and services. ISRPs (BLM) and SUPs (USDA Forest Service) for private, noncommercial special area use would be required in accordance with the Federal Lands Recreation Enhancement Act and agency policy.	Management not carried forward. Addressed specifically in the Management Areas and USDA Forest Service units.
268	Addressed in RMAs.	Addressed in RMAs.	Addressed in RMAs.	Addressed in Management Areas.	Climbing and roped activity specific management (BENM-wide) (includes sport climbing, traditional climbing, and canyoneering): <ul style="list-style-type: none"> Use physical infrastructure to educate climbers at climbing access points on potential climbing impacts and how to recreate responsibly 	Climbing and roped activities specific management (BENM-wide) (includes, but not limited to, sport climbing, traditional climbing, and canyoneering): <ul style="list-style-type: none"> Use physical infrastructure to educate climbers at climbing access points on potential climbing impacts and how to recreate responsibly

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					<p>and/or self-regulate to avoid impacting BENM objects.</p> <ul style="list-style-type: none"> • Agencies, in collaboration with the BEC, would work with climbing organizations, Tribes, and SRP holders to increase volunteer monitoring and to educate climbers about the cultural landscape of BENM and identified cultural resources. If site-specific impacts exist, climbing routes may be closed and access trails and staging areas may be rerouted. Any closures would be identified in collaboration with the BEC and Tribal Nations. Climbing closures would be identified via physical infrastructure and/or kiosks/signs. • Replacement of existing bolts, anchors, and fixed gear would be allowed on existing climbing and canyoneering routes as needed for safety reasons without prior authorization. • Any new climbing or canyoneering routes that require the placement of bolts, anchors or fixed gear requires approval from the agencies, who would work collaboratively with the BEC to determine whether the route is appropriate to protect BENM objects, including cultural resources and wildlife, as informed by Traditional Indigenous Knowledge. 	<p>and/or self-regulate to avoid impacting BENM objects.</p> <ul style="list-style-type: none"> • Agencies, in collaboration with the BEC, would work with climbing organizations, Tribal Nations, and SRP holders to increase volunteer monitoring and to educate climbers about the cultural landscape of BENM and cultural resources. If site-specific impacts to BENM objects exist, climbing routes can be closed and access trails and staging areas may be rerouted. The need for closures would be identified in collaboration with the BEC and Tribal Nations. Climbing closures would be identified via physical infrastructure and/or kiosks/signs, in accordance with applicable law. • Replacement of existing bolts, anchors, and fixed gear would be allowed on existing climbing and canyoneering routes as needed for safety reasons without prior authorization. Encourage hardware used for fixed anchors would be of the highest quality per industry standards and installed to manufacturer specifications. • Any new climbing or canyoneering routes that require the placement of bolts, anchors or fixed gear requires approval from the agencies, who would work collaboratively with the BEC to determine whether the route is appropriate to protect BENM objects, including cultural resources and wildlife, as informed by Traditional Indigenous Knowledge. Until a process for approving new routes is established, new routes would be evaluated on a case-by-case basis.
269	Addressed in RMAs.	Addressed in RMAs.	Addressed in RMAs.	Addressed in Management Areas.	<p>Pet management (BENM-wide):</p> <ul style="list-style-type: none"> • Pets would be leashed at all times unless in the lawful pursuit of game. • Pets would not be allowed in Grand Gulch and tributary canyons, Fish and Owl Canyons above the confluence of these canyons, Moon House, Doll House, and additional sites designated by the agencies, in collaboration with the BEC. 	<p>Pet management (BENM-wide)</p> <ul style="list-style-type: none"> • Pets would be leashed at all times, unless in the lawful pursuit of game. This would not apply during permitted uses such as herding, hunting, search and rescue, and service dogs. • Pets would not be allowed in the Cedar Mesa Backpacking Sub-Area, Doll House and additional sites designated by the agencies, in collaboration with the BEC.
270	Addressed in RMAs.	Addressed in RMAs.	Addressed in RMAs.	Addressed in Management Areas.	No similar action.	<p>Stock Use:</p> <ul style="list-style-type: none"> • Stock users would be required to take all feed (non-germinating, certified weed-free) necessary to sustain their animals while traveling in the Monument. • Loose herding of pack and saddle stock would be prohibited. All stock must be under physical control. When tethered, all stock must be at least 200 feet away from any water source and archaeological sites.
271	<p>2020 ROD/MMPs: Close recreational target shooting in BENM at campgrounds, developed recreation sites, rock writing sites, and structural cultural sites. Additionally, recreational shooting would be prohibited in all developed recreation sites and areas under 43 CFR 8365.2-5(a) and 36 CFR 261.10(d) in all portions of the Monument.</p>	<p>Recreational shooting would generally be allowed but would be prohibited at campgrounds/developed recreation facilities, climbing areas, existing and designated trails, parking areas, trailheads, rock writing sites, and structural cultural sites, and across roadways. Where problem areas occur regarding recreational shooting, the agencies would post signs notifying visitors of restrictions and would consider additional recreational shooting</p>	Same as Alternative B.	Same as Alternative B with the addition of recreational shooting being prohibited in WSAs, recommended wilderness, and protected LWC.	<p>Recreational shooting would be prohibited in BENM. This prohibition does not apply to the use of firearms in the lawful pursuit of game.</p>	<p>Recreational shooting would be prohibited in BENM. This prohibition does not apply to the use of firearms in the lawful pursuit of game.</p>

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		closures. Additional restrictions may apply where covered elsewhere in management actions. This prohibition does not apply to the use of firearms in the lawful pursuit of game.				
272	No similar management.	No similar management.	No similar management.	No similar management.	Activities inconsistent with the protection of BENM objects and the Bears Ears cultural landscape, as determined in collaboration with the BEC and in accordance with Tribal expertise and Traditional Indigenous Knowledge would be prohibited in BENM. Prohibited activities include, but are not limited to paragliding, hang gliding, base jumping, wing-suit flying, geocaching, and rock stacking. These are inappropriate activities in the Bears Ears cultural landscape according to Tribal expertise and Traditional Indigenous Knowledge.	Activities inconsistent with the protection of BENM objects and the Bears Ears cultural landscape, as determined in collaboration with the BEC and in accordance with Tribal expertise and Traditional Indigenous Knowledge would be prohibited in BENM. The public would be prohibited from engaging in the following activities; launching or landing of paragliders, hang gliders, base jumpers, and wing-suit flyers, highlining, geocaching, and rock stacking.
273	Per 2020 ROD/MMPs SRMA outside of RMZs SRPs: <ul style="list-style-type: none"> Competitive OHV events and vending use would not be allowed. All organized events/activities must coordinate with the BLM. In general, for all events/activities, an SRP or letter of agreement would be required if an organized event/activity group size exceeds 25 OHV/mechanized vehicles, 50 individuals, or 15 pack animals; however, if monitoring indicates significant impacts to BENM objects, the BLM would consider adjusting group size thresholds during implementation-level planning. Any group size limits developed during implementation-level planning that exceed those described above would also require a plan amendment. 	Not carried forward; these areas would be incorporated into other RMAs.	Not carried forward; these areas would be incorporated into other RMAs.	Not carried forward; these areas would be incorporated into other Management Areas.	Not carried forward; these areas would be incorporated into other RMAs.	Not carried forward; these areas would be incorporated into other Management Areas.
274	Per 2008 Monticello RMP SRPs and SUPs REC-17 SRPs would be issued as a discretionary action as a means to help meet management objectives, control visitor use, protect recreational and natural resources, and provide for the health and safety of visitors. REC-18 All SRPs would contain standard stipulations appropriate for the type of activity and may include additional stipulations (Appendix K of the 2008 Monticello RMP) necessary to protect lands or resources, reduce user conflicts, or minimize health and safety concerns. REC-19 SRPs would be used to manage different types of recreation associated with commercial uses, competitive events, organized groups, vending, and special areas. These recreation uses can include, for example, large group events, river guide services, and commercial recreation activities. REC-20 The BLM would follow the 43 CFR 2930 national guidelines on cost recovery (67 <i>Federal Register</i> , October 1, 2002), and the Utah SRP Cost Recovery Policy (Utah IM 2004-036).	SRPs and SUPs would be used to manage different types of recreation associated with commercial uses, competitive events, organized groups, vending, and special areas. These recreation uses can include, for example, large group events, river guide services, and commercial recreation activities. SRPs and SUPs would be issued as a discretionary action to help meet management objectives; control visitor use; protect BENM objects; and provide for the health and safety of visitors. Agencies would collaborate with the BEC to educate SRP and SUP holders and participants about the cultural history of BENM and site visitor etiquette and BENM users about stewardship, interpretation, and education about cultural resources. In collaboration with the BEC, agency-provided training would be required for all SRP/SUP-authorized guides. Limits on user days and/or numbers of permits would be established for SRPs and SUPs in implementation-level planning. All SRPs and SUPs would contain standard stipulations appropriate for the type of activity and would include stipulations necessary to protect BENM objects; reduce user conflicts; or minimize health and safety concerns.	Same as Alternative B.	Same as Alternative B.	SRPs and SUPs would be used to manage different types of recreation associated with commercial uses, organized groups, and special areas. There would be no vending in BENM. All SRPs would only be allowed if they are consistent with the protection of BENM objects. Recreation uses can include, for example, group events, river guide services, and commercial recreation activities. Agencies would collaborate with the BEC to educate SRP and SUP holders and participants about the cultural history of BENM and visitor etiquette and BENM users about stewardship, interpretation, and education about cultural resources and ways to respectfully interact with the Monument. In collaboration with the BEC, agency-provided training and certification, including cultural sensitivity training, would be required for all SRP/SUP-authorized guides. Limits on user days and/or numbers of permits issued for BENM, length of permits, number of participants, and appropriate seasons and use areas would be established for SRPs and SUPs in implementation-level planning in collaboration with the BEC. All SRPs and SUPs would contain standard stipulations appropriate for the type of activity and would include stipulations necessary to protect BENM objects, reduce user conflicts, minimize health and safety concerns, and	As part of the interpretation and Cross-Cultural Education Plan, the agencies would collaborate with the BEC to educate SRP and SUP holders and participants about the cultural history of BENM and visitor etiquette and BENM users about stewardship, interpretation, and education about cultural resources and ways to respectfully interact with the Monument. In collaboration with the BEC, agency-provided training, including cultural sensitivity training, would be required for all SRP/SUP-authorized guides. Limits on user days and/or numbers of permits issued for BENM, length of permits, number of participants, and appropriate seasons and use areas would be established for SRPs and SUPs in implementation-level planning in collaboration with the BEC. All SRPs and SUPs would contain standard stipulations appropriate for the type of activity and would include stipulations necessary to protect BENM objects, reduce user conflicts, minimize health and safety concerns, and encourage respectful visitation within the Monument. Stipulations would be developed in collaboration with the BEC and consistent with protecting BENM objects.

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	<p>REC-21</p> <p>In accordance with the BLM's Priorities for Recreation and Visitor Services Work Plan (May 2003, as amended), commercial SRPs would also be issued as a mechanism to provide a fair return for the commercial use of public lands.</p> <p>Per 1986 Manti-La Sal LRMP</p> <p>Semi-primitive Recreation Use (SPR)</p> <p>Permit special uses that are complementary and compatible with the objectives of the management unit and which do not change the ROS classification.</p> <p>Act on special use applications according to the following priorities:</p> <ul style="list-style-type: none"> • Public service operations catering to the general public. • Group type operations • Private type operations (FSM 2340 and FSM 2720). • An application for permit may be denied if the authorizing officer determines that <ul style="list-style-type: none"> ○ the proposed use would be inconsistent or incompatible with the purpose(s) for which the lands are managed, or with other uses; or ○ the proposed use would not be in the public interest; or ○ the applicant is not qualified; or ○ the use would be inconsistent with applicable federal and/or state laws; or ○ the applicant does not or cannot demonstrate technical or financial capability. <p>Dark Canyon Wilderness Management (DCW)</p> <p>Manage outfitter-guide operations in harmony with activities of non-guided visitors and include them in calculations of level-of-use capacities. Permit camping only in sites specified in outfitter-guide permits.</p>	<p>Stipulations would be developed in collaboration with the BEC and consistent with protecting BENM objects.</p> <p>REC-20</p> <p>Not carried forward. REC -21</p> <p>Not carried forward.</p> <p>Semi-Primitive Recreation Use management is not carried forward.</p>			<p>encourage respectful visitation within the Monument.</p> <p>Stipulations would be developed in collaboration with the BEC and consistent with protecting BENM objects.</p>	
275	<p>Per 2008 Monticello RMP Criteria for Requiring an SRP REC-22</p> <p>The criteria for requiring an SRP include the following:</p> <ul style="list-style-type: none"> • Any commercial use. • Non-mechanized/non-stock day use organized group or event of more than 50 people in an ERMA. • Non-mechanized/non-stock overnight with group or event of more than 25 people in an ERMA. • More than 25 motorized vehicles/OHVs on designated routes (does not include County B roads or state and federal highways). • More than 25 non-motorized mechanized vehicles on designated routes (does not include County B roads or state and federal highways). • A group size of more than 15 riding and/or pack animals. • Car camping with more than 15 vehicles or more than 50 people. • Activities or events with the potential to conflict with existing resource management guidelines/prescriptions. 	<p>Management not carried forward. If needed, SRP thresholds would be developed in implementation-level plans.</p>	<p>Management not carried forward. If needed, SRP thresholds would be developed in implementation-level plans.</p>	<p>Management not carried forward. If needed, SRP thresholds would be developed in implementation-level plans.</p>	<p>The criteria for requiring an SRP include the following (except where stated in RMAs or ROS):</p> <ul style="list-style-type: none"> • Any commercial use or competitive events. • Non-mechanized/non-stock day use organized group or event of more than 15 people. • Non-mechanized/non-stock overnight with a group or event of more than 10 people, unless in a group site. • Any riding or pack animal use. • Car camping with more than five vehicles or more than 10 people. • Group events with the potential for user conflict. • Any individual use that might impact Monument objects. 	<p>In addition to the requirements for SRPs identified in 43 CFR 2932.11(a), the following activities would require an SRP or an SUP except where stated in Management Areas or ROS):</p> <ul style="list-style-type: none"> • Day or overnight use of more than <ul style="list-style-type: none"> ○ 35 people in the Front Country Zone, ○ Group campsites are permitted through Recreation Use Permits, ○ 30 people in the Passage Zone, ○ 25 people in the Outback Zone, or ○ 15 people in the Remote Zones. • Use of more than 15 riding and/or pack animals. <p>Consistent with 43 CFR 2932, the authorized officer retains the discretion to require SRPs due to resource concerns, potential user conflicts, or public health and safety.</p> <p>Consistent with 43 CFR 2932.12, the authorized officer also retains the discretion to waive the requirement to obtain an SRP.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<ul style="list-style-type: none"> • Events with the potential for user conflict. • Events that could impact public health and safety. • More than 25 non-motorized mechanized vehicles on • designated routes (does not include County B roads or state and federal highways). • A group size of more than 15 riding and/or pack animals. • Car camping with more than 15 vehicles or more than 50 people. • Activities or events with the potential to conflict with existing resource management guidelines/prescriptions. • Events with the potential for user conflict. • Events that could impact public health and safety. 					
276	<p>Per 2008 Monticello RMP</p> <p>REC-16 There would be no competitive mechanized or motorized events in WSAs in accordance with interim management policy.</p> <p>REC-23 Commercial motorized/mechanized events/tours are allowed on designated routes, except in WSAs.</p> <p>REC-24 Commercial use permits are authorized in conjunction with organized events or when the use supports resource protection and management.</p> <p>REC-26 Commercial motorized or mechanized events or tours in crucial bighorn sheep lambing and rutting areas may be limited in number of participants and duration (depending on the event) from April 1 to June 15 (lambing) and from October 15 to December 15 (rutting), unless it can be shown that the animals are not present in a specific project location or the activity can be conducted so the animals are not adversely impacted.</p> <p>REC-28 Commercial motorized or mechanized events or tours in crucial deer and elk winter range may be limited in the number of participants and duration (depending on the event) from November 15 to April 15.</p> <p>REC-29 Group sizes for commercial motorized events/tours are limited to two groups of 12 vehicles per route per day.</p> <p>REC-30 Balloon festivals are limited to 35 balloons with their associated support vehicles.</p> <p>REC-32 Commercial camping is limited to designated areas.</p> <p>REC-33</p>	<p>REC-16 See Management Below (REC-38) REC-23 Allow SRPs/SUPs for non-competitive commercial motorized/mechanized activities on designated routes only. Prohibit commercial motorized/mechanized activities on the Peavine corridor.</p> <p>REC-24 Not carried forward.</p> <p>REC-26 Limit the number of participants and vehicles and duration (depending on the event) for competitive and non-competitive motorized or mechanized activities in crucial bighorn sheep lambing and rutting areas from April 1 to June 15 (lambing) and from October 15 to December 15 (rutting), as needed, unless it can be shown that the animals are not present in a specific location or the activity can be conducted so the animals are not adversely impacted. The type and duration of limitations would be determined at the implementation-level and analyzed with site-specific NEPA as appropriate.</p> <p>REC-28 Limit the number of participants and duration (depending on the event) for competitive and non-competitive motorized or mechanized activities in crucial deer and elk winter range from November 15 to April 15. The type and duration of limitations would be determined at the implementation-level and analyzed with site-specific NEPA as appropriate.</p> <p>REC-34 Same as Alternative A. REC-29 Group sizes for competitive and non-competitive motorized activities are limited to two groups of 12 vehicles per route per day.</p> <p>REC-30 Not carried forward.</p> <p>REC-32 Not carried forward.</p> <p>REC-33 Not carried forward.</p> <p>REC-33 Commercial SRP and SUP visitation to archaeological resources are limited to Public</p>	<p>REC-16 See Management Below (REC-38)</p> <p>REC-23 Same as Alternative B.</p> <p>REC-24 Not carried forward.</p> <p>REC-26 Same as Alternative B.</p> <p>REC-28 Same as Alternative B.</p> <p>REC-29 Group sizes for competitive and non-competitive motorized activities are limited to two groups of 12 vehicles per route per day.</p> <p>REC-30 Not carried forward.</p> <p>REC-32 Not carried forward.</p> <p>REC-33 Same as Alternative A.</p> <p>REC-34 Same as Alternative A.</p> <p>REC-35 Same as Alternative B.</p> <p>REC-36 Not carried forward – Addressed in Section 2.4.21, Travel and Transportation Management.</p>	<p>REC-16 See Management Below (REC-38)</p> <p>REC-23 Allow SRPs/SUPs for non-competitive commercial motorized/mechanized activities only on designated routes. Prohibit non-competitive commercial motorized/mechanized activities on the Peavine corridor and LWC managed to conserve those characteristics.</p> <p>REC-24 Not carried forward.</p> <p>REC-26 Prohibit non-competitive motorized or mechanized activities in crucial bighorn sheep lambing and rutting areas from April 1 to June 15 (lambing) and from October 15 to December 15 (rutting).</p> <p>REC-28 Prohibit non-competitive motorized or mechanized activities in crucial deer and elk winter range from November 15 to April 15.</p> <p>REC-29 Group sizes for non-competitive motorized activities would follow the limitations under Alternative A until implementation-level plans are completed.</p> <p>REC-30 Not carried forward.</p> <p>REC-32 Not carried forward.</p> <p>REC-33 Same as Alternative A.</p> <p>REC-34 Same as Alternative A.</p> <p>REC-35 Same as Alternative B.</p> <p>REC-36 Not carried forward – Addressed in Section 2.4.21, Travel and Transportation Management.</p>	<p>REC-23 Same as Alternative D.</p> <p>REC-24: Not carried forward.</p> <p>REC-26: Same as Alternative D.</p> <p>REC-28: Same as Alternative D.</p> <p>REC-29: Same as Alternative D.</p> <p>REC-33: Same as Alternative B.</p> <p>REC-34: Same as Alternative A.</p> <p>REC-35: Same as Alternative B.</p>	<p>REC-23 Allow for non-competitive motorized/mechanized SRPs/SUPs activities on designated routes only. Prohibit all motorized/mechanized SRPs/SUPs for activities on the Peavine corridor and LWC managed to protect those characteristics.</p> <p>REC-24 Not carried forward.</p> <p>REC-26 Limit the number of participants and vehicles and duration for motorized or mechanized SRPs/SUPs activities in crucial bighorn sheep lambing and rutting areas from April 1 to June 15 (lambing) and from October 15 to December 15 (rutting), unless it can be shown that the animals are not present in a specific location or the activity can be conducted so the animals are not adversely impacted.</p> <p>REC-28 Limit the number of participants and duration for motorized or mechanized SRPs/SUPs activities in crucial deer and elk winter range from November 15 to April 15, unless it can be shown that the animals are not present in a specific location or the activity can be conducted so the animals are not adversely impacted.</p> <p>REC-29 Group sizes for motorized SRP/SUP activities would be limited to two groups of 12 vehicles per route per day, until implementation-level plans are completed. This limitation may be adjusted through implementation-level planning.</p> <p>REC-30 Not carried forward.</p> <p>REC-32 Not carried forward.</p> <p>REC-33 SRP/SUP visitation to archaeological resources are limited to Public Use (Developed and Undeveloped) areas or designated trails. Solid human waste must be packed out and disposed of at appropriate disposal facilities.</p> <p>REC-36</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Commercial hiking to cultural sites is limited to existing and designated trails and human waste must be packed out.</p> <p>REC-34</p> <p>Ropes and other climbing aids are not allowed to access cultural sites.</p> <p>REC-35</p> <p>Commercial guides using dogs to hunt/pursue mountain lion and black bear would not operate in areas where dogs are prohibited.</p> <p>REC-36</p> <p>Commercial motorized or mechanized cross-country use is not allowed in the Cedar Mesa SRMA.</p>	<p>Use (Developed and Undeveloped) areas and existing and designated trails. Solid human waste must be packed out and disposed of at appropriate disposal facilities.</p> <p>REC-35</p> <p>Hunting dogs would not be allowed in areas where dogs are prohibited.</p> <p>REC-36</p> <p>Not carried forward – Addressed in Section 2.4.21, Travel and Transportation Management.</p>				<p>Not carried forward – Addressed in Section 2.4.21, Travel and Transportation Management</p> <p>SRPs/SUPs would be required for the launching and landing of hot air balloons.</p>
277	<p>Per 2008 Monticello RMP Competitive Events</p> <p>REC-37</p> <p>Motorized/mechanized competitive events would be authorized consistent with OHV designations.</p> <p>REC-38</p> <p>Motorized and mechanized competitive events are not permitted in WSAs.</p>	<p>REC-37</p> <p>Same as Alternative A.</p> <p>REC-38</p> <p>Competitive mechanized or motorized events are not permitted within designated wilderness, WSAs, USDA Forest Service recommended wilderness, Primitive ROS class, Semi-Primitive non-motorized ROS class, or lands managed to protect wilderness characteristics (700,936 acres) (Appendix A, Figures 2-30 through 2-33).</p>	<p>REC-37</p> <p>Same as Alternative A.</p> <p>REC-38</p> <p>Same as Alternative B (Appendix A, Figures 2-30 through 2-33).</p>	<p>REC-37</p> <p>Same as Alternative A.</p> <p>REC-38</p> <p>Prohibit competitive mechanized or motorized activities within BENM (Appendix A, Figures 2-30 through 2-33).</p>	<p>No similar management direction.</p>	<p>REC-38</p> <p>Prohibit competitive motorized events.</p> <p>Front Country, Passage, and Outback Zones: Non-motorized (mechanized, and non-mechanized) competitive events on designated open routes may be considered by an authorized officer. (Appendix A, Figure 2-33).</p>

2.4.21. Travel and Transportation Management

2.4.21.1. GOALS AND OBJECTIVES

- Manage the transportation system in collaboration with the BEC so it provides safe and reasonable access while protecting BENM objects.
- Support a culture of stewardship and conservation of the landscape during travel in BENM.
- Ensure that travel and transportation management facilitate appropriate use and interaction with the cultural landscape of BENM. Ensure the travel network supports education and protection of BENM objects by siting roads and trails in locations that allow the public to better understand the cultural landscape in a manner that is consistent with the protection of BENM objects.

2.4.21.2. MANAGEMENT ACTIONS COMMON TO ALL ACTION ALTERNATIVES

- Agencies would develop an implementation-level travel and transportation management plan within 5 years. Agencies would coordinate with state and local governments and the BEC and other Tribal Nations on implementation-level travel planning.
- Identify the entire BENM as a travel management area for the purposes of future travel management planning.
- Prohibit cross-country OHV travel in BENM. There are no exceptions that allow for cross-country travel for game retrieval or antler gathering in areas designated as limited or closed. OHV use for game retrieval would adhere to all OHV designations.
- Except for emergency or authorized administrative purposes, motorized and non-motorized mechanized vehicle use would be allowed only on roads and trails designated for such use, consistent with the protection of BENM objects.
- Designation of new roads or trails for public motorized vehicle use must be limited to routes necessary for public safety or protection of BENM objects. Agencies would collaborate with the BEC on designation of new routes in an implementation-level travel plan and would incorporate Traditional Indigenous Knowledge, as applicable.
- The system of roads and trails would be well marked to protect BENM objects, promote safety, and minimize conflict among various user groups while accommodating appropriate access.
- ROWs and SUPs necessary to provide for public and authorized use would be acquired and maintained, consistent with protecting BENM objects.
- Plan and coordinate the maintenance, improvement, and monitoring of roads and trails with local governments, partners, and volunteers. See Section 2.4.21.3 for definitions of *maintenance* and *improvements*.
- For NFS lands, administrative level 1 roads would not be used by the public, except where they are dually designated as motorized trails. Gates or other barriers would be installed to manage use of these administrative level 1 roads.
- Agencies would collaborate with the BEC to identify seasonal motorized use area closures as needed to provide for resource rest.

2.4.21.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-20. Alternatives for Travel Management

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
278	<p>Per 2020 ROD/MMPs</p> <p>BLM Closed to OHV travel: 389,645 acres</p> <p>BLM OHV travel limited: 685,403 acres</p> <p>BLM Open to OHV travel: 0 acre</p> <p>USDA Forest Service Closed to OHV travel: 46,430 acres</p> <p>USDA Forest Service Limited to OHV travel: 242,677 acres</p> <p>USDA Forest Service Open to OHV travel: 0 acre</p> <p>BLM-administered lands within BENM would be OHV limited with the following exceptions, which would be OHV closed (Appendix A, Figures 2-42 and 2-47):</p> <ul style="list-style-type: none"> • WSAs/instant study area (ISA) complexes • San Juan Hill Recreation Management Zone (RMZ) • McLoyd Canyon-Moon House RMZ (within Fish Creek Canyon WSA) • Arch Canyon Backcountry RMZ • Lavender Mesa ACEC • Bridger Jack Mesa WSA • Indian Creek ACEC • A portion of the San Juan River Special Recreation Management Area (SRMA) • Tank Bench SRMA, Outlaw Canyon • Tank Bench SRMA, South Cottonwood Wash Per 2008 Monticello RMP <p>Mountain bike use is limited to the same designated routes as OHV travel.</p> <p>To protect the following scenic values:</p> <ul style="list-style-type: none"> • Indian Creek ACEC <p>To protect the following cultural, scenic, and recreational values:</p> <ul style="list-style-type: none"> • A portion of the San Juan River SRMA <p>To protect the following cultural values:</p> <ul style="list-style-type: none"> • Tank Bench SRMA, Outlaw Canyon • Tank Bench SRMA, South Cottonwood Wash <p>To protect the wilderness character of the following:</p> <ul style="list-style-type: none"> • Fish Creek Canyon WSA • Grand Gulch ISA Complex • Road Canyon WSA • Dark Canyon ISA Complex • Indian Creek WSA • Butler Wash WSA • Mancos Mesa WSA • Cheese Box Canyon WSA • South Needles WSA and the Administratively Endorsed Area, which are contiguous to the Butler Wash WSA 	<p>BLM Closed to OHV travel: 389,645 acres</p> <p>BLM OHV travel limited: 685,403 acres</p> <p>BLM Open to OHV travel: 0 acre</p> <p>USDA Forest Service Closed to OHV travel: 176,982 acres</p> <p>USDA Forest Service Limited to OHV travel: 112,122 acres</p> <p>USDA Forest Service Open to OHV travel: 0 acre</p> <p>(Appendix A, Figures 2-42 and 2-48)</p> <p>BENM would be OHV limited with the following exceptions, which would be OHV closed (Appendix A, Figures 2-42 and 2-48):</p> <ul style="list-style-type: none"> • WSAs (381,920 acres) • Lavender Mesa ACEC (649 acres) • Indian Creek ACEC (3,856 acres) • A portion of the San Juan Hill Sub-Area (673 acres) • A portion of Outlaw Canyon (1,877 acres) • A portion of South Cottonwood Wash near Bluff (844 acres) • Three WSR segments (totaling 4,203 acres), including Colorado River Segment 3, Dark Canyon, and San Juan River Segment 5, with the exception of the final 0.2 mile of the Chicken Corners Road. 	<p>BLM Closed to OHV travel: 487,048 acres</p> <p>BLM OHV travel limited: 588,000 acres</p> <p>BLM Open to OHV travel: 0 acre</p> <p>USDA Forest Service Closed to OHV travel: 176,982 acres</p> <p>USDA Forest Service Limited to OHV travel: 112,122 acres</p> <p>USDA Forest Service Open to OHV travel: 0 acre</p> <p>Same as Alternative B, with the additional following exceptions that would be OHV closed (Appendix A, Figures 2-43 and 2-49):</p> <ul style="list-style-type: none"> • BLM-administered lands managed to protect wilderness characteristics (97,403 acres) 	<p>BLM Closed to OHV travel: 808,630 acres</p> <p>BLM OHV travel limited: 266,429 acres</p> <p>BLM Open to OHV travel: 0 acre</p> <p>USDA Forest Service Closed to OHV travel: 176,982 acres</p> <p>USDA Forest Service Limited to OHV travel: 112,122 acres</p> <p>USDA Forest Service Open to OHV travel: 0 acre</p> <p>(Appendix A, Figures 2-44 and 2-50)</p> <p>Same as Alternative B, with the additional following exceptions that would be OHV closed (Appendix A, Figures 2-44 and 2-50):</p> <ul style="list-style-type: none"> • BLM-administered lands managed to protect wilderness characteristics (421,965 acres) • Arch Canyon (same area as Arch Canyon RMZ) (3,344 acres) 	<p>BLM Closed to OHV travel: 392,989 acres</p> <p>BLM OHV travel limited: 682,059 acres</p> <p>BLM Open to OHV travel: 0 acre</p> <p>USDA Forest Service Closed to OHV travel: 176,982 acres</p> <p>USDA Forest Service Limited to OHV travel: 112,122 acres</p> <p>USDA Forest Service Open to OHV travel: 0 acre</p> <p>(Appendix A, Figures 2-45 and 2-51)</p> <p>Same as Alternative B, with the additional following exceptions that would be OHV closed (Appendix A, Figures 2-45 and 2-51):</p> <ul style="list-style-type: none"> • Arch Canyon (same area as Arch Canyon RMZ) (3,344 acres) 	<p>BLM Closed to OHV travel: 591,185 acres</p> <p>BLM OHV travel limited: 483,917 acres</p> <p>BLM Open to OHV travel: 0 acre</p> <p>USDA Forest Service Closed to OHV travel: 46,430 acres</p> <p>USDA Forest Service Limited to OHV travel: 242,677 acres</p> <p>USDA Forest Service Open to OHV travel: 0 acre</p> <p>BENM would be OHV limited with the following exceptions that would be OHV closed (Appendix A, Figures 2-46 and 2-52):</p> <ul style="list-style-type: none"> • WSAs (381,920 acres) • Lavender Mesa ACEC (649 acres) • Indian Creek ACEC (3,856 acres) • A portion of the San Juan Hill Sub-Area (673 acres) • A portion of Outlaw Canyon (1,877 acres) • A portion of South Cottonwood Wash near Bluff (844 acres) • Three WSR segments (totaling 4,977 acres), including Colorado River Segment 3, Dark Canyon, and San Juan River Segment 5, with the exception of the final 0.2 mile of the Chicken Corners Road • BLM-administered lands managed to protect wilderness characteristics (205,594 acres) <p>NFS lands would be managed consistent with the Travel Management Rule of 2005 and the Motor Vehicle Use Map. All NFS lands would be closed to motorized use except for the roads and trails shown on the Motor Vehicle Use Map.</p> <p>Individual Special Recreation Permits would be required for motorized and non-motorized use in Arch Canyon Sub-Area Permit systems would be developed in implementation in collaboration with the BEC and may include, but not limited to, seasonal limitations and timing restrictions. Motorized events would be prohibited in the Arch Canyon Sub-Area.</p>
279	<p>On NFS lands within BENM, the following would be implemented:</p> <p>Per 1986 Manti-La Sal LRMP Transportation System Management</p>	<p>Management areas from the 1986 Manti-La Sal LRMP are not carried forward. Travel management decisions are described above.</p>	<p>Management areas from the 1986 Manti-La Sal LRMP are not carried forward. Travel management decisions are described above.</p>	<p>Management areas from the 1986 Manti-La Sal LRMP are not carried forward. Travel management decisions are described above.</p>	<p>Management areas from the 1986 Manti-La Sal LRMP are not carried forward. Travel management decisions are described above.</p>	<p>Management areas from the 1986 Manti-La Sal LRMP are not carried forward. Travel management decisions are described above.</p>

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>Close newly constructed intermittent local roads to the public after initial intended use is completed when</p> <ul style="list-style-type: none"> the establishment of public use is undesirable, the road is unsafe for public travel, and/or management direction has previously been established to close the road. <p>Allow commercial or permitted use on Forest Development Roads under the following conditions:</p> <ul style="list-style-type: none"> Use is compatible with existing road standards, designs, and public safety and users provide commensurate share of road maintenance. The user reconstructs the road to incorporate both existing and proposed traffic and provides commensurate share of road maintenance. If the road meets design standards but the combined use does not fulfill public safety requirements due to volume of traffic, the road may be administratively managed to control conflicting traffic, unsafe conditions, or traffic flows. <p>Encourage the development of Forest Development Roads when constructed or reconstructed for special purposes to meet existing and potential all-purpose needs.</p> <p>Put roads under SUP or easement that are needed for the benefit of private uses and are not needed for public travel or the administration of USDA Forest Service resources.</p> <p>Consider turning existing Forest Development Roads over to county or state jurisdiction when</p> <ul style="list-style-type: none"> the use is predominately to serve non-USDA Forest Service resources, or the road better complements county or state jurisdiction than USDA Forest Service administration, or little or no future forest need for the management of USDA Forest Service resources is perceived, or the road is of such high standards that established USDA Forest Service maintenance is difficult or impossible. <p>Close Forest Development Roads when unacceptable environmental or road damage is occurring for other road use.</p> <p>Where possible, establish cost and commensurate share agreements for access roads constructed for other resource uses.</p> <p>Coordinate transportation planning for Forest Development Roads with forest trails to provide continuity and fulfill USDA Forest Service transportation needs.</p> <p>Design, construct, and maintain roads to assure they are compatible insofar as possible with developed recreation sites use unit objectives.</p> <p>Undeveloped Motorized Recreational Use (UDM)</p> <p>Design, construct, and maintain roads to assure they are compatible insofar as possible with Undeveloped Motorized recreation management unit objectives.</p> <p>Key Big Game Winter Range (KWR)</p>					

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>Use road or area closures to maintain habitat effectiveness. Prohibit activities during critical periods of big game use.</p> <p>Approved activities must be short term and prompt reclamation must be assured.</p> <p>Key Big game Winter Range (KWR) Prohibit new permanent roads in the unit.</p> <p>Allow short-term (temporary) roads where the use would not conflict with wintering big game.</p> <p>General Big Game Winter Range (GWR)</p> <p>Allow new roads to meet management needs. Obliterate and rehabilitate temporary roads within one season after planned use ends.</p> <p>New roads may be constructed when</p> <ul style="list-style-type: none"> • there is no acceptable alternative to build the road outside the unit, and the road is essential to achieve priority goals and objectives of contiguous management units, or to provide access to land administered by other government agencies or to contiguous private land; • winter road use would not significantly disturb wintering big game animals; and/or • roads cross the winter range in the minimum distance feasible to facilitate the needed use. <p>General Big Game Winter Range (GWR)</p> <p>Close and/or restrict road use as appropriate to reduce stress on big game animals.</p> <p>Wood-Fiber Production and Harvest (TBR)</p> <p>Locate, design, and construct the minimum Forest Development Road necessary to provide a stable road base to serve short- and long-term timber needs, under the timber sale program.</p> <p>To the extent possible, give emphasis to and coordinate road locations for timber sales that would benefit future fuelwood sales and other timber activities.</p> <p>Riparian Area Management (RPN)</p> <p>Locate new roads and trails outside riparian areas unless alternative routes have been reviewed and rejected.</p> <p>Do not parallel streams when road location must occur in riparian areas except where absolutely necessary. Cross streams at points that best complement riparian and aquatic ecosystems as well as road and stream geometry. Locate crossings (fords) at points of low bank slope and firm surfaces.</p> <p>Minimize detrimental disturbance to the riparian unit by construction and maintenance activities. Initiate timely and effective rehabilitation of disturbed sites and restore riparian areas so that a vegetation ground cover or suitable substitute protects the soil from erosion and prevents increased sediment yield.</p> <p>Municipal Water Supply (MWS)</p> <p>Allow new roads only if needed to meet municipal water supply management emphasis or temporary roads to meet limited resource needs. Provide erosion protection on temporary roads before each winter season.</p>					

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Research, Protection, and Interpretation of Lands and Resources (RPI)</p> <p>Generally, transportation system facilities are permitted where the facility is compatible with the purpose for which the unit is established.</p> <p>Where appropriate, develop trails for interpretation and/or self-study.</p> <p>Limit trails in RNAs to those needed for access to conduct research and for educational purposes.</p> <p>Convert roads not needed for authorized activities to trails or restore the road area to the pre-disturbed conditions.</p> <p>Dark Canyon Wilderness Management (DCW)</p> <p>Construct or reconstruct and maintain trails only when needed to meet wilderness objectives.</p> <p>Provide low visual impact signs at trail terminals and trail junctions only. Include only mileage, trail identification, and identification of terminal points.</p> <ul style="list-style-type: none"> Use untreated routed wood signs on butt-treated posts. Avoid the establishment of service roads for maintenance. 					
280	<p>Per 2020 ROD/MMPs</p> <p>Mechanized travel (e.g., bicycles) is limited to routes where OHV use is allowed and to trails specifically designated for mechanized use.</p>	<p>Mechanized travel (e.g., bicycles) would be limited to routes where OHV use is allowed and to trails specifically designated for mechanized use.</p>	<p>Same as Alternative B.</p>	<p>Same as Alternative E.</p>	<p>With the exception of existing non-motorized trails that allow mechanized travel, future mechanized travel would be limited to routes where OHV use is allowed (see Appendix H).</p>	<p>Mechanized travel (e.g., bicycles) would be limited to routes where OHV use is allowed and to trails specifically designated for mechanized use.</p>
281	<p>Per 2020 ROD/MMPs</p> <p>Until implementation-level travel planning, non-motorized and non-mechanized use would be allowed on existing and designated trails including but not limited to the following:</p> <ul style="list-style-type: none"> Blue Gamma, 4x4 Wall, Donnelly, Supercrack Buttress, Battle of the Bulge, Bridger Jack Mesa, Broken Tooth Wall, Scarface, Pistol Whipped, McLoyd Canyon, North Mule Canyon, South Mule Canyon, Lower Mule Canyon from Comb Wash, Mule Canyon or Cave Canyon Towers, Butler Interpretive Trail, Monarch Cave Trail, Fish Mouth Trail, Cold Springs Trail, Procession Panel Trail, Wolf Man Panel Trail, Moon House Trail, Ball Room Cave Trail, and Lower Mule Canyon from Comb Wash. <p>On NFS lands: Butts Canyon, Texas Canyon, Arch Canyon, West Rim Texas Canyon, East Rim Texas Canyon, and South Long Point.</p> <p>Per 2008 Monticello RMP</p> <p>Manage the following trails for non-mechanized use:</p> <ul style="list-style-type: none"> Open to Foot Travel: Kane Gulch, Todie Canyon, Bullet Canyon, Sheiks Canyon, Government Trail, Collins Canyon, Slickhorn Canyon, Point Lookout Canyon, Grand Gulch (from the junction to San Juan River), Fish Canyon, Owl Canyon, Road Canyon, McLoyd Canyon, Lime Creek Canyon, North Mule Canyon, South Mule Canyon, Lower Mule Canyon from Comb Wash, Mule Canyon or Cave Canyon Towers, Arch Canyon, John's Canyon, Honaker Trail, Keeley Trail, Dark Canyon (Sundance Trail), Fable Valley Trail, Salt Creek Mesa Trail, Butler Ruin Interpretive Trail, Sand Island Petroglyph Trail, Shay Canyon Petroglyph Trail, Newspaper 	<p>Visitors would be encouraged to stay on existing and designated trails. The following trails would be maintained, as identified in the 2008 Monticello RMP (for BLM-administered lands), as amended, and USDA Forest Service system trails, as amended.</p> <p>Open to Foot Travel: Kane Gulch, Todie Canyon, Bullet Canyon, Sheiks Canyon, Government Trail, Collins Canyon, Slickhorn Canyon, Point Lookout Canyon, Grand Gulch (from the junction to the San Juan River), Fish Canyon, Owl Canyon, Road Canyon, McLoyd Canyon, Lime Creek Canyon, North Mule Canyon, South Mule Canyon, Lower Mule Canyon from Comb Wash, Mule Canyon or Cave Canyon Towers, Arch Canyon, John's Canyon, Honaker Trail, Dark Canyon (Sundance Trail), Fable Valley Trail, Salt Creek Mesa Trail, Butler Wash Interpretive Trail, Sand Island Petroglyph Trail, Shay Canyon Petroglyph Trail, Newspaper Rock Trail, Salvation Knoll Trail, Monarch Cave Trail, Fish Mouth Trail, Cold Springs Trail, Procession Panel Trail, Wolf Man Panel Trail, Moon House Trail, Ball Room Cave Trail, Bridger Jack Mesa, Super Crack Buttress, Cat Wall, Broken Tooth Wall, Scarface, Battle of the Bulge, Blue Gamma, 4x4 Wall, Donnelly, Pistol Whipped, Fin Wall, Second Meat Wall, Original Meat Wall, Tenderloins Wall, Optimator Wall, Sparks Wall, and Way Rambo.</p> <p>Open for Stock Overnight Use: Kane Gulch, Government Trail, Collins Canyon, Grand Gulch (from Kane Gulch to the junction of Collins Canyon; no stock below Collins Canyon), Fish Canyon (from Comb Wash to the confluence with Owl Canyon), Road Canyon, Lime Creek Canyon, Lower Mule Canyon from Comb Wash, Arch</p>	<p>Same as Alternative B.</p>	<p>Same as Alternative B.</p>	<p>Until the implementation-level travel plan is completed, allow for only non-motorized and non-mechanized use on the following trails, as identified in the 2008 Monticello RMP (for BLM-administered lands), as amended, and USDA Forest Service system trails, as amended.</p> <p>Open to Foot Travel: Kane Gulch, Todie Canyon, Bullet Canyon, Sheiks Canyon, Government Trail, Collins Canyon, Slickhorn Canyon, Point Lookout Canyon, Grand Gulch (from the junction to the San Juan River), Fish Canyon, Owl Canyon, Road Canyon, McLoyd Canyon, Lime Creek Canyon, North Mule Canyon, South Mule Canyon, Lower Mule Canyon from Comb Wash, Mule Canyon or Cave Canyon Towers, Arch Canyon, John's Canyon, Honaker Trail, Dark Canyon (Sundance Trail), Fable Valley Trail, Salt Creek Mesa Trail, Butler Wash Interpretive Trail, Sand Island Petroglyph Trail, Shay Canyon Petroglyph Trail, Newspaper Rock Trail, Salvation Knoll Trail, Monarch Cave Trail, Fish Mouth Trail, Cold Springs Trail, Procession Panel Trail, Wolf Man Panel Trail, Moon House Trail, Ball Room Cave Trail, Bridger Jack Mesa, Super Crack Buttress, Cat Wall, Broken Tooth Wall, Scarface, Battle of the Bulge, Blue Gamma, 4x4 Wall, Donnelly, Pistol Whipped, Fin Wall, Second Meat Wall, Original Meat Wall, Tenderloins Wall, Optimator Wall, Sparks Wall, and Way Rambo.</p> <p>Open for Stock Day Use: Bullet Canyon from Grand Gulch to Jailhouse Ruin. Two miles upstream Fish Canyon from the confluence with Owl Canyon, McLoyd Canyon to impassable pour-off, and Owl Canyon to Nevill's Arch. Kane Gulch, Collins Canyon, Government Trail, Grand Gulch from Kane Gulch to Collins Canyon, Fish Creek Canyon from Comb Wash to the confluence with</p>	<p>Until an implementation-level TMP is completed, non-motorized and non-mechanized designations in the 2008 Monticello RMP (BLM 2008b) and 2008 Moab RMP (BLM 2008a) and subsequent BLM travel and transportation management NEPA documents (for BLM-administered lands), as shown in Appendix A, Figures 2-46 and Figure 2-52, and the current USDA Forest Service Motor Vehicle Use Map, would remain in effect. See Appendix H for a list of designated non-motorized trails.</p> <p>Maintain existing and designated trails for non-motorized and non-mechanized use, including brushing, tread stabilization, installation of routine signs, markers, culverts, ditches, water bars, gates; placement of recreational, special designation, or information signs; and visitor registers, kiosks, and portable sanitation devices as needed to protect BENM objects. USDA Forest Service would maintain designated trails for their designated use and trail management objective.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>Rock Trail, Salvation Knoll Trail, Monarch Cave Trail, Fish Mouth Trail, Cold Springs Trail, Procession Panel Trail, Wolf Man Panel Trail, Moon House Trail, and Ball Room Cave Trail.</p> <p>Open for Stock Overnight Use: Kane Gulch, Government Trail, Collins Canyon, Grand Gulch (from Kane Gulch to the junction of Collins Canyon; no stock below Collins Canyon), Fish Canyon (from Comb Wash to the confluence with Owl Canyon), Road Canyon, Lime Creek Canyon, Lower Mule Canyon from Comb Wash, Arch Canyon, John's Canyon, and Salt Creek Mesa Trail.</p> <p>Open for Stock Day Use: Bullet Canyon (from Grand Gulch to Jailhouse Ruin), Fish Canyon (2 miles above the confluence with Owl Canyon), Owl Canyon (to Neville's Arch), Road Canyon, McLoyd Canyon (to the impassible pour-off), Lime Creek Canyon, Salt Creek Mesa Trail, Monarch Cave Trail, Fish Mouth Trail, Cold Springs Trail, and Procession Panel Trail.</p> <p>Per 2008 Monticello RMP</p> <p>Non-mechanized routes may be added through subsequent planning at the activity plan level on a case-by-case basis.</p> <p>Indian Creek Climbing Trails include the following: Bridger Jack Mesa, Super Crack Buttress, Cat Wall, Broken Tooth Wall, Scarface, and Battle of the Bulge.</p> <p>Per 2020 ROD/MMPs</p> <p>Development of hiking paths and trails would be allowed if consistent with maintaining BENM objects. As part of site-specific implementation-level travel planning, redundant hiking trails and social trails would be closed and reclaimed.</p>	<p>Canyon, John's Canyon, and Salt Creek Mesa Trail.</p> <p>Open for Stock Day Use: Bullet Canyon (from Grand Gulch to Jailhouse Ruin), Fish Canyon (2 miles above the confluence with Owl Canyon), Owl Canyon (to Neville's Arch), Road Canyon, McLoyd Canyon (to the impassible pour-off), Lime Creek Canyon, Salt Creek Mesa Trail, Monarch Cave Trail, Fish Mouth Trail, Cold Springs Trail, and Procession Panel Trail.</p> <p>Non-motorized trails on NFS lands: Allen Canyon, Arch Canyon, Blue Creek, Blue Creek-Tuerto Canyon, Blue Creek-Allen Canyon, Lower Bob Parker Peak, Brushy Knoll Trail, Butts Canyon, Chippean Canyon, Cream Pots Trail, Dark Canyon Trail, Doll House Trail, Dry Wash Trail, East Rim Texas, Hammond Canyon, Hop Creek, Horse Pasture, Lyman Canyon, Maverick Point/Mormon Pasture, Mule Canyon, Kigalia Canyon, Lewis Lodge Trail, Peavine Canyon, Posey Canyon, Posey Trail (Elk Ridge to Hammond Canyon), Redd Pasture, Rig Canyon, Ruin Park, Salvation Knoll, Shay to Skyline, Short Point Trail, Skyline, South Elk Ridge, Texas Canyon, Trough Canyon, Trail Canyon, Twin Springs, Tuerto Canyon, West Rim Texas Canyon, and Woodenshoe Canyon.</p> <p>Maintain existing and designated trails for non-motorized and non-mechanized use, including brushing, tread stabilization, installation of routine signs, markers, culverts, ditches, water bars, gates; placement of recreational, special designation, or information signs; and visitor registers, kiosks, and portable sanitation devices as needed to protect BENM objects.</p> <p>In collaboration with the BEC, non-mechanized and non-motorized routes may be added through subsequent planning at the activity plan level on a case-by-case basis, consistent with the protection of BENM objects.</p> <p>Non-mechanized and non-motorized travel is not restricted on public lands except where limited or prohibited to protect specific resource values, to provide for public safety, or to maintain an identified opportunity.</p> <p>Development of hiking paths and trails would be allowed if consistent with the protection of BENM objects and in collaboration with the BEC. When new hiking trails are designated, redundant hiking trails and social trails would be closed and reclaimed unless consistent with the protection of BENM objects.</p>			<p>Owl Canyon, Mule Canyon South of U-95, Road Canyon, Lime Creek Canyon, John's Canyon, and Arch Canyon.</p> <p>Non-motorized trails on NFS lands: Allen Canyon, Arch Canyon, Blue Creek, Blue Creek-Tuerto Canyon, Blue Creek-Allen Canyon, Lower Bob Parker Peak, Brushy Knoll Trail, Butts Canyon, Chippean Canyon, Cream Pots Trail, Dark Canyon Trail, Doll House Trail, Dry Wash Trail, East Rim Texas, Hammond Canyon, Hop Creek, Horse Pasture, Lyman Canyon, Maverick Point/Mormon Pasture, Mule Canyon, Kigalia Canyon, Lewis Lodge Trail, Peavine Canyon, Posey Canyon, Posey Trail (Elk Ridge to Hammond Canyon), Redd Pasture, Rig Canyon, Ruin Park, Salvation Knoll, Shay to Skyline, Short Point Trail, Skyline, South Elk Ridge, Texas Canyon, Trough Canyon, Trail Canyon, Twin Springs, Tuerto Canyon, West Rim Texas Canyon, and Woodenshoe Canyon.</p> <p>Stock use, both day and overnight, is limited to no more than one overnight stock party at a time in any canyon on Cedar Mesa, and to only one stock trip at any time, day or overnight, in Grand Gulch. Stock day use would be limited to one party per day per trailhead in all canyons requiring permits (except Grand Gulch and McLoyd). The BLM and BEC would monitor day use and the agency would implement a day use allocation and reservation system at a future date, if the impacts of day use visitation warrant.</p> <p>Development of hiking paths and trails would be allowed if consistent with the protection of BENM objects and in collaboration with the BEC. When new hiking trails are designated, redundant hiking trails and social trails would be closed and reclaimed unless consistent with the protection of BENM objects.</p>	
282	<p>Per 2020 ROD/MMPs</p> <p>Until implementation-level travel planning is completed, OHV use within areas designated in the 2020 ROD/MMPs as OHV limited areas would be managed according to the Monticello Field Office TMP and the USDA Forest Service Motorized Vehicle Use Map.</p>	<p>See Management Actions Common to All Alternative (Section 2.4.21.2).</p>	<p>See Management Actions Common to All Alternative (Section 2.4.21.2).</p>	<p>See Management Actions Common to All Alternative (Section 2.4.21.2).</p>	<p>See Management Actions Common to All Alternative (Section 2.4.21.2).</p>	<p>See Management Actions Common to All Alternative (Section 2.4.21.2).</p>
283	<p>Per 2008 Monticello RMP</p> <p>Where the Authorized Officer determines that OHVs are causing considerable adverse impacts, the Authorized Officer shall close or restrict such areas. The public would be notified. The BLM could impose limitations on types of vehicles</p>	<p>In addition to 43 CFR 8341.2, in OHV limited areas, where the agencies, in collaboration with the BEC and Tribal Nations, determine that OHVs are causing considerable adverse impacts to BENM objects, including traditional uses and resources and areas important for traditional</p>	<p>Same as Alternative B.</p>	<p>Same as Alternative B.</p>	<p>Same as Alternative B.</p>	<p>In addition to 43 CFR 8341.2, in OHV limited areas, where the agencies, in collaboration with the BEC and Tribal Nations, determine that OHVs are causing considerable adverse impacts to BENM objects or traditional uses and resources and areas important for traditional ceremonies,</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	allowed on specific designated routes if monitoring indicates that a particular type of vehicle is causing disturbance to the soil, wildlife habitat, or cultural or vegetative resources, especially by off-road travel in an area that is limited to designated routes.	ceremonies, the agencies would close or otherwise restrict OHV use in such areas. In OHV limited areas, OHV limitations, including seasonal closures, would be identified during travel management planning, in collaboration with the BEC, to allow for resource rest and/or traditional uses or ceremonies and to comply with 43 CFR 8342.1. See Appendix H: Travel Management Plan Criteria.				the agencies would close or otherwise restrict OHV use in such areas. In OHV limited areas, OHV limitations, including seasonal closures, would be identified during travel management planning, in collaboration with the BEC, to allow for resource rest and/or traditional uses or ceremonies and to comply with 43 CFR 8342.1 (see Appendix H).
284	Per 2008 Monticello RMP Where routes remain available for motorized use within WSAs, such use could continue on a conditional basis. Use of the existing routes in the WSAs ("ways" when located within WSAs – see Glossary) could continue as long as the use of these routes does not impair wilderness suitability, as provided by the interim management policy (BLM 1995). If Congress designates the area as wilderness, the routes would be closed. In the interim, if use and/or noncompliance are found through monitoring efforts to impair the area's suitability for wilderness designation, the BLM would take further action to limit use of the routes or close them. The continued use of these routes, therefore, is based on user compliance and non-impairment of wilderness values. This applies to the 0.08 mile open to motorized recreation use to the Moon House site. This can also be applied to administrative access.	No similar action.	No similar action.	No similar action.	No similar action.	No similar action.
285	Per 2008 Monticello RMP OHV Area Designations (Appendix A, Figure 2-41) One way in Fish Creek WSA totaling 0.08 mile remains conditionally open to motorized recreation use in order to access the Moon House site. In addition, four ways remain available for administrative access only and are not available for motorized recreation use: <ul style="list-style-type: none"> • Two ways in the Grand Gulch ISA-Pine Canyon and Slickhorn units, totaling 3.1 miles and located east of Pine Canyon and Point Lookout areas. • One way in Fish Creek WSA-Lower Baullie Mesa, totaling 4.93 miles. • One way in Road Canyon WSA-Perkins Point, totaling 2.67 miles. Miles of Designated and Non-Designated Routes on Public Lands within the Monticello Planning Area: Open 2,820 miles. Closed 316 miles. Special Stipulation Areas within the Limited to Designated Routes Category Arch Canyon (to protect wildlife). OHV use is limited to the designated route up to the NFS lands boundary year-round, a total of 8 miles one way. Organized and commercial groups are required to obtain a Special Recreation Use Permit. This permit would allow access on the designated route up to the NFS lands boundary except March 1–August 31. During this period, access would	See Management Actions Common to All Action Alternatives (Section 2.4.21.2).	See Management Actions Common to All Action Alternatives (Section 2.4.21.2).	See Management Actions Common to All Action Alternatives (Section 2.4.21.2).	See Management Actions Common to All Action Alternatives (Section 2.4.21.2).	See Management Actions Common to All Action Alternatives (Section 2.4.21.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	be limited to 7.5 miles of the designated route. Motorized access would not be allowed within 0.5 mile of the NFS lands boundary.					
286	Landing on and taking off are allowed from the following airstrips: Bluff Airport and Fry Canyon Airstrip. Landing on and taking off from backcountry airstrips could be allowed if the backcountry airstrips are designated through implementation-level planning.	For the purposes of the Proposed RMP/Final EIS, motorized aircraft include, but are not limited to, fixed-wing aircraft, helicopters, powered paragliders, electric aircraft, and unstaffed aerial systems (UASs or drones). The landings and takeoffs of motorized aircraft in BENM would be managed as follows: <ul style="list-style-type: none"> Public use of BENM for landings and takeoffs of motorized aircraft would only be allowed on routes designated in a manner that allows such use in a TMP or at the Bluff Airport and Fry Canyon Airstrip. Unless designated as part of a TMP or at the Bluff Airport and Fry Canyon Airstrip, landings and takeoffs of motorized aircraft would be prohibited within BENM. The agencies may authorize case-by-case landings/takeoffs of motorized aircraft through formal permitting processes, where the use is beneficial to protecting BENM objects.	The landings and takeoffs of motorized aircraft in BENM would be managed as follows: <ul style="list-style-type: none"> Public use of BENM for landings and takeoffs of motorized aircraft would be prohibited, with the exception of allowing landings and takeoffs of non-UAS motorized aircraft at the following existing airstrips: Bluff Airport and Fry Canyon Airstrip. The agency may authorize case-by-case landings and takeoffs of motorized aircraft through formal permitting processes, where the use is beneficial to protecting BENM objects.	Same as Alternative C.	Public use would be limited to the following designated airstrips: Bluff Airport and Fry Canyon Airstrip. With the exception of these designated strips, aircraft takeoffs or landings would generally be prohibited within BENM; however, permitted landings/takeoffs may be allowed through formal authorizations, where the use is consistent with protecting BENM objects. Public use of BENM for UAS takeoffs and landings would generally be prohibited; however, permitted UAS landings/takeoffs may be allowed through formal authorizations, where UAS use is beneficial to protecting BENM objects. Agencies would consider seasonality of use for formal authorizations in collaboration with the BEC.	For the purposes of the Proposed RMP/Final EIS, motorized aircraft include, but are not limited to fixed-wing aircraft, helicopters, powered paragliders, electric aircraft, and UASs. The landings and takeoffs of motorized aircraft in BENM would be managed as follows: <ul style="list-style-type: none"> On NFS lands, with the exception of administrative or emergency use, landing and takeoff of aircraft would be by permit only. For BLM-administered lands, motorized aircraft are managed as OHVs (43 CFR 8340) when on or immediately over agency managed lands and waters. Public use with the exception of administrative or emergency use, landing and takeoff of motorized aircraft would only be allowed at the Bluff Airport and Fry Canyon Airstrip or on routes designated for such use in the TMP. Unless designated as part of a TMP or at the Bluff Airport and Fry Canyon Airstrip, landings and takeoffs of motorized aircraft would be prohibited elsewhere within BENM. The agencies may authorize case-by-case landings/takeoffs of motorized aircraft through formal permitting processes, where the use is beneficial to protecting BENM objects. The agencies would consider the seasonality of use when permitting, in collaboration with the BEC.
287	Per 2020 ROD/MMPs This plan would guide future implementation-level travel management planning, including mechanized and other modes of travel where the agencies would designate travel routes within BENM as per Presidential Proclamation 9558, as re-established by Proclamation 10285. This would be done outside of this BENM management planning process through a site-specific implementation-level travel plan. Until an implementation-level TMP or emergency order is completed for BENM, all current implementation-level route designations within areas designated in the 2020 ROD/MMPs as OHV limited areas would remain in effect. This would include the routes designated in Appendix A, Figure 2-41. Management and use of routes on BLM-administered lands would be consistent with BLM Travel and Transportation Manual 1626, BLM Handbook 8342, and other applicable guidance (see Appendix H).	Same as Alternative E (Appendix A, Figures 2-42 and 2-48).	Same as Alternative E (Appendix A, Figures 2-43 and 2-49).	Same as Alternative E (Appendix A, Figures 2-44 and 2-50).	Until an implementation-level TMP is completed, for OHV limited areas, route designations in the 2008 Monticello RMP (BLM 2008b), 2008 Moab RMP (BLM 2008a), and 2021 Canyon Rims TMP (BLM 2021) (for BLM-administered lands) would remain in effect (Appendix A, Figure 2-45). For NFS lands, the current Motor Vehicle Use Map would remain in effect.	Until an implementation-level TMP is completed, for OHV limited areas, route designations in the 2008 Monticello RMP (BLM 2008b), 2008 Moab RMP (BLM 2008a), and 2021 Canyon Rims TMP (BLM 2021) (for BLM-administered lands) would remain in effect (Appendix A, Figures 2-46 and 2-52). For NFS lands, the current Motor Vehicle Use Map would remain in effect.
288	Per 2020 ROD/MMPs During implementation-level travel planning: <ul style="list-style-type: none"> Locate new roads and trails, including motorized and non-motorized trails, outside riparian areas unless alternative routes have been reviewed and rejected. Do not parallel streams when road/trail location must occur in riparian areas except where absolutely necessary. Cross streams at points that best complement riparian and aquatic ecosystems as well as road/trail and stream geometry. Locate crossings (fords) at points of low bank slope and firm surfaces to the extent feasible. 	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Implementation-level travel planning would not designate new motorized and mechanized routes in riparian areas, wetlands, and water resources unless necessary to ensure the protection of BENM objects and in collaboration with the BEC. Implementation-level travel management planning would ensure motorized and mechanized routes that parallel or cross streams would be located to best complement riparian and aquatic ecosystems as well as road/trail and stream geometry. This includes locating crossings (fords) at points of low bank slope and	Implementation-level travel planning would not designate new motorized and mechanized routes or parking areas in, including but not limited to, the following areas unless necessary to ensure the protection of BENM objects, public safety and in collaboration with the BEC: <ul style="list-style-type: none"> Riparian areas Wetlands Water resources, including 100-year floodplains, and perennial springs and seeps where monitoring has shown degradation. Crucial big game habitat Big game fawning/calving habitat

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					firm surfaces wherever practicable (see Appendix H).	<ul style="list-style-type: none"> • Sensitive soils Implementation-level travel management planning would ensure motorized and mechanized routes that parallel or cross streams would be located to protect riparian and aquatic ecosystems as well as road/trail and stream geometry. This includes locating crossings (fords) at points of low bank slope and firm surfaces wherever practicable. Existing trails would be maintained as necessary to protect BENM objects (see Appendix H).
289	Per 2020 ROD/MMPs During implementation-level travel planning, designate routes, including hiking and equestrian trails, to avoid sensitive water and soil resources where monitoring has shown degradation from these recreational activities. These sensitive areas include the following: <ul style="list-style-type: none"> • Sensitive soils • Seeps and springs 	Implementation-level travel planning would not designate new non-motorized and non-mechanized routes in riparian, wetland, and water resources in locations where monitoring has shown degradation to these resources, unless necessary to ensure the protection of BENM objects, or unless there are no other feasible alternatives, and those routes would not adversely impact BENM objects.	Same as Alternative B.	Same as Alternative E.	Same as Alternative B, except implementation-level travel planning would not designate new non-motorized or non-mechanized routes in degraded riparian, wetland, and water resources unless necessary to ensure the protection of BENM objects (see Appendix H).	See management directly above.
290	No similar management.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Implementation-level travel planning would not designate new mechanized routes in sensitive soils unless necessary to ensure the protection of BENM objects (see Appendix H).	Implementation-level travel planning would not designate new mechanized routes in sensitive soils unless necessary to ensure the protection of BENM objects (see Appendix H).
291	Per 2020 ROD/MMPs Implementation-level travel planning in SRMAs and extensive recreation management areas would recognize the San Juan County OHV route system and integrate it to the extent possible in travel management and recreational goals and objectives.	See Management Actions Common to All Action Alternatives.	See Management Actions Common to All Action Alternatives.	See Management Actions Common to All Alternatives.	See Management Actions Common to All Action Alternatives.	See Management Actions Common to All Action Alternatives.
292	No similar management.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Maintenance: Designated routes could be maintained to meet public health and safety needs and/or to protect BENM objects. Deviations from current route maintenance levels on designated routes, to provide for public health and safety needs and/or to protect BENM objects, would be considered during plan implementation on a case-by-case basis. Improvements: Improvements to routes, including potential reroutes or alternative alignments, to provide for public health and safety needs and/or to protect BENM objects, would be considered during plan implementation on a case-by-case basis, in accordance with agency policy. For purposes of this management action, an "improvement" goes beyond preserving the status quo of the road or trail and includes the widening of the road or trail, the horizontal or vertical alignment of the road or trail, the installation of (as distinguished from cleaning, repair, or replacement in the kind of already existing) bridges, culverts, and other drainage structures, as well as any significant changes in the surface composition of the road or trail. See Appendix H. See Section 2.4.19, Lands and Realty, for routes authorized with a ROW/SUP.	Maintenance: Designated routes could be maintained to meet public health and safety needs and/or to protect BENM objects. Deviations from current route maintenance levels on designated motorized and mechanized routes, to provide for public health and safety needs and/or to protect BENM objects, would be considered on a case-by-case basis. Improvements: Improvements to routes, including potential reroutes or alternative alignments, to provide for public health and safety needs and/or to protect BENM objects, would be considered on a case-by-case basis, in accordance with agency policy. For purposes of this management action, an "improvement" goes beyond preserving the status quo of the road or trail and includes the widening of the road or trail, the horizontal or vertical alignment of the road or trail, the installation of (as distinguished from cleaning, repair, or replacement in kind of already existing) bridges, culverts, and other drainage structures, as well as any significant changes in the surface composition of the road or trail. See Appendix H. See Section 2.4.19, Lands and Realty, for routes authorized with a ROW/SUP.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
293	<p>Per 2020 ROD/MMPs</p> <p>Any lands acquired by the BLM over the life of the Proposed RMP/Final EIS would be managed with the same OHV area designations of adjoining BLM-administered lands or as stated or implied in the land transfer. If clarification is absent, the BLM would manage the acquired lands as OHV limited. The type of limitation would be determined by implementation-level travel planning. Until that implementation-level travel planning is completed, the OHV limited use would continue in the same manner and degree consistent with the proper care and management of BENM objects.</p>	<p>Any lands acquired by the BLM and USDA Forest Service over the life of the Proposed RMP/Final EIS would be managed with the same OHV area designations of adjoining agency-administered lands or as stated in the land transfer decision. If clarification is absent, the agencies would manage the acquired lands as OHV limited. The type of limitation would be determined by implementation-level travel planning. Until that implementation-level travel planning is completed, the OHV limited use would continue in the same manner and degree consistent with the proper protection of BENM objects.</p>	Same as Alternative B.	Same as Alternative B.	Acquired lands would be managed consistent with the same OHV area designations of adjoining or surrounding agency-administered lands or as stated in the land transfer decision.	Acquired lands would be managed consistent with the same OHV area designations of adjoining or surrounding agency-administered lands or as stated in the land transfer decision.
294	<p>Per 2020 ROD/MMPs</p> <p>New trails developed in riparian areas would be designed to minimize impacts to riparian function. Trails would cross streams at points that best maintain riparian and aquatic ecosystems as well as trail and stream geometry. Crossings (fords) would be located at points of low bank slope and firm surfaces to the extent feasible.</p>	<p>Existing non-motorized or non-mechanized trails in riparian areas and 100-year floodplains would be maintained as necessary in the same manner and degree as the original trail to provide continued public access, limit unnecessary social trails, and to prevent resource degradation (e.g., soil erosion).</p> <p>New non-motorized or non-mechanized trails developed in riparian areas and 100-year floodplains would be designed to protect PFC and BENM objects. Trails would cross streams at points that best maintain riparian and aquatic ecosystems. Crossings (fords) would be located at points of low bank slope and firm surfaces to the extent feasible. See management in Section 2.4.6 (Water Resources).</p>	Same as Alternative B.	Same as Alternative E.	No new trails would be developed in riparian areas or 100-year floodplains. Existing trails would be maintained as necessary to protect BENM objects. See Appendix H. See management in Section 2.4.6 (Water Resources).	See management above and in Section 2.4.6 (Water Resources).
295	<p>Per 2020 ROD/MMPs</p> <p>During implementation-level travel planning, designate routes, including hiking and equestrian trails, to avoid sensitive water and soil resources where monitoring has shown degradation from these recreational activities. These sensitive areas include the following:</p> <ul style="list-style-type: none"> • Sensitive soils • Seeps and springs 	<p>Implementation-level travel planning would not designate non-motorized and non-mechanized routes in riparian, wetland, and water resources in locations where monitoring has shown degradation to these resources, unless necessary to ensure for the protection of BENM objects, or unless there are no other feasible alternatives, and those routes would not adversely impact BENM objects.</p>	Same as Alternative B.	Same as Alternative B.	Implementation-level travel planning would not designate new motorized or non-motorized routes in riparian areas, 100-year floodplains, and perennial springs and seeps where monitoring has shown degradation to these resources necessary to protect BENM objects (see Appendix H).	See management above.
296	<p>Per 2008 Monticello RMP</p> <p>Non-mechanized (e.g., hiking, equestrian, and backpacking) Non-mechanized travel is not restricted on public lands except where limited or prohibited to protect specific resource values, provide for public safety, or maintain an identified opportunity.</p> <p>Provide opportunities for non-mechanized travel (hiking) on all routes open to mechanized use. Manage routes to exclude motorized and mechanized use and provide opportunities for non-mechanized travel independent of motorized and mechanized routes.</p> <p>Limit non-mechanized travel on specific lands to designated routes for resource protection purposes.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.	<p>Cross-country hiking:</p> <p>The public would be encouraged to stay on trails when hiking in BENM.</p> <p>The agencies would inventory existing and designated hiking trails in BENM.</p> <p>The agencies, working collaboratively with the BEC, would designate individual trails and/or a hiking trail system to help guide and focus visitors to culturally appropriate places. The trails would be designed to protect BENM objects, including cultural resources and wildlife, and would be informed by Traditional Indigenous Knowledge.</p> <p>To the extent practicable, the agencies would seek input from the MAC and state, local, and Tribal Nations on trail designation.</p> <p>The agencies, working collaboratively with the BEC, would identify whether specific areas need to be closed to cross-country hiking to protect BENM objects, including cultural resources and wildlife, as informed by Traditional Indigenous Knowledge.</p>	<p>Cross-country hiking:</p> <p>The public would be encouraged to stay on designated or existing trails when hiking in BENM.</p> <p>The agencies would inventory existing, undesignated hiking trails in BENM.</p> <p>The agencies, working collaboratively with the BEC, would designate individual trails and/or a hiking trail system to help guide and focus visitors to culturally appropriate places. The trails would be designed to protect BENM objects, including cultural resources and wildlife, and would be informed by Traditional Indigenous Knowledge.</p> <p>Development and designation of hiking paths and trails would be allowed if consistent with the protection of BENM objects. Trails would be developed in collaboration with the BEC. When new hiking trails are designated, redundant hiking trails and social trails would be closed and reclaimed unless retaining them is consistent with the protection of BENM objects.</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
					Within 1 year of the issuance of the ROD, the agencies, working collaboratively with the BEC, would develop a Tribal interpretation plan for recreational visitors (as described in another part of the alternative). The work to prepare the interpretive plan and the trail system would inform both efforts.	To the extent practicable, the agencies would seek input from the MAC and state, local, and Tribal Nations on trail designation. The agencies, working collaboratively with the BEC, would identify whether specific areas need to be closed to cross-country hiking to protect BENM objects, including cultural resources and wildlife, as informed by Traditional Indigenous Knowledge.
297	Existing limitations on off-road travel for wood gathering could be modified as necessary to maintain long-term sustainability or facilitate wood gathering where resource impacts are not a concern (2020 ROD/MMPs).	Cross-country OHV travel for wood gathering would not be allowed on BENM. On NFS lands only: at the discretion of the Responsible Official, off-road travel would be allowed up to 150 feet off the road with proper authorization.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	Cross-country OHV travel for wood gathering would not be allowed on BENM.
298	No similar action.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Implementation-level travel planning would not designate non-motorized and non-mechanized trails in sensitive soils in locations where monitoring has shown degradation to these resources, unless necessary to ensure the protection of BENM objects, or unless there are no other feasible alternatives and those trails would be consistent with the protection of BENM objects.	See management above.
299	No similar action.	No similar action.	No similar action.	No similar action.	Agencies would coordinate with the BEC and Tribal Nations to adapt trails, roads, and OHV routes (i.e., consider wildlife underpass and overpass infrastructure) to allow wildlife movement within existing or potential movement corridors (see Appendix H).	Agencies would coordinate with the BEC, Tribal Nations, UDWR, and Utah Department of Transportation to adapt trails, roads, and OHV routes (i.e., consider wildlife underpass and overpass infrastructure) to allow wildlife movement within existing or potential movement corridors (see Appendix H).
300	No similar action.	No similar action.	No similar action.	No similar action.	In the Cedar Mesa: Parking for day and overnight use would be limited to designated parking areas at trailheads. Trails from designated parking areas would be designated and signed. Restrict OHV access to the rims of canyons and encourage access on foot (see Appendix H).	No similar action.
301	No similar action.	No similar action.	No similar action.	Management of new and existing travel routes to protect crucial big game habitat. Agencies would not allow new road, trail, or other recreation development that would fragment or disturb big game fawning/calving habitat or State of Utah designated crucial winter range.	Manage new or existing travel routes to protect habitat for culturally and ecologically important species. Prohibit new roads, trails, or other recreation development that might fragment or disturb nesting, fawning, calving habitat; winter range; or habitat necessary for other vulnerable life stages of culturally and ecologically important species (see Appendix H).	See management above.

2.4.22. Livestock Grazing

2.4.22.1. GOALS AND OBJECTIVES

- Protect and restore healthy rangelands.
- Implement livestock grazing management practices to meet standards for rangeland health in a manner that is consistent with the protection of BENM objects.
- Manage grazing to minimize or eliminate intrusion of invasive grass and plant species due to grazing-related activities.

2.4.22.2. MANAGEMENT ACTIONS COMMON TO ALL ALTERNATIVES

- Manage livestock grazing, subject to appropriate terms and conditions, in a manner consistent with the protection of BENM objects, including during periods of drought.
- In collaboration with the BEC and grazing permittees, develop grazing permit terms and conditions, monitor rangeland conditions and adapt grazing practices as necessary to maintain or make progress toward meeting rangeland health standards through incorporation of Traditional Indigenous Knowledge where applicable and consistent with protecting BENM objects.

- If monitoring indicates that domestic livestock grazing is adversely impacting the protection of BENM objects, appropriate changes to implementation of livestock grazing management would be used to mitigate those impacts in a manner that ensures protection of BENM objects.
- Ensure livestock grazing is implemented consistent with permit terms and conditions and annual instructions.
- Develop and implement allotment management plans (AMPs) for all allotments within BENM during the BLM's scheduled permit renewal process and the USDA Forest Service's allotment decision-making process, as necessary, in collaboration with the BEC. Development and implementation of AMPs would include analysis of the allotment, including evaluating range improvements, as needed, and ensuring consistency with protection of BENM objects. If there is an existing AMP, the agencies would consider whether the AMP needs to be renewed or adjusted in collaboration with the BEC.
- Grazing is excluded from developed recreation facilities, which may include developed campgrounds, developed trailheads, and cultural sites that are Public Use (Developed). Grazing may be limited in areas to allow for resource rest.
- The agencies would continue to work with permittees to ensure that the installation, use, maintenance, modification, and/or removal of range improvements are consistent with protection of BENM objects. Federal regulations 43 CFR 4120 (BLM) and 36 CFR 222.9 (USDA Forest Service) describe the applicable responsibilities for the installation, use, maintenance, modification, and/or removal of range improvements.
- Noncompliance with the terms and condition of a livestock grazing permit or lease would be addressed in a timely manner in accordance with applicable law and policy and could include withholding issuance of the permit/lease, suspending the permit/lease, or cancelling the permit/lease.

2.4.22.3. MANAGEMENT ACTIONS BY ALTERNATIVE

Table 2-21. Alternatives for Livestock Grazing

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
302	<p>BENM would be available (BLM)/suitable (USDA Forest Service) for grazing with the following exceptions, which would be unavailable (BLM)/not suitable (USDA Forest Service) for grazing (Appendix A, Figure 2-53) (135,007 acres):</p> <ul style="list-style-type: none"> • BLM <ul style="list-style-type: none"> ○ Bridger Jack Mesa ○ Lavender Mesa ○ Developed recreation sites ○ Nine side canyons of Butler Wash ○ Comb Wash side canyons (Mule Canyon south of Utah State Route 95 and Arch, Fish, Owl, and Road Canyons) ○ Dark Canyon Plateau Area ○ Grand Gulch area (within the canyon) of Cedar Mesa ○ Five identified mesa tops (White Canyon area) ○ Slickhorn Canyon (within Perkins South Allotment) • USDA Forest Service <ul style="list-style-type: none"> ○ USDA Forest Service portion of Arch Canyon, including Texas and Butts Canyons (2020 ROD/MMPs) ○ Chippean Allotment ○ Woodenshoe Canyon/Trail ○ Cliff Dwellers Pasture RNA 	<p>In addition to those areas identified in Alternative A, allocate 28,054 acres (163,034 acres total) as unavailable/not suitable for livestock grazing in the following areas and/or pastures (Appendix A, Figure 2-54):</p> <ul style="list-style-type: none"> • BLM <ul style="list-style-type: none"> ○ Mikes Mesa ○ Chicken Corners ○ Lockhart Basin Butte ○ Salt Creek – Upper ○ South Six Shooter ○ North Six Shooter ○ Salt Creek Mesa-South ○ Tuwa Canyon (Natural Bridges) ○ Texas Canyon ○ Indian Creek – Lower ○ John's Canyon – Upper and Lower ○ San Juan River – Lower ○ Butler Wash – Lower 1 ○ Butler Wash – Lower 2 • USDA Forest Service <ul style="list-style-type: none"> ○ Hammond Canyon ○ Upper Part of Dark Canyon ○ Chippean Canyon 	Same as Alternative B	<p>In addition to Alternative B, allocate 202,585 acres (359,201 acres total) as unavailable/not suitable for livestock grazing in the following areas and/or pastures; modify any existing term grazing permits, as applicable (Appendix A, Figure 2-55):</p> <ul style="list-style-type: none"> • BLM <ul style="list-style-type: none"> ○ Butler Wash ○ Moqui Canyon – Lower ○ Dry Wash – Comb Pasture ○ Harts Draw Pasture ○ Road Canyon Pasture ○ Snow Flat Pasture ○ Slickhorn Pasture ○ Slickhorn Canyon Pasture ○ Happy Jack Pasture ○ Gravel Canyon Pasture ○ Horse Tanks Pasture ○ Short Canyon Pasture ○ Indian Creek – Middle Pasture ○ Indian Creek – Creek Pasture ○ Indian Creek – Drill Pasture ○ Indian Creek – Davis Pasture ○ Indian Creek – Lavender Canyon Pasture ○ Indian Creek – Corral Pocket Pasture ○ Point Lookout Pasture ○ John's Canyon ○ Dry Wash and Bullfrog Pastures ○ Lime Creek – Upper ○ Harts Canyon • USDA Forest Service <ul style="list-style-type: none"> ○ Dark Canyon upstream of Rig Canyon/Peavine Canyon ○ Tuerto Canyon ○ Milk Ranch Point 	<p>Same as Alternative B with the following exceptions:</p> <ul style="list-style-type: none"> • The agencies, working collaboratively with the BEC, would <ul style="list-style-type: none"> ○ prioritize the review and processing of grazing permits and leases, including compliance monitoring and resource assessments, to protect BENM objects; ○ incorporate Traditional Indigenous Knowledge into all parts of the livestock grazing decision-making processes; ○ coordinate with the BEC on opportunities for joint data collection and/or analysis; ○ identify Sub-Areas in allotments necessary for closure (year-round or seasonal); ○ reassess stocking levels, seasons of use, and management approach; and ○ identify resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources. 	<p>BENM would be available (BLM)/suitable (USDA Forest Service) for grazing with the following exceptions, which would be unavailable (BLM)/not suitable (USDA Forest Service) for grazing (Appendix A, Figure 2-56) (162,217 acres):</p> <ul style="list-style-type: none"> • BLM: (118,908 acres) <ul style="list-style-type: none"> ○ Bridger Jack Mesa ○ Lavender Mesa ○ Nine side canyons of Butler Wash ○ Comb Wash side canyons (Mule Canyon south of State Route 95 and Arch, Fish, Owl, and Road Canyons) ○ Dark Canyon Plateau Area ○ Grand Gulch area (within the canyon) of Cedar Mesa ○ Five identified mesa tops (White Canyon area) ○ Slickhorn Canyon (within Perkins South Allotment) ○ Mikes Mesa ○ Chicken Corners ○ Lockhart Basin Butte ○ Salt Creek – Upper ○ South Six Shooter ○ North Six Shooter ○ Salt Creek Mesa-South ○ Tuwa Canyon (Natural Bridges) ○ Texas Canyon ○ Indian Creek – Lower ○ John's Canyon ○ San Juan River – Lower ○ Butler Wash – Lower 1 ○ Butler Wash – Lower 2 • USDA Forest Service: (43,309 acres) <ul style="list-style-type: none"> ○ USDA Forest Service portion of Arch Canyon, including Texas and Butts Canyons (2020 ROD/MMPs) ○ Chippean Allotment ○ Woodenshoe Canyon/Trail ○ Cliff Dwellers Pasture RNA

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
						<p>The agencies, working collaboratively with the BEC, in accordance with applicable law, would</p> <ul style="list-style-type: none"> • prioritize the review and processing of grazing permits and leases, including compliance monitoring and resource assessments, to protect BENM objects; • incorporate Traditional Indigenous Knowledge into the livestock grazing decision-making processes; • coordinate with the BEC on opportunities for joint data collection and/or analysis; • identify pastures in allotments for closure or periodic rest (year-round or seasonal) to protect BENM objects consistent with BLM 43 CFR 4110.3 and USDA Forest Service regulation 36 CFR 222.4; • reassess stocking levels, seasons of use, and management approach; and • identify resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources. <p>For grazing and trailing with allotments, see Appendix A, Figure 2-57.</p>
303	No similar management.	Same as Alternative E.	Same as Alternative E.	56,347 animal unit months (AUMs) on BLM-administered lands and 7,908 head months (HMs) on NFS lands would be available for grazing.	62,035 AUMs on BLM-administered lands and 10,659 HMs on NFS lands would be available for grazing.	62,035 AUMs on BLM-administered lands and 10,659 HMs on NFS lands would be available for grazing.
304	<p>Per 2020 ROD/MMPs</p> <p>The following areas within BENM would be limited to trailing (3,952 acres) (Appendix A, Figure 2-53):</p> <ul style="list-style-type: none"> • Shay Canyon (boundary area identified for trailing and is not the Shay Canyon ACEC boundary) • Indian Creek from Kelly Ranch vicinity to NFS lands boundary (2020 ROD/MMPs) • Fable Valley is limited to trailing only on an annual basis and grazing use under emergency conditions • Moqui Canyon (Middle) restricted to trailing only except in the spring and fall for up to 1 to 2 weeks for gathering livestock prior to moving to and from these areas <p>Per 2008 Monticello RMP: no grazing in Harts Canyon</p>	<p>In addition to those areas identified in Alternative A, the following areas would be limited to livestock trailing only (5,218 BLM acres) (Appendix A, Figure 2-54):</p> <ul style="list-style-type: none"> • Moqui Canyon – Lower 	Same as Alternative B.	<p>Same as Alternative A, with the exception that it also includes 48,889 acres (Appendix A, Figure 2-55):</p> <ul style="list-style-type: none"> • Bridger Jack Bench East Pasture (Indian Creek Allotment) • North Cottonwood Upper Pasture (Indian Creek Allotment) • North Cottonwood Pasture (Indian Creek Allotment) • Salt Creek – Cathedral Pasture (Indian Creek Allotment) • Grand Flat Pasture (Lake Canyon Allotment) 	Same as Alternative B.	<p>The following areas within BENM would be limited to trailing (10,917 acres) (Appendix A, Figure 2-56):</p> <ul style="list-style-type: none"> • Shay Canyon (boundary area identified for trailing is not the Shay Canyon ACEC boundary) • Indian Creek from Kelly Ranch vicinity to NFS lands boundary (2020 ROD/MMPs) • Fable Valley is limited to trailing only on an annual basis and grazing use under emergency conditions • Moqui Canyon (Middle) restricted to trailing only except in the spring and fall for up to 1 to 2 weeks for gathering livestock prior to moving to and from these areas • Moqui Canyon – Lower • Harts Canyon – Upper • North Cottonwood Upper Pasture (Indian Creek Allotment) • North Cottonwood Pasture (Indian Creek Allotment)
305	Should grazing permits or leases be voluntarily relinquished by existing holders, the Secretaries shall retire from livestock grazing the lands covered by such permits or leases pursuant to the processes of applicable law. Forage shall not be reallocated for livestock grazing purposes unless the Secretaries specifically find that such reallocation will advance the purposes of this Proclamation and Proclamation 9558 (Proclamation 10285).	Proclamation 10285 provides: "Should grazing permits or leases be voluntarily relinquished by existing holders, the Secretary shall retire from livestock grazing the lands covered by such permits or leases pursuant to the processes of applicable law. Forage shall not be reallocated for livestock grazing purposes unless the Secretary specifically finds that such reallocation will advance the purposes of this proclamation and Proclamation 9558." If a holder voluntarily relinquishes its grazing permit or lease, or portion thereof, the lands covered by such permit or lease, or portion of the lands, would automatically become unavailable for livestock grazing in accordance with Proclamation 10285. The assignment of a livestock grazing permit or	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.	Proclamation 10285 provides: "Should grazing permits or leases be voluntarily relinquished by existing holders, the Secretary shall retire from livestock grazing the lands covered by such permits or leases pursuant to the processes of applicable law. Forage shall not be reallocated for livestock grazing purposes unless the Secretary specifically finds that such reallocation will advance the purposes of this proclamation and Proclamation 9558." If a holder voluntarily relinquishes its grazing permit or lease, or portion thereof, the lands covered by such permit or lease, or portion of the lands, would automatically become unavailable for livestock grazing in accordance with Proclamation 10285. The assignment of a livestock grazing permit or

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	<p>lease from one person or entity to another, or waiver of a grazing permit or lease in preference of another person or entity, does not constitute a voluntary relinquishment and is not subject to the management actions included in this provision.</p> <p>Upon receiving a written voluntary relinquishment of an existing grazing permit or lease, the agencies would:</p> <ul style="list-style-type: none"> • Verify that the permit or lease being voluntarily relinquished is valid and authorizes livestock grazing on federal lands in BENM. • Provide a written acknowledgement of the voluntary relinquishment to the permit or lease holder. • Update any applicable data systems, modify the allotment record, and update other applicable records upon relinquishment. • Update the acreage figures in the BENM RMP to reflect that the lands covered by the voluntarily relinquished permit or lease are unavailable for livestock grazing via plan maintenance. • Unless the forage associated with the subject lands is reallocated for livestock grazing purposes to specifically enhance the protection of BENM objects identified in Proclamation 10285, manage the lands previously subject to the voluntarily relinquished permit or lease consistent with the goals and objectives for Wildlife and Fisheries in Section 2.4.11.1. The Authorized Officer would prohibit uses that are inconsistent with the use of the subject lands being managed consistent with the goals and objectives for Wildlife and Fisheries in Section 2.4.11.1. • Consistent with available resources, remove unnecessary range improvement projects on the lands covered by the voluntarily relinquished permit or lease and rehabilitate any water developments. Such removal actions may require NEPA review and decision-making. <p>In the case of common/shared allotments, the voluntary relinquishment of a grazing permit or lease by one permit or lease holder would result in a reduction of:</p> <p>The overall authorized number of AUMs or HMs on the allotment as a whole. While the entire allotment would continue to be grazed by the remaining permit or lease holder(s), the voluntarily relinquished permit or lease would result in a reduction in the number of AUMs/HMs available for the allotment. The reduction would correspond to the number of permitted AUMs/HMs (including active and suspended AUMs/HMs) authorized under the voluntarily relinquished permit or lease.</p> <p>Increasing active AUMs/HMs on remaining permits or leases by converting suspended AUMs/HMs to active AUMs/HMs to replace the retired AUMs/HMs would not be allowed; or,</p> <p>The overall authorized number of AUMs/HMs and the geographic area available for grazing on the allotment, when all the existing holders of a permit or lease pertaining to that allotment agree, in writing, that a specific geographic</p>				<p>lease from one person or entity to another, or waiver of a grazing permit or lease in preference of another person or entity, does not constitute a voluntary relinquishment and is not subject to the management actions included in this provision.</p> <p>Upon receiving a written voluntary relinquishment of an existing grazing permit or lease, the agencies would:</p> <ul style="list-style-type: none"> • Verify that the permit or lease being voluntarily relinquished is valid and authorizes livestock grazing on federal lands in BENM. • Provide a written acknowledgement of the voluntary relinquishment to the permit or lease holder. • Update any applicable data systems, modify the allotment record, and update other applicable records upon relinquishment. • Update the acreage figures in the BENM RMP to reflect that the lands covered by the voluntarily relinquished permit or lease are unavailable for livestock grazing via plan maintenance. • Unless the forage associated with the subject lands is reallocated for livestock grazing purposes to specifically enhance the protection of BENM objects identified in Proclamation 10285, manage the lands previously subject to the voluntarily relinquished permit or lease consistent with the goals and objectives for Wildlife and Fisheries in Section 2.4.11.1. The Authorized Officer would prohibit uses that are inconsistent with the use of the subject lands being managed consistent with the goals and objectives for Wildlife and Fisheries in Section 2.4.11.1. • Consistent with available resources, remove unnecessary range improvement projects on the lands covered by the voluntarily relinquished permit or lease and rehabilitate any water developments. Such removal actions may require compliance review and decision-making. <p>In the case of common/shared allotments, the voluntary relinquishment of a grazing permit or lease by one permit or lease holder would result in a reduction of:</p> <p>The overall authorized number of AUMs or HMs on the allotment as a whole. While the entire allotment would continue to be grazed by the remaining permit or lease holder(s), the voluntarily relinquished permit or lease would result in a reduction in the number of AUMs/HMs available for the allotment. The reduction would correspond to the number of permitted AUMs/HMs (including active and suspended AUMs/HMs) authorized under the voluntarily relinquished permit or lease.</p> <p>Increasing active AUMs/HMs on remaining permits or leases by converting suspended AUMs/HMs to active AUMs/HMs to replace the retired AUMs/HMs would not be allowed; or,</p> <p>The overall authorized number of AUMs/HMs and the geographic area available for grazing on the allotment, when all the existing holders of a permit or lease pertaining to that allotment</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
		<p>portion of the allotment is appropriate to retire due to the full or partial voluntary relinquishment of a holder's permit or lease. In such case, the agencies would honor the remaining permit or lease holder(s) agreement to no longer graze that geographic area and the overall authorized number of AUMs/HMs would be reduced, as described in the previous bullet.</p> <p>A grazing permittee's or lessee's voluntary relinquishment of its livestock grazing permit or lease does not involve an agency decision and therefore, it does not require compliance with NEPA, and it cannot be protested or appealed under 43 CFR subpart 4160 or 36 CFR 214. A voluntary relinquishment and the resulting retirement of the subject lands from livestock grazing does not require the agencies to change the classification of any area within such lands that have been established as a grazing district under the Taylor Grazing Act. The United States is not obligated to compensate permittees/lessees for any interest in authorized range improvements used in conjunction with the relinquished permit or lease.</p>				<p>request, in writing, that a specific geographic portion of the allotment be retired due to the full or partial voluntary relinquishment of a holder's permit or lease. In response to such a request, and in accordance with applicable law, the agencies may amend the applicable permit or lease to no longer authorize grazing of that geographic area and reduce the overall authorized number of AUMs/HMs, as described in the previous bullet.</p> <p>A grazing permittee's or lessee's voluntary relinquishment of its livestock grazing permit or lease does not involve an agency decision and therefore, it does not require compliance with NEPA, and it cannot be protested or appealed under 43 CFR 4160 or 36 CFR 214. A voluntary relinquishment and the resulting retirement of the subject lands from livestock grazing does not require the agencies to change the classification of any area within such lands that have been established as a grazing district under the Taylor Grazing Act. The United States is not obligated to compensate permittees/lessees for any interest in authorized range improvements used in conjunction with the relinquished permit or lease.</p>
306	<p>Utilization levels would continue to be the same as those disclosed in the 2008 Monticello RMP and the 2020 ROD/MMPs as follows:</p> <p>Per 2008 Monticello RMP</p> <p>For BLM-administered allotments, desired utilization levels as management guidelines for key forage species would be identified as needed to monitor use levels on an allotment-specific basis to achieve desired future condition. Where utilization levels have not been established, a use level of 50% would be the management guideline. Utilization is the proportion or degree of current year's forage production that is consumed or removed by animals (including insects).</p> <p>Utilization data should be analyzed in conjunction with climate, actual grazing use, current or historic impacts (e.g., wildfire, livestock, wildlife, insects), and long-term trend data to help evaluate existing management and design future management to meet land use plan objectives.</p> <p>Per 2020 ROD/MMPs</p> <p>For allotments administered by the USDA Forest Service, proper use criteria (unless specified elsewhere in the 1986 Manti-La Sal LRMP or in an AMP for uplands are identified as 40% to 55% (season-long use), 45% to 60% (deferred rotation), and 55% to 65% (rest rotation) use of key species. Proper use criteria for riparian areas are identified as 50% to 60% (spring), 45% to 50% (summer), and 30% to 40% (fall) use or 4- to 5-inch stubble or regrowth of key species.</p>	Same as Alternative A.	<p>Utilization levels on key forage species would be identified on an allotment-specific basis. Livestock grazing levels would be managed to meet the goals and objectives in this plan. Key forage species would typically include native species but may include nonnative placeholder forage species as necessary to preclude the spread of noxious weeds.</p>	Same as Alternative A except that, where not otherwise established, utilization levels would be 30% until monitoring data are used to identify an appropriate utilization level.	<p>Utilization levels of key forage species would be identified on an allotment-specific basis. Utilization levels would be managed to meet the goals and objectives in this plan and implementation plans, as applicable. Utilization levels would be established within 2 years of the release of this Proposed RMP/Final EIS assessing appropriate utilization levels and baselines.</p> <p>Utilization levels would take forage needs of wildlife into consideration.</p>	<p>Utilization levels of key forage species would be identified on an allotment-specific basis. Utilization levels would be managed to meet the goals and objectives in this plan and implementation plans, as applicable. Utilization levels of key forage species would be identified on an allotment-specific basis. Utilization levels would be established within 2 years of the release of this Proposed RMP/Final EIS assessing appropriate utilization levels and baselines.</p> <p>Utilization levels would take forage needs of wildlife into consideration.</p>
307	<p>Per 2020 ROD/MMPs</p> <p>Develop off-site water sources where practicable to reduce impacts to riparian areas, seeps, and springs, and improve and increase grazing distribution within and across allotments. Identify</p>	<p>Allow new water developments and modifications to existing water developments for livestock grazing purposes where needed to provide functional infrastructure for orderly administration and management of the rangelands and consistent with protecting BENM</p>	<p>Prohibit new water developments and modifications to existing water developments for livestock grazing purposes, unless</p> <ul style="list-style-type: none"> the primary purpose is to protect BENM objects; and 	<p>Prohibit new water developments for livestock grazing purposes.</p> <p>Prohibit modifications to existing water developments for livestock grazing purposes, unless</p>	<p>Prohibit new water source development for domestic livestock unless necessary to protect BENM objects. Existing water developments for livestock or wildlife would be removed unless they protect BENM objects, where feasible. Enclosures or other physical barriers would be</p>	<p>Prohibit new water developments and modifications to existing water developments for livestock grazing purposes, unless</p> <ul style="list-style-type: none"> the primary purpose is to protect BENM objects; and

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	grazing allotments that could benefit from improved grazing distribution and prioritize these allotments for the construction of new water sources.	<p>objects. Existing water developments for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects.</p> <p>Existing water developments for livestock grazing purposes not consistent with protecting BENM objects would be removed or modified to be consistent with protecting BENM objects.</p> <p>Corresponding changes may be necessary to applicable livestock grazing permits.</p>	<ul style="list-style-type: none"> (BLM-administered lands only) a current (within the last 10 years) land health assessment has been completed, and, if needed, a causal factor determination has been made for the allotment or applicable watershed. As informed by the land health assessment and causal factor determination, the new/modified water development would support the achievement of the BLM Utah Rangeland Health Standards. An exception to this requirement could be approved for new/modifications to water developments to prevent imminent damage to BENM objects. <p>Existing water developments for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects.</p> <p>Existing water developments for livestock grazing purposes not consistent with protecting BENM objects would be removed or modified to be consistent with protecting BENM objects.</p> <p>Corresponding changes may be necessary to applicable livestock grazing permits.</p>	<ul style="list-style-type: none"> the primary purpose is to protect BENM objects; and (BLM-administered lands only) a current (within the last 10 years) land health assessment has been completed, and, if needed, a causal factor determination has been made for the allotment or applicable watershed. As informed by the land health assessment and causal factor determination, the modified water development would support the achievement of the BLM Utah Rangeland Health Standards. An exception to this requirement could be approved for modifications to water developments to prevent imminent damage to BENM objects. <p>Livestock would be excluded from perennial surface water (except existing stock ponds) and associated riparian areas and springs.</p> <p>Existing water developments for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects.</p> <p>Existing water developments for livestock grazing purposes not consistent with protecting BENM objects would be removed. If not possible to be removed, the existing water development would be reclaimed and/or restored, as appropriate.</p> <p>Corresponding changes may be necessary to applicable livestock grazing permits.</p>	<p>utilized to prevent livestock from directly accessing or impairing springs, seeps, groundwater-dependent ecosystems, and other sensitive riparian areas.</p> <p>Water wells, stock tanks, and catchments that are no longer in active use would be capped or covered for safety purposes.</p> <p>Grazing would be managed so as to reduce impacts to soil erosion and damage to BSCs and in a way that protects Tribal access to culturally important plants, including trees.</p> <p>Grazing would be managed to protect streams, springs, and other important riparian areas.</p>	<ul style="list-style-type: none"> (BLM-administered lands only) a current (within the last 10 years) land health assessment has been completed, and, if needed, a causal factor determination has been made for the allotment or applicable watershed. As informed by the land health assessment and causal factor determination, the new/modified water development would support the achievement of the BLM Utah Rangeland Health Standards. <p>For NFS lands, USDA Forest Service would review allotment monitoring and AMP documents to determine that AMP standards are being maintained, and the new/modified water development would support the maintenance of these AMP standards.</p> <p>An exception to these requirements could be approved for new/modifications to water developments to prevent imminent damage to BENM objects.</p> <p>Existing water developments for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects.</p> <p>Existing water developments for livestock grazing purposes not consistent with protecting BENM objects would be removed, modified, or abandoned to be consistent with protecting BENM objects.</p> <p>Corresponding changes may be necessary to applicable livestock grazing permits.</p> <p>Grazing would be managed to maintain or improve soil stability, BSCs and culturally important plants, including trees.</p> <p>Grazing would be managed to maintain or move toward desired conditions for streams, springs, and other important riparian areas.</p>
308	<p>Per 2020 ROD/MMPs</p> <p>Any range improvements would avoid construction on cultural sites and would avoid creating concentrations of livestock on cultural sites.</p>	<p>Same as Alternative A with the following additions:</p> <ul style="list-style-type: none"> Allow new range improvements and modifications to existing range improvements for livestock grazing purposes where needed to provide functional infrastructure for the orderly administration and management of the rangelands and consistent with protecting BENM objects. Existing range improvements for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects. Existing range improvements for livestock grazing purposes not consistent with protecting BENM objects would be removed or modified to be consistent with protecting BENM objects. <p>Corresponding changes may be necessary to applicable livestock grazing permits.</p>	<p>Same as Alternative A with the following additions:</p> <ul style="list-style-type: none"> Prohibit new range improvements or modifications to existing range improvements, for livestock grazing purposes, unless <ul style="list-style-type: none"> the primary purpose is to protect BENM objects; and (BLM-administered lands only) a current (within the last 10 years) land health assessment has been completed, and, if needed, a causal factor determination has been made for the allotment or applicable watershed. As informed by the land health assessment and causal factor determination, the new/modified range improvements would support the achievement of the BLM Utah Rangeland Health Standards. An exception to this requirement could be approved for new/modifications to range improvements to prevent imminent damage to BENM objects. <p>Existing range improvements for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects.</p>	<p>Prohibit new range improvements for livestock grazing purposes.</p> <p>Prohibit modifications to existing range improvements for livestock grazing purposes, unless</p> <ul style="list-style-type: none"> the primary purpose is to protect BENM objects; and (BLM-administered lands only) a current (within the last 10 years) land health assessment has been completed, and, if needed, a causal factor determination has been made for the allotment or applicable watershed. As informed by the land health assessment and causal factor determination, the modified range improvements would support the achievement of the BLM Utah Rangeland Health Standards. An exception to this requirement could be approved for modifications to range improvements to prevent imminent damage to BENM objects. <p>Existing range improvements for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects.</p>	<p>New range improvements would only be allowed if they protect BENM objects, support sustainable grazing practices and reduce impacts to the cultural landscape, including vegetation, wildlife, soil, and other important ecological and cultural resources.</p> <p>Existing range improvements would be maintained only if they are consistent with the protection of BENM objects.</p> <p>Existing range improvements that are not consistent with the protection of BENM objects would be removed.</p>	<p>Any range improvements would avoid construction on cultural sites and would avoid creating concentrations of livestock on cultural sites. Additionally, prohibit new range improvements or modifications to existing range improvements, for livestock grazing purposes, unless</p> <ul style="list-style-type: none"> the primary purpose is to protect BENM objects; and (BLM-administered lands only) a current (within the last 10 years) land health assessment has been completed, and, if needed, a causal factor determination has been made for the allotment or applicable watershed. As informed by the land health assessment and causal factor determination, the new/modified range improvements would support the achievement of the BLM Utah Rangeland Health Standards. An exception to this requirement could be approved for new/modifications to range improvements to prevent imminent damage to BENM objects. <p>For NFS lands, the USDA Forest Service would review allotment monitoring and AMP documents to determine that AMP standards are being maintained and the new/modified water</p>

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
			Existing range improvements for livestock grazing purposes not consistent with protecting BENM objects would be removed or modified to be consistent with protecting BENM objects. Corresponding changes may be necessary to applicable livestock grazing permits.	Existing range improvements for livestock grazing purposes not consistent with protecting BENM objects would be removed. Corresponding changes may be necessary to livestock grazing permits.		development would support the maintenance of these AMP standards. Existing range improvements for livestock grazing purposes would be maintained in the same manner and degree as authorized, if consistent with protecting BENM objects. Existing range improvements for livestock grazing purposes not consistent with protecting BENM objects would be removed, modified or abandoned to be consistent with protecting BENM objects and may be subject to site-specific NEPA. Corresponding changes may be necessary to applicable livestock grazing permits.
309	Per 2020 ROD/MMPs No new water developments for livestock or other improvements that would intensify or concentrate livestock use would be authorized within the South Milk Ranch Point pasture unit of the Babylon Allotment. Fences that protect objects would still be allowed.	Avoid new water developments for livestock or other improvements that would intensify or concentrate livestock use within the South Milk Ranch Point pasture unit of the Babylon Allotment. Fences that protect BENM objects would still be allowed.	Same as Alternative B.	Prohibit new water developments for livestock grazing purposes (see management actions above).	Same as Alternative B.	Avoid new water developments for livestock or other improvements that would intensify or concentrate livestock use within the South Milk Ranch Point pasture unit of the Babylon Allotment. Fences that protect BENM objects would still be allowed.
310	Per 2020 ROD/MMPs Range resource management: Avoid trailing livestock along the length of riparian areas except where existing livestock trailing corridors occur. Rehabilitate existing livestock trailing corridors where damage is occurring in riparian areas. Implement BMPs if monitoring shows livestock are causing damage to riparian areas. If BMPs are ineffective, relocate livestock outside riparian areas if possible and when necessary to achieve riparian area goals.	Avoid trailing livestock along the length of riparian areas except where existing livestock trailing corridors occur. Rehabilitate existing livestock trailing corridors where damage is occurring in riparian areas. Implement management actions if monitoring shows livestock are causing damage to riparian areas. If management actions are ineffective, prohibit trailing livestock along the length of riparian areas.	Avoid trailing livestock along the length of riparian areas. Rehabilitate existing livestock trailing corridors where damage is occurring in riparian areas. Implement management actions if monitoring shows livestock are causing damage to riparian areas. If management actions are ineffective, prohibit trailing livestock along the length of riparian areas.	Prohibit trailing livestock along the length of riparian areas. Rehabilitate existing livestock trailing corridors where damage has occurred in riparian areas.	Prohibit livestock trailing and grazing along the full length of riparian areas. Rehabilitate riparian areas where damage has occurred. Infrastructure may be developed, in collaboration with the BEC, to encourage cattle away from springs.	Avoid trailing livestock along the length of riparian areas except where existing livestock trailing corridors occur. Rehabilitate existing livestock trailing corridors where damage is occurring in riparian areas. Implement management actions if monitoring shows livestock are causing impairment to achieving PFC to riparian areas. If management actions are ineffective, prohibit trailing livestock along the length of riparian areas.
311	No similar management	Within 3 years of the signing of the ROD, complete land health assessments and, if needed, causal factor determinations on the following allotments/areas: <ul style="list-style-type: none"> • Comb Wash • Indian Creek • Slickhorn • White Canyon The land health assessments and causal factor determinations would inform the BLM's full processing of livestock grazing permit renewals for allotments within those allotments/areas, which would be completed within 6 years of the signing of the ROD. If a land health determination indicates that grazing use is not consistent with the provisions of 43 CFR 4180, decrease permitted use in accordance with 43 CFR 4110.32 and make changes to grazing practices to support the achievement of the BLM Utah Rangeland Health Standards and ensure consistency with protecting BENM objects.	Same as Alternative B.	BLM-administered lands only: Within 10 years of the signing of the ROD, complete land health assessments and, if needed, causal factor determinations, and fully process all permit renewals across BENM. If a land health determination indicates that grazing use is not consistent with the provisions of 43 CFR 4180, decrease permitted use in accordance with 43 CFR 4110.32 and make changes to grazing practices to support the achievement of the BLM Utah Rangeland Health Standards and ensure consistency with protecting BENM objects.	No similar management.	Within 3 years of the signing of the ROD, BLM would complete land health assessments and, if needed, causal factor determinations on the following allotments/areas: <ul style="list-style-type: none"> • Comb Wash • Indian Creek • Slickhorn • White Canyon • Perkins North • Tank Bench/Brushy Basin The land health assessments and causal factor determinations would inform the BLM's full processing of livestock grazing permit renewals for allotments within those allotments/areas, which would be completed within 6 years of the signing of the ROD. If a land health determination indicates that grazing use is not consistent with the provisions of 43 CFR 4180, decrease permitted use in accordance with 43 CFR 4110.32 and/or make changes to grazing practices to support the achievement of the BLM Utah Rangeland Health Standards and ensure consistency with protecting BENM objects. In addition, the agencies would complete annual monitoring reports for grazing in collaboration with the BEC.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
312	Per 2020 ROD/MMPs Use natural topographic features (e.g., pour-offs, canyon walls) to the extent possible to mitigate direct adverse impacts to various resources from livestock in areas unavailable (BLM)/not suitable (USDA Forest Service) for grazing. Where necessary, fencing may be used to augment natural topographical boundaries. Areas made unavailable to grazing may be adjusted through plan maintenance in order to prioritize use of natural topographic features as barriers to reduce adverse impacts to resource.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Use natural topographic features (e.g., pour-offs, canyon walls) to the extent possible to mitigate direct adverse impacts to various resources from livestock in areas unavailable (BLM)/not suitable (USDA Forest Service) for grazing. Where necessary to protect the cultural landscape and/or objects, fencing may be required to augment natural topographical boundaries.	Use natural topographic features (e.g., pour-offs, canyon walls) to the extent possible to exclude livestock in areas unavailable (BLM)/not suitable (USDA Forest Service) for grazing. Where necessary to protect the cultural landscape and/or objects, fencing may be required to augment natural topographical boundaries.
313	Per 2008 Monticello RMP Manage grazing according to <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997).	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.	Management not carried forward.
314	Per 2008 Monticello RMP Maintain existing land treatments, to meet RMP objectives and <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997). Any new land treatments developed in addition to those listed would also be maintained as necessary to meet RMP objectives and <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> .	Management not carried forward. See Section 2.4.7, Vegetation.	Management not carried forward. See Section 2.4.7, Vegetation.	Management not carried forward. See Section 2.4.7, Vegetation.	Management not carried forward. See Section 2.4.7, Vegetation.	Management not carried forward. See Section 2.4.7, Vegetation.
315	Per 2008 Monticello RMP Modify and implement existing (Tank Draw and East Canyon) and new AMPs as necessary to meet RMP objectives and <i>Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah</i> (BLM 1997). Develop and implement 29 new AMPs and others identified on a site-specific basis, for which resource concerns develop that require such action.	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).
316	Per 2008 Monticello RMP Relinquishment of Preference Voluntary relinquishments of grazing permits and preference, in whole or in part, by a permittee in writing to the BLM would be handled on a case-by-case basis. The BLM would not recognize relinquishments that are conditional on specific BLM actions as valid, and the BLM would not be bound by them.	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).
317	Per 1986 Manti-La Sal LRMP Range Resource Management Within the rangeland capability, provide forage to sustain the dependent livestock industry (FSM 2203.1 Item 1.) Manage the range resource within its productive capabilities for grazing and browsing animals in harmony with other resources and activities to provide sustained yield and improvement of the forage resource. Encourage and coordinate other resource activities so as to maintain or enhance forage production. Place allotments under an approved management plan.	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).

Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
<p>Use Interdisciplinary teams to establish proper use criteria (R-4 Supplement No. 59 to FSM 2214.11).</p> <p>Manage livestock and wild herbivores forage use by implementing proper use criteria as established in the AMP.</p> <p>Undeveloped Motorized Recreation (UDM) and Semi-primitive Recreation Use (SPR)</p> <p>Manage livestock use to be compatible with recreation use. Locate structural and design nonstructural improvements to meet Visual Quality Objectives.</p> <p>General Big Game Winter Range (GWR)</p> <p>Manage livestock grazing to complement big game habitat.</p> <p>Establish proper use criteria that should maintain or enhance habitat for wildlife. Limit livestock use to this level.</p> <p>Production of Forage (RNG)</p> <p>Improve or maintain range condition to fair or better to balance livestock obligations and use with grazing capacities.</p> <p>Firm up capacities by evaluation methods identified in AMPs or if not completed by standards specified in Forest Service Handbook (FSH) 2209.21 and/or increasing forage production to meet obligations through range improvements.</p> <p>Riparian Area Management Not-Mapped (RPN)</p> <p>Provide for proper stocking and livestock distribution to protect riparian ecosystems.</p> <p>Avoid trailing livestock along the length of riparian areas except where existing stock driveways occur. Rehabilitate existing stock driveways where damage is occurring in riparian areas. Relocate them outside riparian unit if possible and when necessary to achieve riparian area goals.</p> <p>Research, Protection, and Interpretation of Lands and Resources (RPI)</p> <p>Protect these areas from livestock use unless the objectives for the RPI unit allow grazing use.</p> <p>No livestock grazing is permitted in RNAs. Dark Canyon Wilderness Management (DCW)</p> <p>Manage forage uses and limit range improvements to be compatible with wilderness character.</p> <p>Special Land Designations</p> <p>Manage the forage resource on potential units and existing units consistent or compatible with range prescriptions from adjacent management units. On existing units, manage forage with an emphasis on establishment of vegetative cover and long-range rehabilitation to support appropriate range prescriptions.</p> <p>Location of Utility Corridors (UC)</p> <p>Manage the forage to be compatible with range prescriptions from adjacent management units. Manage forage with emphasis on maintenance or improvement of vegetative cover and long-range rehabilitation.</p>					

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
	Provide special management practices to restrict livestock trailing or bedding along corridors.					
318	<p>Per 1986 Manti-La Sal LRMP</p> <p>Range Improvement and Maintenance</p> <p>Provide structural and nonstructural range improvements needed to maintain or improve range conditions, as specified in AMPs.</p> <p>Complete project effectiveness analysis to determine investment priorities (FSH 2209.11).</p> <p>Construct and maintain structural improvements in accordance with USDA Forest Service standards (FSH 2209.23).</p> <p>Where site-specific developments adversely affect long-term production or management, those authorized to conduct activities would be required to replace losses through appropriate mitigations.</p> <p>Perpetuate noncommercial aspen communities as a forage source.</p> <p>Control and reduce noxious weeds and poisonous plants, using integrated pest management techniques and strategies, including the use of herbicides, biological control agents, and/or mechanical or hand treatments.</p> <p>Control spread of fires, and then work on established populations.</p> <p>Apply herbicide treatments under the direction of certified applicators and following label instructions.</p> <p>Those authorized to conduct soil-disturbing activities would be required to control noxious weeds on the area disturbed during the life of the project.</p> <p>Developed Recreation Sites (DRS)</p> <p>Manage livestock grazing to reduce conflicts in existing and proposed recreation sites.</p> <p>Construct, as needed, fences of appropriate materials around developed sites.</p> <p>Exclude livestock from areas that cannot be maintained in Code-A-Site category Light, as a result of livestock grazing.</p> <p>Wood-Fiber Production and Harvest (TBR)</p> <p>Protect regeneration from unacceptable livestock damage.</p> <p>Proper livestock management methods would be included in AMPs and annual operating plans to protect regeneration.</p> <p>Permittees would be held responsible for damages resulting from negligence.</p> <p>Utilize transitory forage that is available when demand exists, and where investments in regeneration can be protected.</p> <p>Vary utilization standards with grazing system and ecological condition. Specify standards in the AMP.</p>	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).	See Management Actions Common to All Action Alternatives (Section 2.4.22.2).

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
319	No similar management.	<p>The agencies would strive to mitigate drought impacts while promoting land health and protecting BENM objects.</p> <p>Drought management policy would implement an annual three-phase approach, organized using the annual seasonal cycle of livestock grazing use on public lands, to assess drought-caused circumstances or resource conditions, and implementing responsive management actions:</p> <ol style="list-style-type: none"> 1) Pre-Season; 2) Early to Mid-Season; and 3) Late Season to Post-Season. <p>Pre-Season: Identify resources or BENM objects being adversely impacted by drought. Prioritize emphasis areas to focus monitoring. Information data sets include, but are not limited to, U.S. Drought Monitor, U.S. Drought Portal, rain gauges, precipitation indices, snowpack, soil moisture, weather information, timing and type of precipitation, vegetation conditions, and use levels. Inform grazing permittees about current and projected drought conditions and outline potential responsive management actions.</p> <p>As monitoring data indicate the need, adjust grazing use in response to drought impacts (e.g., reducing livestock numbers, shortening season of use, altering pasture move dates, changing pasture rotations, water hauling, and closing allotments).</p> <p>Early to Mid-Season: Obtain and review updated drought information. Evaluate on-the-ground resource conditions and livestock distribution. As monitoring data indicate the need, adjust grazing use in response to drought impacts.</p> <p>Late Season to Post-Season: Obtain and review updated drought information. Evaluate on-the-ground resource conditions and livestock distribution. As monitoring data indicate the need, adjust grazing use in response to drought impacts during the current season or subsequent seasons.</p>	Same as Alternative B.	Same as Alternative B.	Develop a formal drought management plan that is based on the best available Western scientific information and Traditional Ecological Knowledge specific to the region and regarding climate change.	Develop a formal drought management plan that is based on the best available Western scientific information and Traditional Ecological Knowledge specific to the region and regarding climate change.
320	No similar management.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Do not authorize maintenance feeding (provision of fodder that serve the bulk of dry matter forage) on public lands, regardless of drought, unless an emergency arises (e.g., deep snow prevents stock from being removed from BENM). Remove livestock on rangelands that do not supply the dry matter diet requirements of livestock.	Do not authorize maintenance feeding (provision of fodder that serve the bulk of dry matter forage) on public lands, regardless of drought, unless an emergency arises (e.g., deep snow prevents stock from being removed from BENM). Remove livestock on rangelands that do not supply the dry matter diet requirements of livestock.
321	No similar management.	Same as Alternative E.	Same as Alternative E.	Same as Alternative E.	Educate the public about avoiding conflict with livestock; manage livestock grazing to avoid conflicts with recreational users to the extent possible.	Educate the public about avoiding conflict with livestock; manage livestock grazing to avoid conflicts with recreational users to the extent possible.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As explained in Chapter 1, gray highlight was applied throughout the Proposed RMP/Final EIS to indicate changes between the Draft RMP/EIS and Proposed RMP/Final EIS. In Chapter 3, extensive changes were made to comply with page limits established in 40 CFR 1502.7. As a result, the gray highlight was not applied to Chapter 3 to improve readability.

3.1. Assumptions

Assumptions for analysis are developed to assist in determining the potential impacts of the alternatives to the affected environment. They are presumed true for the purpose of comparing alternatives; do not constrain or define management; and are based on expected trends, demands on resource uses, observations, historical trends, and professional judgment. Assumptions are generally made for the expected life of the BENM RMP/EIS, unless otherwise stated. Assumptions applicable to all resources and resource uses are described below. Resource-specific assumptions are described in the sections that follow.

The following general assumptions were used in the environmental effects analysis:

- Implementation-level actions necessary to execute the planning-level decisions in the RMP/EIS would be subject to subsequent decision-making processes that comply with applicable laws, including NEPA.
- The decisions proposed in the alternatives apply to BLM-administered and NFS lands and areas that require federal permitting or authorization; however, cumulative impacts analyses also consider decisions made for lands or resources managed by other entities or individuals.
- Implementation-level and planning-level actions would be subject to valid existing rights and would comply with all federal laws, regulations, and policies. Although the agencies may not unilaterally add a new stipulation to a valid existing right, the agencies can subject development of valid existing rights to reasonable conditions as necessary to protect Monument objects through the application of conditions of approval at the time of permitting.
- Sufficient funding and personnel would be available to implement the RMP/EIS.
- BMPs are measures applied on a site-specific basis to reduce or mitigate potential adverse impacts. For any proposed activities in the Planning Area, appropriate BMPs would be selected on a case-by-case basis to meet the site-specific requirements of the project and local environment from the list of BMPs provided in Appendix G.

3.2. Availability of Data and Incomplete Information

The best available data were used in the preparation of the analysis contained in the Proposed RMP/Final EIS. Where appropriate, quantitative indicators, such as data associated with the BLM's AIM Strategy (BLM 2022), are presented for each resource or resource use to further describe current conditions and potential impacts; however, certain information is unavailable, or site-specific information is required for analysis. In some instances, a lack of quantitative or location-specific data requires that some impacts are discussed only in qualitative terms. Subsequent project-level NEPA documents will provide the opportunity to collect and analyze site-specific data.

Management methods involving Traditional Indigenous Knowledge have been considered throughout the analysis; however, in many cases, specific details of Traditional Indigenous Knowledge to be applied are not included. Following future coordination with the BEC and other Tribal Nations and where appropriate, relevant Traditional Indigenous Knowledge will be specified and analyzed in project-level NEPA analysis.

3.3. Traditional Indigenous Knowledge and the Bears Ears Landscape

Important to any discussion of land management is that historical truths are inseparable from ancestral knowledge, traditional oral history, and geographical stories. This knowledge, along with associated ceremonial and ritualistic activities [is the basis] for understanding the relationships and origins of environmental ties and their perseverance, preservation, balance, and integrity over, through, and as part of space and time. (see Appendix L:1)

The proposed management actions and the analysis of their potential effects presented in this document combine information from Traditional Indigenous Knowledge and a Western scientific approach. The 2022 BEITC LMP “emphasizes a holistic approach to all resources that gives primacy to indigenous knowledge and perspectives on the stewardship of the Bears Ears landscape.”

According to Indigenous cultures, cultural resources and natural resources are not separate categories. An individual depends on other living plants, animals, and the land for subsistence and to maintain cultural and religious ties to certain places, like BENM, with special value to Tribal Nations; thus, the natural resources gathered, hunted, prayed to, and walked on become cultural resources. Resources and places on the landscape cannot be considered separately from the landscape as a whole. From an Indigenous perspective, the natural world is much more than just a physical realm to sustain the material needs of life.

3.3.1. Importance of Traditional Indigenous Knowledge

Traditional Indigenous Knowledge and its centrality to the management of BENM was firmly established by Presidential Proclamation 10285. The Proclamation states, “In recognition of the importance of knowledge of Tribal Nations about these lands and objects and participation in the care and management of the objects identified above, and to ensure that management decisions affecting the monument reflect expertise and traditional and historical knowledge of Tribal Nations, a Bears Ears Commission (Commission) is reestablished in accordance with the terms, conditions, and obligations set forth in Proclamation 9558 to provide guidance and recommendations on the development and implementation of management plans and on management of the entire monument.” Incorporation of Traditional Indigenous Knowledge in Monument planning and in the disclosure and evaluation of the potential environmental impacts of BENM management alternatives is expected and was fully mandated at the Monument’s inception and restoration.

Traditional Indigenous Knowledge as a way of knowing, as is true for most epistemological systems, is not easily summarized in a few sentences. Considerable variation exists between traditional societies in the observations made, the connections between those observations that are established, and how the meaning of those connections is interpreted. The Office of Science and Technology Policy from the Council on Environmental Quality defines Traditional Indigenous Knowledge in its November 30, 2022, *Guidance for Federal Departments and Agencies on Indigenous Knowledge*. This memorandum, intended for the heads of federal departments and agencies, defines Traditional Indigenous Knowledge as, “a body of observations, oral and written

knowledge, innovations, practices, and beliefs developed by Tribes and Indigenous Peoples through interaction and experience with the environment” (Prabhakar and Mallory 2022). In addition, Berkes (2018:8) further describes Traditional Indigenous Knowledge as “a way of knowing; it is dynamic, building on experience and adapting to changes. It is an attribute of societies with historical continuity in resource use on a particular land.”

3.3.2. *Integrating Traditional Indigenous Knowledge and Western Scientific Approaches*

Traditional Indigenous Knowledge is often contrasted directly with Western science in ways that are oppositional and not productive. The primary objective for incorporating both a Western scientific perspective and a Traditional Indigenous Knowledge perspective is to use both approaches most effectively in the co-production of knowledge for problem solving. In the pages that follow, the agencies have worked to reframe their analyses to include Western science and Traditional Indigenous Knowledge.

Both approaches have at their core the same primary objective—to provide an understanding of the observed world and our experiences within (Berkes 2018:8). Berkes (2018:10) states, “Both western and indigenous science may be considered, along with art, the result of the same general intellectual process of creating order.” Although similar in anticipated outcome, and with many points of intersection in how each works to create order, Traditional Indigenous Knowledge and Western science are distinct.

Traditional Indigenous Knowledge systems and Western science both begin with observations of natural phenomena. They differ in the processes by which connections between observations are made and the perspective from which observations are interpreted to create order out of disorder. Western science generally follows one of two pathways to draw conclusions from observations. Inductive reasoning begins with a set of observations that are subsequently connected to one another by applying or developing theory and concludes with a set of inferences that explain the original set of observations. Deductive reasoning begins with the theory in mind, collects observations, and then draws a set of inferences. Both approaches are inherently linear, with a clear beginning, middle, and conclusion. Often the conclusions drawn lead to new questions and prompt new observations, making the Western scientific process very linear but iterative. In contrast, production of knowledge in many Traditional Indigenous Knowledge systems is circular. Observations are collected; connections between observations are made; and explanations as to the meaning of those connections are developed. In Western science, the linear process would stop at that point, with new questions likely prompting a new iterative process. A Traditional Indigenous Knowledge system does not end with the development of an explanation; instead, a continuous process of observation, connection, and interpretation is ongoing. The difference is subtle between the linear but iterative approach of Western science and the ongoing circle of knowledge production among Traditional Indigenous Knowledge systems, but that difference is profound.

The second notable way in which Western science and Traditional Indigenous Knowledge differ is in the perspective from which explanations and inferences are made from observations. The production of Traditional Indigenous Knowledge is inherently culturally embedded. The observations made, the connections between observations, and the explanations for those connections in Traditional Indigenous Knowledge systems cannot be effectively abstracted from the cultural traditions from which the observations were precipitated. In contrast, idealized Western science is intended to be inherently objective and disconnected from the cultural context of its practitioners.

It is the common goal of creating order from direct observations of natural phenomena that connects Traditional Indigenous Knowledge and Western science. In speaking of the commonalities between these approaches, Berkes (2018:32) states, “Native Americans, in common with contemporary ecologists, see the world as dynamic, contingent, and constantly changing.” In using both Traditional Indigenous Knowledge and Western scientific approaches, the agencies take advantage of an opportunity to make better decisions that are informed by both.

3.3.3. Perspectives from the Bears Ears Commission

The five Tribes of the BEC—Hopi, Navajo Nation (Diné), Pueblo of Zuni, Ute Indian Tribe, and Ute Mountain Ute—collaborated on the 2022 BEITC LMP. In the plan, each Tribe described their sense of connection to the Bears Ears region. Although the following summaries are presented individually, they demonstrate the overarching cultural importance of the Bears Ears area and the shared connection to it that many Tribes feel.

3.3.3.1. HOPI TRIBE

Hopi traditional knowledge describes *Hopitutskwa*, a vast ancestral homeland in which Hopi clans settled as they migrated to their present-day villages in northeastern Arizona. The Hopi people continue to use springs and other resources in areas they formerly occupied, return to shrines for ceremonial and other reasons, and commemorate the Bears Ears landscape through songs and prayers. Research conducted by the Hopi Cultural Preservation Office in Glen Canyon NRA shows that at least 26 Hopi clans have ties to the Colorado River and San Juan River corridors and the Bears Ears landscape. Place names memorialize Hopi connections to the area. For example, the names *Hoon’naqvut* and *Honnaqvvu* (Bears Ears Buttes), *Honn’muru* (Bear Mound), and *Honn’tsomo* (Bear Hill) describe the twin buttes for which the Monument was named. Hopi cultural advisors explain that in Hopi tradition, this area is associated with the Bear Clan, and the image of the bear resembled by the two buttes was likely a significant factor in this clan’s settlement there in the past. The Hopi people verify their clan histories and preserve their ties to BENM by visiting the area’s rock writings, artifacts, and landmarks (see Appendix L).

3.3.3.2. NAVAJO NATION

The Bears Ears area (*Shashjaa’*) is a vital part of many Navajo ceremonies that keep people and communities healthy. Oral traditions passed down from ancestors document Navajo occupation and use of the Bears Ears area, and many of the place names for locations in BENM are mentioned in ceremonies. Common themes in the many stories shared during the creation of the 2022 BEITC LMP are the area’s importance for trade and for hunting, gathering, and collecting materials. Traditional herbalists collect area plants for use in ceremonies and personal health and well-being. Historically, Navajos would move north to collect pinyon nuts when crops farther south failed to provide enough food. Clan histories are important to the Navajo people, and for generations, they have told how the clans originated on the landscape. In this way, the landscape itself has become a part of Tribal history. The Bears Ears area is especially cherished by the Navajo communities nearby. Many Navajos are deeply connected to the Bears Ears and act as stewards for these ancestral homelands (see Appendix L).

3.3.3.3. PUEBLO OF ZUNI

A sense of place is a vital part of Zuni culture and carries with it psychological and emotional attachments. The Bears Ears landscape (*Ansh An Lashokdiwe*) is important for the Zuni people because it is part of the traditional Zuni cultural landscape, which covers all of the territory crossed by their ancestors during migrations to the center place. Zuni origin history reflects the depth of the

connection the Zuni people have to BENM and is physically reflected in ancestral rock marking locations, among other things. The historical and cultural topics expressed in rock markings include clan identification, boundary negotiations, year counts, political positions and statuses, personal signatures and insights, deities, animal tracking, and communications intended for descendants. For example, Zuni traditional knowledge experts interpret one well-known archaeological site in the area as documenting a significant historical event—the migration of Zuni ancestors through the BENM area. Stretching across 7 meters of sandstone rock face, this rock writing panel depicts four lines of small anthropomorphic figures converging on a circle (see Appendix L).

3.3.3.4. UTE INDIAN TRIBE

The ancestral lands of the Ute people are vast, reaching far beyond current reservations to cover all of Colorado and Utah, the northern parts of Arizona and New Mexico, the southern part of Wyoming, and east into the Southern Great Plains. The Ute ancestors lived in and traveled through the Bears Ears area (*Kwee yah gut Nah Kav*) for thousands of years, following ancient seasonal rounds from high to low elevations to hunt and trap animals and gather plants. Over these millennia, the people developed traditions and histories that codified sources of water and food and the proper ways to treat and process these resources.

The Ute Indian Tribe is committed to sustaining the heritage, culture, and identity that is contained in the landscapes that surround *Kwee yah gut Nah Kav*, or the Bear's Ears. . . . The Ute continue to pass on cultural knowledge through programs such as language classes, cultural camps, and other interactive education programs that serve as an important means to help the young people reconnect to, and learn about, ceremonial places throughout their traditional homeland. (see Appendix L:16)

The interconnectedness of Ute culture with the natural world is significant in the Ute worldview. The distinctive landscape and natural resources of the Bears Ears area connect today's Ute people to their ancestral lands and are vital to the continuance of Ute traditions and customs (see Appendix L).

3.3.3.5. UTE MOUNTAIN UTE

The *Nūche* (Ute people) have always lived in the Bears Ears area (*Kwiyagatu Nukavachi*), which is a small but important part of the expansive traditional Ute territory. The San Juan River defined the territories of different bands of Utes and served as boundaries between the Utes and other people, including the Navajo, during conflict. Drainages helped define travel corridors, and the place names of many creeks, rivers, and drainages reflect their importance to Ute history and lifeways. The varying elevations throughout the Bears Ears landscape allowed people to move seasonally. The higher altitudes were used for hunting in the summer, and winter camps were set up in places like Beef Basin, Cottonwood Canyon, Allen Canyon, Butler Wash, and the area around today's town of Bluff. The Bears Ears—*Kwiyagatu Nukavachi*—is known as the place where bears first come out of their winter hibernation. This event is significant to the traditional Bear Dance, during which various Ute bands would gather to camp in the spring and share songs created or practiced over the winter to show respect for the spirit of the bear (McPherson 2011). For the Ute people, being able to access various landscapes and resources is essential to traditions. The Bears Ears region is critical to these traditions and a significant part of people's lives (see Appendix L).

3.4. Natural Environment

In light of the following perspective shared in the 2022 BEITC LMP, the resources listed in Section 3.4 are those that could most be considered part of the natural environment.

From a Native perspective, the natural world is much more than just a physical realm to sustain the material needs of life. The natural resources of the Bears Ears cultural landscape – water, land, wind, sound – are imbued by powerful religious, artistic, and other cultural meanings significant to Native communities with ancestral ties to this region. There are meaningful names for places on the land and they are linked with significant deities, stories, and past events. These places can be topographic features, but also can include areas containing important natural resources – hunting grounds, distant forests, lithic quarries, marshes, agricultural soils, etc. (see Appendix L:20)

3.4.1. Paleontological Resources and Geology

3.4.1.1. AFFECTED ENVIRONMENT

The Planning Area contains diverse geological features such as Comb Ridge, the Bears Ears Buttes, North and South Six Shooter Peaks, Lavender and Bridger Jack Mesas, and massive Wingate Sandstone cliffs. Proclamation 10285 discusses unique geological features, including mesas, towers, arches, hoodoos, and cliffs found in Indian Creek Canyon, Cedar Mesa, Mancos Mesa, Beef Basin, the Abajo Mountains, Elk Ridge, the Dark Canyon and Dry Mesa complex, Valley of the Gods, and the iconic Bears Ears Buttes.

The Planning Area contains exceptional paleontological resources, with ongoing related scientific research that involves excavations and discoveries (see Gay et al. 2020 for details). Approximately 32% of the lands within the Planning Area have very high or high potential for paleontological resources (Potential Fossil Yield Classification [PFYC] 5 or 4) and 53% have moderate potential (PFYC Class 3) (BLM 2022b). Table 3-1 lists the major geological units, PFYC ranking, and acres in the Planning Area (Table 3-1 below is a subset of data presented in Table 3-1 in Appendix N). Table 3-2 summarizes the Planning Area by PFYC rank and landownership.

Table 3-1. Acres of Major Geological Units within the Planning Area

Geological Unit Name	Map Abbreviation(s)	Age	PFYC	General Fossil Description*	Acres
Mixed eolian, colluvial, alluvial stream, and alluvial fan deposits, often eolian sand at the surface covers the alluvial deposits	Qace, Qae, Qe, Qea, Qeaf, Qeat, Qes	Pleistocene to Holocene	2	No known paleontological resources. Pleistocene deposits could contain fossils. Unofficial mentions of fossils in gravels in the area.	74,332
Alluvial fan, stream, eolian, and colluvial deposits	Qaec, Qaeo, Qal, Qa, Qao, Qe	Pleistocene to Holocene	U	No known paleontological resources. Pleistocene deposits could contain fossils. Unofficial mentions of fossils in gravels in the area.	92,581
Mass-movement landslides, slumps, and talus	Qms, Qmsb, Qmst, Qls	Pleistocene to Holocene	2	In situ fossils unlikely. Fossils, if observed, will be out of their original geological context.	16,516
Morrison Formation, including Bluff Sandstone Member	J2, Jmb1	Jurassic	5	Diverse vertebrate fauna famous for dinosaurs, including body fossils of ornithischians, sauropods, and theropods, as well as footprints and trackways. Other fossils include conchostracans, fish, squamates, sphenodontian, mammaliaforms, crocodyliform footprints, invertebrate traces, wood, palynomorphs, and multiple taxa of leaves, including those of ferns, ginkgophytes, and conifers.	49,546

Geological Unit Name	Map Abbreviation(s)	Age	PFYC	General Fossil Description*	Acres
Early Jurassic Formations, including Summerville, Entrada, and Carmel Formations	J1	Jurassic	4	Mostly tracks, including important theropod tracks in Summerville Formation and some marine fossils. Carmel Formation includes extensive invertebrate assemblages in marine facies and dinosaur footprints in costal deposits.	28,662
Navajo Sandstone	Jn	Jurassic	4	There are burrowed and rooted horizons, as well as fossiliferous playa lake facies that contain large conifer logs, leaves, ostracods, invertebrate and vertebrate burrows, and diverse assemblages of vertebrate tracks. Vertebrate body fossils are rare. The Planning Area contained the early sauropodomorph dinosaur <i>Seitaad ruessi</i> , and there are additional vertebrate taxa, including other sauropodomorphs, a theropod, crocodylomorphs, and actinopterygian fish.	36,172
Kayenta Sandstone	Jk	Jurassic	4	Unionid bivalves, petrified wood, and a tetrapod rib. Vertebrates south of the Planning Area include hybodont and osteichthyan fishes, amphibians, caecilians, turtles, crocodiles, dinosaurs, cynodonts, mammals, and more. Diverse and abundant track assemblages are common.	55,136
Wingate Sandstone	JTRw, Jw	Triassic to Jurassic	3	Vertebrate body fossils are limited to the Chinle-Wingate contact. Numerous tracks on slump blocks, but none in their original stratigraphic positions.	16,193
Glen Canyon Group (Navajo, Kayenta, Wingate, Moenave Formations) and Nugget Sandstone	Jg	Jurassic	4	Numerous types of vertebrates, invertebrates, and plants in these geological units. Types depend on specific geological unit. See individual units for details.	86,764
Chinle Formation, undivided	Tr2	Triassic	3	Diverse (see other Chinle Formation table cells below for specifics).	28,790
Chinle Formation includes Church Rock, undivided Owl Rock, Petrified Forest, and undivided Moss Back and Monitor Butte Members, as well as unmapped Kane Springs beds	TRc, TRcc, TRcl, TRcmm, tRcop, Trcu	Triassic	5	Very diverse flora and fauna, including the first vertebrate fossil, a phytosaur, documented in the Planning Area region. Other fossils include vertebrate tracks, lung fish burrows, gastropods, molluscs, crustaceans, temnospondyl amphibians, unknown vertebrate bones and teeth, and a diversity of leaves, including ferns and conifers. Church Rock Member preserved articulated skeletons of actinopterygian and at least one type of coelacanth, as well as possibly a very rare procolophonid parareptilia (or from Owl Rock Member). Rare occurrences described from the Monitor Butte Member are bones from at least crocodylomorphs and from Petrified Forest Member are a possible theropod vertebrae and claws and an ornithischian right mandible.	67,655
Chinle Formation includes Moss Back and Shinarump Conglomerate members	TRcms, TRcs	Triassic	3	Wood and leaves, including ferns and conifers. Vertebrates include metoposaurid temnospondyls, phytosaurs, and aetosaurs. Invertebrates include bivalves, gastropods, and ostracods.	37,832
Moenkopi Formation	Tr1	Triassic	4	Numerous types of vertebrates, invertebrates, and plants in these geological units. Specific types depend on specific geological unit. See individual units for details.	34,279

Geological Unit Name	Map Abbreviation(s)	Age	PFYC	General Fossil Description*	Acres
Moenkopi Formation, including Hoskinnini Sandstone and Upper Members	TRm, Trmu, TRmh	Triassic	4	Abundant tracks and traces such as archosauriform reptile swim tracks; plant fragments; fish, including actinopterygian scales, vertebrae, and teeth; amphibian bones.	39,058
White Rim Sandstone (or Formation) and Arkosic facies, Cutler Group	Pwr, Pca	Permian	2	No fossils documented but are possible in the paleoenvironment.	38,518
Organ Rock Shale (or Formation), Cutler Group	Po	Permian	3	Fish, amphibians, including large-bodied taxa (e.g., <i>Diadectes</i> and <i>Seymouria</i>) and the sphenacodontid <i>Ctenospondylus</i> , tetrapod trackways, and plants.	50,941
Cedar Mesa Sandstone, Cutler Group	Pcm	Permian	3	Osteichthyans, amphibians, amniotes dominated by the synapsid <i>Sphenacodon</i> ; leaf and stem impressions, including conifers, and permineralized logs.	290,392
Cutler Group, including White Rim Sandstone, Organ Rock Shale, Cedar Mesa Sandstone, as well as lower Cutler beds	P1	Permian	3	Diverse (see other Cutler Group and lower Cutler bed table cells above and below for specifics).	360,884
lower Cutler beds, including those units mapped as Rico, Elephant Canyon, and Halgaito Formations	PIPhgu, lphgu, lphgl, Pcl, PIPcl	Upper Pennsylvanian to Permian	4	Vertebrate fauna, including xenacanth sharks, Chondrichthyans, actinopterygians, temnospondyl amphibians (e.g., <i>Eryops</i>), non-mammalian synapsids, conodonts, marine invertebrates, and plants, including leaves and steams of conifers, ferns, and lycopsids.	30,643
Lower Cutler beds, including unit mapped as Rico Formation	PP	Upper Pennsylvanian to Permian	3	Specific types depend on specific geological unit. See individual units for details.	30,571

Sources: BLM (2022b); Gay et al. (2020).

Note: A total of 82 acres are mapped as water and are not included in this table.

* Within and adjacent to the Planning Area, pack rat middens are known to contain bones and teeth of small mammals, avifauna, and herpetofauna. These deposits are younger than the geological units in which they are found. Thus, they are not included within this classification system.

Table 3-2. Acres of Potential Fossil Yield Classification in the Planning Area

PFYC Classes	BLM	State	USDA Forest Service*	Private	Total Acres
PFYC 1	0	0	1,513	0	1,513
PFYC 2	109,817	9,327	2,789	4,853	126,786
PFYC 3	633,425	55,958	97,244	2,708	789,335
PFYC 4	196,507	26,216	124,949	2,222	349,894
PFYC 5	56,370	8,054	54,708	756	119,888
PFYC U	79,951	12,914	7,909	2,572	103,346
Total	1,076,070	112,469	289,112	13,111	1,490,762

* For consistency, the BLM's PFYC rankings (BLM 2023) were used for NFS land instead of the rankings of the USDA Forest Service system, which is comparable.

Note: A total of 82 acres are mapped as water and are not included in this table.

The Planning Area's exceptional paleontological resources are accessible due to the excellent exposures of their host geological formations. Visitor use is increasing in the Planning Area, and an

increase in people is likely to increase the unintentional discovery of paleontological resources, some of which will be provided to the agencies upon discovery, and some will not.

The BLM issued two paleontology permits during 2022, the most recent year for which data are available, specifically for the Planning Area. The BLM also issued approximately 95 consulting and surface collecting permits in Utah, many of which were statewide and included portions of the Planning Area. The USDA Forest Service issues only project-specific permits, and none were issued for the Planning Area in 2022. Since the 1990s, research productivity has been increasing in the Planning Area, and based on Utah Geological Survey locality data from the last few years, it appears that it will continue to increase.

See Appendix N for additional context concerning the affected environment related to paleontological resources and geology.

3.4.1.2. ENVIRONMENTAL CONSEQUENCES

3.4.1.2.1. Impacts Common to All Alternatives

Management common to all alternatives includes agency collaboration with the BEC to provide protection, preservation, stabilization, and overall management of BENM paleontological resources while promoting and facilitating scientific investigation of paleontological resources and providing for traditional and/or cultural uses. This collaboration with the BEC would likely result in enhanced protection for and more thorough understanding of the paleontological resources within the Planning Area.

Under all alternatives, continued scientific work by qualified researchers and work by Traditional Indigenous Knowledge holders on public lands would add further knowledge about the area's paleontological resources, resulting in opportunities for improved future management decisions and protection of these non-renewable resources. Management would use the PFYC system to guide survey prioritization and proactively inventory within areas mapped as PFYC Class 4 and 5, which would increase understanding of and provide protection to the paleontological resources within the Planning Area. Where known paleontological resources or sites are present (or known to have high paleontological resource potential), the agencies would take appropriate actions to avoid impacts to such resources under all alternatives; this should protect BENM objects and known paleontological resources.

Management decisions that allow for surface disturbance, such as construction, ROW authorization, and vegetation treatments, could affect paleontological resources. Unmitigated surface-disturbing activities could dislodge or damage paleontological resources and features that were not visible before surface disturbance and could result in direct damage from destruction and indirect damage from erosion, resulting in the permanent loss of the resources, the scientific data they could provide, and the associated contextual data. Management actions associated with protection of natural resources (e.g., soils, floodplains, or wildlife habitat) could reduce erosion within these environments and decrease impacts to paleontological resources. If surface disturbance is regulated and proper mitigation, preservation processes, or avoidance measures are followed, a possible benefit of these activities is that they could expose scientifically important fossils that would otherwise remain buried and unavailable for scientific study. BENM being withdrawn from mineral entry, combined with general paleontological management, including the protection of paleontological resources and a paleontological resource implementation plan, would support the protection of paleontological resources from new major development and disturbance.

If surface-disturbing activities and human use are not avoided, they could also impact unique geological features; however, avoidance of impacts to unique geological features is included at the implementation level. Without avoidance, these features could be permanently altered or modified if they shift, move, or crack due to changing conditions from surface disturbance or visitor use. Delicate rock features can be particularly vulnerable to damage due to their delicate nature. Sandstone, especially the Wingate Sandstone found in the Indian Creek area, can be vulnerable to degradation from recreation when the rock is wet. Larger features, such as arches and bridges, are generally less susceptible to impacts brought about by landscape-level management actions.

Areas managed for recreation, such as the Butler Wash Dinosaur Tracksite and Shay Canyon hiking trails, could have increased risk for direct, indirect, and inadvertent damage to paleontological resources from concentrated recreation and increased visitor use. Recreational activities could physically alter exposed or shallow paleontological resources, leading to damage from erosion and unauthorized collection and vandalism; however, because these risks occur in concentrated areas, agencies can better manage recreation in ways that minimize the potential for damage to paleontological resources compared to other dispersed recreation areas where effects are more difficult to anticipate, monitor, and mitigate. Given current visitor trends, human activity is expected to increase within the Planning Area, which could uncover previously unknown paleontological resources. If the discoveries are handled properly, they could add to the paleontological knowledge of the region.

Most recreation uses and management actions are unlikely to impact geological resources in the Monument. Rock climbing is the primary form of recreation that is likely to have impacts to geological resources due to improperly placed gear damaging rocks or from climbing on wet sandstone, which could damage and break rocks. If site-specific impacts occur, all alternatives would allow for the closure or rerouting of climbing routes, which would help prevent further damage to geological resources.

Lands with special designations, such as ACECs, WSAs, RNAs, and designated wilderness are afforded special management measures designed to protect a variety of resource values, including paleontological resources. New paleontological discoveries from recreation use or development in these areas would be less likely than in other portions of the Planning Area due to limitations on discretionary actions and surface-disturbing activities. Under all alternatives, management of WSRs would help to reduce erosion by limiting discretionary actions and surface-disturbing activities, which could provide additional protection to paleontological resources.

Areas open for ROW authorization could have more ground disturbance from possible surface-disturbing activities than ROW avoidance or exclusion areas. To reduce the potential for impacts to paleontological resources from ROW actions, paleontological resource evaluations and subsequent possible avoidance would be completed, as necessary. Additionally, grants for ROWs contain stipulations that require grant holders to cease activities and report any paleontological resources that are discovered.

Allowing travel in areas with underlying rock units could result in impacts to paleontological resources, especially in areas of PFYC Classes 4 and 5, due to increased surface disturbance and increased public access to these areas. Conversely, restricting travel to designated routes could help to limit new areas of erosion and surface disturbance in geological units. Furthermore, under Presidential Proclamations 9558 and 10285, new roads and motorized trails would only be constructed to protect BENM objects and public safety, which would limit the designation of new routes and the expansion of the travel network. This would further limit the potential to impact undocumented paleontological resources.

Construction of structures to support livestock grazing (e.g., stock ponds, dams, roads) could result in surface disturbance that could impact paleontological resources. PFYC Class 4 and 5 areas are often areas of exposed bedrock that contain minimal forage or are located on steep slopes and are therefore often unappealing for livestock grazing; however, in PFYC Class 4 and 5 areas that do not have these characteristics, livestock grazing can reduce vegetation and could cause increased erosion of the soil and exposure of paleontological resources underlying the area. This potential impact would be reduced by terms and conditions of grazing permits, which include meeting rangeland health standards for vegetation and soil. Paleontological resources that are at or near the surface are vulnerable to trampling by livestock primarily in areas where livestock congregate (water sources, salting areas, corrals, fence lines). All alternatives include requirements for on-site surveys before authorizing new range improvements. Management decisions that reduce acreage open to livestock grazing would likely result in reduced potential impacts to paleontological resources.

Visual management direction constraints may reduce impacts to paleontological and geological resources in VRM Class I and SIO Very High and High areas, because constraints on the visual impacts of management actions may limit the actions to those that would disturb less surface. In VRM Class, Visual Quality Objective (VQO) Classes, and SIO Classes where more modifications of the existing landscape would be allowed, there may also be a higher potential for surface-disturbing activities and, in turn, impacts to paleontological and geological resources. The greatest potential impacts to paleontological resources from VRM management decisions would be in PFYC Class 4 or 5 areas. The agencies would manage impacts as previously discussed for surface disturbance and increased human activities.

Wildfires can adversely affect surface and shallowly buried paleontological resources, especially when they occur on steep slopes where vegetation has been previously burned. In such cases, soil stability is compromised, causing a higher chance for increased erosion. Fire and fuels management could reduce this risk of direct and indirect impacts to paleontological resources from wildfire, but vegetation management that includes ground disturbance could directly impact paleontological resources. The magnitude would vary by alternative depending on the methods authorized.

3.4.1.2.2. Impacts under Alternative A

On lands managed by the 2020 ROD/MMPs and the 1986 Manti-La Sal LRMP, casual collection of fossils and petrified wood would continue to be prohibited. On lands governed by the 2008 Monticello RMP and 2008 Moab RMP, recreational collectors may continue to collect and retain reasonable amounts of common invertebrate and plant fossils for personal, noncommercial use. Continuing to allow casual collection on lands governed by the 2008 Monticello and Moab RMPs could result in impacts from collectors as they extract fossil resources. Without permits for fossil collection, it is not possible to track and understand what is being removed from federal lands. As a result, the scientific study and educational opportunities from fossils removed through casual collection is lost.

Under Alternative A, vegetation management would continue to include all available tools, including mechanical methods. The use of heavy mechanical tools can disturb unknown paleontological resources.

Access to all access points, trails, and climbing routes would remain open; however, if site-specific impacts exist, the closure or rerouting of access would continue to be permissible. This would limit the protection of paleontological resources or unique geological features until after impacts have occurred or started to occur. Impacts to unique geological resources could include improperly

placed climbing gear damaging rocks or people climbing on wet sandstone, which could damage and break rocks. Should these impacts occur, closures for site-specific impacts could help prevent additional damage to unique geological features or paleontological resources.

Table 3-3 describes the number of acres of PFYC Classes 4 and 5 in areas open to ROW authorization, in ROW avoidance areas, and in ROW exclusion areas. Impacts to paleontological resources from lands and realty actions would be the same as discussed in Section 3.4.1.2.1, with a greater degree of impacts from ROW open areas.

Table 3-3. Acreage of PFYC Classes 4 and 5 in Right-of-Way Open, Exclusion, and Avoidance Areas in the Planning Area

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Open	303,782	1,204	0	0	0	1,204
Avoidance	60,770	363,019	340,908	275,279	171,695	310,219
Exclusion	67,904	68,233	91,548	157,181	260,765	121,033

Impacts to paleontological resources from OHV closed and limited areas in PFYC 4 and 5, as shown in Table 3-4, would be the same as discussed in Section 3.4.1.2.1.

Table 3-4. Acreage of PFYC Classes 4 and 5 in OHV Closed and Limited Areas in the Planning Area

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Closed	71,529	149,598	172,113	238,047	150,154	123,445
Limited	360,947	282,871	260,355	194,424	282,315	309,021

Table 3-5 describes the number of acres of PFYC Classes 4 and 5 in areas available/suitable and not available/unsuitable for grazing. Areas available/suitable for grazing could impact paleontological resources as described in Section 3.4.1.2.1.

Table 3-5. Acreage of PFYC Classes 4 and 5 in Areas Available/Suitable and Unavailable/Not Suitable for Grazing in the Planning Area

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Available/Suitable	392,179	387,200	387,200	346,946	387,200	385,613
Unavailable/Not Suitable	37,649	41,440	41,440	78,564	41,440	41,384

Impacts to paleontological resources from VRM and SIO classes, as shown in Table 3-6, would be the same as discussed in Section 3.4.1.2.1.

Table 3-6. Acreage of PFYC Classes 4 and 5 in VRM and SIO Classes in the Planning Area

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
VRM Class I	57,441	58,044	80,565	145,996	248,363	109,568
VRM Class II	101,0817	190,205	167,812	106,736	4,143	138,704
VRM Class III	43,031	4,587	4,460	236	0	4,528

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
VRM Class IV	50,879	0	0	0	0	0
SIO Very High	3,538	11,509	11,509	11,509	178,354	11,509
SIO High	17,240	168,462	168,462	168,462	1,163	168,462

All available methods would continue to be allowed to be used to fight wildfires, including large-scale mechanical methods. Although these may be more effective at limiting the size and severity of fire and thereby reduce impacts to paleontological resources from fire, these methods may include ground disturbance that can damage paleontological resources.

3.4.1.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. Management would emphasize agency collaboration with the BEC to gather information on the importance of paleontological resources to Tribal Nations, including incorporation of Traditional Indigenous Knowledge and recognition of important traditional uses. Additionally, on-site surveys would be conducted for paleontological resources in areas classified as PFYC Classes 3 and U, in addition to those discussed in Section 3.4.1.2.1, prior to implementation of discretionary actions that may impact paleontological resources. This would provide enhanced protection to an additional 892,681 acres (PFYC Classes 3 and U), and more surveys could allow for a greater understanding of the geology and fossil story in the Planning Area.

Alternative B would use “light-on-the-land” treatments in designated wilderness and WSAs, which could help protect paleontological resources from damage in these areas.

Trails could be closed seasonally to allow for resource rest and/or traditional uses, determined in coordination with the BEC and Tribal Nations. Periodic or seasonal closing of trails could result in reduced impacts to paleontological resources by minimizing impact and erosion where such resources are located. Alternative A would designate more acreage as ACECs, RNAs, WSRs, and WSAs; however, Alternative B would manage almost twice the amount of LWC to protect wilderness characteristics. These designations, along with paleontological management actions, would reduce surface disturbances in these areas and provide more protection to paleontological resources than Alternative A.

Alternative B would allow for the addition of new climbing bolts, anchors, or fixed gear in the Indian Creek Special Recreation Management Area (SRMA) with prior approval from the BLM, which would be more restrictive than Alternative A. It also provides for seasonal closures of climbing routes. The addition of new climbing hardware could result in impacts as discussed in Section 3.4.1.2.1, but allowing for seasonal closures or reroutes in climbing areas would provide more protection to unique geological features than Alternative A.

Under Alternative B, collection of paleontological resources would be allowed under permit. Allowing collection of paleontological resources under permit may reduce impacts from casual collectors as they extract these resources; however, reducing opportunities for casual collection could reduce the amount of discovery of novel paleontological resources and reduce scientific study of these resources.

More acres of PFYC Classes 4 and 5 would be in OHV closed and limited areas, in ROW avoidance areas, in areas unavailable/not suitable for grazing, and in areas managed as VRM I and II than under Alternative A (see Tables 3-3 through 3-6). Additional acreage of PFYC 4 and 5 areas in these types of management areas would provide for reduced impacts as described in Section 3.4.1.2.1.

Impacts of fire and fuels management would be the same as under Alternative A.

3.4.1.2.4. Impacts under Alternative C

Under Alternative C, the authorized collection and casting of fossils would be the same as Alternative B; therefore, impacts would be the same. Management of and impacts to paleontological resources would be similar to Alternative B, except for the following differences. Vegetation management would include all available tools except for chaining, which would reduce the potential for vegetation management to destroy unknown paleontological resources. Additionally, Alternative C would use light-on-the-land treatments in more areas than Alternative B, further reducing the potential to damage undocumented paleontological resources from vegetation treatments.

Under Alternative C, the number of acres managed as ACECs, WSAs, WSRs, and LWC would be the same as under Alternative B, so impacts to paleontological resources would be the same as Alternative B.

Alternative C would require an Individual Special Recreation Permit (ISRP) for all climbing activity in the Indian Creek SRMA and would impose group size limits and the same seasonal closures as Alternative B. Compared to Alternative A, permits under Alternative C would likely protect the geological features within BENM to a greater extent by reducing the overall number of recreational climbers in the management area and limiting access to climbing areas, thereby reducing the potential for impacts to geological features.

More acres of PFYC Classes 4 and 5 would be in OHV closed areas, in ROW avoidance and exclusion areas, in areas unavailable/not suitable for grazing, and in areas managed as VRM I and II than under Alternative A (see Tables 3-3 through 3-6). Additional acreage of PFYC 4 and 5 in these types of management areas would provide for reduced impacts as described in Section 3.4.1.2.1.

Fuels and fire management under Alternative C would be similar to Alternative B but would place more restrictions on the types of techniques that could be used, allowing for reduced surface disturbance from fire management.

3.4.1.2.5. Impacts under Alternative D

Under Alternative D, the authorized collection and casting of fossils would be the same as Alternative C; therefore, impacts would also be the same. Management of and impacts to paleontological resources under Alternative D would be similar to Alternative C except for the following differences. Vegetation management would be the same as Alternative C with the addition of using light-on-the-land vegetation treatments wherever practicable, greatly reducing the possibility for damage to paleontological resources from large, heavy machinery used in vegetation management actions.

Protocols under Alternative D for recreation would be the same as Alternative B, with the exception that no new trails would be allowed to be developed in Shay Canyon, which would result in a decreased potential for impacts to paleontological resources from the development and use of new trails. Alternative D would have the most acreage of any alternative managed as ACECs, RNAs, WSRs, and WSAs, which would reduce surface disturbance in these areas and would reduce impacts to paleontological resources to a greater extent than Alternative A.

More acres of PFYC Classes 4 and 5 would be in OHV closed areas, ROW avoidance and exclusion areas, areas unavailable/not suitable for grazing, and areas managed as VRM I and II and SIO Very High than under Alternative A (see Tables 3-3 through 3-6). Additional acreage of PFYC 4 and 5 in these types of management areas would provide reduced impacts as described in Section 3.4.1.2.1.

Fuels and fire management under Alternative D would require more collaboration with the BEC and incorporation of Traditional Indigenous Knowledge than under Alternative A. This may include using more traditional Indigenous methods for fire suppression and for fuels reduction, as well as an increase in prescribed fire. The increase in prescribed burning could result in damage to paleontological resources from fires, but Indigenous burning methods would likely result in less surface disturbance from heavy machinery used during burning and firefighting activities.

3.4.1.2.6. Impacts under Alternative E

Under Alternative E, on-site surveys of paleontological resources would be conducted for all discretionary actions that have the potential to impact paleontological resources, which would likely require more studies and result in expanded knowledge of the paleontological resources in BENM. Additionally, Alternative E would require restoration of paleontological resources in collaboration with the BEC due to the Traditional Ecological Knowledge requiring that paleontological resources be left undisturbed; any work done involving fossils would not be extractive. These practices would retain the scientific and cultural integrity of paleontological resources by minimizing or eliminating unnecessary disturbance by discretionary actions. Because avoidance of fossil extraction would result in paleontological resources being exposed to the elements indefinitely, this would result in eventual erosion and may result in vandalism or destruction of paleontological resources. Moreover, physical barriers to separate the public from paleontological resources or areas with the potential for new paleontological resources may result in fewer discoveries due to limited scientific exploration, and possibly reduced public appreciation.

Vegetation management would emphasize natural process and Traditional Indigenous Knowledge and would only use mechanical methods for vegetation management when necessary to protect BENM objects. The limited use of machinery would help protect unknown paleontological resources from damage, and the emphasis on natural processes could result in reduced erosion and exposure and damage of paleontological resources.

Under Alternative E, landscape-level Management Zones would be used to manage visitation and other recreation uses in a manner that would protect BENM objects. This management would use increased permitting and restrictions on group sizes as well as limitations on dispersed camping, and visitors would be encouraged to hike on trails, which would help reduce recreation impacts to paleontological resources throughout the Monument. Alternative E would manage more acreage as ACECs, RNAs, WSRs, and WSAs than Alternative A, which would reduce surface disturbance in these areas and would reduce impacts to paleontological resources to a greater extent than under Alternative A. Additionally, management under Alternative E would not allow any new trails to be developed in Shay Canyon or other areas with significant paleontological resources, reducing impacts to these resources as described in Section 3.4.1.2.1.

Under Alternative E, the addition of climbing bolts, anchors, or fixed gear on new climbing routes would require approval from the agencies, who would work collaboratively with the BEC. This approval process would result in reduced impacts to the unique geological features identified in Proclamation 10285 compared to Alternative A.

More acres of PFYC Classes 4 and 5 would be in OHV closed areas, ROW avoidance and exclusion areas, areas unavailable/not suitable for grazing, and areas managed as VRM I and II than under Alternative A (see Tables 3-3 through 3-6). Additional acreage of PFYC 4 and 5 in these types of management areas would provide for reduced impacts as described in Section 3.4.1.2.1.

Fire and fuels management under Alternative E would be similar to Alternative D with the same impacts as described in Section 3.4.1.2.5.

3.4.1.2.7. Impacts under the Proposed Plan

Management of paleontological resources under the Proposed Plan would be most similar to management under Alternative E with the following differences. Under the Proposed Plan, the collection and curation of paleontological resources would be permitted in accordance with applicable law, but only in collaboration with the BEC. Agencies would minimize collection and curation to only those cases where paleontological resources are threatened by potential impacts, and the collection opportunities would be identified in collaboration with the BEC with stipulations on excavation permits that account for Traditional Ecological Knowledge and cultural values. This would retain the scientific and cultural integrity of paleontological resources by minimizing or eliminating unnecessary disturbance by discretionary actions. Limitations on fossil collection may result in some paleontological resources being exposed to the elements indefinitely, which would result in eventual erosion and may result in vandalism or destruction of paleontological resources; however, the permitted collection, curation, inventories, and surveys would likely result in additional studies and expanded knowledge of the paleontological resources in BENM.

Collaboration with the BEC in the implementation of these management actions would likely result in expanded understanding of Tribal Ecological Knowledge as it relates to paleontological resources.

Vegetation management would be the same as Alternative D and would result in the same impacts to paleontological resources as those described under Alternative D.

Under the Proposed Plan, recreation would be managed similarly to Alternative E, with the addition of Management Areas that would provide additional management actions to protect paleontological resources from specific recreational uses. Impacts from recreation would be similar to those described in Section 3.4.1.2.6.

More acres of PFYC Classes 4 and 5 would be in OHV closed areas, ROW avoidance and exclusion areas, areas unavailable/not suitable for grazing, and areas managed as VRM I and II than under Alternative A (see Tables 3-3 through 3-6). Additional acreage of PFYC 4 and 5 in these types of management areas would provide for reduced impacts as described in Section 3.4.1.2.1.

Fire and fuels management would be similar to Alternative E. This management would include using more traditional Indigenous methods for fire suppression and for fuels reduction, as well as an increase in prescribed fire. The increase in prescribed burning could result in damage to paleontological resources from fires, but Indigenous burning methods would likely result in less surface disturbance from heavy machinery used during burning and firefighting activities.

3.4.1.2.8. Cumulative Impacts

The cumulative impacts analysis area for paleontological resources consists of BLM, NFS, and NPS lands, as well as state, Tribal, county, and privately owned lands surrounding the Planning Area. Ongoing and planned actions in and near the Planning Area would influence the effectiveness of the management of paleontological resources on a regional scale (Appendix J). The time frame for cumulative environmental consequences for future actions is the life of the Proposed RMP/Final EIS.

The cumulative impacts of past and present management actions to paleontological resources in the Planning Area are captured in the description of the affected environment (Section 3.4.1.1). Impacts include destruction or loss of paleontological resources and unique geological features through ground disturbance associated with development projects, livestock grazing, and OHV use, as well as recreation use and associated vandalism and unauthorized collection of resources.

Reasonably foreseeable future actions (RFFAs) in BENM have the potential to cumulatively impact paleontological resources or unique geological features through ground disturbance that could directly impact these resources. Projects listed in Appendix J that could impact these resources include Flats Water Wells and Kane Fence, Beef Basin and Dark Canyon Plateau Range Improvements, Mancos Mesa Right-of-Way Access, the Goosenecks Campgrounds and Trails project, and the Cottonwood Wash bridge replacement project. In addition, future improvement projects, such as House on Fire Trailhead, Bluff River Trail, Salt Creek Trail Reconstruction, Goosenecks and Hamburger Rock Campgrounds, and Utah Back Country Pilot Association Dark Canyon Airstrip could draw more visitors, increasing visitation to known or currently undocumented paleontological resources and result in increased recreation-related impacts.

Actions taken outside BENM include federal and state-funded hazardous fuels reduction, prescribed fire, habitat enhancement, range improvement, and recreation projects on NFS and BLM-administered lands. Projects listed in Appendix J that are near BENM (e.g., TY Cattle Company wells, Utah Department of Transportation (UDOT) Bluff material site, Aneth d-212X oil and gas wells, Cave Canyon water wells, Red Canyon water wells, Summit Operating pipeline, Cactus Park project, Lockhart Allotment range improvements, Horse Canyon reservoir and water tank, Black Steer reservoir, Daneros Mine expansion, and San Juan River side channel restoration) could impact paleontological resources through disturbance, depending on the geological units involved and whether paleontological resources are present. Continuation of management prescribed in the 2020 ROD/MMPs, 2008 Monticello RMP, 2008 Moab RMP, and 1986 Manti-La Sal LRMP will continue to guide paleontological resources management on lands bordering BENM and would provide for the protection of paleontological resources during implementation of projects.

Proposed paleontological resource management activities under the action alternatives would contribute to the cumulative effects of regional paleontological management. Beneficial direct, indirect, and cumulative impacts to paleontological resources and unique geological features could result from management decisions that restrict surface-disturbing activities, establish areas as special designations, conserve important specimens in publicly accessible museum collections, and inventory sites that facilitate mitigation and avoidance. Conversely, adverse cumulative impacts could result from the incremental loss of paleontological resources, unique geological features, and the associated irretrievable loss of scientific information over time because of ground disturbance, vandalism, and unlawful collection.

3.4.2. Soils and Biological Crusts

3.4.2.1. AFFECTED ENVIRONMENT

Soils play a key role in the ecology of BENM; soils provide physical support for plants, cycle and supply nutrients for plants, regulate the water cycle, store carbon, and provide habitats for many living organisms. In addition to providing vital ecological functions on the Monument, according to the 2022 BEITC LMP, some soils are also used for sand paintings by some Tribes.

This variety of environments in the Planning Area has led to a wide range of soil textures, characteristics, and densities, which are significantly influenced by the underlying geology and climate. Deep soils predominate in mountainous and alluvial regions, and shallow soils are

common along exposed rock formations. Natural Resources Conservation Service (NRCS) soil taxonomy orders mapped within the Planning Area consist of Alfisols, Aridisols, Entisols, and Mollisols (Appendix A, Figure 3-3). Table 3-7 (see Appendix N) shows the soil map units and acreage in the Planning Area within BLM-administered lands. Table 3-8 (see Appendix N) provides soil map units and acreages within the NFS lands of the Planning Area.

The NRCS provides ratings for soil susceptibility to degradation from disturbance (Site Degradation Susceptibility Rating [SDSR]) (NRCS 2022). The majority of the Planning Area mapped for SDSR falls within the “highly susceptible” (30%) and “moderately susceptible” categories (39%). Sensitive soils in the Planning Area are those that were previously degraded or have characteristics that make them susceptible to erosion. In the Planning Area, these include soils that are droughty (marked by little or no precipitation or humidity), shallow, hydric (soils permanently or seasonally saturated by water), at high risk of wind or water erodibility, low erosion tolerance, acidic, gypsiferous (soils containing sufficient quantities of gypsum to interfere with plant growth), desert pavement, saline, and high calcium carbonate (calcareous) (NRCS 2023). BSCs comprise cyanobacteria, lichens, and mosses and play a crucial role in reducing erosion and supporting ecosystem health. BSCs are sensitive to disturbance, and recovery depends on the severity, size, frequency, and timing of the disturbance.

High soil susceptibility to degradation, decreased soil stability, and reduced litter cover increase the risk of soil erosion and reduced soil productivity, and these areas may be more vulnerable to disturbance and require additional protection measures to minimize impacts. Agencies use terrestrial AIM data points compared to expected biophysical setting (BPS) to inform current landscape and soils health within BENM. See Appendix A, Figures 3-16 through 3-23; Table 3-10 in Appendix N; and Appendix K for more details on AIM data. The proportion of areas meeting expected BPS for bare soil cover range from 35.7% to 100% (see Appendix N, Table 3-10) depending on BPS with small areas of increase in bare soil cover in the southern portion of the Planning Area. The proportion of total litter cover observations meeting expected BPS conditions range from 21.4% to 100% (see Appendix N, Table 3-10) with scattered areas of decreased litter cover throughout the Planning Area. The proportion of soil stability observations meeting expected BPS conditions ranged from 50% to 100% (see Appendix N, Table 3-10) with specific areas within the Monument having higher concentrations of BSC (see Appendix N for details).

Ongoing disturbance to soils associated with recreation include use of trails and campgrounds, OHV use, dispersed camping, events, staging areas, and recreational facilities. Ongoing disturbance to soils from livestock grazing activities include water developments, range improvements, and cattle movement.

See Appendix N, Tables 3-11 through 3-14 for additional context concerning bare soil cover; litter cover; soil stability; and cyanobacteria, lichen, and moss cover, respectively. See Appendix K for more information on AIM data.

3.4.2.2. ENVIRONMENTAL CONSEQUENCES

3.4.2.2.1. Impacts Common to All Alternatives

Generally, the greater the size of the area and/or the more ground-disturbing activities that are authorized, the greater the potential impact to soil resources from activities such as vegetation removal, soil excavation, and construction of impermeable facilities. The loss of natural soil structure and function can create a feedback loop that further compounds losses of native vegetation cover, topsoil, and soil productivity through time. Areas that remain open to ROW authorization have the greatest potential for ground-disturbing activities, ROW exclusion areas

would be subject to the fewest potential ground-disturbing activities, and ROW avoidance areas have potential for greater impacts to soil resources than exclusion areas. Ground-disturbing activities would be expected to have a greater level of impact to sensitive soils and BSCs or areas identified as having a moderate or high soils degradation susceptibility rating or lower soil aggregate stability than to non-sensitive soil types.

Recreation can cause localized impacts to soil resources and indirect impacts across the landscape. Hiking, biking, camping, and OHV use cause soil compaction, vegetation trampling, habitat fragmentation, increased spread of invasive and non-native plant species, and increased soil erosion (Switalski 2018). As hiking and camping become more popular, trail and campsite widening can occur, magnifying erosion and increasing an area's depth of soil disturbance. In BENM, mechanized non-motorized use (e.g., biking) would be limited to routes designated as OHV limited, which could limit impacts to sensitive soils from that use. Dispersed camping has a higher likelihood of impacting soil resources due to uninformed travel outside designated camping areas and beyond designated OHV routes.

OHVs can damage soils and cause ruts, soil compaction, increased erosion, increased frequency of dust storms, and sedimentation of waterways. Areas that are designated as OHV closed would have no OHV-related soil impacts. Areas where OHV travel is limited to designated routes would have some soil impacts, but those impacts would be limited to designated routes where disturbance has occurred previously. There are no areas in the Monument designated as OHV open under any alternative. Similar to other forms of recreational use, the use of OHVs on public lands can expand beyond authorized and managed zones and result in increased soil resource impacts. Without adherence to designated routes, OHV use also can lead to greater vegetation and soil disturbance than hiking and biking, owing to OHV weight and travel speed. Closing areas to OHV use can result in increased concentration of OHV use in other areas, concentrating impacts to soils in these areas.

Special designation areas, including wilderness areas, WSAs, and ACECs, would generally have protective impacts to soil resources compared with areas that lack special designation, due to restrictions on surface-disturbing activities. ACECs would be managed according to their special management (see Section 3.4.9) but would generally have some restrictions on ground-disturbing activities that would destabilize soils or decrease soil productivity.

Grazing would be permitted for permit holders under all alternatives. Proclamation 10285 requires that, pursuant to the processes of applicable law, additional acres be retired from livestock grazing if permit holders voluntarily relinquish their leases or permits. Additional acreage being made unavailable for grazing through such retirements would provide more protection for soil resources. Livestock impacts to soil resources vary depending on the intensity and duration of grazing, range site potential, local climate and weather conditions, and seasonal timing of use. Improper grazing can cause vegetation loss, loss of BSC, increased nutrient loading, soil compaction and destruction of soil structure, and increased erosion. Disturbance from livestock grazing can destroy the structure of BSCs and has been linked to reductions in carbon storage and exchange, reduced water infiltration, reduced nutrient cycling, and increased erosion and can cause an overall decrease in BSC cover and diversity (Bowker et al. 2013; Concostrina-Zubiri et al. 2014; Neff et al. 2005; Wang and Fang 2009). Construction of rangeland improvements would cause ground disturbance and compaction or displacement of soils; however, range improvements could help reduce impacts from livestock grazing by concentrating impacts in localized areas (Holecheck et al. 2001). Sensitive soil types, such as BSCs, would generally be more susceptible to physical impacts from livestock trampling or rangeland improvement construction activities than non-sensitive soil types.

All alternatives include management direction to mitigate the impacts of grazing and to emphasize sustainable, healthy rangelands. Management direction would emphasize meeting BLM and USDA Forest Service standards in a manner that is consistent with the protection of BENM objects, including sensitive soils and BSCs.

Restoration activities to move vegetation toward desired conditions would generally support long-term protection of soils from erosion and restoration of soil structure, function, and productivity. Vegetation management activities that cause ground disturbance or remove or change vegetation structure could cause short-term impacts to soil, leading to a temporary increase in the soil erosion potential, compaction, or changes to soil structure. If heavy equipment is required for treatments, this equipment could further disrupt ground cover and compact or disturb soil surfaces (Miller et al. 2004). These impacts would likely be short term because soils would be expected to stabilize as native or desired vegetation structure is established and natural soil protection (such as vegetation debris built up along soil surfaces) accumulates. Climate warming-induced changes such as longer and more severe drought and intensified hydrological regimes are likely to impact vegetation establishment and recovery and may extend recovery timelines. Impacts to sensitive soils would likely be amplified depending on the nature of vegetation management activities. For example, some biotic soil organisms are sensitive to herbicide application (Von Reis and Clarke 2015) and very sensitive to any ground disturbance (Belnap et al. 2006); they also can be damaged by fire (Johansen 2003).

Wildland fires cause complex impacts to soil resources that involve nutrient cycling dynamics, changes to water infiltration and runoff, and erosion susceptibility (Martin and Moody 2001; Moody et al. 2008; Moody and Martin 2009). Loss of vegetation cover and structure from high-severity burns dramatically decreases soil cover, exposing soils to wind and water erosion, destabilizing soils, and increasing mass wasting susceptibility. Fires also cause changes to soil chemistry and structure, which impact soil productivity and hydrologic function, including development of temporary hydrophobicity and impeded infiltration (Woods et al. 2007).

Fire prescriptions, fuels management, and fire suppression can minimize or mitigate some of these soil resource impacts from high-intensity fires by reducing the potential for severe fires; however, these activities can cause some short-term impacts to soils, such as soil compaction or displacement from surface-disturbing fire suppression tactics or fuels treatments and altered soil chemistry from chemical retardants. BMPs would mitigate these impacts by maintaining groundcover and building fire lines where possible to minimize erosion, conducting prescribe wildfires in a way that minimizes residence time on soil such as when soils are moist, and using broadcast burning rather than dozer piles to prevent excessive heat transfer to soil.

Timber and wood product harvest can impact soils due to the use of heavy machinery that can cause soil compaction and remove or mix soil organic matter, which can reduce nutrient cycling and water infiltration capabilities. Wood collection can remove beneficial vegetation and litter cover potentially causing increased erosion; however, it may also help reduce fuel loads, reducing the risk of uncharacteristic wildfire, the adverse effects of which are discussed below.

Sensitive soils are generally more susceptible to ground-disturbing activities with amplified impacts from surface disturbance. BSCs are fragile and extremely susceptible to physical disruption from foot traffic, grazing, OHVs, and mechanized equipment, which destabilize surface soils. BSCs remain challenging to restore (Bowker 2007). All alternatives would seek to protect highly sensitive soils (i.e., soils highly susceptible to erosion) and BSCs.

Impacts from ground-disturbing activities to soil resources can be mitigated through applicable stipulations or measures that address site-specific environmental concerns. Restorative activities

conducted in disturbed areas, including reclamation or restoration of natural soil surface or subsurface features, vegetation and forest communities, and geomorphology, have the potential to improve soil ecological function and prevent further soil loss or degradation. All alternatives would seek to promote sustainable soil functions and interactions with all other resources on the Monument and maintain or improve soils to a suitable level of functionality, with soil properties appropriate to site-specific climate and landform, and to the total functional composition of soils on the Monument. These efforts would include agency collaboration with the BEC to reduce erosion, identifying areas with BSCs, and/or seasonal or permanent closures to protect BSCs. In addition, the alternatives would seek to protect all other resources that depend on the soils as part of the healing landscape of the Monument.

3.4.2.2.2. Impacts under Alternative A

Under Alternative A, current management of soils would continue under the 2020 ROD/MMPs, the 2008 Monticello RMP, the 2008 Moab RMP, and the 1986 Manti-La Sal LRMP. The conditions and trends for soils as summarized in Section 3.4.2.1 would be expected to continue along similar trajectories. Alternative A, while promoting sustainable soil functions and protecting highly sensitive soils, would generally focus management actions on maintaining soil productivity for multiple uses.

The agencies would continue to manage approximately 734,447 acres as open to ROW authorization and SUP authorization (USDA Forest Service). Impacts to soils from ROW activities, as described in Section 3.4.2.2.1, would continue in these areas. Under current management plans, the agencies would continue to manage 449,283 acres as ROW exclusion areas and 180,329 acres as ROW avoidance areas. Soil erosion and disturbance would continue to be reduced in these areas, thus maintaining soil health and function more effectively than in areas open to ROW authorizations.

Under Alternative A, 436,075 acres would continue to be closed to OHV travel, and OHV travel would be limited to designated routes on 928,080 acres. Soil erosion and disturbance as a direct result of recreational uses would be reduced in the areas closed or limited to OHV travel.

The BLM would continue to manage 1,186,735 acres as extensive recreation management areas (ERMAs) or SRMAs, the highest amount of any alternative, which would indirectly protect soil resources due to the focus on maintaining and enhancing desired physical recreation setting characteristics (RSCs). The BLM would manage 411,467 acres as ACECs, WSAs, or WSRs, which would result in restrictions on surface-disturbing activities from ROW authorizations and wood product use. Under Alternative A, 48,954 acres of LWC would be managed to protect those characteristics, the least amount of any alternative. Restrictions on surface-disturbing activities within those lands would protect soils from impacts as discussed in Section 3.4.2.2.1.

The agencies would continue to manage 1,223,820 acres as available/suitable for livestock grazing, the most of any alternative, and 140,186 acres would be unavailable/not suitable or for trailing only. Impacts to soils from grazing, as described in Section 3.4.2.2.1, would be expected to continue in areas open to livestock grazing.

Under Alternative A, 648,392 acres would be closed, and 715,667 acres would be open to wood product harvest. Restricting harvesting and stipulating BMPs would contribute to protecting soil resources by limiting ground disturbance.

Highly susceptible soils or soils with high bare soil cover, low litter cover, or with BSC occurrence (Appendix A, Figures 3-4 through 3-6) would be at an increased risk of losing soil function and health because of ground-disturbing activities.

3.4.2.2.3. Impacts under Alternative B

Alternative B would allow for fewer soil-disturbing uses throughout the Monument, allowing for more soil protection than under Alternative A. Although Alternative A focuses on maintaining soil productivity, Alternative B would focus on sustainable soil functions based on site-specific conditions and protecting sensitive soils and BSCs.

No surface-disturbing activities would be allowed on slopes greater than 40%, which is the same prohibition as Alternative A; however, under Alternative B, exceptions to this rule could only occur if activities would be consistent with the protection of BENM objects and would require an erosion control plan if discretionary actions could not be avoided on slopes between 21% and 40%. These measures would contribute to minimizing the susceptibility of soils to wind and water erosion and the loss of soil function associated with land management activities.

Under Alternative B, 682,639 more acres would be in ROW avoidance or exclusion than under Alternative A. This increased acreage in avoidance or exclusion areas would allow for reduced soil erosion and disturbance and would manage for increased soil health and function to a greater extent than Alternative A.

Alternative B would manage 130,552 more acres as closed to OHV travel than Alternative A, which would reduce impacts as discussed in Section 3.4.2.2.1. Additionally, these closures would make accessing areas of the Monument more difficult, helping to protect soil resources in the areas proximate to the closures. Closing previously designated OHV limited areas would reduce vehicular traffic and limit impacts to soils to a greater extent than under Alternative A but could concentrate impacts from OHV use elsewhere in the Monument.

A total of 412,054 acres would be managed as ACECs, WSAs, or WSRs under Alternative B (587 more acres than Alternative A). Additionally, under Alternative B, 97,403 acres of LWC would be managed to prioritize the protection of those characteristics, almost twice the amount as Alternative A. Increasing acreage of these special designations would reduce impacts as described in Section 3.4.2.2.1.

In addition to the acres that would be unavailable/not suitable for grazing under Alternative A, 28,027 additional acres would be unavailable/not suitable for grazing under Alternative B. Acreage unavailable/not suitable for grazing would protect soils from impacts as discussed in Section 3.4.2.2.1.

Under Alternative B, 215,243 additional acres would be open to wood product harvesting compared to Alternative A. Additional acreage open to wood product harvest would potentially increase impacts as described in Section 3.4.2.2.1.

3.4.2.2.4. Impacts under Alternative C

Management of soil resources under Alternative C would have the same goals and objectives as Alternative B and would allow for fewer soil-disturbing uses throughout the Monument than under Alternative A. Under Alternative C, no discretionary actions would be allowed on slopes greater than 35%, and discretionary actions on slopes between 21% and 35% would require erosion control

plans. These measures would contribute to minimizing the susceptibility of soils to wind and water erosion and the loss of soil function associated with land management activities.

Under Alternative C, 5,478 more acres would be managed as ROW avoidance or exclusion than Alternative A. This increased acreage in avoidance or exclusion areas would allow for reduced impacts to soil resources as described in Section 3.4.2.2.1. Alternative C would manage 664,030 acres as closed to OHV travel, the second most of any alternative. Managing more acres as closed to OHV travel would reduce impacts as discussed in Section 3.4.2.2.1. Additionally, closing previously designated OHV limited areas would reduce vehicular traffic and limit impacts to soils to a greater extent than Alternative A. The number of acres managed as SRMAs, ERMAs, recreation management zones (RMZs), ACECs, WSAs, WSRs, and LWC managed to protect those characteristics would be the same as under Alternative B with the same impacts to soils as described in Section 3.4.2.2.3. Impacts of livestock grazing would be the same as Alternative B. Acreage open and closed to wood product harvest under Alternative C would be the same as Alternative B, and impacts to soils would be the same as described in Section 3.4.2.2.3.

3.4.2.2.5. Impacts under Alternative D

Alternative D would manage soils with the same goals and objectives as Alternatives B and C with similar impacts to soils as described in Sections 3.4.2.2.3 and 3.4.2.2.4 with the following exception. Under Alternative D, no discretionary actions would be allowed on slopes greater than 30% unless necessary to protect BENM objects. Additionally, if discretionary actions could not be avoided on slopes between 21% and 30%, an erosion control plan would be required. These measures would contribute to minimizing the susceptibility of soils to wind and water erosion and the loss of soil function associated with land management activities to a greater extent than any other alternative.

Alternative D would manage more acreage as ROW exclusion and avoidance, closed to OHV travel, as LWC, and unavailable/not suitable for grazing (see Table 2-1) compared to Alternative A, which would greatly reduce the impacts to soils as described in Section 3.4.2.2.1 compared to Alternative A. Alternative D would use Management Areas to designate recreational areas that may impact soils, therefore reducing potential impacts outside of these areas; this alternative may result in more overall potential impacts to soil resources. Acreage open and closed to wood product harvest under Alternative D would be the same as Alternative B, and impacts to soils would be the same as described in Section 3.4.2.2.3.

3.4.2.2.6. Impacts under Alternative E

Alternative E would focus on ecosystem functioning and a return to natural states with regard to soil management. Alternative E would emphasize Traditional Indigenous Knowledge and Tribal policies and guidelines, peer-reviewed literature based on the best available Western science, and BMPs, including Traditional Indigenous Knowledge, to restore BSCs. This could introduce new management techniques that could benefit soils that are not typically considered under typical Western management.

Alternative E would manage more acreage as ROW exclusion and avoidance, closed to OHV travel, and as LWC (see Table 2-1) compared to Alternative A, greatly reducing the impacts to soils as described in Section 3.4.2.2.1 compared to Alternative A.

Under Alternative E, landscape-level Management Zones would be used to manage visitation and other recreation uses in a manner that would protect BENM objects. Approximately 98% of BENM would be in the Outback Zone and Remote Zone. These zones would provide a natural and self-

directed visitor experience, and limited development of recreation facilities could result in more dispersed recreation, reducing concentrated impacts to soils but potentially dispersing impacts from visitors throughout the Monument.

Acres unavailable/not suitable for grazing would be the same as Alternatives B and C; however, additional guidance under Alternative E, including prioritization of review and processing of grazing permits and leases; identifying subareas of allotments necessary for closure; reassessment of stocking levels and season of use; and identifying resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources, would provide additional protection to soils from grazing.

Alternative E would allow less mechanical vegetation management, which would reduce the impacts these can have on soils. Commercial harvest would only be allowed on NFS lands if deemed necessary to protect BENM objects, greatly reducing the amount of commercial harvest and the resulting impacts to soil resources from heavy machinery and road construction used for harvesting. The acreage of areas open and closed to wood product harvest would be determined by collaboration between the agencies and the BEC and would include adaptive management strategies. Adaptive management may reduce impacts to soil resources by allowing managers to make decisions that protect these resources if needed.

3.4.2.2.7. Impacts under the Proposed Plan

Soil management goals and impacts to soil resources under the Proposed Plan would be similar to those under Alternative E. Under the Proposed Plan, more acreage would be managed as ROW exclusion and avoidance areas, closed to OHV travel, managed to protect LWC, and unavailable/not suitable for grazing (see Table 2-1) compared to Alternative A, reducing the impacts to soils as described in Section 3.4.2.2.1. The Proposed Plan would manage 5,477 acres as ROW open areas, and impacts to soils from ROW activities, as described in Section 3.4.2.2.1, would occur in the ROW open areas.

The Proposed Plan would use the same landscape-level Management Zones as Alternative E (with differing acreages allocated to these zones; see details in Section 2.4.20.3) with similar impacts to soils as those described in Section 3.4.2.2.6. In addition to the management described for Alternative E, the Proposed Plan would also allow lands not identified in the Management Zones to be designated as Management Areas based on intensity of use and the need to protect BENM objects, which could help reduce the impacts of recreation to soils if needed in the future. Additionally, the Proposed Plan would designate areas within the Management Zones as Management Areas based on specific uses and the need to protect BENM objects, which could allow for additional protection to sensitive soil resources.

Under the Proposed Plan, 859,983 acres would be open and 504,076 acres would be closed to wood product harvest, 144,316 more acres open to wood product harvest than Alternative A. Impacts to soils from wood product harvest would be similar to those described in Section 3.4.2.2.1. Vegetation management under the Proposed Plan would be similar to management under Alternative D, with similar impacts to soils as those described in Section 3.4.2.2.5.

3.4.2.2.8. Cumulative Impacts

The cumulative impacts analysis area for soil resources consists of BLM-administered lands, NFS lands, NPS lands, and adjacent state, Tribal, county, and privately owned lands surrounding BENM. It also considers historical events and activities, ongoing trends, and RFFAs. The analysis considers

the combination of human activities, natural events, and exacerbating effects associated with climate change (see Appendix J).

There are expected to be ROW grants or leases associated with infrastructure development projects in the future. Any ongoing or proposed ROW development projects (see full list in Appendix J) would increase the total footprint of disturbed soils within the Planning Area, which would have an additive effect from any vegetation removal and manipulation, grading, excavation, and soil displacement. Effects would include the temporary loss of soils through erosion and decreased soil productivity.

Recreation and visitor use are expected to increase in the future. The activities identified as having growth potential include hiking, backpacking, mountain biking, OHV use, and applications for special recreational permits and recreational use permits. Although the projects described in full in Appendix J would increase localized disturbance, they may disperse visitors out of other areas and limit soil disturbance to those areas authorized for specific recreational impacts. Impacts from all these activities would primarily be localized to existing and established trails and routes; therefore, losses to soil resources would be limited to those areas. Travel outside designated or existing routes and creation of social trails have occurred, however, and would likely occur within the Decision Area, further expanding the footprint of soil disturbance and the potential for soil erosional losses.

Trends in livestock grazing would depend on several environmental factors; however, the agencies would continue to administer rangeland health evaluations to ensure no substantial loss of soil productivity occurs in response to changes in range management. Planned allotment range improvements such as within the Lockhart (0.25 acre), Indian Creek (2.5 acres), Slickhorn (0.75 acre), and Lake Canyon Allotments (3.8 acres), is expected to improve livestock distribution, which would potentially improve overall rangeland health on these allotments.

Vegetation communities are expected to be strongly impacted by climate change, increased frequency and intensity of fires, insect and disease outbreaks, weed infestations, and ongoing drought conditions. Some vegetation communities are projected to drastically change in response to these changes, including shifts in evergreen forests and expansion of grassland communities in some areas. Any dramatic shifts in vegetation community structure, as would occur in response to catastrophic fires and landslides, would be accompanied by soil instability and erosional losses until landscapes reach equilibrium under new vegetation communities. Vegetation treatments aimed at reducing hazardous fuels and undesirable vegetation would be aimed at creating more resilient landscapes with more stable soil surfaces that are less prone to erosional losses and mass wasting. Prescribed fire treatments will be implemented by the USDA Forest Service within two areas of the Monument through the North Elk Ridge Forest Health Project (approximately 12,700 acres) and the Mormon Pasture Mountain Wildlife Habitat Improvement Project (1,915 acres) to reduce continuity of existing vegetative fuels within ponderosa pine and aspen-mixed conifer forests. These projects will have short-term adverse impacts to soils but are expected to have a long-term beneficial impact to the ecosystem and soils by decreasing the likelihood of larger, catastrophic wildfires within those areas of the Monument.

3.4.3. Water Resources

3.4.3.1. AFFECTED ENVIRONMENT

The Planning Area is located within the Upper Colorado River Basin. It crosses four HUC 8 subbasins (Table 3-15) and includes 115 HUC 12 watersheds (see Appendix I, Table I-1). The subbasins and acreages within the Planning Area are included in Table 3-15 of Appendix N and are

represented by Figure 3-7 in Appendix A. See Appendix I, Table I-1 for a list of HUC 12 watersheds, total acreage, and percentage of HUC 12 watersheds within the Planning Area.

Several major rivers run along the boundaries of the Planning Area. The largest are the Colorado River on the northwestern boundary and the San Juan River on the southern boundary of the Planning Area; both rivers feature in aspects of Hopi history and geography (see Appendix L). As described in the 2022 BEITC LMP, Indigenous peoples value water as the foundation of life, a living entity that must be protected in all forms. Indigenous people have not only a physical reliance on the water in BENM, but also a spiritual connection, believing that natural sources of water are where spiritual beings reside. Additionally, waterbodies and the features they have created within BENM define the Tribal homeland and serve as a connection to Tribal history and culture.

Many stream segments in the Planning Area have intermittent (flowing more than 30 days in a row) to perennial (year-round) flows. Base flows in these stream segments are primarily fed by groundwater via springs and seeps and may be augmented by ephemeral streams after snowmelt and during runoff from rain events. Ephemeral streams add water, sediments, and nutrients during precipitation and flash flood events to intermittent and perennial streams. This can affect water quality and habitat conditions for fish and wildlife. Ephemeral streams contribute to groundwater recharge, which helps sustain perennial stream flow during dry times. Instream flow has been measured in a subset of streams and rivers throughout the Planning Area. Table 3-17 in Appendix N lists historical and active U.S. Geological Survey (USGS) stream flow monitoring stations and stream gauges in the Planning Area.

The BLM participates in a cooperative program with the UDWQ to sample sites for water chemistry and biotic components. Table 3-18 in Appendix N identifies the assessment units in the Planning Area boundary and any identified impairments to water quality standards. The UDWQ and EPA operate and maintain several monitoring wells on BLM-administered lands near the White Mesa Mill, a uranium mill south and east of the Planning Area, and have documented groundwater contamination of trace metals adjacent to the mill and dissolved-uranium concentrations consistent with the expected range for naturally occurring uranium with the exception of samples taken from Entrance Spring and Mill Spring (USGS 2012). Water samples collected from Entrance Spring contained the highest median uranium concentrations relative to water samples collected and also contained elevated concentrations of selenium and vanadium (Energy Fuels Resources [USA] Inc. 2023; USGS 2012).

The BENM Planning Area is located within the Upper Colorado River Basin, where salinity is a regional and national concern. The primary nonpoint source of salinity in the Planning Area is runoff from saline soils and erosion and transport of saline soils during flow events. The BLM is currently collaborating with the USGS (2019 to present) on a sediment transport model to estimate water quality conditions related to BLM management and sediment runoff as part of the Upper Colorado River Basin Salinity Program.

Recreational use in BENM interacts with water resources. Detailed water sampling of turbidity and hydrocarbon levels was conducted as part of a monitoring program for vehicle recreation permits. Increases in turbidity were observed on the day of the sampled vehicle recreational event but returned to pre-event levels the next day. Petroleum hydrocarbons were detected after several events. Analysis of other water quality indicators shows no evidence of their being influenced primarily by the recreational events. Arch Canyon is a large watershed that captures and funnels water downstream, particularly from high-intensity monsoon rainstorms. These periodic high stream flow events and resulting flash floods are the greatest influencing factor in Arch Canyon that scours the drainage system and resets riparian habitats. These high-intensity floods limit the potential for successful and lasting low-tech process-based restoration techniques in Arch Canyon.

The designated road and subsequent OHV use in Arch Canyon is a minor influence on drainage functionality in relation to these scouring floods. Past road realignments were designed to limit flood influences and reduce impacts to potential beaver habitat, which is limited to the lower canyon corridor where there is perennial water.

The BLM has implemented the National Aquatic Monitoring Framework (Miller et al. 2015). As part of the AIM Strategy, this framework provides the BLM with a consistent standardized methodology for collecting and analyzing data and to inform management decisions on permitted land uses based on watershed health. Thirty unique reaches in and adjacent to BENM were selected for sampling with a total of 26 sampling events occurring between 2014 and 2022. Eleven indicators were selected for the assessment to describe the physical habitat of the stream and water quality (see Appendix K, Table K-1).

The USDA Forest Service established the Watershed Condition Framework in 2010 to provide a consistent and comparable process for assessing watershed health. A watershed is considered to be functioning properly if the physical attributes are appropriate to maintain or improve biological integrity. Within BENM, the USDA Forest Service assessed watersheds in 2010 and 2021. Final watershed condition scores are summarized in Table 3-19 in Appendix N. The USDA Forest Service has internal programs to improve watersheds by eradicating invasive species, increasing water resources to indigenous species, improving the natural habitat of fauna, and increasing the overall condition of these watersheds.

Wetland and riparian areas are often used as indicators of overall land health and watershed conditions because they are often some of the first landscape features to reflect impacts from management activities. Based on the National Wetlands Inventory data, there is approximately 1,728 acres of Palustrine and Lacustrine wetlands within the Planning Area (USFWS 2022) (Table 3-20 in Appendix N) and approximately 5,017 acres of riparian habitat mapped within the Planning Area (Table 3-21 in Appendix N; Appendix A, Figure 3-13) (LANDFIRE 2020).

To evaluate the foundation and function of riparian and wetland ecosystems, the BLM has developed the PFC assessment methodology for lotic and lentic areas (Lentic TR 1737-16 2020, Lotic TR 1737-15 2015). Assessments of PFC may use both the PFC methodology as well as quantitative data such as lotic and riparian and wetland AIM to determine condition.

A 100-year floodplain, or Special Flood Hazard Area, is defined as an area with at least a 1% probability of flooding in a given year, and a 500-year floodplain is an area with at least a 0.2% probability of flooding in a given year (Federal Emergency Management Agency 2020b). Currently, no portion of the Planning Area has been analyzed through hydrologic and hydraulic modeling to establish a Special Flood Hazard Area pursuant to the definition provided by the Federal Emergency Management Agency National Flood Insurance Program.

Shallow groundwater resources are found in unconsolidated rock alluvial aquifers in valley bottoms, especially along Indian Creek, Cottonwood Wash and the San Juan River. Alluvial aquifers are generally characterized by high transmissivities, high storage coefficients (up to 20%), shallow waters, and seasonal fluctuation of depth to water. Bedrock aquifers in the Planning Area, listed by age, include the D Aquifer (Burro Canyon Formation and the Dakota Sandstone), the M Aquifer (sandstone members of the Morrison Formation), the N Aquifer (Glen Canyon Group, including the Navajo Sandstone), the P Aquifer (the Cedar Mesa Sandstone, portions of the Rico Formation, and the upper section of the Honaker Trail Formation) and the Redwall Limestone Aquifer. The Redwall Limestone Aquifer occurs throughout most of the Planning Area but is deep with limited hydraulic conductivity and poor water quality. It is not the source of water for springs or water wells within or adjacent to the Planning Area.

The main recharge areas for the D and M Aquifers are outside the Planning Area and are recharged by infiltration of precipitation in higher elevations (i.e., above 8,000 feet) on the east side of the Abajo Mountains and to the northeast of the Planning Area. The main recharge areas for the N, P, and Redwall Limestone Aquifers are within the Planning Area and include higher elevations of the Abajo Mountains and Dark Canyon Plateau. Recharge also occurs at lower elevations where the aquifer bedrock units are exposed at the surface, especially on and west of Cedar Mesa, through fractured rock and wash bottoms. Comb Ridge has been identified as an important recharge area for the N Aquifer. The main recharge areas for the unconsolidated rock aquifers are the watersheds upstream of the aquifer areas.

The communities of Bluff, Blanding, Monticello, White Mesa, and Mexican Hat, Utah, rely on drinking water sources that are recharged by areas within the Planning Area. Four wells provide public drinking water within the Planning Area; each is permitted through the State of Utah Division of Drinking Water (UDDW) and has an approved public DWSP plan with delineated public DWSP zones. The wells that provide public drinking water within the Planning Area are two wells in NABR operated by the NPS, and the Kane Gulch Ranger Station and the Sand Island Ranger Station wells operated by the BLM.

A formal water rights agreement between the State of Utah and the United States was signed in 2010 to address federal reserved water rights in NABR, including springs, seeps, and other surface water resources. To fulfill the purposes for which the NABR was established and subject to the terms and conditions of the agreement, the United States has a federal reserved right to all naturally occurring water underlying, originating within, or flowing through NABR (which includes intermittent and ephemeral streams, springs, seeps, groundwater and other natural sources of water).

As identified in the 2022 BEITC LMP, springs are important for Indigenous people as places for prayers and offerings associated with travel and as sources of water used for religious and ceremonial purposes. The Springs Stewardship Institute (SSI) and the EPA, in partnership with the Ute Mountain Ute Tribe, conducted a field inventory of 66 springs on NFS land.

At least 78 water wells are used to support livestock grazing in the Planning Area, mainly in the Cedar Mesa area or the western portion of the Planning Area. These wells range in depth from 600 to 800 feet, and pumping rates range from 3 to 10 gallons per minute. Currently, there are 21 wells on BLM-administered lands, 48 wells on Utah Trust Lands, nine wells on private lands, and no mapped wells on NFS lands. Of the 78 wells, 50 have been drilled in the last 5 years, four of which are located on BLM-administered lands. There are proposals to drill another 10 wells on BLM-administered lands within the Planning Area. There is no comprehensive groundwater study, budget, or water well monitoring program related to water wells and groundwater withdrawals in the Cedar Mesa Sandstone Aquifer. A spring monitoring program has been initiated related to the proposed wells on BLM-administered lands.

The agencies cooperate with state and Tribal governments and comply with applicable state laws to the extent consistent with federal law to acquire, perfect, protect, and manage water rights to ensure the availability of water for public land management purposes. There are many water sources that are used for grazing purposes that do not have water right applications filed as of this date. The number of existing water rights is not reflective of actual water uses. The Utah Division of Water Rights is currently identifying future water right adjudication proceedings in the vicinity to resolve these issues. For the Planning Area, water rights for the appropriation and use of both groundwater and surface water are assigned and administered by the State of Utah. Within the Planning Area, there are 53 active water rights that the State of Utah has approved and administers.

Climatic conditions in the Colorado Plateau region are expected to undergo general warming, with an increase as much as 3.8 degrees Fahrenheit by 2060 in some locations. Average summer temperatures are expected to increase, but even greater increases are predicted for the winter months. Precipitation is expected to decline throughout much of the year during the 2015 to 2030 period (with the exception of certain months in the fall), with severe drought conditions likely to occur in some areas (Bryce et al. 2012).

The Intergovernmental Panel on Climate Change's (IPCC's) *Climate Change 2014: Impacts, Adaptation, and Vulnerability* determined that climate change impacts to water supply include decreased water availability and stress on ecosystems as a result (Romero-Lankao et al. 2014). See Appendix N for additional context concerning the affected environment related to water resources.

3.4.3.2. ENVIRONMENTAL CONSEQUENCES

3.4.3.2.1. Impacts Common to All Alternatives

Surface-disturbing activities in floodplains and riparian areas disrupt the natural protection that these areas offer to support water quality conditions and functional hydrologic processes within the Planning Area. Decreased vegetation cover and soil compaction can reduce water infiltration, leading to an increase in surface water runoff, soil erosion, sedimentation and reduced base flows in summer months due to a loss of stream bank storage. Surface-disturbing activities can change the physical characteristics of streams and other surface waterbodies through direct disturbance of stream channels or by increasing runoff from the surrounding watershed. These changes contribute to streambank erosion, increased turbidity, and degradation of water quality, potentially leading to new surface water impairments or inhibiting resolution of existing impairments.

Cottonwoods and willows (*Salix* spp.) are the most widespread native riparian vegetation in the Southwest and can be an important component of healthy functioning riparian areas (Hultine et al. 2010). Woody material from these and other native species in riparian areas provide soil and bank stability, filter sediment from runoff, and provide shade and habitat for aquatic organisms. Potential for streambank alteration and loss of aquatic habitat could occur if wood products are removed. Overharvesting of cottonwoods or willows that would result in die-off has potential to impact streambank stability, sediment loading, and stream temperature. Restrictions on cottonwood and willow harvesting across the Monument would decrease the potential for localized impacts to water resources and riparian health. Willow cuttings and plantings for restoration purposes would help restore riparian function.

Recreation activities can be focused in riparian areas because of aesthetics and the presence of water. Across all alternatives, as recreation increases in popularity throughout the Planning Area, ground disturbance from recreation activities could potentially increase and impact waterbodies through indirect sediment loading, reduced infiltration, and pollution to streams from improper camping and hiking practices. Similarly, OHV use could result in increased impacts to water resources and riparian areas. Under all alternatives, there are no designated OHV open areas; OHV travel would be allowed only in designated OHV limited areas where travel would be restricted to designated routes. Under all alternatives, impacts to water resources from OHV limited areas would include continued erosion and sedimentation from OHV use; closing areas to OHV use would eliminate impacts from OHVs to water in closed areas. As described in Section 3.4.3.1.2.1, there would be potential for impacts to water quality as a result of vehicular crossings and increased erosion and streambank modification from OHV use.

Recreation use such as hiking, camping, campfires, presence of pets, and management of human and other waste indirectly impacts water resources by potentially contributing sediment and pollutants to waterbodies within the Monument and disturbing riparian areas. Recreational water pumping and filtering from small perennial or intermittent aquatic habitats, particularly during summer months (e.g. June, July, August), can lead to decreased surface water availability and increased concentrations of pollutants in these areas. Impacts from dispersed camping may include decreased water quality conditions due to increased nutrient levels and increases in harmful bacteria such as *Escherichia coli* (*E. coli*) due to human waste disposal. High nutrient levels can affect dissolved oxygen levels; both conditions can impact aquatic habitats. Camping in riparian areas can reduce vegetation due to trampling, causing higher water temperatures due to loss of shade and soil moisture. See Appendix I for a full summary of all HUC 12 watersheds and acreage of recreation management designations.

Under all alternatives, development of ROW projects in ROW open or ROW avoidance areas would have the potential to impact water resources by increased erosion from new roads and ground disturbance. Additionally, the construction of facilities and the use of motorized vehicles during construction could lead to pollution from vehicle crossings and increase the potential for erosion. Specific impacts would be evaluated on a site-specific basis.

Under all alternatives, construction of range improvements could result in localized surface disturbance due to the digging and earthmoving required to remove vegetation and construct features. Similarly, livestock grazing near waterways could cause water quality impacts, such as increased levels of nutrients and coliform bacteria from animal manure (Hudson 2021) and harmful algal blooms, which can affect aquatic habitat and be a health concern because some water sources are used for drinking water in backcountry sites. Livestock grazing near waterbodies may also interfere with meeting state water quality standards. Intensive livestock grazing is also associated with ecological degradation of springs by groundwater extraction and overuse (SSI 2022). Livestock grazing can result in increased stream temperatures when grazing occurs in the riparian zone because these areas provide important vegetation and supply shade for streams, which can be decreased by livestock. It can also contribute to the degradation of streambank stability and can increase sediment loading, total dissolved solids, and total suspended solids in streams. Limiting areas to trailing only would have fewer impacts to water resources because time and duration of livestock use would be more restricted.

Impacts to water resources from livestock use are highly variable and depend on both site characteristics and grazing practices. Livestock grazing could impact soil erosion, streambank degradation, sedimentation and water quality through the introduction of *E. coli*. This potential impact is reduced by grazing permits being subject to terms and conditions, which include meeting rangeland health standards for vegetation and soil. Riparian areas are important habitat and provide water sources for both livestock and wildlife. Timing and intensity of livestock grazing in riparian areas has direct effects on stream channel morphology, riparian soils, riparian and wetland functionality, and biodiversity (Belsky et al. 1999). Upland water sources and range improvements can further distribute livestock across a landscape and reduce grazing pressure on wetlands and/or riparian areas. Impacts from water developments related to livestock grazing would be evaluated at the implementation level on a case-by-case basis. The agencies would continue to work with permittees to ensure that range improvements are consistent with protection of BENM objects. If additional water developments occur throughout BENM, and precipitation declines as a result of warming temperatures, there is potential for decreased aquifer functionality, loss of springs, and diminished stream flows. Decreased groundwater levels and availability could affect springs and public drinking water sources both within and outside the Planning Area. Springs in the Planning Area provide ecosystem functions and determine much of the natural water flow through BENM.

Groundwater resources are important sources of public drinking water both within and outside the Planning Area.

3.4.3.2.2. Impacts under Alternative A

Water resources would be managed under existing management plans with the goal of meeting state water quality standards and following management recommendations from UDWQ TMDL reports. Agencies would manage riparian resources for PFC, which addresses the physical functioning of riparian systems and water quality and quantity. Current trends as described in Section 3.4.1.2.1 would be expected to continue.

Floodplains and riparian areas would be protected under the 2020 ROD/MMPs, which prohibits new surface-disturbing activities within active floodplains or within 100 meters (330 feet) of riparian areas on BLM-administered and NFS lands with a few exceptions (see Table 2-5 for details), which would help protect these areas from surface disturbance impacts. Mitigation related to specific resource management would continue to occur to reduce impacts to floodplains and riparian areas as described in and guided by *BLM Standards for Public Land Health and Guidelines for Recreation Management for BLM Lands in Utah* (2007) and BLM Riparian Manual 1737.

For groundwater withdrawals in areas managed by the 2020 ROD/MMPs, requirements for a hydrologic study would be determined at the implementation level based on groundwater levels and geological conditions. Agencies would not authorize land uses for water withdrawals that could affect groundwater for seeps and springs and would ensure that any authorized withdrawals would provide for the proper care and management of BENM objects. Management actions would comply with limitations on water developments as described in the water rights settlement for NABR. These measures would help reduce impacts to groundwater as described Section 3.4.1.2.1.

Surface disturbance in DWSP zones would continue to be avoided or limited. This would lessen the potential for contaminant loading. There would be no restrictions related to recreational water pumping and purification, which could lead to decreased surface water availability and increased concentration of pollutants, especially during summer months when water levels are low.

No discretionary uses would be allowed on slopes greater than 40% unless it is determined that other placement alternatives are not practicable, or when surface-disturbing activities are necessary to reduce or prevent soil erosion. In those cases, an erosion control plan would continue to be required for review and approval by the BLM and USDA Forest Service prior to permitting the activity. Slope steepness impacts relative soil erodibility; the steeper the slope, the more erosion potential and potential subsequent sediment loading to waterways (USDA Forest Service 2017). Erosion control plans would continue to ensure that sediment transport would be addressed by controlling runoff where possible and stabilizing exposed soils using site-specific BMPs.

Vegetation treatment areas would be reseeded, when appropriate, to avoid erosion damage or the re-establishment of invasive species. When invasive species are removed from riparian areas, space is provided for native vegetation to grow, and fluvial processes may be restored, which provides critical habitat for riparian ecosystems and reduces impacts as described in Section 3.4.3.2.1.

Riparian and floodplain areas would be excluded from wood product use except for Indigenous peoples' traditional and ceremonial uses, as determined on a site-specific basis. If wood product harvest causes increased soil erosion, agencies would adjust the allowable harvest area or season to protect resources. Lands would be managed to allow forest product harvest if it improves water production and/or does not harm water quality. Cottonwood and willow harvest for Indigenous

traditional uses would be authorized, with restrictions as needed to maintain PFC. This would help protect water resources from wood product harvest as described in Section 3.4.3.2.1.

There is potential for water quality pollution as a result of vehicular crossings and increased erosion and streambank modification from OHV use. The road in Arch Canyon would remain open to OHV use, which would continue to impact water resources and water quality conditions, including increased erosion and sediment loading from unstable streambanks at road crossings and from the sections of road located within the stream channel. Additionally, continuing to allow OHV use in Arch Canyon may reduce potential for beaver recolonization. Beaver activity naturally tends to enlarge riparian zones and aquatic habitats, enhance drought resilience, aid in flood control, improve habitat complexity for sensitive fish species, and foster greater habitat diversity. Allowing OHV use in Arch Canyon could restrict the application of low-tech process-based restoration techniques. Closing areas to OHV use would eliminate impacts from OHV use, as described in Section 3.4.3.2.1.

Dispersed recreation would be limited where a riparian area is being unacceptably damaged, and no camping within 200 feet of isolated springs or water sources would be allowed. Camping within functional-at risk riparian areas would be discouraged. Limiting recreation in these areas would reduce impacts as described in Section 3.4.3.2.1.

Under Alternative A, approximately 13% of the Planning Area would be ROW avoidance, and 33% would be ROW exclusion; the rest would be open to ROW authorizations. Development of ROW projects can impact water resources as described in Section 3.4.3.2.1.

Under Alternative A, there would be a total of 1,223,820 acres (approximately 90% of the total Planning Area) available/suitable for livestock grazing. Impacts to water resources from livestock are summarized in Section 3.4.3.2.1.

Off-site water sources would continue to be developed where practicable to reduce impacts to riparian areas and surface water quality at seeps, springs, and streams. This would benefit grazing distribution on identified allotments. Although off-site water sources do protect ecological function at the spring source and reduce direct impacts from trampling, often other natural ecosystems are impacted by reduced water availability, such as wet meadows around the springs and reduced flows at the spring sites. If additional water developments occur throughout BENM or precipitation declines as a result of warming temperatures, there is potential for decreased aquifer functionality, loss of springs, and diminished stream flows.

3.4.3.2.3. Impacts under Alternative B

Under Alternatives B through E and the Proposed Plan, agencies would conduct comprehensive monitoring to track water quality conditions across the Monument and would collaborate with the BEC to develop a groundwater/surface water technical study and monitoring plan. The agencies would conduct a groundwater study on the Cedar Mesa Sandstone and N Aquifers to better understand characteristics, current conditions, recharge areas, recharge rates, groundwater budget (inflow vs. outflow), travel time, and springs. These actions would provide increased understanding of water quality and groundwater conditions and could lead to long-term benefits to these resources.

Impacts under Alternative B would be similar to Alternative A with the following exceptions.

Alternative B would provide slightly more protection to water resources than Alternative A by prohibiting discretionary actions (instead of only surface-disturbing actions) with certain exceptions.

Riparian areas and/or wetlands that could be impacted by discretionary actions would be required to be mapped and evaluated prior to implementation. Discretionary actions would be designed to protect riparian areas, wetlands, and water resources. This approach would consider impacts when actions are being designed, whereas management under Alternative A would take a more reactive approach of implementing mitigation measures as needed.

A hydrologic study would be required for all groundwater withdrawals within 0.25 mile of a seep, spring, water well, public water reserve, or groundwater-dependent ecosystem to determine appropriate restrictions or limitations needed to protect existing water wells. This would avoid compounding groundwater depletion and impacting groundwater recharge and would protect spring flows and spring-fed stream flows. This would provide enhanced protection to groundwater availability compared to Alternative A by requiring a detailed understanding of the groundwater conditions and potential impacts to groundwater withdrawal before authorizing a new withdrawal.

Agencies would manage discretionary uses to protect DWSP zones. This would be slightly more protective than Alternative A, which would avoid or limit surface disturbance in DWSP zones. This would improve protection of drinking water sources by managing discretionary uses (not only surface-disturbing activities) and could reduce impacts to vegetation and soil resources.

If new discretionary actions could not be avoided on slopes between 21% and 40%, an erosion control plan would be required that must be approved by the agencies prior to any site-specific construction. For slopes greater than 40%, no surface-disturbing action would be allowed unless it is consistent with the protection of BENM objects. If maps indicate that discretionary actions are within areas with sensitive soils, further restriction of activities may be considered to assure control of soil erosion within acceptable levels. Protection of erosive soils would be greater under Alternative B than under Alternative A and would result in fewer impacts to water resources from erosion and sedimentation.

Cottonwood and willow harvest would be allowed for Indigenous peoples' traditional or ceremonial use only and would be managed through authorizations, in accordance with applicable law. Agencies would collaborate with the BEC to implement modifications to these restrictions as necessary to provide for Indigenous peoples' traditional or ceremonial use while protecting BENM objects. This would be more protective of water resources than management under Alternative A and would help mitigate impacts to water resources related to wood product harvesting as described in Section 3.4.3.2.1.

Approximately 11% more of the Planning Area would be closed to OHV use than under Alternative A, which would reduce impacts from OHV use to water resources as described in Section 3.4.3.2.1.

Dispersed camping would not be allowed within 200 feet of springs and water improvements, unless in designated areas, to allow space for wildlife and livestock to access water. This management would allow more dispersed camping opportunities compared to Alternative A and result in increased impacts as described in Section 3.4.3.2.1. Management would limit dispersed camping areas in or near riparian areas or water sources if uses related to camping are determined to be a causal factor in adverse impacts to surface waterbodies, water quality conditions and/or riparian functions. Limitations would be those required to maintain water quality and riparian function. This would be more protective than Alternative A because it would allow limitation of camping in known areas of disturbance, which would reduce the impacts to water resources as described in Section 3.4.3.2.1.

Approximately 1% more acres would be ROW exclusion areas, 348% more acres would be ROW avoidance areas, and 1% would be open to ROW authorizations compared to Alternative A (see

Table 2-1). Because more of the Planning Area would be ROW avoidance and exclusion areas under Alternative B, there would be fewer surface-disturbing impacts than under Alternative A, which would reduce the impacts to water resources as described in Section 3.4.3.2.1.

There would be approximately 2% fewer acres open to livestock grazing than what would be available under Alternative A. The minimal difference in acreage open to livestock grazing compared to Alternative A suggests that impacts would be similar to those described in management under Alternative A and Section 3.4.3.2.1. Appendix I summarizes the total acreage of land available/suitable for grazing, trailing only, or unavailable/not suitable per each alternative for all HUC 12 watersheds. See Appendix I for a full summary of all HUC 12 watersheds and acreage of management designations.

Livestock would also be managed under Alternative B to avoid trailing livestock along the length of riparian areas, except where existing livestock trailing corridors occur, and damage from existing livestock trailing corridors would be rehabilitated. If management actions to prevent damage from trailing are ineffective, trailing livestock along the length of riparian areas would be prohibited. The main difference in management along riparian corridors compared to Alternative A is that management measures, not BMPs, would be implemented under Alternative B, which could provide more specific and targeted management to address potential impacts. This would minimize impacts to water resources from livestock (as described in Section 3.4.3.2.1) in the long run.

3.4.3.2.4. Impacts under Alternative C

Impacts under Alternative C would be the same or similar to Alternative B with the following exceptions. A hydrologic study would be required for all groundwater withdrawals within 0.5 mile of a water feature (rather than within 0.25 mile of a water feature under Alternative A) and for any withdrawal in the Cedar Mesa Sandstone recharge area. This requirement would be more protective of groundwater depletion than Alternatives A and B because Alternative C would require hydrologic study in a larger area, including in the Cedar Mesa Sandstone recharge area. This would reduce impacts to groundwater as described in Section 3.4.3.2.1.

Agencies, in collaboration with the BEC would monitor waterbodies to restrict recreational water pumping and purification for SRPs and ISRPs as necessary, which would help reduce impacts to surface water as described in Section 3.4.3.2.1.

If actions cannot be avoided on slopes between 21% and 35%, an erosion control plan would be required that must be approved by the agencies prior to any site-specific construction. For slopes greater than 35%, no discretionary actions would be allowed unless they were consistent with the protection of BENM objects. This protection of erosive soils would be greater than under Alternative A and would result in fewer impacts to water resources as described in Section 3.4.3.2.1.

Fewer acres would be designated OHV limited than Alternative A, and more acres would be designated OHV closed (see Table 2-1). OHV use in Arch Canyon would require a permit, which could include protective stipulations; however, the road itself would continue to impact water resources and overall water quality conditions with increased erosion and sediment loading from unstable streambanks at road crossings and from the sections of road located within the stream channel. This would be more protective of water resources than Alternative A and would have fewer impacts to water resources as summarized in Section 3.4.3.2.1.

Approximately 26% more acres would be ROW exclusion areas, 285% more acres would be ROW avoidance areas, and no acres of BLM-administered lands would be open to ROW authorizations

without restrictions. These designations would be more restrictive to ROW developments than Alternative A, and because more of the Planning Area would be ROW avoidance and exclusion under Alternative C, there would be fewer surface-disturbing impacts.

3.4.3.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternative B with the following exceptions. No new groundwater withdrawals would be permitted on BENM unless they were proposed specifically to protect BENM objects and/or Indigenous peoples' traditional and ceremonial uses. This management would be more protective of groundwater depletion than Alternative A.

Recreational water pumping would be managed the same as Alternative C, with additional encouragement for recreationists not to pump from any water sources, which would reduce impacts to surface water as described in Section 3.4.3.2.1.

If actions cannot be avoided on slopes between 21% and 30%, an erosion control plan would be required that must be approved by the agencies prior to any site-specific construction. For slopes greater than 30%, no discretionary actions would be allowed unless they were consistent with the protection of BENM objects. This protection of erosive soils would be greater than under the management of Alternative A and would result in less sediment loading to streams and altered hydrology in the Planning Area, resulting in fewer impacts to water resources relative to Alternative A.

Fewer acres would be designated OHV limited than Alternative A, and the rest of the Planning Area would be designated OHV closed (see Table 2-1). This would be more protective of water resources than Alternative A because it would eliminate erosion and ground disturbance, as well as streambank alteration from the use of OHVs, on more acreage within the Planning Area. Closing areas to OHV use, including the Arch Canyon Road, would eliminate impacts to water resources from OHVs.

No camping would be allowed within 0.25 mile of springs and water improvements unless in designated sites to allow for wildlife and livestock to access water. This management action would benefit water resources because it would decrease disturbance in riparian and floodplain areas. This would be more protective of water resources than Alternative A, which would only prohibit camping within approximately 0.04 mile (200 feet) of springs and water improvements. This would reduce the impacts to springs and surface water resources due to camping as described in Section 3.4.3.2.1.

Approximately 99% more acres would be ROW exclusion areas and 83% more acres would be ROW avoidance areas compared to Alternative A. These designations would be more restrictive to ROW developments than Alternative A, and because more of the Planning Area would be ROW avoidance and exclusion under Alternative D, there would be fewer surface-disturbing activities, reducing the impacts to water resources as described in Section 3.4.3.2.1.

There would be a total of 953,692 acres available/suitable for livestock grazing (approximately 70% of the total Planning Area) under Alternative D, approximately 20% less than what would be available under Alternative A. Reduction in acreage available/suitable for livestock grazing would likely reduce impacts as described in Section 3.4.3.2.1 compared to Alternative A. Some of the acres unavailable/not suitable for grazing have important springs and other water resources, which may experience reduced impacts from livestock grazing compared to Alternative A. Additionally, livestock would be managed under Alternative D to prohibit trailing along the length of riparian

areas and to rehabilitate existing livestock trailing corridors where damage has occurred in riparian areas. This would provide more protection to riparian ecosystems than Alternative A.

New water developments would be prohibited, and livestock would be excluded from perennial surface water (except existing stock ponds) and associated riparian areas and springs. Existing water developments for livestock or wildlife would be removed unless they protect BENM objects and would be analyzed through site-specific NEPA, which would protect water resources from the impacts described in Section 3.4.3.2.1. The management under Alternative D would be more protective of water resources (e.g., springs, riparian areas, groundwater) and water availability than Alternative A.

3.4.3.2.6. Impacts under Alternative E

Impacts under Alternative E would be the same or similar to Alternative B with the following exceptions. No new discretionary actions that alter vegetative cover, result in stream channel instability or loss of channel cross-sectional area, or reduce water quality would be allowed within the 100-year floodplain or within 0.5 mile of springs, riparian areas, and intermittent and perennial streams unless absolutely necessary to protect BENM objects. This would be more protective than Alternative A because it would not provide any exceptions to this exclusion of discretionary actions in riparian areas, therefore reducing the impacts to water resources as described in Section 3.4.3.2.1.

The agencies, working collaboratively with the BEC, would monitor water resources to identify whether water pumping for recreational use needs to be limited, which would help agencies and the BEC adaptively reduce impacts to surface water as described in Section 3.4.3.2.1.

Under Alternative E, if actions cannot be avoided on slopes between 21% and 30%, an erosion control plan would be required that must be approved by the agencies prior to any site-specific construction. This erosion control plan would include an erosion control strategy and an agency-approved survey and design of the erosion control plan and must be created in collaboration with the BEC. Additionally, no surface-disturbing activities would be allowed on slopes greater than 30% unless absolutely necessary to protect BENM objects. This protection of erosive soils would be greater than under the management of Alternative A and would reduce impacts to water quality as described in Section 3.4.3.2.1.

Minimally invasive treatment would be used to manage invasive species, which would result in less surface disturbance, vegetation removal, and soil compaction; however, this could extend timelines for these projects and limit the amount of area treated, resulting in fewer treatments occurring through BENM. Treating invasive species, allowing for more native vegetation to dominate riparian areas, and re-establishing riparian buffers can lead to increased sediment and pollutant filtration and increased shade for temperature and dissolved oxygen regulation, which reduces impacts to water quality and overall ecosystem health.

Riparian, floodplain, aquatic areas, and springs would be excluded from wood product use except where inconsistent with the Religious Freedom Restoration Act and other applicable laws. This may increase protection for riparian aquatic habitats by limiting removal of woody material that supports soil and bank stability and overall riparian health.

Management would evaluate forest and wood product harvest impacts to vegetation cover and soil erosion. If there was indication that wood product harvest was causing increased soil erosion, agencies would alter the allowable harvest area or harvest season in collaboration with the BEC to protect specific resource uses and allow for reclamation and rest. This management of forest

products would be similar to Alternative A, except for incorporation of aquatic areas and springs into exclusion areas for wood product harvesting. These slight differences would be more protective of riparian areas and surface water sources, particularly those that are impaired for sediment, reducing impacts to water quality.

Cottonwood and willow harvesting restrictions would be the same as described in Alternative B except for allowances for hazardous tree removal. Impacts would be similar to as described in Section 3.4.3.2.3.

Fewer acres would be designated OHV limited (where travel would be restricted to designated routes), and more acres would be designated OHV closed compared to Alternative A (see Table 2-1). This would be more protective of water resources than Alternative A because it would eliminate erosion and ground disturbance, as well as streambank alteration from the use of OHVs, on more acreage within the Planning Area. Closing areas to OHV use, including Arch Canyon, would eliminate impacts from OHVs as described in Section 3.4.3.2.2.

No camping would be allowed within 0.25 mile of surface water unless in an existing or designated camping site or area. This would reduce impacts to water resources by mitigating surface-disturbing activities and water quality degradation. This would be more protective of water resources than Alternative A.

Approximately 145% more acres would be ROW exclusion areas and 43% more acres would be avoidance areas than Alternative A. These designations would be more restrictive to ROW developments than Alternative A. Because more of the Planning Area would be ROW avoidance and exclusion under Alternative E, there would be fewer surface-disturbing impacts as described in Section 3.4.3.2.1.

Prioritization of the review and processing of grazing permits and leases; identifying subareas of allotments necessary for closure; reassessment of stocking levels and season of use; reassessment of management approach; and identification of resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources could provide additional protection to water resources from grazing when compared to Alternative B.

As part of livestock management under Alternative E, the BEC would collaborate with the agencies to facilitate infrastructure such as fencing to encourage cattle away from springs, which would reduce impacts to water resources as described in Section 3.4.3.2.1.

New water developments would be prohibited for domestic livestock unless necessary to protect BENM objects. Existing water developments for livestock or wildlife would be removed unless they protect BENM objects, where feasible; these actions may be analyzed through site-specific NEPA. Enclosures or other physical barriers would be used to prevent livestock from directly accessing or impairing water resources. Grazing would be managed to protect streams, springs, and other important riparian areas. Management under Alternative E would be more protective of water resources because it would address water sources that are no longer being used and would specifically manage livestock to reduce erosion and protect riparian areas.

3.4.3.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternative E with the following exceptions. No new surface-disturbing discretionary actions that alter vegetative cover or that result in stream channel instability, loss of channel cross-sectional area, or reduction in water quality would be allowed within 1,000 feet (as opposed to 0.5 mile under Alternative E) of springs, riparian areas, or

intermittent and perennial streams unless it maintains and/or improves riparian function. This would be more protective of riparian areas than Alternatives A, B, C, and D because it would reduce the area allowed for surface-disturbing activities and would not provide any exceptions aside from the management of livestock grazing. The Proposed Plan would only allow surface disturbance by mechanized or motorized equipment and from structural development to protect BENM objects, which could allow for more long-term protective and restoration activities than under Alternative E but could also result in short-term impacts from erosion.

The Proposed Plan would only limit surface-disturbing discretionary actions instead of all discretionary actions on steep slopes, which could allow for increased erosion from non-surface-disturbing discretionary actions compared to Alternative E.

Floodplains and riparian/aquatic areas would be open to habitat and watershed improvements and vegetation, which could result in long-term benefits to riparian, wetland, and/or aquatic habitats.

No commercial use of wood products would be allowed, which would reduce impacts from commercial harvest as described in Section 3.4.3.2.1.

Approximately 53% of the Planning Area would be designated OHV limited, and 39% of the Planning Area would be designated OHV closed. This would be more protective than Alternatives A, B, C, and E and would reduce impacts to water resources from OHV use as described in Section 3.4.3.2.1. The road in Arch Canyon would remain open to OHV use, with similar impacts to water resources and riparian areas as described in Alternative B.

Approximately 597,624 acres of BLM-administered lands would be ROW exclusion areas (an approximately 48%, 46%, and 18% increase in acres compared to Alternatives A, B, and C respectively); 472,017 acres of BLM-administered lands would be ROW avoidance areas (29% less than under Alternative B, and over 200% more than Alternative A); and the same acres of BLM-administered lands would be open to ROW authorizations as Alternative B. Impacts from the development of ROW projects are discussed in Section 3.4.3.2.1.

Approximately 87% of the Planning Area would be available/suitable for livestock grazing (approximately 3% less than under Alternative A; 1% less than Alternatives B, C, and E; and 17% more than Alternative D). Grazing would be limited to trailing only in the North Cottonwood pastures, unavailable/not suitable in John's Canyon, and available/suitable in Hammond Canyon, which could impact riparian conditions in these areas. Management actions for water development for livestock under the Proposed Plan would be the same as outlined in Alternative C, except that existing water developments that do not protect BENM objects would be removed, modified, or abandoned and may be analyzed through site-specific NEPA. See Section 3.4.3.2.1 for impacts of livestock to water resources.

3.4.3.2.8. Cumulative Impacts

The cumulative impacts analysis area for water resources consists of the watersheds that influence BENM and considers historical events and activities, ongoing trends, and RFFAs. The cumulative impacts of past and present actions to water resources in the Planning Area are captured in the description of the affected environment. The analysis considers the combination of human activities, natural events, and effects associated with ongoing climate change (see Appendix J).

ROWs associated with infrastructure development projects are expected to increase in the future. These would include projects such as utility lines, access roads, and waterlines. Specific projects that are currently under development include, but are not limited to a temporary access road

developed for travel into Utah Trust Lands and ongoing road maintenance across the Monument. Any development would increase the total footprint of disturbed soils within the Planning Area, which would have an additive effect from any existing vegetation removal and manipulation, grading, excavation, and soil displacement. For a full list of ongoing or proposed ROW development projects see Appendix J. Effects would include additional disturbed soils from construction vehicles and potential contamination from accidental spills or discharges from construction equipment. Disturbed soils could contribute to increased erosion, stream power, and sediment delivery to surface waters, which may result in undesired geomorphic changes to stream channels and aquatic habitats as well as changes to water quality conditions within the Planning Area. Accidental spills or discharges from construction equipment could involve oil and gas contamination to nearby waterbodies and alter stream ecosystems. Appropriate site BMPs would be used to limit contamination.

Recreation and visitor use are expected to increase in the future. The activities identified as having growth potential include hiking, backpacking, mountain biking, OHV use, and applications for special recreational permits and recreational use permits. Future trail and campground systems that would result in additional ground disturbance include the Bluff River Trail (6.7 miles of trail), reconstruction of the Salt Creek Trail (<1 mile), the Goosenecks Campground and Trails improvements (12 acres of new disturbance), and Hamburger Rock Campground improvements and expansions (2 acres of new disturbance). Although these projects would increase localized disturbance, they may disperse visitors out of other areas and limit soil disturbance to those areas authorized for specific recreational impacts. Site-specific details would clarify impacts to water resources, which could include degraded water quality conditions from increased erosion and sediment loading near trails and campgrounds, increased nutrient and *E. coli* levels from human waste disposal, and/or increased water temperatures from trampling in riparian areas, which reduces shade and soil moisture. These impacts could be partly mitigated by trail and campsite design, installation of vault toilets, and trail maintenance.

Trends in livestock grazing depend on several environmental factors; however, the agencies would continue to monitor and/or administer rangeland health evaluations to ensure no substantial loss of soil productivity occurs in response to changes in range management. Planned range improvements, such as within the Lockhart (three Lockhart Basin fences), Indian Creek, Slickhorn, and Lake Canyon Allotments, would contribute to improving livestock grazing distribution, which should increase overall rangeland health. Additionally, there is projected water development associated with livestock practices. It is expected that construction of 13 earthen reservoirs and five rangeland fences on the Indian Creek Allotment (2.5 acres of disturbance) would hold surface water runoff to provide reliable water, facilitate livestock distribution, and improve control of grazing patterns and forage use levels but may reduce recharge of downstream alluvial aquifers that support riparian and aquatic habitats. Other projected projects to develop reliable water sources consist of

- three water wells proposed on Flats Water pasture (1.25 acres of disturbance),
- two water wells proposed for livestock on the Slickhorn Allotment (0.75 acre of disturbance), and
- four water wells on the Lake Canyon Allotment (1.5 acres of disturbance).

For all these projects, detailed site-specific analysis of surface and groundwater resources would be needed to determine specific impacts to water resources. A total of 44 livestock water wells have been drilled on Utah Trust Lands within the Planning Area since 2018. Cumulative impacts to water resources from the proposed and existing water wells within the Planning Area could include reduction in groundwater resources, increased depths to groundwater, and reduced flows at nearby springs.

Proposed water developments outside of the Planning Area include two water wells in the East League pasture (2 acres of disturbance) that could potentially impact groundwater levels inside of the Planning Area. Other known projects include expansion of the Daneros Mine; drilling one water well, developing one spring, and constructing three fences in Lockhart Basin; the drilling of a new well by Elk Petroleum; and temporary access to Utah Trust lands to drill two water wells for cattle in Red Canyon. Cumulative impacts to water resources from the proposed water wells outside the Planning Area could include reduction in groundwater resources, increased depths to groundwater, and reduced flows at nearby springs. The level of impacts to water resources within the Planning Area would be dependent on how far the proposed actions are from the Planning Area. The level of impact would also include the local surface and groundwater hydrology and, for groundwater, the targeted aquifers. Impacts from the proposed spring development would be limited to the spring site and would not have cumulative impacts within the Planning Area.

Because the alternatives analyzed make plan-level water resource management decisions only and because no implementation-level actions would result from this planning effort, the cumulative impacts of these RFFAs and the alternatives would be negligible.

3.4.4. Terrestrial Habitat and Vegetation Resilience and Conservation

3.4.4.1. AFFECTED ENVIRONMENT

Terrestrial vegetation provides many functions in an ecosystem and is used in a variety of ways by humans and animals, including longstanding use by the Tribal Nations of the BEC as described in the 2022 BEITC LMP. Due to past fire suppression, artificially high fuel loads across broad, remote landscapes pose unique management and public safety challenges. Proclamation 10285 specifically mentions Engelmann spruce (*Picea engelmannii*), ponderosa pine (*Pinus ponderosa*), quaking aspen (*Populus tremuloides*), and subalpine fir (*Abies lasiocarpa*) located in the higher elevations of BENM on Elk Ridge and in surrounding canyon systems.

The type and number of ecological site groups for BLM-administered lands in the Planning Area are summarized in Table 3-24 (see Appendix N). Data for ecological site groups were unavailable for some NFS lands. Table 3-25 (see Appendix N) provides general soil geomorphic unit descriptions. When combined with climatic factors, these units make up the ecological site groups in BENM.

The BLM uses, in part, AIM Strategy data (Herrick et al. 2021) and landscape monitoring framework data (Karchergis and Simpson 2020) as tools to determine land conditions, trends, plant groups, cover rates, and functions (Table 3-26 [see Appendix N]; Appendix A, Figure 3-16). See Appendix K for more information on AIM data.

Changes to vegetation cover by type in BENM for the past several decades are summarized in Appendix A, Figures 3-18, 3-20, 3-21, and 3-22.

Table 3-28 (see Appendix N) lists federally listed and BLM and USDA Forest Service sensitive plant species documented in or having the potential to occur in the Planning Area. Partial lists and some studies have been conducted of these plants in the Bears Ears region, but no single comprehensive study of traditional plant knowledge exists within BENM. These important plants include those found in hanging gardens, which can include rare and/or unique orchids and sedges (Konza Prairie 2021). The Kachina daisy (*Erigeron kachinensis*) was specifically mentioned in Proclamation 10285 for its unique genetic population in BENM.

Private individuals may generally collect seeds and plants with appropriate authorization. The public may collect seeds on BLM-administered lands during non-drought years from a seed source that has been verified as being in good vegetative condition (e.g., vigor and viable seed).

See Appendix N for additional context concerning the affected environment related to terrestrial habitat and vegetation resources.

3.4.4.2. ENVIRONMENTAL CONSEQUENCES

3.4.4.2.1. Impacts Common to All Alternatives

Under all alternatives, actions would incorporate collaboration with the BEC and Tribal Nations to manage terrestrial vegetation, including the incorporation of Traditional Indigenous Knowledge in managing plants and plant communities. Collaboration with the BEC would likely result in more management of culturally important species and communities as well as more holistic, ecologically minded approaches to vegetation management. Studies that address impacts from management actions to the plant species specifically identified in Proclamation 10285 are not readily available. As a result, for this analysis, the impacts to those species are assumed to be the same as those described for vegetation and special status species overall.

All alternatives would allow for the use of manual treatments to selectively cut, clear, remove, or prune vegetation and move vegetation toward desired conditions. Manual treatments have less potential to damage or kill non-target vegetation than other methods such as mechanical or chemical treatments. Additionally, manual treatments have a reduced impact to the overall landscape because they do not compact or move soils and are less likely to introduce invasive species. Because manual treatments allow for selective vegetation removal, impacts would be of low intensity with low vegetation and soil disturbance. Impacts from manual treatments to special status plant species would be similar to those described above.

Mechanical treatments would remove vegetation and prepare and sow seeds in areas where allowed and feasible. Vegetation removal would be conducted by motorized vehicles such as mowers, masticators, disk plows, and harrows and imprinters, which could result in disturbing the soil surface and removing existing vegetation. The intensity of these effects may be greater than manual treatments because mechanical treatments would generally result in surface disturbance and vegetation removal over a larger area by heavier and less precise devices. The ability to treat a larger area may mean that more vegetation could be moved toward desired conditions than manual treatments.

The effects from specific mechanical treatment types are described below:

- *Tilling* effectively removes vegetation by uprooting it, causing greater short-term disturbance compared to other mechanical methods. It is often combined with chemical treatments to minimize invasive or fire-prone plant regrowth (Zouhar 2003). Without chemical follow-up, tilling could lead to long-term invasive plant increases, making joint treatments advisable.
- *Mowing* cuts aboveground vegetation, temporarily reducing fuel loads and fire spread rates. It can promote the growth of both desirable and invasive plants in understories (Davies 2011; Monsen et al. 2004) but causes less surface disturbance than tilling or harrowing, potentially lowering invasive grass growth. Mowing is often followed by chemical treatments to control invasive or fire-prone vegetation.
- *Drilling* reintroduces seeds to aid vegetation recovery in disturbed areas and often outperforms aerial seeding and can result in reduced cover of invasive plants and erosion

(results vary in arid climates) (Pyke et al. 2013); however, the large machines used for drilling may result in soil compaction and increased erosion in the short term.

- *Mastication* reduces vegetation size through grinding or shredding and is used to lower fuel loads, minimize fire spread, decrease vegetation competition, and boost soil organic matter; however, the heavy machinery used can lead to soil compaction and the spread of invasive plants (Jain et al. 2018).

Revegetation using seeds and seedlings would change the structural and functional components of vegetation in the long term. Revegetation and seeding could increase diversity, nutrient and hydrologic cycling, and plant vigor. This would promote maintenance of a more competitive plant community and reduce the threat of invasion. Over time, this could also reduce available fuels, aid in restoring natural burn patterns, restore a more natural fire return interval, and aid in increasing the resistance and resilience of treated areas in the long term.

Various types of seeding treatments would be used in conjunction with mechanical and other treatments. Short-term effects on existing vegetation from seeding would be localized and include damaged or destroyed vegetation and surface disturbance from motorized vehicles or machinery. In the long term, seeding treatments could increase the percent cover of desired vegetation and help to move vegetation toward desired conditions. In some cases, seeded species may spread into adjacent vegetation (McArthur et al. 1990; Ott et al. 2017), altering the species composition of these areas. The seeding method (e.g., drill seeding vs. broadcast seeding), species being seeded, and existing vegetation condition would all impact the intensity of this species spread.

Chemical treatments are another type of vegetation management that can be used to remove target plants, decrease target plant growth, and/or reduce seed production. This can aid native or desirable species in their re-establishment where vegetation modification is desired. Potential impacts to non-target vegetation include death, reduced productivity, and abnormal growth from unintended contact with chemicals via drift, runoff, wind transport, or accidental spills and direct spraying. The degree of impacts depends on the chemical used and its properties, the treatment methods, site physical conditions, and weather (BLM 2007:4–47). These effects would generally be limited to the short term during and immediately following treatments, and following standard operating procedures (BLM 2007:Table 2-8) and mitigation measures (BLM 2016:Table 2-5) would prevent impacts or reduce impact intensity.

Chemical treatments would be unlikely to directly affect special status plants due to implementation of standard operating procedures (BLM 2007:Table 2-8) and mitigation measures (BLM 2016:Table 2-5). Potential impacts to undetected special status plants and seed banks would be the same as described above for general vegetation and would depend on the active ingredient and application method.

Grazing and trampling by grazers can reduce vegetation productivity by causing soil compaction or erosion and by damaging native seedlings and adult plants (Duniway et al. 2018; Guenther et al. 2004; Jones et al. 2009). Grazing can also cause community-wide changes through increasing the spread of invasive plants, altering fuel loads, and changing species composition (Bartos et al. 2001; Barker et al. 1989). Additionally, grazing can be particularly damaging to riparian ecosystems, altering the vegetation community through plant consumption, nutrient addition, trampling, spreading invasives, and reducing water quality (Kauffman and Krueger 1984; Jones et al. 2022).

All alternatives include management direction to mitigate the risks of grazing impacts and to emphasize sustainable, healthy rangelands; however, there is potential for site-specific impacts to occur, especially in aspen, shrubland, and riparian areas. Under all alternatives, grazing leases or

permits that are voluntarily relinquished would be retired, which would eliminate impacts from livestock grazing to those areas in the long term where such relinquishments occur.

All management alternatives include seasonal closures for roosting, hibernating, or breeding of sensitive species. These closures may limit vegetation management in certain areas at certain times of the year, potentially requiring treatments (such as invasives management or revegetation) during less ideal times, potentially resulting in less effective treatments and the need for multiple treatments.

Prescribed fire and managed wildfire would be used to help move plant communities toward desired conditions by improving seed bed conditions and facilitating desired vegetation establishment. Additionally, in areas with high invasive annual grass cover, prescribed fire and managed wildfire could reduce plant cover and reduce the invasive seed bank. Conversely, prescribed fire in areas with high invasive annual grass (i.e., cheatgrass) cover could favor expansion and dominance of these invasive annual grasses by reducing competitive interactions with other plants and creating an environment conducive for annual grass and other invasive plant establishment, growth, and dominance. Prescribed fire would not be used in areas known to be highly susceptible to postfire cheatgrass or other invasive species invasion and would reduce potential for impacts described above.

During prescribed burning, known occurrences of special status plants would be avoided unless the species is fire adapted. Prescribed fires can kill undetected individual seeds in the upper soil layers. Many species of special status plants occur in unique soils or topography that are easy to identify and avoid. Prescribed fire during the active growth period would be most damaging to undetected special status plant species, but treatments would most likely occur when plants are dormant, thereby reducing potential for damage to live plants. All alternatives would prioritize ESR and restoration following wildfires to protect and sustain natural resources including vegetation and vegetation communities.

Development of new roads, as well as development and maintenance of trails and facilities, could result in the removal of vegetation; increased erosion; and the introduction of invasive species via new transportation corridors as seeds travel on tires and undercarriages and attach to clothing, shoes, and outdoor gear. OHVs can spread invasive plants, cause soil compaction, and cover vegetation with dust, affecting plants' ability to photosynthesize (Ouren et al. 2007). Limiting OHV use to designated routes helps confine these impacts to high-use areas and can reduce how widespread these impacts are; however, the introduction of invasive plants and dust emission impacts to vegetation can still occur in OHV limited areas. Areas that are designated as OHV closed should not experience these impacts from OHVs to vegetation.

Increased human presence increases the potential for unintentional ignition of fires, which can cause large-scale changes to vegetation, whereas other recreation activities, such as the development of facilities, would result in smaller-scale changes such as vegetation removal in a small area. Designation as SRMAs or ERMAs does not specifically direct vegetation management in the area; however, a concentration of recreation in certain areas may have impacts to vegetation resulting from vegetation trampling, removal, and spread of invasives from visitors. Furthermore, SRMAs tend to have more prescriptive management of recreation, including more rules and guidelines, which could limit or control activities through specialized management tools such as designated campgrounds, permits, and area closures.

Areas managed to meet VRM Class I/Very High SIO objectives would minimize the amount of disturbance in those areas. This could mean there would be fewer allowable vegetation treatments

or treatments on a small scale in these areas, which could benefit vegetation in the short term (due to lack of disturbance) but may result in lower quality vegetation conditions in the long term.

All alternatives allow for varying levels of ROW development. ROW development can cause removal of vegetation, soil compaction (which reduces soil function and plant health), heightened introduction of invasive species during construction, heightened use of ROW areas, and fugitive dust that can impair vegetation's photosynthetic ability. ROW exclusion areas offer greater protection for vegetation than do ROW avoidance areas because they completely prohibit the development of ROWs and associated disturbance.

Federally listed species would be protected according to the ESA across all alternatives. This would provide enhanced protection for these species and support their continued existence in BENM. No management action would be permitted that would jeopardize the continued existence of species that are listed, proposed for listing, or candidates for listing under the ESA. Additionally, all alternatives would maintain, protect, and enhance habitat of listed threatened, endangered, or candidate species; BLM special status species; USDA Forest Service sensitive species; Regional Forester SCC; and species of cultural importance to Tribal Nations. All alternatives would promote recovery of these species and prevent their listing under the ESA and would require the agencies to conduct regular inventories of these species.

All management alternatives would incorporate Tribal and statewide conservation strategies in coordination with UDWR and USFWS. This would include identifying special status species of cultural priority to each Tribe of the BEC and developing a plan for protecting these species, which could result in enhanced protections for additional species.

Species that occupy habitats that are often disturbed (such as roadsides and wood product harvest and high recreation use areas) would be vulnerable to removal of individuals. Various surface-disturbing activities can directly affect habitats for special status species. Additionally, recreation, fire, and livestock use can result in the removal or destruction of vegetation or habitat, resulting in adverse impacts to sensitive or at-risk species. Activities such as grazing, surface-disturbing activities, and increased recreation can indirectly affect special status species by introducing and transporting invasive species. The spread of invasive species can have proportionately larger impacts to special status species that typically have already limited populations and distributions. Surface disturbance can also result in habitat fragmentation, isolating populations of special status plant species, and reducing gene flow among populations. Management goals and directives under all alternatives would minimize these adverse impacts to special status species from surface disturbance.

The protection of special status species and their habitats would be considered and implemented prior to implementation of management actions; however, impacts from specific mechanical treatment methods could occur to undetected special status plant species. Plant mortality and seed burial are likely to occur where there is deep soil surface disruption. This destruction of special status plant seed banks would be particularly harmful to species with seeds that remain viable in the soil for long periods of time before germinating.

Special status plants would likely benefit from long-term alterations to the surrounding vegetation community. Movement toward desired vegetation states would increase biological and structural diversity. These changes would reduce threats to special status plant species (including those occurring in areas adjacent to treatment areas), such as potential loss of populations and habitat to wildfire and competition with invasive species, thereby aiding in recovery. They would also improve conditions for pollinators, thereby increasing pollination opportunities for special status plants.

A summary of the number of acres of major ecological site groups in BENM that would be unavailable for livestock grazing, closed to OHV travel and limited to designated routes, and that would be in each type of ROW allocation is given below for all alternatives (Tables 3-29 through 3-31).

Table 3-29. Ecological Site Groups Unavailable for Grazing under Each Alternative

Ecological Site Group	Alternative A (acres)	Alternatives B, C, and E (acres)	Alternative D (acres)	Proposed Plan (acres)
Arid Warm – Breaks	5,521	6,646	10,254	7,175
Arid Warm – Deep Rocky	197	290	597	296
Arid Warm – Finer Uplands, Clay Uplands	0	0	94	0
Arid Warm – Gypsum	2	2	175	1
Arid Warm – Saline Bottoms, Bottoms	1	1	1,120	1
Arid Warm – Saline Hills	1	2	62	3
Arid Warm – Saline Uplands	125	135	541	137
Arid Warm – Sandy Bottoms	820	891	4,462	1028
Arid Warm – Sandy Uplands, Loamy Uplands	10,157	11,045	88,908	12,926
Arid Warm – Shallow	18,518	20,020	41,988	21,510
Arid Warm – Very Shallow	14,491	19,673	56,151	20,681
Outcrops	1,118	2,435	7,615	2,463
Riparian	1,738	2,111	2,544	1,810
Semiarid Cool – Bottoms	0	0	0	0
Semiarid Cool – Breaks	173	473	1,346	173
Semiarid Cool – Clay Uplands	0	0	0	0
Semiarid Cool – Deep Rocky	55	227	330	55
Semiarid Cool – Saline Hills	0	0	0	0
Semiarid Cool – Saline Uplands, Sandy Uplands, Loamy Uplands, Finer Uplands	10	14	98	10
Semiarid Cool – Sandy Bottoms	0	1	2	0
Semiarid Cool – Shallow	68	202	602	68
Semiarid Cool – Very Shallow	2	14	30	2
Semiarid Warm – Breaks	22,227	26,137	33,518	23,737
Semiarid Warm – Clay Uplands	2	2	5	2
Semiarid Warm – Finer Uplands	1,591	1,711	4,516	1,606
Semiarid Warm – Gypsum	0	0	0	0

Ecological Site Group	Alternative A (acres)	Alternatives B, C, and E (acres)	Alternative D (acres)	Proposed Plan (acres)
Semiarid Warm – Saline Bottoms	2	2	118	2
Semiarid Warm – Saline Hills	0	6	27	6
Semiarid Warm – Saline Uplands	160	163	178	163
Semiarid Warm – Sandy Bottoms, Bottoms	1,140	1,612	2,797	1,524
Semiarid Warm – Sandy Uplands, Loamy Uplands	4,781	6,092	16,686	5,916
Semiarid Warm – Shallow, Deep Rocky	31,508	35,587	48,552	34,474
Semiarid Warm – Very Shallow	20,573	27,401	35,330	26,308
Total Acres	134,984	162,895	358,648	162,079

Note: Values may not sum precisely due to rounding.

Table 3-30. Ecological Site Groups Off-Highway Vehicle Closed or Off-Highway Vehicle Limited under Each Alternative

Ecological Site Group	Alternative A (acres)		Alternative B (acres)		Alternative C (acres)		Alternative D (acres)		Alternative E (acres)		Proposed Plan (acres)	
	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited
Arid Warm – Breaks	8,366	15,313	8,366	15,313	12,367	11,312	17,298	6,299	8,369	15,309	13,533	10,147
Arid Warm – Deep Rocky	390	1,378	390	1,378	486	1,282	765	1,003	395	1,373	538	1,230
Arid Warm – Finer Uplands, Clay Uplands	135	35	135	305	135	35	144	26	135	35	138	32
Arid Warm – Gypsum	47	850	47	850	59	839	407	490	47	850	235	662
Arid Warm – Saline Bottoms, Bottoms	25	1,566	25	1,566	25	1,566	273	1,318	25	1,566	109	1,482
Arid Warm – Saline Hills	19	368	19	368	23	364	74	313	19	368	56	331
Arid Warm – Saline Uplands	423	2,338	423	2,338	731	2,029	1,461	1,300	423	2,338	926	1,835
Arid Warm – Sandy Bottoms	2,526	8,864	2,526	850	3,174	8,216	7,451	3,939	2,531	8,859	4,925	6,477
Arid Warm – Sandy Uplands, Loamy Uplands	115,796	167,978	115,796	8,864	149,634	134,141	234,814	49,961	115,822	167,952	170,684	113,096
Arid Warm – Shallow	55,400	61,389	55,400	167,978	70,374	46,415	96,407	20,384	55,414	61,375	79,089	37,723
Arid Warm – Very Shallow	46,390	100,980	46,390	61,389	68,272	79,100	110,024	37,350	46,409	100,961	85,111	62,263
Outcrops	10,573	11,282	11,002	100,980	12,503	9,353	18,800	3,055	11,004	10,852	16,729	5,127

Ecological Site Group	Alternative A (acres)		Alternative B (acres)		Alternative C (acres)		Alternative D (acres)		Alternative E (acres)		Proposed Plan (acres)	
	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited	OHV Closed	OHV Limited
Riparian	2,051	3,453	3,406	10,854	3,462	2,042	3,9368	1,567	3,518	1,986	2,240	3,265
Semiarid Cool – Bottoms	0	30	1	29	1	29	1	29	1	29	0	30
Semiarid Cool – Breaks	483	11,795	8,947	3,331	8,947	3,331	8,943	3,335	8,947	3,331	483	11,795
Semiarid Cool – Clay Uplands	0	9	0	9	0	9	0	9	0	9	0	9
Semiarid Cool – Deep Rocky	170	15,855	9,108	6,918	9,108	6,918	9,095	6,930	9,108	6,918	170	15,855
Semiarid Cool – Saline Hills	0	4	0	4	0	4	0	4	0	4	0	4
Semiarid Cool – Saline Uplands, Sandy Uplands, Loamy Uplands, Finer Uplands	23	11,931	1,197	10,757	1,197	10,757	1,197	10,757	1,197	10,757	23	11,931
Semiarid Cool – Sandy Bottoms	2	7	8	0	8	0	8	0	8	0	2	7
Semiarid Cool – Shallow	234	33,404	9,436	24,202	9,436	24,202	9,435	24,202	9,436	24,202	234	33,404
Semiarid Cool – Very Shallow	22	422	268	176	268	176	268	176	268	176	22	422
Semiarid Warm – Breaks	24,980	49,447	46,586	27,841	48,107	26,320	59,915	14,512	47,786	26,641	31,734	42,693
Semiarid Warm – Clay Uplands	5	309	53	261	53	261	54	260	53	261	5	309
Semiarid Warm – Finer Uplands	13,384	54,431	19,404	48,412	20,046	47,770	34,482	33,335	19,404	48,411	17,886	49,936
Semiarid Warm – Gypsum	0	50	0	50	0	50	4	46	0	50	0	50
Semiarid Warm – Saline Bottoms	35	173	35	173	35	173	96	112	35	173	37	172
Semiarid Warm – Saline Hills	7	81	7	81	7	81	25	63	7	81	8	79
Semiarid Warm – Saline Uplands	170	1,001	170	1,001	171	1,000	567	604	170	1,001	297	874
Semiarid Warm – Sandy Bottoms, Bottoms	2,451	5,192	3,243	4,400	3,285	4,358	5,531	2,112	3,316	4,327	3,614	4,029
Semiarid Warm – Sandy Uplands, Loamy Uplands	40,295	82,151	44,585	77,861	46,128	76,318	84,510	37,936	57,719	81,936	51,955	70,495
Semiarid Warm – Shallow, Deep Rocky	67,396	184,128	118,608	132,908	128,107	123,408	174,092	77,424	44,821	77,625	90,548	160,974
Semiarid Warm – Very Shallow	44,019	95,635	56,909	82,746	63,733	4,358	100,922	38,733	119,446	132,069	65,995	73,653
Total Acres	435,817	921,848	562,489	795,196	659,881	697,777	981,084	376,583	565,832	791,826	637,327	720,389

Note: Values may not sum precisely due to rounding.

Table 3-31. Ecological Site Groups in Right-of-Way Avoidance, Right-of-Way Exclusion, and Open to Right-of-Way under Each Alternative

Ecological Site Groups	Alternative A (acres)			Alternative B (acres)			Alternative C (acres)		Alternative D (acres)		Alternative E (acres)		Proposed Plan (acres)		
	ROW Avoidance	ROW Exclusion	Open to ROW	ROW Avoidance	ROW Exclusion	Open to ROW	ROW Avoidance	ROW Exclusion	ROW Avoidance	ROW Exclusion	ROW Avoidance	ROW Exclusion	ROW Avoidance	ROW Exclusion	Open to ROW
Arid Warm – Breaks	4,296	8,390	10,989	15,424	8,224	26	11,415	12,260	6,211	17,470	141	23,534	10,123	13,525	26
Arid Warm – Deep Rocky	349	336	1,084	1,407	338	24	1,316	452	1,005	763	43	1,726	1,207	538	24
Arid Warm – Finer Uplands, Clay Uplands	6	135	29	33	135	2	35	135	26	144	3	167	30	138	2
Arid Warm – Gypsum	232	169	497	706	173	19	712	186	505	393	57	841	589	290	19
Arid Warm – Saline Bottoms, Bottoms	330	7	1,253	1,465	8	118	1,529	61	1,264	327	132	1,459	1,327	146	118
Arid Warm – Saline Hills	220	15	152	366	16	5	365	22	312	75	18	369	327	55	5
Arid Warm – Saline Uplands	715	332	1,715	2,423	326	12	2,057	705	1,303	1,459	33	2,729	1,844	906	12
Arid Warm – Sandy Bottoms	2,871	2,237	6,294	9,032	2,296	74	8,386	3,017	4,086	7,318	327	11,076	6,566	4,763	74
Arid Warm – Sandy Uplands, Loamy Uplands	38,651	128,127	116,980	152,535	129,121	2,103	120,530	163,229	48,214	235,578	5,312	278,447	104,748	176,907	2,103
Arid Warm – Shallow	18,749	60,434	37,573	55,845	60,716	195	40,889	75,867	20,883	95,889	812	115,994	36,200	80,361	195
Arid Warm – Very Shallow	23,112	44,622	79,612	100,296	46,563	487	78,358	68,987	37,769	109,601	1,766	145,580	61,828	85,031	487
Outcrops	5,629	10,586	5,638	11,257	10,583	13	9,750	12,103	3,697	18,157	567	21,286	5,306	16,533	13
Riparian	1,389	1,962	2,150	3,451	1,917	134	3,391	2,111	2,921	2,583	1,989	3,513	3,098	2,270	134
Semiarid Cool – Bottoms	0	0	30	30	0	0	30	0	30	0	30	0	30	0	0
Semiarid Cool – Breaks	498	482	11,298	11,795	483	0	11,795	483	11,796	482	11,631	647	11,796	482	0
Semiarid Cool – Clay Uplands	0	0	9	9	0	0	9	0	7	0	7	2	9	0	0
Semiarid Cool – Deep Rocky	1,652	160	14,214	15,855	170	0	15,855	170	15,866	160	15,541	484	15,866	160	0
Semiarid Cool – Saline Hills	0	0	4	4	0	0	4	0	4	0	4	0	4	0	0
Semiarid Cool – Saline Uplands, Sandy Uplands, Loamy Uplands, Finer Uplands	1,794	23	10,138	11,931	23	0	11,931	23	11,931	23	11,284	670	11,931	23	0

Ecological Site Groups	Alternative A (acres)			Alternative B (acres)			Alternative C (acres)		Alternative D (acres)		Alternative E (acres)		Proposed Plan (acres)		
	ROW Avoidance	ROW Exclusion	Open to ROW	ROW Avoidance	ROW Exclusion	Open to ROW	ROW Avoidance	ROW Exclusion	ROW Avoidance	ROW Exclusion	ROW Avoidance	ROW Exclusion	ROW Avoidance	ROW Exclusion	Open to ROW
Semiarid Cool – Sandy Bottoms	0	2	7	7	2	0	7	2	7	2	7	2	7	2	0
Semiarid Cool – Shallow	4,335	234	29,069	33,404	234	0	33,404	234	33,404	234	32,283	1,355	33,404	234	0
Semiarid Cool – Very Shallow	17	22	405	422	22	0	422	22	422	22	420	24	421	22	0
Semiarid Warm – Breaks	9,801	24,979	39,651	49,302	24,980	149	47,930	26,501	37,312	37,122	29,100	45,332	42,549	31,733	149
Semiarid Warm – Clay Uplands	3	4	307	309	5	0	309	5	309	5	229	85	309	5	0
Semiarid Warm – Finer Uplands	9,709	13,269	44,824	54,234	13,358	209	53,802	14,000	39,257	27,685	16,864	50,938	49,759	17,834	209
Semiarid Warm – Gypsum	1	0	49	45	0	5	50	0	46	4	6	44	45	0	5
Semiarid Warm – Saline Bottoms	5	35	168	0	35	0	173	35	112	96	0	208	171	38	0
Semiarid Warm – Saline Hills	0	7	81	77	7	3	81	7	63	25	7	81	76	8	3
Semiarid Warm – Saline Uplands	46	118	1,007	1,044	126	2	1,045	127	604	566	3	1,168	916	253	2
Semiarid Warm – Sandy Bottoms, Bottoms	680	2,439	4,524	5,131	2,450	62	5,151	2,491	2,911	4,732	1,491	6,151	3,964	3,617	62
Semiarid Warm – Sandy Uplands, Loamy Uplands	8,099	40,141	74,193	81,371	40,271	792	80,620	41,813	42,289	80,157	11,988	110,446	69,706	51,936	792
Semiarid Warm – Shallow, Deep Rocky	34,397	66,826	150,314	183,482	67,301	754	174,736	76,801	129,492	122,062	92,785	158,761	160,408	90,376	754
Semiarid Warm – Very Shallow	12,530	43,047	84,053	95,839	43,504	288	89,303	50,327	52,394	87,251	18,322	121,309	73,867	65,475	288
Total	180,115	449,139	728,309	898,702	453,386	5,476	805,386	552,177	506,453	851,255	235,202	1,104,376	708,432	643,656	5,476

Note: Values may not sum precisely due to rounding.

3.4.4.2.2. Impacts under Alternative A

Under Alternative A, the condition and trends for vegetation as summarized in Section 3.4.4.1 and Appendix N would be expected to continue along similar trajectories. Wood product removal, rangeland improvement, habitat enhancement, and fuels reduction projects would likely still occur under the individual and relevant RMPs. These individual projects could potentially reduce habitat loss from fire and move vegetation communities toward desired conditions by improving plant community structure and diversity; however, the lack of cohesive, landscape-wide planning could result in bogged-down project planning and implementation as well as landscape-scale deterioration of vegetative resources, including impacts to sagebrush, aspen, old growth forests, special status species (including the Kachina daisy), and culturally important species.

Vegetation management would continue to use all available tools, including chaining, to treat vegetation, harvest timber and seed plants, and to reduce fuels. Vegetation treatments would be prioritized in sagebrush communities in Harts Draw, Beef Basin, and Shay Mesa and greasewood communities in Comb Wash, Butler Wash, Indian Creek, and South and North Cottonwood Wash.

In areas available/suitable for livestock grazing, vegetation would continue to be impacted by grazing as described in Section 3.4.4.2.1. The number of acres of the major ecological site groups that would continue to be unavailable for livestock grazing under Alternative A is summarized in Table 3-29. The Semiarid Warm – Breaks and Semiarid Warm – Shallow, Deep Rocky are the ecological site groups that contain the most acres that would continue to be unavailable for livestock grazing. These ecological site groups are susceptible to invasion by cheatgrass and annual forbs; therefore, retaining them as unavailable to livestock grazing would help to reduce these issues, move vegetation toward desired conditions, and increase resiliency. Utilization levels would be identified as needed to monitor use levels and would be set at 50% where they have not been otherwise established, which should continue to maintain productive vegetative communities that are meeting or moving toward rangeland health standards

All available methods would continue to be allowed to fight wildfires, including large-scale mechanical methods. Although these may be more effective at limiting the size and severity of fire, these methods may impact vegetation and result in long-term impacts (such as vegetation removal, increased erosion, soil compaction).

BLM-administered lands would continue to allow wood product harvest in areas approved for fuels treatment or habitat treatment projects and areas open for wood product harvest. Wood product harvest in these areas can remove beneficial vegetation and litter cover, which may reduce ecosystem function, but it may also help reduce fuel loads, reducing the risk of uncharacteristic wildfire. Alternative A would continue to allow clearcuts on any forest cover type with potential for impact from, or that have been impacted by, insects or disease, which would allow for increased erosion, introduction and spread of invasive species, and monoculture regrowth.

Alternative A would continue to minimize surface-disturbing activities in riparian areas that would alter vegetative cover and would not allow new surface-disturbing activity within active floodplains or within 330 feet of riparian areas unless it is a vegetation treatment that would not impair riparian function. This would give managers options for treating vegetation along riparian areas and could help move vegetation toward desired conditions.

The number of acres of major ecological site groups that are currently closed to OHV travel and limited to designated routes under Alternative A is summarized in Table 3-30. These closures and limitations would continue to provide protection to vegetation communities and special status plant species by reducing impacts from dust and weed vectors.

Alternative A would continue to strive to locate recreational activities near population centers and highway corridors as well as direct recreation to more concentrated areas. Adverse effects on vegetation such as trampling and invasive species establishment and spread could be most prominent in these areas of concentrated recreation but may also result in fewer dispersed impacts to vegetation throughout the Monument. Under Alternative A, there would continue to be approximately 450,000 acres managed as special designations. Many mechanical treatments are prohibited in these special designation areas, which would continue to allow for protection from disturbance in the short term, but possibly allow for buildup of fuel loads in these areas, potentially causing uncharacteristic fire intervals and fire intensities.

Table 2-1 describes the number of acres managed as VRM Classes I, II, III, and IV under Alternative A. VRM Class I and II areas of the Monument would be managed to preserve the natural character of the landscape, which would help reduce large-scale changes to vegetation. Areas managed as VRM Classes III and IV are areas where management activities could dominate the view and be the major focus for viewers. In these areas, surface-disturbing activities that impact vegetation could occur.

Table 2-1 describes the number of acres that would continue to be managed as ROW exclusion, ROW avoidance, and open to ROW authorization under Alternative A (see also Table 3-31). Vegetation communities and special status plant species in the exclusion areas would continue to be protected by a reduction in surface-disturbing activities that impact vegetation as described in Section 3.4.4.2.1; however, the vegetation in the areas open to ROW authorization would be vulnerable to impacts as discussed in Section 3.4.4.2.1, and areas in ROW avoidance areas could also potentially be subject to these impacts.

3.4.4.2.3. Impacts under Alternative B

Under Alternative B, vegetation management would emphasize maintaining diversity of plant functional groups, enhancing native species productivity, maintaining vegetation for Indigenous peoples' traditional and ceremonial uses and emphasize habitat connectivity to enhance species residency. Treatment priorities would focus on enhancing or maintaining desirable conditions of vegetation for Indigenous peoples' traditional and ceremonial uses as well as improving VCCs. Alternative B is the alternative most similar to Alternative A but would involve more BEC coordination for identifying restoration projects and project components (e.g., seed mixes to be used). The reduction in some uses of vegetation resources, such as timber harvest and grazing, coupled with the coordination with the BEC to identify priority areas for vegetation treatments and selecting seed mixes for restoration, would likely result in more management of culturally important species and communities, as well as more holistic, ecologically minded approaches to vegetation management than under Alternative A. More emphasis is placed on restoring historical vegetation conditions, fire return intervals, and maintaining desired VCCs. Alternative B would provide more flexibility for proactive treatment in designated wilderness and WSAs than Alternative A, which would allow land managers to make more site-specific and targeted vegetation management decisions.

A total of 28,027 additional acres would be unavailable for grazing compared to Alternative A. The acres unavailable for grazing for the major ecological site groups under Alternative B is summarized in Table 3-29. There would be 6,222 additional acres of the Semiarid Warm – Very Shallow ecological site group unavailable for grazing under Alternative B. This group can be extremely prone to effects from drought and is highly susceptible to annual invasion, so this additional protection from grazing would protect these areas from compounding effects of drought, invasion, and grazing especially vegetation communities vulnerable to cheatgrass invasion such as sagebrush. Additional acreage closed to grazing compared to Alternative A would reduce the

impacts to vegetation from grazing as described in Section 3.4.4.2.1. The impact of utilization levels would be the same as Alternative A. Alternative B would implement an annual three-phase approach to drought management, which would allow managers to adapt livestock grazing practices during drought to potentially allow for more resource rest and fewer impacts to vegetation during those vulnerable times.

Fire suppression activities would prioritize the protection of natural resources such as vegetation, and emphasis would be placed on maintaining functional/structural plant groups, productivity of native species, providing healthy vegetation communities for Indigenous peoples' traditional and ceremonial uses, habitat health, and habitat connectivity (to enhance plant and wildlife resiliency to environmental change). This emphasis on vegetation health would likely result in fewer impacts to vegetation from fire suppression activities than under Alternative A. All mechanical methods, including large-scale, surface-disturbing methods such as chaining, would still be allowed under Alternative B with impacts to vegetation as described in Section 3.4.4.2.1.

Clearcutting would be prohibited on NFS lands except where used to regenerate aspen, reducing the impacts of this type of timber harvest as described in Section 3.4.4.2.2. More acres would be open to wood product harvest than under Alternative A (see Table 2-1), which could allow for higher rates of invasive plant establishment and spread.

No new discretionary actions that alter vegetation cover would be allowed within 100-year floodplains or within 330 feet of springs, riparian areas, and intermittent and perennial streams unless it does not impair overall riparian function in a system. This provides for fewer allowable vegetation treatments in these areas than under Alternative A and reduces the area in which vegetation management is allowed, which could reduce the ability to manage vegetation toward desired conditions.

The number of acres of ecological site groups that would be designated as OHV closed, OHV limited, and OHV open under Alternative B is summarized in Table 3-30. More acreage would be closed to OHV travel than under Alternative A (see Table 2-1). These closures would prevent additional routes from being designated in these areas and would provide enhanced protection to vegetation communities and special status species from the impacts discussed in Section 3.4.4.2.1. This would benefit ecological site groups that are susceptible to erosion and annual invasion and have a large proportion of acres within the Decision Area closed to OHV travel, such as Arid Warm – Sandy Uplands, Loamy Uplands, and Semiarid Warm – Shallow, Deep Rocky.

Alternative B would manage recreation by limiting or restricting public use as little as possible. Similar to Alternative A, managing for fewer high-use areas would reduce impacts to vegetation in these areas, which may mean more dispersed recreation throughout the Monument with similar impacts to vegetation as discussed in Section 3.4.4.2.2. Wilderness areas and WSAs would require light-on-the-land treatments. This approach would reduce the impact of mechanical treatments in these areas, as detailed in Section 3.4.4.2.1. New recreation facilities could be developed, if needed. New developments could result in removal of vegetation and introduce invasive species to new areas but would also minimize dispersed visitor impacts to vegetation. Additionally, Alternative B would allow for seasonal closures of facilities to allow for resource rest.

Alternative B would manage fewer acres than Alternative A as VRM Class III/Moderate SIO and no acres as Class IV/Low SIO; all NFS lands would be managed as SIO Very High or High. Fewer areas managed as VRM Class III should constrain the visual impacts of allowable large-scale vegetation management and high visual impact management (such as chaining or harrowing). This should reduce the impacts of these types of treatments as discussed in Section 3.4.4.2.1, but it may require more frequent small-scale treatments of vegetation to maintain or achieve desired VCCs.

The number of acres of ecological site groups that would be in each type of ROW allocation under Alternative B is summarized in Table 3-31. Under Alternative B more acres would be managed as ROW avoidance and exclusion areas than Alternative A, reducing ROW impacts to vegetation in these areas. The most acreage in ROW exclusion areas is in ecological site groups with Shallow, Very Shallow, or Sandy/Loamy Uplands (see Table 3-31). These groups are highly prone to invasion by annual grasses and forbs, so this additional acreage protecting these areas from ROW authorizations would reduce impacts to vegetation as described in Section 3.4.4.2.1.

3.4.4.2.4. Impacts under Alternative C

Similar to Alternative A, under Alternative C vegetation management would be prioritized in high value/high-risk areas but would also add the priority of treatments to maintain diversity of plant functional groups, enhance native species productivity, maintain vegetation for Indigenous peoples' traditional and ceremonial uses, and emphasize habitat connectivity to enhance species residency.

Management under Alternative C would be similar to management under Alternative B with a few key changes; no chaining would be allowed, and treatments authorized in wilderness, WSAs, and LWC that are managed to protect wilderness characteristics would use light-on-the-land methods. Using light-on-the-land methods would likely result in short-term improvements in vegetation due to the lack of surface disturbance often associated with mechanical treatments; however, this may also result in a smaller-scale vegetation treatments, requiring more treatments to bring vegetation to desired conditions.

The acres unavailable to grazing would be the same as under Alternative B with the same impacts. Utilization levels would be identified on an allotment-specific basis, allowing for more flexibility depending on vegetation type and condition, resulting in healthier communities. Alternative C would implement the same three-phase approach to drought management as Alternative B with the same impacts to vegetation.

Fuels and fire management under Alternative C would be very similar to Alternative B but places more restrictions on the type of techniques that can be used (no chaining would be permitted), allowing for reduced impacts to vegetation from these higher-impact techniques.

Impacts of forestry and woodlands management would be the same as Alternative B.

Impacts of water resources management would be the same as Alternative B.

The number of acres of ecological site groups that would be designated as OHV closed, OHV limited, and OHV open under Alternative C is summarized in Table 3-30. More acres would be closed to OHV travel, which would reduce impacts described in Section 3.4.4.2.1. The ecological site groups with the most acres closed to OHV travel or OHV travel limited are Arid Warm – Sandy Uplands, Loamy Uplands and Semiarid Warm – Shallow, Deep Rocky.

Alternative C would have less on-the-ground presence for recreation management, which may result in increased damage to vegetation from visitors; however, increased permits and reduced group sizes could reduce impacts such as invasive spread and vegetation trampling. With less restriction and less direct oversight on recreation, there is also potential that less-knowledgeable users could cause an increase in the degradation of vegetation communities as compared with Alternative A. Alternative C would place greater restrictions on the development of new facilities, which would reduce the amount of disturbance or removal of vegetation in those areas.

Management of visual resources under Alternative C would be similar to Alternative B, and impacts of vegetation treatments would be similar to Alternative B.

Under Alternative C, more acres would be managed as ROW exclusion and avoidance than Alternative A, reducing impacts described in Section 3.4.4.2.1. The number of acres of ecological site groups that would be in each type of ROW allocation under Alternative C is summarized in Table 3-31. The ecological site groups with the most area in ROW avoidance or exclusion zones are Arid Warm – Sandy Uplands, Loamy Uplands and Semiarid Warm – Shallow, Deep Rocky. These areas are vulnerable to disturbance and drought and prone to invasion by annuals, so the increased protection from ROW authorization in these areas would further protect them from these impacts.

3.4.4.2.5. Impacts under Alternative D

Under Alternative D, treatment priorities would focus on enhancing or maintaining desirable conditions of vegetation for Indigenous peoples' traditional and ceremonial uses as well as improving VCCs. Alternative D prioritizes light-on-the-land treatments throughout the Monument, which would reduce impacts from machinery as described in Section 3.4.4.2.1. The reduction in some uses of vegetation resources, such as timber harvest and grazing, would likely result in more management of culturally important species and communities, using more traditional Indigenous vegetation management methods and passive management with an emphasis on natural processes and preserving the wilderness characteristics of the Monument. Additionally, there would likely be fewer vegetation treatments and fuels work conducted in wilderness, WSAs, and LWC than under Alternative A, which could result in higher fuel loads as well as a reduction in impacts from treatments as described in Section 3.4.4.2.2.

The prioritization of natural processes would reduce the number and scale of restoration projects that use active management or heavy machinery. This could reduce the short-term direct impacts to vegetation and special status plant species as described in Section 3.4.4.2.2; however, the reduction in these projects may also adversely impact vegetation communities and special status species in the long term. Reliance on natural processes and prohibiting the use of nonnative, non-invasive plants helps to increase native plant cover, leading to an increase in diversity, structure, and function of the vegetation community; however, there are some instances in which native plants have a low probability of success, and the inability to use nonnative, non-invasive plants may slow restoration and potentially allow for an increase in invasive plants or require the use of more invasive mechanical methods, increasing the necessity for multiple treatments and slowing movement toward desired conditions.

Approximately 224,194 more acres would be unavailable for livestock grazing than under Alternative A (see Table 2-1). The additional acreage of lands unavailable for grazing would reduce the impacts discussed in Section 3.4.4.2.2. Under Alternative D, the Arid Warm – Sandy Uplands, Loamy Uplands, and Arid Warm – Very Shallow ecological site groups would have the most acreage unavailable for grazing (see Table 3-29). Alternative D would implement the same three-phase approach to drought management as Alternative B with the same impacts to vegetation. Additionally, Alternative D would require utilization levels to be determined on an allotment basis, using a utilization rate of 30% instead of 50% where utilization has not yet been determined; this should maintain productive vegetative communities that are meeting or moving toward rangeland health standards at a faster rate than a 50% utilization rate. Alternative D makes numerous pastures unavailable for grazing, which could focus livestock grazing on the remaining areas/pastures. This would limit adaptive management opportunities to influence the timing and duration of livestock grazing and could result in altered species composition and productivity of vegetation on these rangelands.

Fuels and fire management would require more collaboration with the BEC than under Alternative A. This may include an increase in prescribed fire, which would likely result in a benefit for the

vegetation communities that are fire dependent and have suffered the effects of fire suppression and uncharacteristic fire intervals and severity.

Impacts of forestry and woodlands management would be the same as Alternative B.

Impacts of water resources management would be the same as Alternative B.

The number of ecological site groups that would be designated as OHV closed, OHV limited, and OHV open under Alternative D is summarized in Table 3-30. The majority of most ecological site groups in BENM would be closed to OHV travel, the most of any alternative. These closures would provide enhanced protection to vegetation communities and special status species as described in Section 3.4.4.2.2. In addition to reduction in impacts from surface disturbance, the reduced accessibility would likely lead to fewer indirect impacts to vegetation from people recreating in the area.

Under Alternative D, there would be far more restrictions and limits on recreational use in low-use areas compared to Alternative A, as necessary to protect Monument objects, including the plants identified in Proclamation 10285. These additional restrictions and reduced accessibility would reduce detrimental impacts to vegetation in the more remote and low-use areas of the Monument; however, increased dispersed recreation could impact vegetation in other areas.

Alternative D would manage more acres as VRM Class I/Very High SIO and fewer acres as VRM Class III/Moderate SIO compared to Alternative A. SIO management on NFS lands would be the same as Alternatives B and C. Impacts to vegetation treatments would be similar to those discussed under Alternative B

More acres would be managed as ROW exclusion and avoidance than Alternative A. The number of acres of ecological site groups that would be in each type of ROW allocation under Alternative D is summarized in Table 3-31. The ecological site groups with the most area in ROW avoidance or exclusion zones are Arid Warm – Sandy Uplands, Loamy Uplands and Semiarid Warm – Shallow, Deep Rocky.

3.4.4.2.6. Impacts under Alternative E

Vegetation management under Alternative E would emphasize Traditional Indigenous Knowledge and techniques and natural processes to restore ecosystems. Increased collaboration with the BEC would help protect the ecological legacy of BENM and provide management techniques that are not typically considered under a Western approach to land management and under which native vegetation communities could thrive.

Alternative E would account for seasonality and drought conditions when considering vegetation management. Considering seasonality when managing vegetation could allow for more resource rest and protection during important times, especially for special status species or vulnerable plant communities. Additionally, with climate change predicting more frequent and intense droughts, the ability to alter vegetation management would allow for greater community resilience and would reduce impacts that are magnified during drought times.

Unlike Alternative A, Alternative E would allow for mechanical vegetation management methods only when necessary to protect BENM objects. The prioritization of natural processes and reduction in machinery used during vegetation management would likely reduce the number and scale of restoration projects. This could result in short-term positive impacts to vegetation and special status plant species as described in Section 3.4.4.2.1; however, the reduction in these projects may adversely impact vegetation communities and special status species in the long term. Reliance on

natural processes and determining appropriate seed mixes (including using native, non-genetically modified organism [GMO] seeds) in revegetation would increase native plant cover, leading to an increase in diversity, structure, and function of the vegetation community; however, Alternative E would allow for the use of nonnative seeds to protect BENM objects where probability of native seed success or adapted seed availability is low, which would help restoration where the use of only native seeds would slow restoration.

Under Alternative E, the same acreage would be available/unavailable for grazing as Alternative B (see Table 3-29) with the same impacts to vegetation as described in Section 3.4.4.2.4 except for the following: Alternative E would require use levels to be determined on an allotment basis, and levels would be established within 2 years of the release of this Proposed RMP/Final EIS, likely requiring many hours of on-the-ground assessment. This site-specific determination of use would allow for adaptive livestock management to accommodate on-the-ground rangeland factors with sustainable use levels to allow for the maintenance or improvement of desired conditions. Fire and fuels management under Alternative E would be similar to Alternative D with similar impacts to vegetation; however, Alternative E stipulates that no foam retardant or other chemical spraying could be used within 300 feet of perennial waterbodies except for the protection of human lives. This may allow fires to burn more vegetation in these riparian areas.

Management of forests and woodlands under Alternative E would provide more adaptive management of these resources and emphasize plant community health, which would allow for fewer detrimental impacts to vegetation and may enhance ecosystem functioning. Under this alternative, no clearcutting would be allowed, protecting vegetation from the spread of invasive plants and monoculture regrowth that may occur with clearcutting actions.

Management of forestry and woodlands under Alternative E would be the same as described under Alternatives B, C, and D except that Alternative E stipulates that discretionary actions that alter vegetative cover would be prohibited within 0.5 mile of springs, riparian areas, and intermittent and perennial streams. This would potentially restrict vegetation management and types in more areas than Alternative A and may be detrimental to areas that need vegetation management.

The number of ecological site groups that would be designated as OHV closed, OHV limited, and OHV open under Alternative E is summarized in Table 3-30. The majority of most ecological site groups in BENM would be closed to OHV travel. Additional acreage closed to OHV travel would provide enhanced protection to vegetation communities and special status species by reducing impacts as described in Section 3.4.4.2.2.

Alternative E would have enhanced restriction of recreation, such as limitations on dispersed camping and off-trail hiking, as well as an increase in prescriptive recreation management, which would result in fewer impacts to vegetation as mentioned in Section 3.4.4.2.2. Development and maintenance of facilities under Alternative E would look the same as Alternative D, with facilities only allowed in Front Country Zones and in areas where they would protect BENM objects. Creation of fewer facilities would result in less vegetation removal for the creation of these facilities.

Management of visual resources under Alternative E would be the same as Alternative B with the exception that no acres would be managed as VRM Class III/Moderate SIO. Impacts of vegetation treatments would be similar to Alternative B.

Alternative E would have the most acreage of any alternative managed as ROW exclusion, reducing impacts as described in Section 3.4.4.2.1. The ecological site groups with the most area in ROW avoidance or exclusion zones are Arid Warm – Sandy Uplands, Loamy Uplands and Semiarid Warm – Shallow, Deep Rocky. These areas are vulnerable to disturbance and drought and prone to

invasion by annuals, so the increased protection from ROW authorization in these areas would further protect them from these impacts.

3.4.4.2.7. Impacts under the Proposed Plan

Vegetation management and impacts to vegetation under the Proposed Plan would be similar to Alternative D (see Section 3.4.4.2.5); however, in addition to the management described under Alternative D, agencies would incorporate aspects of Alternative E. Agencies would identify vegetation management measures to implement during drought in collaboration with BEC and Tribal Nations. This ability to alter vegetation management would allow for greater community resilience and would reduce impacts that are magnified during drought times. Additionally, seed mixes that would be allowed to be used under the Proposed Plan would be the same as Alternative B.

Under the Proposed Plan, additional acreage would be unavailable for grazing compared to Alternative A. The acreage unavailable for grazing for each ecological site group under the Proposed Plan is summarized in Table 3-29. Other livestock management actions under the Proposed Plan would be the same as those described for Alternative E with the addition that sub-areas in allotments under the Proposed Plan could be considered for closure or periodic rest to help achieve rangeland health standards and protect BENM objects. Impacts to vegetation from livestock grazing management would be similar to those described under Alternative E.

The impacts of fire and fuels management to vegetation would be the same as Alternative D.

Under the Proposed Plan, wood product harvest management would be similar to those under Alternative E and impacts to vegetation would be similar; however, in addition to the management actions described in Section 3.4.4.2.6, under the Proposed Plan, the agencies, in collaboration with the BEC, would be able to close or place restrictions on areas available for wood product use. This would allow enhanced protection for native vegetation communities from the impacts of wood product harvest described in Section 3.4.4.2.2.

Water resource management under the Proposed Plan would be similar to management under Alternative E, with similar impacts to vegetation as those described in Section 3.4.4.2.6.

The number of ecological site groups that would be designated as OHV closed, OHV limited, and OHV open under the Proposed Plan is summarized in Table 3-30. More acres would be designated closed to OHV travel than under Alternative A. These additional closed areas would provide enhanced protection to vegetation communities and special status species and eliminate the impacts from OHV use as described in Section 3.4.4.2.2.

The Proposed Plan would use the same landscape-level Management Zones as Alternative E (with slightly differing acreages allocated to these zones; see details in Section 2.4.20.3). Most of BENM would be in the Outback and Remote Zones, which could result in more dispersed recreation, reducing concentrated impacts to vegetation but potentially dispersing impacts from visitors throughout the Monument. The Proposed Plan would also designate Management Areas in addition to zones, based on intensity of use and the need to protect BENM objects, which could help reduce the impacts of recreation to vegetation if needed in the future.

The Proposed Plan would manage fewer acres than Alternative A as VRM Class III. All NFS lands would be managed as SIO Very High or High. Fewer areas managed as VRM Class III would reduce the impacts of these types of treatments as discussed in Section 3.4.4.2.2, but may require more frequent small-scale treatments of vegetation to maintain desired condition classes.

More acres would be managed as ROW exclusion and avoidance areas than Alternative A. More acreage managed as ROW exclusion and fewer acres managed as open to ROW would offer more protection to vegetation and special status species, such as those identified in Proclamation 10285, and reduce impacts associated with ROWs as described in Section 3.4.4.2.2. The number of acres of ecological site groups that would be in each type of ROW allocation under the Proposed Plan is summarized in Table 3-31. The ecological site group with the most area in ROW avoidance or exclusion zones is Arid Warm – Sandy Uplands, Loamy Uplands. These areas are vulnerable to disturbance and drought and prone to invasion by annuals, so the increased protection from ROW authorization in these areas would further protect them from these impacts.

3.4.4.2.8. Cumulative Impacts

The cumulative impacts analysis area for vegetation consists of BLM-administered lands, NFS lands, NPS lands, and adjacent state, Tribal, county, and privately owned lands surrounding BENM. Ongoing and planned actions in and near BENM would influence vegetation conditions and management effectiveness on a regional scale (see Appendix J). The time frame for cumulative environmental consequences for future actions is 20 years, or the life of the plan.

Portions of BENM adjoin other BLM-administered lands, NFS lands, national parks, and NRAs, each with its own land management plan (LMP) guiding vegetation, recreation, and fuels management in the administrative area. Vegetation management, including fire and fuels management, is becoming more broadly consistent across federal landownerships due to updated plan adherence with current federal law, regulation, and policy.

The cumulative impacts of past and present actions to vegetation in the Planning Area are captured in the description of the affected environment (see Section 3.4.4.1 and Appendix N). This primarily includes post-European settlement livestock grazing and fire suppression, resulting in current vegetation conditions that have departed from historical conditions. This has resulted in a landscape with increased woody plant and invasive annual grass densities and a greater potential for uncharacteristically large, severe fires compared with historical conditions. Ongoing climate trends, including more frequent extreme fire weather, extreme drought, and intense storms, combine with and exacerbate these conditions.

Actions taken outside BENM include hazardous fuels reduction, prescribed fire, habitat enhancement and range improvement projects, as well as recreation management projects. The hazardous fuels reduction, prescribed fire, and habitat enhancement projects generally aim to move vegetation conditions and fuels loading toward historical conditions and restore historical fire regimes, as well as provide habitat for special status species and big game (see Section 3.4.1). Continuation of management prescribed in the 2008 Monticello RMP, 2008 Moab RMP, and 1986 Manti-La Sal LRMP would allow for activities that increase the risk of wildfires such as recreation and would also allow for vegetation management projects that would reduce fuels loading. These RMPs, as well as *Standards and Guidelines for Rangeland Health* (BLM 1997), would continue to guide invasive and noxious weed management on lands bordering BENM. These management actions have the potential to reduce weeds coming onto the Monument. Projects listed in Appendix J that are near BENM (e.g., TY Cattle Company wells, UDOT Bluff material site, Aneth d-212X oil and gas wells, Red Canyon water wells, Black Steer reservoir, Daneros Mine expansion, and San Juan River side channel restoration) could impact vegetation conditions and remove vegetation, potentially indirectly affecting lands within BENM by changing seed banks or spreading weeds. These indirect effects could interact cumulatively with the effects described in the analysis of the alternatives above to change vegetation conditions, particularly on the margins of the Planning Area.

Non-federal land management policies are likely to continue affecting vegetation management around BENM. The cumulative impacts across the large, geographically complex, and diverse cumulative impacts analysis area are difficult to analyze, considering the uncertainties associated with government and private actions, and ongoing changes to the region's economy; however, based on the trends identified in this section, cumulative impacts such as increases in recreation, continued establishment and spread of weeds, continued woody encroachment, ongoing livestock grazing, and continued housing and commercial development are likely to continue or increase.

RFFAs in BENM have the potential to impact vegetation. Projects that are anticipated to alter vegetation conditions include a fuels reduction treatment and maintenance of treated lands project in the Shay Mesa vicinity; vegetation management on mesa tops around Red Canyon, Jacobs Chair, Tables of the Sun, and White Canyon to increase forage for bighorn sheep; and prescribed fire projects in North Elk Ridge, South Elk Ridge, Mormon Pasture, and Maverick Point. Projects that may increase the potential for impacts to vegetation, including vegetation removal and increased invasive plant spread, are range improvement projects consisting of construction of reservoirs, storage tanks, fences, and wells; trail development and maintenance projects; transportation maintenance and construction; and several ROW development projects.

Proposed vegetation management activities under the action alternatives would contribute to the cumulative impacts of regional vegetation management by other agencies and stakeholders. These efforts would contribute to landscape restoration and ecological resilience on a larger scale, with a focus on achieving desired vegetation conditions, restoring historical fire regimes, and reducing the potential for large-scale landscape change.

3.4.5. Noxious Weeds and Nonnative Invasive Plants

3.4.5.1. AFFECTED ENVIRONMENT

Noxious weeds and nonnative invasive plants disrupt or have the potential to disrupt or alter natural ecosystem function, composition, or diversity of infested areas. These species complicate natural resource use and may interfere with management objectives. Noxious weeds in the Planning Area are designated by the Utah Noxious Weed Act of 2008. Table 3-32 (see Appendix N) summarizes the noxious weeds documented in the Planning Area. Table 3-33 (see Appendix N) lists additional weeds on the Utah Noxious Weed List (Utah Weed Control Association 2022) that have been documented in the region and that could be introduced into the Planning Area. Although not listed on Utah's Noxious Weed List, an invasive nonnative plant species of concern and significant change agent in the region is cheatgrass, which is the most abundant invasive annual grass in the Planning Area. According to terrestrial BLM AIM Strategy and landscape monitoring framework data from 2013 through 2021, a majority (69%) of the monitoring plots had little to no invasive annual grass cover, and most HUC 10 watersheds are meeting expected LANDFIRE BPS conditions for invasive annual grass cover (Table 3-34 [see Appendix N]). See Appendix K for more information about AIM data. Appendix A, Figure 3-18 shows an overall decrease in annual forbs and grasses throughout the Monument from 1997 to 2021.

Controlling undesirable and nonnative species is one of the most difficult challenges facing vegetation managers. Control of noxious weeds and invasive plants would depend on the cost and feasibility of available treatment methods. Resource management strategies are in place that would contribute to maintaining current levels or reducing the expansion of these species.

See Appendix N for additional context concerning the affected environment related to noxious weeds and nonnative invasive plants.

3.4.5.2. ENVIRONMENTAL CONSEQUENCES

3.4.5.2.1. Impacts Common to All Alternatives

Agencies would coordinate with the BEC and Tribal Nations in controlling the spread of invasive plants under all alternatives. This would include using a combination of Traditional Indigenous Knowledge and, to the extent practicable, Tribal Nations' policies on invasive species and agency techniques, along with other treatment options, such as BMPs (see Appendix G). Inclusion of Traditional Indigenous Knowledge may result in techniques that are uncommon in typical Western weed management, may allow for more ecological treatment of noxious weeds in BENM, and potentially allow for increased native cover and resilience.

Grazing and construction and maintenance of range improvements could increase susceptibility for the introduction and spread of noxious and invasive plants by disturbing the native grass community in areas of overgrazing or trampling in concentration areas. Utilization standards for grazing are in place to address that risk. Grazing is associated with decreased BSC and perennial grass cover and corresponding increases in invasive annual grasses (Duniway et al. 2018). Livestock movement and associated activities, such as the transport of contaminated hay, can also introduce noxious and invasive plants into new locations; however, all alternatives include management direction to mitigate the risks of these impacts and to emphasize sustainable, healthy rangelands with respect to grazing practices. Any permit that is voluntarily relinquished by its holder would become unavailable for grazing, which would reduce the risk of noxious and invasive species establishment and spread in these areas by reducing the vectors of weed spread and disturbance pathways.

Seasonal closures for roosting, hibernating, or breeding of sensitive species may limit vegetation treatments in certain areas at certain times of the year, potentially requiring invasive plant treatments during less ideal times.

Allowing the use of prescribed fire in conjunction with other treatments can help move plant communities toward desired conditions by improving seed bed conditions and facilitating desired vegetation establishment. In areas with high invasive cover, prescribed fire could reduce plant cover as well as reduce the invasive seed bank. Removing aboveground biomass can allow for higher competitive ability for perennial grasses and forbs by freeing resources for growth (Monsen et al. 2004). Prescribed fire would not be used in areas known to be highly susceptible to postfire cheatgrass or other invasive species invasion. See Section 3.5.4 for more information on prescribed fire and its effects on vegetation and fuels.

Agencies would protect and restore riparian, wetland, and water resources, which would ensure the ecological diversity, stability, and sustainability of these systems and would likely include efforts to remove invasive riparian plants.

Development and maintenance of roads, trails, and facilities can introduce invasive species as described in Section 3.4.4.2.1. Limiting OHV use to designated or existing routes helps confine these impacts to high-use areas and can reduce the extent of these impacts; however, the introduction of invasive plants can still occur in OHV limited areas. Areas that are closed to OHV use do not have these impacts from OHVs to vegetation. No areas are designated as OHV open, which greatly reduces the spatial impact of OHV use on vegetation.

Recreationists' vehicle tires and undercarriages or footwear and clothing can introduce invasive and nonnative plant materials. These risks are highest around developed campgrounds, in heavily used dispersed areas, and along motorized routes, trails, and trailheads. The probability that

noxious and invasive plants will successfully establish depends on several factors, including plant propagule pressure and the amount and intensity of surface disturbance. The more propagules that are introduced, the more likely that nonnative plants will eventually become established (Von Holle and Simberloff 2005). Impacts from recreation can be concentrated in high-use areas such as developed sites, campgrounds, and trailheads. Concentrating impacts in one area can also prevent dispersed impacts from recreation elsewhere in BENM. Rules and guidelines in certain areas would limit or control activities through specialized management tools, such as designated campsites, permits, and area closures. NFS lands in BENM area have few developed recreation sites, so most visitor impacts are dispersed.

Areas managed for VRM Class I or II and SIO High or Very High would minimize the amount of disturbance in those areas. This could mean there would be fewer allowable vegetation treatments and/or more small-scale treatments in these areas, which could benefit vegetation in the short term (due to lack of disturbance) but may result in lower quality vegetation conditions and allow for greater invasive species spread in the long term.

ROW development can cause removal of vegetation and soil compaction, which may be detrimental to the native plant community and allow for invasive species to gain a foothold. Additionally, ROW areas are susceptible to transportation of invasive seeds on vehicle tires and undercarriages, as well as on shoes and clothing. Areas identified as ROW exclusion areas would not allow ROW development and therefore avoid surface-disturbing activities and impacts mentioned above. ROW avoidance areas have the potential to be developed if no other alternative exists; therefore, they provide more protection against invasive species establishment and spread than ROW open areas but they may still allow for these impacts.

Weed spread is often influenced by the extent of disturbed soil and the proximity to established weed-infested areas. Assessing weed spread is based in part on evaluation of the difference in frequency, intensity, or type of management activity or natural processes (such as wildlife) that result in significant soil disturbance.

Vegetation treatments can increase the risk of noxious and invasive species establishment and spread by increasing surface disturbance and introducing vectors of weed spread. See Section 3.4.4 for a description of how different vegetation treatments impact noxious and invasive species establishment and spread. BMPs used under all alternatives to prevent the spread of noxious and invasive plants would reduce or prevent these impacts. In the long term, vegetation treatments would increase native vegetation function and resilience by facilitating native shrub and perennial grass and forb cover (Miller et al. 2000) and by increasing resistance to invasive annual grass invasion (Tausch et al. 2009).

3.4.5.2.2. Impacts under Alternative A

Under Alternative A, management of terrestrial vegetation would continue, and the condition and trends for noxious weeds and invasive species, as summarized in the Section 3.4.5.1, would be expected to continue along similar trajectories. Prevention and control measures, including the use of herbicides approved for use on BLM-administered and NFS lands, would be implemented for treating and preventing the spread of invasives.

Alternative A would provide the most acreage (1,223,820 acres) available to livestock grazing across all alternatives. In these areas, noxious weeds and invasive species would likely continue at present levels because there are grazing practices in place that emphasize managing for sustainable, healthy rangelands.

Continuing to manage woodlands suitable for commercial harvest for timber or wood fiber production may result in more commercial harvest and the potential for spread of invasives due to harvesting techniques. Additionally, allowing clear-cuts on any forest cover type could lead to increased erosion, introduction and spread of invasive species, and monoculture regrowth leading to less resilient plant communities and more potential for invasive spread.

In the approximately 15% of the Monument covered by the 2020 ROD/MMPs, surface-disturbing activities would be prohibited within active floodplains or within 100 meters of riparian areas, unless it is a vegetation treatment that does not impair riparian function. Prohibiting discretionary actions and/or surface disturbance in these sensitive areas would reduce the ability of invasive and noxious plants to spread in these areas.

Continuing to manage 436,075 acres as OHV closed would preclude motorized travel effects on the introduction and spread of noxious and invasive species; however, invasive species can still spread through established transportation corridors, although the spatial impact of spread would be much less in areas managed as OHV limited (928,080 acres).

Alternative A has the most acres of SRMAs/RMZs or ERMAs of any alternative, resulting in the most area managed for recreation and would continue to strive to concentrate recreation to a few areas. This may result in concentrated impacts from recreation in these areas and increased spread and establishment of invasive plants; however, management would likely concentrate invasive plant treatments in these areas due to high use and visibility. Additionally, the BLM would continue to manage 48,954 acres of LWC and 411,467 acres of ACECs, WSAs, or WSRs. Closing these areas to OHV use and limiting camping and group size could continue to reduce impacts to native vegetation, which would likely result in more resilient communities that are more resistant to invasive plant establishment and spread. Many mechanical treatments would be prohibited in these special designation areas due to VRM Class I and II designations, which would reduce the spread of invasive species in the short term, but possibly allow for gradual spread of these species in untreated areas.

Alternative A may result in increased levels of vegetation treatments to improve the VCC, which may result in reduced cover of invasive plants. Increasing the number of treatments could also increase the spread and introduction of nonnative species as described in Section 3.4.5.2.1, but may also increase the number of invasive plant treatments and reduce invasive plant spread overall.

Under Alternative A, the agencies would continue to manage 449,283 acres as ROW exclusion and 180,329 acres as ROW avoidance. The introduction and spread of noxious weeds and invasive species would continue to be reduced in these areas by reducing surface-disturbing activities that increase the introduction and spread of these species, as described in Section 3.4.5.2.1. Continued introduction and spread would still be expected to occur in areas open to ROW authorization (814,018 acres).

3.4.5.2.3. Impacts under Alternative B

Alternative B focuses on vegetation management to maintain plant diversity, native species productivity, and maintaining vegetation for Indigenous peoples' traditional and ceremonial uses. Treatments would focus on enhancing or maintaining desirable conditions of vegetation, which could help target invasive plant treatment in areas otherwise not considered under Alternative A (areas that are not high risk or high value).

Under Alternative B, in addition to the acres that are unavailable under Alternative A, another 28,027 acres would be unavailable for grazing, which would reduce the risk of noxious and invasive species establishment and spread by reducing the vectors of weed spread and disturbance pathways.

Under Alternative B, clear-cutting would be prohibited on NFS lands, except where used to regenerate aspen, reducing the impacts of this type of timber harvest as described under Alternative A. More acres would be open to wood product harvest than under Alternative A, which may allow for higher rates of invasive plant establishment and spread.

Management of water resources under Alternative B would be similar to Alternative A, except that new discretionary actions in riparian or wetland areas must provide long-term benefits or not impair overall riparian function, which may alter the types of invasive species treatments permitted and would also likely require vegetation treatments to have ongoing monitoring and treatment to ensure that invasive species do not return and/or do not alter the ecosystem.

In all, 130,552 more acres would be closed to OHV travel than Alternative A, and OHV use would be limited on 130,555 fewer acres than Alternative A. Closing areas where OHV travel was previously limited to designated routes would reduce the potential for the introduction and spread of noxious and invasive species and reduce the creation of new potential transportation vectors for invasive species because new routes could not be designated.

Alternative B would manage recreation by limiting or restricting public use as little as possible. Similar to Alternative A, managing for fewer high-use areas would reduce the concentration of invasive species in high-use areas but could also result in more wide-spread invasives. The BLM would manage 97,403 acres of LWC and 412,054 acres of ACECs, WSAs, or WSRs. These designations would help protect vegetation in these areas from large-scale introductions and spread of noxious and invasive species.

Alternative B would manage 194,479 fewer acres than Alternative A as VRM Class III/Moderate SIO and would have no acres managed as VRM Class IV/Low SIO. Fewer areas managed as VRM Class III and no acres managed as VRM Class IV would mean less allowable large-scale vegetation management and less high-disturbance management. This would reduce the impacts of these types of treatments as discussed in Section 3.4.5.2.1 and would likely reduce the spread of invasive species; however, reducing the number of treatments may allow for increased spread of invasive plants in places where they are already established.

In all, 4,098 more acres would be managed as ROW exclusion areas than under Alternative A, and 724,884 more acres than Alternative A would be managed as ROW avoidance. Additionally, 518,752 fewer acres would be open to ROW authorization. This would reduce the potential for the introduction and spread of noxious and invasive species to a greater degree than Alternative A.

3.4.5.2.4. Impacts under Alternative C

Alternative C similarly prioritizes vegetation treatments as under Alternative B, so effects from vegetation management would be similar to Alternative B except that chaining would be prohibited. The prohibition of chaining under Alternative C, and introduction of light-on-the-land techniques in wilderness, WSAs, and lands managed to protect wilderness characteristics would reduce the potential to introduce noxious and invasive species that can occur with the large-scale disturbances.

Impacts of livestock grazing management would be the same as Alternative B.

Impacts of forestry and woodlands management would be the same as Alternative B.

Impacts of water resources management would be the same as Alternative B.

Alternative C would limit OHV use on 227,958 fewer acres than Alternative A and would have 227,955 more acres closed to OHV travel. Impacts from closing these routes would be comparable to those described under Alternative B.

Alternative C would include less on-the-ground presence of personnel, signage, and developed facilities than Alternative A but more emphasis on permitting and off-site education, which could help reduce the spread and establishment of invasive plants. Less on-the-ground presence may result in increased damage to vegetation from visitors; however, increased permits and reducing group size could reduce invasive spread.

Alternative C would manage 143,359 more acres as VRM Class I/Very High SIO; this is 487,669 more acres as VRM Class II/High SIO and 194,479 fewer acres as VRM Class III/Moderate SIO than Alternative A. Impacts to the spread of invasive species would be similar to those described for Alternative B.

Under Alternative C, the agencies would manage 102,995 more acres as ROW exclusion areas than Alternative A. There would be 631,465 more acres managed as ROW avoidance than Alternative A, and no acres open to ROW authorization. This would reduce the potential for the introduction and spread of noxious and invasive species to a greater degree than Alternative A.

3.4.5.2.5. Impacts under Alternative D

Vegetation management would be the same as Alternative C except that wherever practicable, light-on-the-land techniques would be used throughout the Monument. Impacts would therefore be similar as under Alternative C; however, these techniques are smaller in scale, so there would likely be a reduction in the number of treatment projects, potentially causing a long-term decline in vegetation condition and an increase in the spread of noxious and invasive species.

Alternative D would allow only native seeds for revegetation efforts, which may help increase native plant cover, leading to an increase in diversity, structure, and function of the vegetation community; however, there are some instances in which native plants have a low probability of success, which may potentially allow for an increase in invasive plants or require the use of more mechanical methods, increasing the necessity for multiple treatments and slowing movement toward desired conditions.

Compared to Alternative A, an additional 224,194 acres would be designated as unavailable/not suitable for grazing, reducing the risk of noxious and invasive species introduction and spread in these areas by reducing the vectors of weed spread and disturbance pathways to a greater extent than Alternative A.

Impacts of forestry and woodlands would be the same as Alternative B.

Impacts of water resources management would be the same as Alternative B

Alternative D would limit OHV use on less than half of the acreage as under Alternative A. Twice the amount of acres would be closed to OHV travel as under Alternative A, the most of any alternative. Impacts from closing these routes would be comparable to those described under Alternative B.

Under Alternative D, there would be more restrictions and limits on recreational use and access in more remote areas compared to Alternative A, which would help reduce the spread of invasive plants to more remote areas of the Monument.

Alternative D would manage 440,019 more acres as VRM Class I/Very High SIO and 208,378 more acres as VRM Class II/High SIO than Alternative A, which would result in impacts similar to Alternative B, but with a greater degree of protection.

The agencies would manage 402,389 more acres as ROW exclusion areas and 332,155 more acres as ROW avoidance than Alternative A, and no acres would be open to ROW authorization, which would reduce the potential for the introduction and spread of noxious and invasive species to a greater degree than under Alternative A.

3.4.5.2.6. Impacts under Alternative E

Impacts of vegetation management would be similar to Alternative D. The use of native seeds would be the same as Alternative D except that only non-GMO seeds could be used in revegetation and restoration projects. The feasibility of obtaining non-GMO native seeds, especially those that are locally adapted to BENM, could make these projects slower or require the use of nonideal plants on a site, which could lead to increased spread of noxious or invasive species. Other impacts from the use of native seeds would be the same as Alternative D.

Limitations on seed collection, additional requirements for restoration and/or erosion control, changes in vegetation management, and limitations on discretionary actions would be implemented during times of drought. Adapting management to drought conditions would likely allow for greater resource rest and fewer methods for noxious weeds and invasives to spread.

Impacts of livestock grazing management would be the same as Alternative B.

Management of forests and woodlands would provide more adaptive management and emphasize plant community health, which would allow for fewer impacts to vegetation and may enhance ecosystem functioning more than Alternative A. No clear-cutting would be allowed, protecting vegetation from the spread of invasive plants and monoculture regrowth that may occur with clear-cutting actions.

No new discretionary actions that alter vegetative cover would be allowed within 100-year floodplains or within 0.5 mile of springs, riparian areas, and intermittent and perennial streams unless necessary to protect BENM objectives. This is more restrictive than Alternative A and may result in fewer noxious weed and invasive plant treatments in areas that may need them; however, it may also result in fewer surface-disturbing vegetation treatments that allow for greater spread of invasive and noxious weeds.

Closing 569,971 acres to OHV travel and limiting OHV use to 794,181 acres would reduce the potential for the introduction and spread of noxious and invasive species in these areas to a greater degree than under Alternative A.

An increase in prescriptive recreation management, including permits, fees, and group size limits, would help reduce the spread and establishment of invasive species from human vectors. Development and maintenance of facilities under Alternative E would be similar to Alternative D, but facilities would only be allowed in Front Country Zones and in areas where they would protect BENM objects. Less facility development would result in less soil disturbance, reducing the establishment of invasive species, but it may also result in more dispersed recreation, which could spread invasive plant vectors throughout the Monument instead of concentrating them.

Approximately 925,449 more acres would be managed as VRM Class I/Very High SIO, and 278,629 fewer acres would be managed as VRM Class II/High SIO than under Alternative A, which would result in similar impacts to Alternative B, but with a greater degree of protection.

Under Alternative E, the agencies would manage 655,673 more acres as ROW exclusion than Alternative A and 78,787 more acres as ROW avoidance than Alternative A, and no acres would be open to ROW authorization, which would reduce the potential for introduction and spread of noxious and invasive species to a greater degree than Alternative A.

3.4.5.2.7. Impacts under the Proposed Plan

Impacts of vegetation management, including the use of native seed, would be similar to Alternative D. Under the Proposed Plan, 27,210 more acres would be unavailable/not suitable for grazing than Alternative A. Managing additional acres as unavailable/not suitable for grazing would reduce the risk of noxious and invasive species introduction and spread in these areas by reducing the vectors of weed spread and disturbance pathways to a greater extent than Alternative A.

Approximately 859,983 acres would be open to wood product harvest, in accordance with applicable law, and 504,076 acres would be closed to wood product harvest. Other management actions for forestry and fuels would be similar to those described under Alternative E, except the Proposed Plan would require consistent monitoring for impacts to vegetation, which would inform potential seasonal or multiyear closures to wood product harvest. Impacts to noxious weeds would be the same as those described in Alternative E, and the additional monitoring requirements would help reduce the opportunity for noxious and invasive plants to spread unchecked.

Impacts from discretionary actions in riparian and wetland areas would be similar to Alternative B.

Managing 201,540 more acres as OHV closed compared to Alternative A would reduce travel on designated routes and reduce the potential for the introduction and spread of noxious and invasive species. Impacts would be similar to Alternative B, but would provide a greater degree of protection.

Recreation management would be similar to Alternative E with differences in the collaboration between the BEC and agencies to maintain, reroute, improve, repair, and/or close and rehabilitate disturbed areas. These collaboration efforts would help protect vegetation in these areas from large-scale introductions and spread of noxious and invasive species. Recreation management would also be similar to Alternative B with the emphasis on tread lightly, camping, and travel techniques throughout BENM. Managing for fewer high-use areas would reduce the concentration of invasive species in high-use areas but could also result in more wide-spread invasives throughout the Monument.

The Proposed Plan would manage 192,942 fewer acres than Alternative A as VRM Class III and would have no acres managed as VRM Class IV. On NFS lands, the Proposed Plan would manage 46,858 acres as Very High SIO and 242,933 acres as High SIO. Fewer areas managed as VRM Class III would mean less allowable large-scale vegetation management and less high-disturbance management. This would reduce the impacts of these types of treatments as discussed in Section 3.4.5.2.1 and would likely lead to reduced spread of invasive species; however, reducing the number of treatments may allow for increased spread of invasive plants in places where they are already established.

Under the Proposed Plan, 194,684 more acres would be managed as ROW exclusion than Alternative A, and 728,970 fewer acres would be open to ROW authorization compared with

Alternative A. This increase in ROW exclusion and avoidance areas would reduce the potential for the introduction and spread of noxious and invasive species to a greater degree than under Alternative A. Impacts from areas open to ROW authorization would be the same as Alternative B.

3.4.5.2.8. Cumulative Impacts

The BLM, NFS, NPS, and adjacent state, Tribal, county, and privately owned land surrounding BENM are considered the cumulative impacts analysis area for noxious weeds and invasive plants. Ongoing and planned actions in and near BENM would influence noxious weeds and invasive plant conditions and management effectiveness on a regional scale (see Appendix J).

Portions of BENM adjoin other BLM-administered lands, NFS lands, national parks, and NRAs, each with its own LMP, noxious weeds, and invasive plant species in the administrative area. Noxious weeds and invasive species management is becoming more broadly consistent across federal land ownerships, due to updated plan adherence with current federal law, regulation, and policy. Direction for noxious and invasive species management in the adjacent agency LMPs is complementary to the proposed plant components for BENM. This means broad movement toward reducing or eradicating noxious weeds and invasive species would be facilitated across administrative boundaries in this region.

The cumulative impacts of past and present actions to vegetation in the Planning Area are captured in the description of the affected environment (see Section 3.4.5.1 and Appendix N). This primarily includes post-European settlement livestock grazing and fire suppression, resulting in current vegetation conditions that are departed from historical conditions. This has resulted in a landscape with increased woody plant and invasive annual grass densities and a greater potential for uncharacteristically large, severe fires compared with historical conditions. Ongoing climate trends, including more frequent extreme fire weather, extreme drought, and intense storms, combine with and exacerbate these conditions.

Actions taken outside BENM include federal and state-funded hazardous fuels reduction, prescribed fire, habitat enhancement and range improvement projects on NFS lands and BLM-administered lands, as well as recreation management projects. These activities could affect the condition of noxious weeds and invasive species within the cumulative impacts analysis area. The 2008 Monticello RMP, 2008 Moab RMP, and 1986 Manti-La Sal LRMP, as well as *Rangeland Health: Utah's Standards and Guidelines for Healthy Rangelands* (BLM 1997), will continue to guide invasive and noxious weed management on lands bordering BENM and will have the potential to reduce weeds coming onto the Monument. Projects that are near BENM could impact noxious weeds and invasive species, including TY Cattle Company wells, UDOT Bluff material site, Aneth d-212X oil and gas wells, Red Canyon water wells, Daneros Mine expansion, and San Juan River side channel restoration. These projects could potentially and indirectly affect lands within BENM and interact cumulatively with the effects described in the analysis of the alternatives above.

Non-federal land management policies are likely to continue affecting vegetation management around BENM. The cumulative impacts across the large, geographically complex, and diverse cumulative analysis area are difficult to analyze, considering the uncertainties associated with government and private actions and ongoing changes to the region's economy; however, based on the trends identified in this section, cumulative impacts, including increases in recreation, continued establishment and spread of weeds, continued woody encroachment, ongoing livestock grazing, and continued housing and commercial development are likely to continue or increase.

RFFAs in BENM have the potential to impact noxious weeds and invasive species. These are generally projects that would substantially increase surface disturbance or increase vectors of

weed spread. Projects that are anticipated to alter vegetation conditions include a fuels reduction treatment and maintenance of treated lands project in the Shay Mesa vicinity; vegetation treatments on mesa tops around Red Canyon, Jacobs Chair, Tables of the Sun, and White Canyon to increase forage for bighorn sheep; and prescribed fire projects in North Elk Ridge, South Elk Ridge, Mormon Pasture, and Maverick Point. Projects that may increase the potential for impacts to vegetation, including vegetation removal and increased invasive plant spread are range improvement projects consisting of construction of reservoirs, storage tanks, fences, and wells, trail development and maintenance projects; transportation maintenance and construction projects; and several ROW development projects.

Proposed vegetation management activities under the action alternatives would contribute to the cumulative impacts of regional vegetation management by other agencies and stakeholders. These efforts would contribute to landscape restoration and ecological resilience on a larger scale, with a focus on achieving desired vegetation conditions, restoring historical fire regimes, and reducing the potential for large-scale landscape change.

3.4.6. *Forestry and Woodlands*

3.4.6.1. AFFECTED ENVIRONMENT

Forested and woodland community types in the Planning Area (collectively referred to as forest) are aspen, ponderosa pine, mixed conifer, aspen–mixed conifer, mixed conifer–mountain shrub, Douglas-fir, pinyon-juniper shrublands, and Gambel oak woodlands. There are approximately 1,074,955 acres of forest and woodlands administered by the BLM and approximately 289,104 acres of NFS lands in the Planning Area. Descriptions and acreages of dominant forest and woodland types are found in Appendix N. The pinyon-juniper and Gambel oak woodlands are the most abundant forest type by acreage on the Monument. Warming temperatures and increasing drought conditions due to climate change create more favorable conditions for wildfires to occur. Increased fire frequency and fire size could create impacts to healthy woodlands, lower ecological resilience, and alter forestry and wood product availability.

Vegetation treatments vary by woodland type and include silvicultural treatments, fuels treatments such as prescribed fire, management of insect and disease populations, vegetation management, and ecological restoration.

Wood products are harvested for multiple uses. For Indigenous peoples, woodlands are important for pinyon nut gathering and as places of cultural and religious significance (see Appendix L). The BLM has eight areas designated for wood product harvest: Cedar Mesa, Salt Creek Mesa, Harts Draw, South Cottonwood, North Comb Ridge, Shash Jáa Unit, Dark Canyon Plateau, and White Canyon (Appendix A, Figure 3-24) and sold approximately 1,730 cords of wood annually from 2019 to 2023. The BLM also provides permits for cedar fence posts and free use permits for collection of materials for cultural use, including Christmas trees. Wood product harvest by individuals is the primary use of woodlands on NFS lands in the Planning Area. Table 3-35 (see Appendix N) shows the number of wood product permits sold on NFS lands in the Planning Area from 2018 to 2022. See Appendix N for additional context concerning the affected environment related to forestry and woodlands.

3.4.6.2. ENVIRONMENTAL CONSEQUENCES

3.4.6.2.1. Impacts Common to All Alternatives

Agencies would collaborate with the BEC and Tribal Nations to incorporate Traditional Indigenous Knowledge to establish and implement forest health and forest management standards and guidelines and to assess conditions and guide management decisions for woodland resources, contributing positively to the responsible stewardship of woodlands.

All wood product harvest would require authorization, in accordance with applicable law, consistent with the availability of wood products and the protection of other resource values. Wood product use would be excluded from all developed recreation sites, livestock/wildlife enclosures, cultural resources sites, floodplains, riparian and aquatic areas, and springs, resulting in decreased areas available to wood product harvest and possibly limiting fuel load reduction. Proclamation 9558, as incorporated into Proclamation 10285, limits motorized vehicle use to roads and trails designated for such use.

Recreational uses are expected to increase over time and could increase impacts to forests and woodlands from increased ground disturbance, noxious and invasive weed introduction and distribution, and human-caused fire occurrences. It is assumed that no wood product harvest would occur in areas closed to wood product harvest; however, woodlands that are open to harvest and available for OHV access would likely have more wood products harvested resulting in thinning of overgrown forests, reduction in fuel load, and decrease in the risk of larger, hotter wildfires than areas that are closed to OHV use due to ease of access. This could also result in increased potential for spread of invasive species.

Temporary closures of portions of the Monument may be implemented seasonally to protect seasonal wildlife behavior. The closures would result in temporary limited access for wood products, but the extent of the impact would depend on the acreage and duration of closure.

All alternatives support forest health objectives of reducing adverse impacts from insects and disease.

3.4.6.2.2. Impacts under Alternative A

Management would involve the least amount of collaboration with the BEC and subsequently the least input of Traditional Indigenous Knowledge. This could result in a limited amount of Indigenous peoples' information and knowledge being applied to management decisions for forests and woodlands, such as determining harvest seasons.

Cottonwood and willow harvest would continue to be allowed for Indigenous peoples' traditional and ceremonial uses with restrictions implemented as necessary to achieve or maintain PFC and to maintain or improve threatened and endangered (T&E) species or special status species, wildlife, and aquatic habitat. Without careful monitoring of riparian areas under this alternative to observe the impacts of cottonwood and willow harvest, the PFC of riparian areas may be impacted. Wildlife species with habitat in riparian areas could also be impacted.

On BLM-administered lands, wood product harvest would continue to be allowed in areas where the BLM has approved fuels treatment (e.g., prescribed fire) or habitat treatment projects, which could support those treatments in reducing fuel loading and meeting treatment objectives. All WSAs and IRAs would continue to be excluded from wood product use except for limited on-site collection of

dead wood for campfires under Alternative A, which could help protect the integrity of forests in WSAs.

The USDA Forest Service would continue to manage forests that are suitable for timber production using commercial harvest. Clear-cuts would be an available treatment option. Clear-cutting is a treatment option that removes all trees in an area and can result in an increased risk of soil erosion, visual impacts, and the regeneration of species that do not tolerate shade.

Under Alternative A, management of off-road travel for wood product harvest would be based on the Proclamation constraints on off-route motorized travel, as directed, to protect Monument objects. This may limit wood product harvest by constraining use to either designated routes and areas directly adjacent to those routes that can be accessed by non-motorized means or by limiting volume of wood gathered to the amount of product manageable by non-motorized means.

A total of 715,667 acres would remain open to wood product harvest (approximately 52% of the Monument). Alternative A is the most restrictive alternative regarding wood product harvest because it has the smallest acreage available for harvest. This could result in a lower risk of noxious weed establishment and spread but reduces opportunities for Indigenous people and other members of the public to collect wood products.

Areas open and closed to wood product harvest are shown in Appendix A, Figure 2-1. Table 3-37 shows woodland types and acreages within the Monument, and the acreage and percentage open to harvest under this alternative.

Table 3-37. Acreage and Percentage of Forest Type Open to Wood Product Harvest under Alternative A

Forest Type	Acreage of Forest Type within the Monument	Acreage of Each Forest Type Open to Harvest under Alternative A	Percentage of Each Forest Type Open to Harvest under Alternative A
Aspen and Aspen-Mixed Conifer Communities	6,858	6,757	99%
Mixed Conifer-Mountain Shrub Woodlands	2,300	1,537	67%
Mixed Conifer (Dry) Communities	75,174	70,044	93%
Pinyon-Juniper and Gambel Oak Woodlands	648,670	377,703	58%
Developed/Urban Forests	694	609	88%

Approximately 710,359 acres of forest would continue to be both open to harvest and managed as limited OHV use; impacts would be similar to those discussed in Section 3.4.6.2.1.

3.4.6.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. The USDA Forest Service would collaborate with the BEC when selecting and applying all silvicultural treatments. This would incorporate more Traditional Indigenous Knowledge into management decisions for forests and woodlands as compared to Alternative A. Where possible, agencies would prioritize making fuelwood and wood products resulting from fuels and vegetation projects readily available to Indigenous people and other members of the public.

Management actions, including limiting clear-cutting to regenerate aspen only would protect late successional and old-growth forests, help avoid detrimental soil impacts such as erosion, and reduce impacts to visual resources on NFS lands. Under Alternatives B, all forest in BENM would be

designated as lands unsuitable for timber production; however, timber harvest could be used as a management tool to protect BENM objects.

Alternative B would have approximately 16% more acres open to wood product harvest than Alternative A. Alternative B could result in increased opportunities for the public and members of Tribal Nations to collect wood products when compared to Alternative A. This increased wood product harvest could thin overgrown forests and reduce fuel load, which could help decrease the risk of larger, hotter wildfires; however, additional wood product harvest could result in additional disturbance to woodland, such as increased potential for spread of invasive species. Relative to Alternative A, more acreage would be available to wood product harvest and more of that acreage is actually woodlands. This is partially due to the focus of this alternative on removal of encroaching pinyon-juniper woodlands on sage steppe and grassland communities. Many of these areas currently have too low a concentration of pinyon-juniper to be considered woodlands but could transition to woodlands if encroachment is allowed. Opening additional acres to wood product harvest could slow the conversion process of these communities to pinyon-juniper woodlands.

Under Alternative B, on NFS lands, a 150-foot distance off of a designated motorized travel route for wood product harvesting would expand the areas accessible for wood product harvest on NFS lands compared to Alternative A.

Appendix A, Figure 2-2, depicts the areas that would be open or closed to wood product harvest under Alternatives B, C, and D. Table 3-38 shows the forest types and acreages of each forest type and the acreage and percentage for each woodland type open to wood product harvest under Alternatives B, C, and D.

Table 3-38. Acreage and Percentage of Forest Type Open to Wood Product Harvest under Alternatives B, C, and D

Forest Type	Acreage of Forest Type within the Monument	Acreage of Each Forest Type Open to Harvest under Alternative B, C and D	Percentage of Each Forest Type Open to Harvest under Alternative B, C, and D
Aspen and Aspen-Mixed Conifer Communities	6,858	6,838	~100%
Mixed Conifer-Mountain Shrub Woodlands	2,300	1,655	72%
Mixed Conifer (Dry) Communities	75,174	71,458	95%
Pinyon-Juniper and Gambel Oak Woodlands	648,670	435,233	67%
Developed/Urban Forests	694	678	98%

Impacts from concentration of wood product harvest would be the same as Alternative A.

Approximately 79,066 more acres would be open to wood product harvest and managed as limited to OHV use under Alternative B; this alternative provides the greatest number of acres of woodlands that are both open to harvest and managed as limited OHV use (Table 3-39). As a result, marginally more harvest could be expected under this alternative, relative to Alternative A.

3.4.6.2.4. Impacts under Alternative C

Impacts from forestry and woodlands management decisions would be the similar as those for Alternative B with the following exception. Under Alternative C, fewer acres are open to harvest and limited OHV use than under Alternative A (see Table 3-39). Impacts would be similar to those described in Section 3.4.6.2.1.

3.4.6.2.5. Impacts under Alternative D

Impacts under Alternative D for harvesting wood products would be similar to Alternative B with the following exceptions. Under Alternative D, a maximum size of 2 acres for regeneration openings of ponderosa pine and mixed conifer forest may further reduce the potential impacts to soil (such as erosion) and visual resources, but may also preclude the ability to address hazardous fuels and insect and disease infestations potentially causing impacts to vegetation conditions on NFS lands. Under Alternative D, fewer acres would be open to harvest and managed as limited OHV use than under Alternative A. As a result, the least amount of harvest could be expected under this alternative, relative to Alternatives A, B, and C, which would reduce impacts of invasive species spread but could contribute to the risk of larger, hotter fires.

3.4.6.2.6. Impacts under Alternative E

No areas would be designated as open or closed to wood product harvest under this alternative; those areas would be designated at a later date. The selected acreages open to wood product harvest would determine the level of harvest available for Indigenous people and other members of the public.

Wood product harvest would be emphasized in areas with pinyon-juniper encroachment and in areas where it would be useful for vegetation restoration. This prioritization of wood product harvest in specific locations should provide a more restorative approach and likely reduction in pinyon-juniper encroachment than under Alternative A. Commercial timber harvest would be allowed only if deemed necessary to protect BENM objects.

The agencies and the BEC would monitor populations and locations of traditionally harvested trees as well as uses and impacts to vegetation and wildlife species. Wood product harvest would be opened or closed on a seasonal or multiyear basis to allow for resource rest. This would be more of an adaptive management approach than under Alternative A, which could reduce impacts to resources in BENM. For Indigenous people, private collection of wood products would not be prohibited where such prohibition constitutes a substantial burden on religious practices.

Clear-cutting for treatments would be prohibited, which could reduce the area of shade intolerant species such as aspen, the encroachment of noxious weeds, visual impacts, and soil erosion but may also preclude the ability to address hazardous fuels and insect and disease infestations, potentially causing impacts to vegetation community health.

3.4.6.2.7. Impacts under the Proposed Plan

Areas of BENM would be available for wood product harvest in accordance with applicable law unless otherwise specified and except in areas listed in Table 2-7 (see also Appendix A, Figure 2-3). Limited on-site collection of dead wood for campfires would be allowed in areas specified in Table 2-7. Fewer acres would be available for wood product harvest than under Alternatives A, B, and C, and more acres would be available for wood product harvest than under Alternative D.

Approximately 425,364 acres of forest would be open to harvest and managed as limited OHV use (see Table 3-39).

Table 3-39. Comparison of Areas Both Open to Wood Product Harvest and Managed as OHV Limited

Alternative	Open to Wood Product Harvest and Managed as OHV Limited (acres)
Alternative A	710,359
Alternative B	789,428
Alternative C	692,041
Alternative D	373,337
Alternative E	N/A*
Proposed Plan	425,364

* Open/closed areas designated in collaboration with BEC.

Under the Proposed Plan, wood gathering 150 feet off motorized travel routes on NFS lands would be prohibited, and impacts would be the same as Alternative A.

Agencies would collaborate with the BEC and use implementation-level planning to close or restrict areas on a seasonal or multiyear basis in response to monitoring indications that unacceptable impacts to vegetation, soil, cultural resources, or wildlife habitat are occurring or that wood product harvest is no longer an effective tool to address pinyon and juniper encroachment. Commercial timber harvest and treatments would be designed in collaboration with the BEC and must advance the protection of BENM objects (see Table 2-7). These management approaches would provide for more case-by-case management in collaboration with the BEC than under other alternatives. The emphasis in the Proposed Plan on strategic management integrating site-specific analysis, Western science, and Traditional Indigenous Knowledge would address challenges in more targeted ways and on resource-specific timelines.

3.4.6.2.8. Cumulative Impacts

The BLM-administered lands, NFS lands, and state, Tribal, county, and privately owned lands surrounding BENM are the cumulative impacts analysis area for forest and wood products management. Ongoing and planned actions in and near BENM would influence the effectiveness of the management of forestry and wood products on a regional scale (see Appendix J). The time frame for cumulative environmental consequences for future actions is the life of the Proposed RMP/Final EIS. The cumulative impacts of past and present management actions in the Planning Area are captured in the description of the affected environment (see Section 3.4.6.1 and Appendix N).

RFFAs in BENM have the potential to impact forestry and wood products management by increasing or decreasing the size of designated wood product harvest areas, access to designated wood product harvest areas, or vegetation treatment projects. BLM projects that could impact forest and wood product management consist of the Shay Mesa Retreatment/Maintenance, Bluff River Trail, Flats Water Wells and Kane Fence, Beef Basin and Dark Canyon Plateau Range Improvements, Mancos Mesa Right-of-Way Access, Hamburger Rock Campground Improvements and Expansion (DOI-BLM-UT-Y020-2021-0017-EA), and the Goosenecks Campgrounds and Trails projects.

USDA Forest Service projects that could affect forests consist of the North Elk Ridge Forest Health Project, Mormon Pasture Mountain Wildlife Habitat Improvement Project, Maverick Point Project, Abajo-BENM watershed restoration project, and the South Elk Ridge Aspen Restoration Project. The USDA Forest Service National Old Growth Amendment (NOGA) could affect forests on NFS lands within the BENM boundary. The Proposed RMP/Final EIS directs future actions and projects to

maintain or improve old-growth acres in a way that is congruent with the proposed NOGA direction. All of the USDA Forest Service projects have the goal of restoring forest or wildlife habitat health and would likely result in positive cumulative benefits to forests and woodlands.

Proposed vegetation and wood product harvest management activities under the action alternatives would contribute to the cumulative impacts of regional fire and fuels management by other agencies and stakeholders. Regional fire and fuels management efforts would contribute to maintaining and restoring forest and woodland health to protect watershed values, support wildlife habitat requirements, and reduce the potential for catastrophic wildfires. Action alternatives that prioritize forest restoration and woodland health could have greater contributions toward these effects.

3.4.7. *Lands with Wilderness Characteristics (applies to BLM-administered lands only)*

3.4.7.1. AFFECTED ENVIRONMENT

The BLM has completed verification and re-inventory of some areas within the Monument to determine whether they contain wilderness characteristics. Those inventories are available at the BLM Monticello Field Office (FO). Approximately 421,965 acres have been found to possess wilderness characteristics in the Monument. The data listed in Table 3-40 in Appendix N and Figure 3-25 in Appendix A reflect the status of the ongoing inventory of BLM-administered LWC. Public interest and use throughout BENM are expected to increase in the future, potentially altering the landscape in some areas. With these alterations, there will be a need for recurring, updated inventories of LWC to evaluate if wilderness characteristics are still present.

See Appendix N for additional context concerning the affected environment related to LWC.

3.4.7.2. ENVIRONMENTAL CONSEQUENCES

3.4.7.2.1. Impacts Common to All Alternatives

LWC managed to protect wilderness characteristics would continue to be managed to protect wilderness characteristics, reducing impacts to the appearance of naturalness and outstanding opportunities for primitive and unconfined recreation or solitude. Short-term impacts to LWC can occur from range, watershed, or habitat improvements and vegetation treatments due to the presence of work crews, motor vehicle or machinery use, noise disturbance, and dust. Wildlife guzzlers may support game populations, including nonnative species, that may concentrate effects from hunters in certain areas. Watershed or vegetation treatments may remove certain native species but may also enhance biodiversity and protect an area from invasive plants or unnatural wildfires driven by climate change. In LWC managed to protect wilderness characteristics, the likelihood of experiencing such impacts may be lower compared to LWC that are not managed to protect wilderness characteristics because of management actions that limit discretionary and surface-disturbing activities in LWC managed to protect wilderness characteristics.

OHV use can impact the naturalness of LWC due to vegetation loss, increased erosion, wildlife disturbances, degraded water quality, introduction of noxious weeds, and damage to cultural resources. Outstanding opportunities for solitude and primitive and unconfined recreation can be degraded by the noise and dust of motor vehicles and increased presence of other visitors.

Land use authorizations, including ROW avoidance or open areas may lead to degradation of apparent naturalness and opportunities for solitude or primitive, unconfined types of recreation

through surface disturbance. Additionally, if an approved ROW were to bisect an LWC unit, it would reduce the overall LWC acreage through direct surface disturbances. If a bisected portion of the LWC unit were to fall below 5,000 acres, it may no longer meet the minimum size criteria for LWC status (BLM 2021a). Although the risk of such loss would be higher in ROW open areas in LWC that are not managed to protect wilderness characteristics, that risk would be mitigated in part by the requirement that authorizations in BENM must be consistent with the protection of Monument objects, which would generally limit the nature and scope of the ROWs that could be authorized within the Monument.

VRM Classes I and II would be managed to retain the existing character of the landscape, but VRM Class II would permit a low level of change. This would preserve the apparent naturalness of LWC managed to protect wilderness characteristics. VRM Class III and IV allow for a moderate to high level of change to the existing character of the landscape. Impacts to apparent naturalness in LWC are more likely under VRM Class III and much more likely under VRM Class IV.

In LWC units, private and commercial wood product harvest could result in impacts to apparent naturalness and outstanding opportunities for solitude or primitive, unconfined recreation due to presence of others, OHV or machinery noise, cut tree stumps or slash piles, and unauthorized OHV route proliferation.

Depending on circumstances, fire suppression within LWC managed to protect wilderness characteristics would use light-on-the-land techniques or Minimum Impact Suppression Tactics (MIST) that would help protect apparent naturalness by reducing surface disturbances that could result from more aggressive, mechanized methods of fire suppression. Use of MIST, however, may cause fire containment to take longer to achieve and possibly result in larger overall burn areas that need to be rehabilitated. In LWC that are not managed to protect wilderness characteristics, lack of MIST use could result in more short-term impacts to naturalness, solitude, and primitive, unconfined recreation from surface disturbances due the additional surface disturbance, presence of work crews, and use of motor vehicles, mechanized equipment, and aircraft.

3.4.7.2.2. Impacts under Alternative A

Under Alternative A, the BLM would continue to manage 48,954 acres of LWC to protect wilderness characteristics (Appendix A, Figure 2-4) and the remaining 373,011 acres of inventoried LWC would allow for other uses that would not protect wilderness characteristics. OHV travel would be limited to designated roads and trails in both LWC that are managed to protect wilderness characteristics and LWC that are not managed to protect wilderness characteristics. Cross-country OHV use would be prohibited in both LWC that are and are not managed to protect wilderness characteristics. Impacts to LWC would be the same as those described in Section 3.4.7.2.1.

Impacts to LWC from ROW development could occur in LWC not managed to protect wilderness characteristics that are managed as ROW avoidance or ROW open areas. LWC managed to protect wilderness characteristics would continue to be managed as ROW avoidance areas. Impacts to LWC from ROW development could occur in these areas as described in Section 3.4.7.2.1.

A total of 244 acres of LWC in the Monument would be closed to recreational shooting. Closing these areas to recreational shooting would reduce impacts to outstanding opportunities for solitude and primitive, unconfined recreation, and apparent naturalness from restricting shooting noise, the presence of trash, and bullet damage to rocks, soil, and vegetation.

All acres of LWC managed to protect wilderness characteristics would be managed as VRM Class II, and all range, watershed, or habitat improvements and vegetation treatments would be allowed if

they were beneficial or non-impairing of the wilderness characteristics and would meet the VRM Class II objectives, which would reduce impacts to LWC from these activities as described in Section 3.4.7.2.1. LWC that are not managed to protect wilderness characteristics would be managed as a combination of VRM Class I, II, III, and IV with impacts to LWC as described in Section 3.4.7.2.1.

LWC managed to protect wilderness characteristics would be unavailable for private and commercial wood product harvest except for on-site collection of dead wood for campfires, which would reduce impacts as described in Section 3.4.7.2.1.

Light-on-the-land or MIST fire suppression techniques would be emphasized under Alternative A. The impacts to LWC from fire suppression would be the same as those described in Section 3.4.7.2.1.

3.4.7.2.3. Impacts under Alternative B

Under Alternative B, there would be nearly two times as many acres of LWC managed to protect wilderness characteristics compared to Alternative A (see Table 2-1). LWC managed to protect wilderness characteristics under this alternative would better protect the existing landscape that is sacred and culturally significant to the Indigenous people who share deep connections to BENM. This would also result in reduced impacts from ROW development; range, water, and habitat improvements; and vegetation management on these additional acres managed to protect LWC as described in Section 3.4.7.2.1. The additional acreage being managed to protect wilderness characteristics compared to Alternative A would also result in reduced impacts from OHV use due to more acres being managed as OHV limited.

Recreational shooting would generally be allowed in LWCs under this alternative but prohibited at campgrounds or developed recreation facilities, climbing areas, existing and designated trails, parking areas, trailheads, rock writing sites, structural cultural sites, and across roadways. Closing these areas to recreational shooting would reduce impacts to outstanding opportunities for solitude and primitive, unconfined recreation and apparent naturalness from restricting shooting noise, the presence of trash, and bullet damage to rocks, soil, and vegetation.

The additional acreage managed as VRM Class II (all LWC managed to protect wilderness characteristics) would better preserve the apparent naturalness of LWC managed to protect wilderness characteristics from potential surface-disturbing activities. The remaining 324,562 acres of LWC that are not managed to protect wilderness characteristics would be managed mostly as VRM Class II with a few small corridors of VRM Class III (approximately 0.26 acre) near existing roads, and no acres managed as VRM Class IV, which would prevent most of the impacts described in Section 3.4.7.2.1.

LWC managed to protect wilderness characteristics would be available for private and commercial wood product harvest if beneficial or non-impairing to wilderness characteristics, with potential for impacts to LWC as described in Section 3.4.7.2.1.

Under Alternative B, light-on-the-land or MIST fire suppression techniques would be emphasized on 48,449 more acres than under Alternative A. The impacts to LWC from fire suppression would be the same as those described in Section 3.4.7.2.1.

3.4.7.2.4. Impacts under Alternative C

The BLM would manage the same area of LWC managed to protect wilderness characteristics under Alternative C as Alternative B (Appendix A, Figure 2-5). Impacts would be similar to those described under Alternative B, with some exceptions. Under Alternative C, LWC managed to protect wilderness characteristics would be managed as closed to OHV use. Compared with Alternative A, this would provide more protection for wilderness characteristics by preventing the impacts described in Section 3.4.7.2.1; however, closing OHV routes in LWC managed to protect wilderness characteristics could concentrate dispersed camping within fewer areas, which could result in increased impacts to other public lands adjacent or proximate to LWC managed to protect wilderness characteristics. The areas of LWC that are not managed to protect wilderness characteristics would be managed as OHV limited with the same travel management actions common to all alternatives. Although new route designations would be possible in LWC that are not managed to protect wilderness characteristics, new route designations would only be allowed where such designations are necessary for the purposes of public safety or protection of Monument objects.

LWC managed to protect wilderness characteristics would be managed as ROW exclusion areas, preventing the previously described impacts to LWC from ROW development under Alternative A. In all, 324,562 acres of LWC that are not managed to protect wilderness characteristics would be managed as ROW avoidance areas, and impacts would be similar to those described under Alternative A.

Recreational shooting limitations would be the same as Alternative B and would have the same impacts.

LWC managed to protect wilderness characteristics would be managed as VRM Class I, and LWC not managed to protect wilderness characteristics would be managed as VRM Class II. Compared with Alternatives A or B, wilderness characteristics in LWC managed to protect wilderness characteristics would be better protected under this alternative because VRM Class I objectives would substantially restrict most types of surface-disturbing activities.

3.4.7.2.5. Impacts under Alternative D

Under Alternative D, the BLM would manage 421,965 acres (approximately 31% of the Decision Area) as LWC managed to protect wilderness characteristics and no acres as LWC not managed to protect wilderness characteristics (Appendix A, Figure 2-6). Impacts to LWC managed to protect wilderness characteristics would be of a similar nature to those described under Alternative C due to the same management prescriptions, but the level of impacts to LWC would be reduced due to more acreage being managed for the preservation of wilderness characteristics. Compared with Alternative A, there would be over seven times (373,011 more acres) as many acres managed as LWC managed to protect wilderness characteristics under this alternative.

Under Alternative D, LWC managed to protect wilderness characteristics would be managed as closed to OHV use, including approximately 315 currently designated route segments that are longer than 50 feet, which comprises approximately 190 miles. Although some of these routes are rarely used, several are challenging OHV trails or short spurs leading to dispersed campsites. Closing these areas to OHV use would reduce impacts to apparent naturalness and increase the outstanding opportunities for solitude by restricting the sight and sound of OHV use; however, closing these areas to OHV use would also reduce opportunities for primitive and unconfined motorized and non-motorized recreation by making remote trailheads, dispersed camping, and rugged OHV opportunities less accessible. Closing OHV routes in protected LWC could concentrate

dispersed camping within fewer areas, which could result in increased impacts to other public lands adjacent or proximate to protected LWC. Compared with Alternative A, this would provide more protection for wilderness characteristics by preventing the impacts described in Section 3.4.7.2.1.

Recreational shooting limitations would be the same as Alternative B with the addition of recreational shooting closures in WSAs, recommended wilderness, and protected LWCs. Impacts would be similar to Alternative B and would also reduce impacts to outstanding opportunities for solitude and primitive, unconfined recreation and apparent naturalness from restricting shooting noise, the presence of trash, and bullet damage to rocks, soil, and vegetation.

All LWC in the Monument would be managed as VRM Class I and ROW exclusion. Potential impacts would be the same as described for LWC managed to protect wilderness characteristics in Alternative C.

Management prescriptions and impacts associated with LWC managed to protect wilderness characteristics under Alternative C for wood product harvest, vegetation, range, watershed or habitat improvements, and fire suppression would apply to all LWC in the Monument. As a result, LWC would be substantially less impacted by these activities under Alternative D than Alternative A; however, more restrictive fire suppression techniques could have potential impacts in the long term by leading to increased fuel loads, which may increase the potential for larger fires.

3.4.7.2.6. Impacts under Alternative E

Alternative E would manage the same acres as protected LWC as Alternative D with similar impacts to LWC as described in Section 3.4.7.2.5 except that OHV travel would be managed as limited within LWC managed to protect wilderness characteristics rather than closed. Allowing OHV travel on designated routes instead of closing LWC to this use would impact outstanding opportunities for solitude and primitive and unconfined recreation by allowing the noise and dust of motor vehicles and increased presence of other visitors within these areas.

Limitations on management actions and recreation would be designed in collaboration with the BEC to ensure that standards are guided by Traditional Ecological Knowledge and Indigenous expertise. Permit requirements, group size limits, restrictions on camping, and encouraging visitors to stay on trails would reduce impacts to apparent naturalness and Monument objects such as cultural resources; however, these same restrictions may also reduce opportunities to experience outstanding solitude or primitive, unconfined recreation. Encouraging visitors to stay on existing trails and in campsites may impact overall experiences in LWC managed to protect wilderness characteristics. Recreational shooting would be prohibited under this alternative, with the exception of use of firearms in the lawful pursuit of game. Prohibition of recreational shooting would reduce impacts to outstanding opportunities for solitude and primitive, unconfined recreation and apparent naturalness from restricting shooting noise, the presence of trash, and bullet damage to rocks, soil, and vegetation.

Under Alternative E, the management prescriptions and impacts associated with LWC managed to protect wilderness characteristics under Alternative C for wood product harvest, vegetation, range, watershed or habitat improvements, and fire suppression would apply to all LWC in the Monument. As a result, LWC would be substantially less impacted by these activities under Alternative E than they would under Alternative A. Recreational shooting prohibitions and impacts would be the same as Alternative D.

3.4.7.2.7. Impacts under the Proposed Plan

Under the Proposed Plan, of the 421,965 acres of LWC, 205,594 acres would be managed to protect wilderness characteristics (i.e., to only allow for discretionary uses that do not adversely impact the unit's wilderness characteristics and are consistent with the protection of BENM objects), and 216,371 acres would be managed to minimize impacts to wilderness characteristics (i.e., to allow for discretionary uses only in a manner that minimizes impacts to the unit's wilderness characteristics and is consistent with the protection of BENM objects). Impacts would be similar to those described under Alternative E, with the following exceptions.

The acreages of LWC managed to protect wilderness characteristics under the Proposed Plan would be managed as closed to OHV use, thereby eliminating the potential impacts (as described under Alternative A) from this use. LWC that are clustered along the NPS boundaries of Canyonlands National Park in the Lockhart Basin area, NABR, and NFS lands with similar Remote Zone status would provide continuity of these protected areas on adjacent BLM-administered lands. Recreational limitations and impacts would be the same as Alternative E.

The acreages of LWC managed to minimize impacts to wilderness characteristics under the Proposed Plan would require design features and other conditions to minimize impacts from discretionary uses where impacts cannot be avoided. Impacts from these discretionary uses would be prohibited if the impacts would diminish the size and/or manageability of the unit, which would protect LWC from these impacts. This could restrict discretionary actions and surface-disturbing activities and could minimize human-created facilities and emphasize natural conditions.

3.4.7.2.8. Cumulative Impacts

The cumulative impacts analysis area for LWCs would be composed of each inventoried LWC unit within the Planning Area. The temporal scale of analysis would be the life of the Proposed RMP/Final EIS. Past and present actions in the cumulative impacts analysis area that have affected LWC include grazing, utility and infrastructure development, and recreation and travel management, because these activities affect the naturalness and outstanding opportunities for solitude and primitive, unconfined recreation. RFFAs would have similar effects to the extent that they occur within LWC units (see Appendix J).

Continued increases in visitor use of BENM would continue to affect LWC. Recreational use and developments and ROWs, including the Hamburger Rock Campground Improvements and Expansion (2 acres), Goosenecks Campground and Trails (12 acres), reconstruction of the Salt Creek Trail (<1 mile of trail), and ROW for the Red Canyon water well (0.25 acre), would create alterations to the landscape over time through an increase in human presence, vehicle use, and road use in certain areas. Although the effects on minor features from these uses may be substantially unnoticeable, they could cumulatively affect the area's apparent naturalness if they lead to increased use within LWC and could also reduce dispersed impacts by concentrating certain uses to developed areas. This includes RFFAs such as the construction of the Bluff River Trail and developed recreation facilities to the extent where overlap occurs with LWC managed to protect wilderness characteristics.

3.4.8. Wild and Scenic Rivers

3.4.8.1. AFFECTED ENVIRONMENT

Four NFS river segments within or partially within the Planning Area were identified as eligible for inclusion in the NWSR System but were found not suitable (USDA Forest Service 2008). Nine BLM-

administered river segments within or partially within the Planning Area were identified as eligible for inclusion in the NWSR System. Of the nine identified, four segments were found suitable, and five segments were found not suitable. Table 3-41 (see Appendix N) displays the suitable WSR segments found in the Planning Area. In total, approximately 31.46 miles of river segments were found suitable for inclusion in the NWSR System. See Appendix N for additional context concerning the affected environment related to WSRs.

3.4.8.2. ENVIRONMENTAL CONSEQUENCES

3.4.8.2.1. Impacts Common to All Alternatives

Across all alternatives, WSR segments would remain suitable, and their mileage, ORVs, and tentative classifications would remain as described in the 2008 Monticello RMP. Surface-disturbing activities may occur adjacent to WSRs that could decrease vegetation cover and increase soil compaction, which could reduce water infiltration, leading to an increase in surface water runoff, soil erosion, and sedimentation of adjacent waterways. Surface-disturbing activities can also change the physical characteristics of streams and other surface waterbodies through direct disturbance of stream channels or by increasing runoff from the surrounding watershed. These changes could contribute to fluctuations in infiltration rates, drainage patterns, and stream flows that may have a connection to groundwater.

Recreation is the primary use occurring in or on lands adjacent to the BLM-administered suitable segments. Increasing visitation and damage from overuse or improper use within the river segments and corridors has the potential to affect identified ORVs and water quality, particularly in the popular Dark Canyon area. In addition to increasing recreation use in some areas, trends affecting conditions in suitable WSR segments include climate change, more frequent and higher-intensity wildfires, and invasive nonnative plants and noxious weeds. These factors have the potential to affect flow, water quality, and ORVs of suitable WSR segments, including scenery, recreation, fish, wildlife, and ecology.

3.4.8.2.2. Impacts under Alternative A

Under Alternative A, the BLM would continue managing suitable segments as VRM Class I or II, ROW avoidance or exclusion, and closed to OHV use within 0.25 mile of the high-water mark, which would limit uses that could affect each segment's free-flowing condition, identified tentative classification, water quality, and ORVs.

Motorized boat use would be allowed on the two suitable segments classified as scenic and would not be explicitly prohibited on the two suitable segments classified as wild. Motorized boat use has the potential to disrupt the primitive nature and solitude within the wild segments; affect the scenic and recreational ORVs through noise and wake; and affect ecological, fisheries, and wildlife ORVs through potential for wake, increased chance of motor oil spills, and disruptions through noise and vibrations.

Impacts from recreational visitation would be the same as described under Section 3.4.8.2.1.

Lands surrounding the 0.25-mile buffer area would be available for grazing, limited to designated routes and trails for OHV use, and open for ROWs, which could affect water quality (such as through sedimentation) and OHV use (such as through noise) in WSR segments depending on the type, level of uses, and distance from each segment.

3.4.8.2.3. Impacts under Alternative B

Under Alternative B, management prescriptions for three of the four suitable segments would be slightly more protective when compared with Alternative A. Management of Colorado River Segment 3 would be the same as under Alternative A. Camping restrictions for all segments would be similar to the protections described for Alternative A.

The Colorado River Segment 2, Dark Canyon, and San Juan River Segment 5 would be managed as VRM Class I and ROW exclusion, which would aid in the protection and enhancement of the identified ORVs and wild (Dark Canyon and San Juan River Segment 5) and scenic (Colorado) classification by prohibiting further development within the segments. Dark Canyon and San Juan River Segment 5 would prohibit motorized boat use, which would limit potential noise and wake impacts within the segment protect and enhance identified ORVs and the wild classification. Effects on WSR segments from management of lands outside of the 0.25-mile buffer of the river segments would be similar to those described under Alternative A, except that areas would be managed for ROW avoidance, further limiting potential effects on WSR segments compared with Alternative A.

Future WSR evaluations would occur in collaboration with the BEC regarding designations, which would enhance management of river segments in recognition of the importance of Planning Area rivers to Indigenous peoples.

3.4.8.2.4. Impacts under Alternative C

Under Alternative C, management prescriptions and associated impacts would be the same as described under Alternative B, except for San Juan River Segment 5, where downstream motorized boat travel would be allowed at a low, wakeless speed, with impacts from motorized use being similar to Alternative A. Restrictions on camping and management of lands outside of the 0.25-mile buffer would have the same effects as described for Alternative B.

3.4.8.2.5. Impacts under Alternative D

Under Alternative D, impacts to WSRs from management prescriptions would be the same as described under Alternative C. Effects on WSR segments from management of lands outside of the 0.25-mile buffer would be the same as described for Alternatives B and C for the San Juan River Segment 5. Management of lands surrounding the other three WSR segments would be more restrictive; by designating areas as ROW exclusion and OHV closed, this would prevent changes to the scenic quality of the segments. This would preserve fish and wildlife habitat and natural systems, and would provide more protection for the free-flowing condition, identified tentative classification, water quality, and ORVs of the Dark Canyon, Colorado River 2, and Colorado River 3 WSR segments than under Alternatives A, B, and C.

Additional protections from designation of the proposed Aquifer Protection ACEC would limit surface-disturbing activities over most of BENM (76%) and protect groundwater recharge and aquifer water quality and quantity more than under all other alternatives. This would indirectly benefit the free-flowing condition, identified tentative classification, water quality, and ORVs of the WSR segments adjacent to this ACEC (Dark Canyon, Colorado River 2, Colorado River 3).

3.4.8.2.6. Impacts under Alternative E

Under Alternative E, impacts to WSRs from management within the WSR corridors would be the same as described under Alternative B. Camping restrictions would be limited to existing or

designated campsites or areas. This would protect WSR segments from potential impairments to a greater extent than under all alternatives.

Effects on WSR segments from management of lands outside of the 0.25-mile buffer of the river segments would be as described for Alternative D, with the exception of the Aquifer Protection ACEC, which would cover 6% percent of the Monument with less potential to protect groundwater recharge and aquifer water quality and quantity.

3.4.8.2.7. Impacts under the Proposed Plan

Under the Proposed Plan, impacts to WSRs from management would be identical to those under Alternative E, except that motorized boat use on Colorado River Segment 3 would remain allowable. The use of permits would allow the BLM to track motorized boat use and ensure that conditions and goals of WSRs are being met.

3.4.8.2.8. Cumulative Impacts

The impacts of past and present actions in the cumulative impacts analysis area affecting suitable WSRs include grazing, ROW development, recreation, and travel management (see Appendix J). The cumulative impacts analysis area includes the corridors and segments of the Colorado River 2, Colorado River 3, Dark Canyon, and San Juan River Segment 5. Impacts from such actions could affect the identified ORVs, tentative classification of segments, and free-flowing character and water quality through surface disturbance and developments.

There are no RFFAs (see Appendix J) within or near a WSR segment that would impact identified ORVs for WSR segments; however, climate change is predicted to affect identified ORVs through increased stream temperatures and severe wildland fire, degradation of vegetation resources, and impacts to scenery resources.

3.4.9. Areas of Critical Environmental Concern and Research Natural Areas

3.4.9.1. AFFECTED ENVIRONMENT

ACECs are areas within BLM-administered lands where special management attention is required to protect and prevent irreparable damage to important resources, natural systems or processes, or to protect life and safety from natural hazards as outlined in 43 CFR 1610.7-2 and BLM Manual 1613. During the scoping process for BENM, the BLM received two public nominations for ACECs: John's Canyon Paleontological ACEC and the Aquifer Protection ACEC. These two nominated ACECs have been found to meet relevance and importance criteria and are evaluated in greater detail in BLM's ACEC evaluation report (BLM 2023a, 2023b, 2023c). The nominated ACECs are analyzed in detail in Section 3.4.9.2. Additionally, five existing ACECs—San Juan River ACEC, Indian Creek ACEC, Lavender Mesa ACEC, Shay Canyon ACEC, and Valley of the Gods ACEC—are located either partially or entirely within the Planning Area (Appendix A, Figure 3-26) (BLM 2023d).

RNAs are established and maintained for research and education by the USDA Forest Service. One RNA existed prior to initial Monument designation and has been retained since designation: Cliff Dwellers Pasture RNA (Appendix A, Figure 3-26). This area is species rich and includes features such as birch and bluegrass communities, Gambel oak–bigtooth maple woodlands, and slickrock shrub communities (USDA Forest Service 1986). See Appendix N, Table 3-42.

See Appendix N for additional context concerning the affected environment related to ACECs and RNAs.

3.4.9.2. ENVIRONMENTAL CONSEQUENCES

For this analysis, the impact indicator for ACECs is the overlap of ACECs with management actions and allocations that could either protect or diminish the presence of relevant and important values. Depending on the relevant and important values of each ACEC, management actions impacting ACECs may include designations for OHV use, ROWs, VRM classes, or grazing; recreation management decisions; or other limitations or restrictions on occupancy or use. Table 3-43 below shows the number of acres managed as ACECs under each alternative.

Table 3-43. Acres of Designated Areas of Critical Environmental Concern per Alternative

ACEC	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
San Juan River ACEC (portion within Planning Area)	1,555	0	0	0	1,555	1,555
Indian Creek ACEC	3,856	3,856	3,856	3,856	3,856	3,856
Lavender Mesa ACEC	649	649	649	649	649	649
Shay Canyon ACEC	119	0	0	0	119	119
Valley of the Gods ACEC	22,716	22,716	22,716	22,716	22,716	22,716
John's Canyon Paleontological ACEC	0	0	0	1,542	11,465	0
Aquifer Protection ACEC	0	0	0	1,012,371	85,856	85,856
Total	28,895	27,221	27,221	1,041,134*	126,216	114,751

* The John's Canyon Paleontological ACEC overlaps the Aquifer Protection ACEC, meaning that a portion of the acres of the John's Canyon Paleontological ACEC also fall within the Aquifer Protection ACEC under Alternative D.

For RNAs, impact indicators include management actions and allocations that could affect the natural conditions of the RNA, including its unique ecosystems and ecological features, rare or sensitive species and their habitat, or high-quality examples of widespread ecosystems (USDA Forest Service 2023).

3.4.9.2.1. Impacts Common to All Alternatives

Under all alternatives, the Lavender Mesa ACEC would retain its existing designation and management actions would be the same across all alternatives.

Specific management actions for Cliff Dwellers Pasture RNA, the sole RNA on BENM, can be found in the 1986 Manti-La Sal LRMP and would remain consistent under all alternatives. There would be no grazing, timber harvest, recreation facilities, roads, trails (except for research and study purposes), special uses, administrative structures, mineral surface occupancy, or water impoundment structures. Such prohibitions on uses would prevent impacts like erosion, forage consumption, surface disturbance, and the spread of noxious and invasive weeds from changing the internal conditions necessary to the RNA (USDA Forest Service 1986).

3.4.9.2.2. Impacts under Alternative A

Alternative A would manage the following 28,895 acres as ACECs (Appendix A, Figure 2-8).

San Juan River Area of Critical Environmental Concern

Under Alternative A, all motorized and mechanized access would continue to be limited to designated routes, which would continue to protect the scenic, cultural, and geological values of

this ACEC by preventing cross-country OHV travel. This ACEC would continue to be designated as ROW avoidance, with areas managed as VRM Classes I, II or III, which would continue to protect the riparian systems that are relevant objects in this ACEC by limiting development within the ACEC while also preserving its scenic values by minimizing disturbance to the viewshed. The ACEC would continue to be available for watershed, range, habitat improvements, and vegetation management, likely benefiting the scenic values by restoring the ACEC to a more natural condition while also improving habitat to serve fish and wildlife values. Private use of wood products would continue to be prohibited except for on-site collection of dead and down wood for campfires limited to collection of driftwood within the floodplain, which would benefit standing vegetation and protect habitat areas from damage to other vegetation or erosion.

The ACEC would continue to only be open to livestock use from October 1 to May 31, and riparian systems would be required to meet or exceed PFC under grazing use. Continued grazing in the ACEC would likely have impacts to fish and wildlife values, because livestock consumption of vegetation and contribution to erosion could impair resources available to species in the ACEC; however, temporal limitations and PFC requirements would allow for forage rest and regeneration, thus serving the fish and wildlife resources by maintaining a certain quality of habitat condition.

Limitations may be placed on recreation to protect wildlife resources if wildlife is being adversely impacted by recreation activity, which would benefit fish and wildlife resources because habitat quality and disturbance would likely be reduced. Similar benefits to fish and wildlife, and to natural processes values, would occur from potential camping closures. No camping would be allowed in cultural sites, and climbing aids would not be permitted to access cultural sites. Although limiting access to cultural sites, this would preserve these sites by preventing incidental impacts from visitors interacting with cultural resources.

Indian Creek Area of Critical Environmental Concern

Under Alternative A, the 3,856-acre Indian Creek ACEC would continue to be managed as VRM Class I and a ROW avoidance area. Geophysical work that would include no to minimal surface disturbance would continue to be allowed if in conformance with VRM Class I management. This would continue to preserve the scenic values of this ACEC by ensuring that any change to the landscape, if permitted, would be very limited and would not detract from the landscape's existing character. Because OHVs have the potential to disturb vegetation and cause erosion, potentially impacting the visual qualities of an area, Indian Creek ACEC would be designated as OHV closed. Recreation use could be limited if scenic values are being damaged by recreational activities. The area would remain open for livestock grazing use, which could potentially impact the scenic values of the ACEC, because the presence of livestock could decrease vegetation cover and cause soil disturbance, among other effects. All revegetation would be done with native species naturally occurring in the area, which would conserve habitat for fish and wildlife values and preserve the natural condition of scenic values; however, if native species fail to succeed, scenic values would be impacted by degraded vegetation conditions.

Lavender Mesa Area of Critical Environmental Concern

Under Alternative A, the 649-acre Lavender Mesa ACEC would continue to be excluded from land treatments or other improvements except as necessary for study of relict plant communities and restoration and reclamation activities, which would serve to protect the relict plant community value of this ACEC by minimizing alterations to its constituency and by allowing the vegetation community to persist in its natural condition. This ACEC would also continue to be completely unavailable to grazing from both livestock and saddle and pack animals to retain the intactness of

the relict vegetation community and protect it from forage consumption or soil erosion from livestock or saddle and pack animal use.

Recreation use would continue to be limited as needed to protect relict vegetation, because recreational use may contribute to ambient dust, trampling of vegetation, erosion, and the spread of invasive and noxious weeds that would impact the condition of the relict plant communities. Recreation may also be limited if cultural or scenic values are being damaged by the actions of recreationists, which would similarly reduce impacts of disturbance to the landscape while also preserving cultural resources. This ACEC would be closed to all use of wood products, preserving the relict plant community by eliminating the potential for wood gatherers to trample vegetation or spread noxious and invasive weeds. No campfires would be permitted, which would reduce the risk of fire damage to the relict vegetation community.

This ACEC would continue to be closed to OHV use and managed as a ROW avoidance area to minimize any potential new disturbance to the relict plant community. OHV use restrictions on this ACEC would mainly apply to aerial vehicles, because the area is not accessible to non-aerial OHVs. Casual landings of aerial vehicles could be particularly damaging to the relict plant community values on this ACEC due to trampling, soil disturbance and erosion, and the potential spread of noxious and invasive weeds. Helicopter access would be allowed for scientific study and heliportable equipment. Limiting the use of helicopters would minimize the impacts of compaction and disturbance.

Shay Canyon Area of Critical Environmental Concern

Under Alternative A, Shay Canyon ACEC would continue to be managed as a ROW avoidance area, which would minimize the potential for future development-related disturbance on the landscape, preserving the cultural and paleontological values of the ACEC. The ACEC would continue to be closed to camping and campfires. Hiking would be limited to designated trails and motorized/mechanized use would be limited to designated routes, with the potential to apply further limitations on use if cultural or paleontological resources are impacted by recreation. This would continue to protect cultural and paleontological values by preventing inadvertent damage to cultural or paleontological resources due to contact with recreationists. Grazing would continue to be restricted to trailing only, which would prevent livestock from interacting with and potentially damaging cultural or paleontological values and would also preserve off-trail habitat by preventing livestock from consuming vegetation or contributing to erosion.

Valley of the Gods Area of Critical Environmental Concern

Under Alternative A, Valley of the Gods ACEC would continue to be managed as VRM Class I and only available for vegetation management as consistent with VRM Class I, which would protect the scenic values for which the ACEC was designated and ensure that culturally significant geological features would not be altered. The ACEC would also continue to be closed to wood product use. Campfires would not be permitted, which would ensure minimum disturbance to the viewshed by eliminating woodsmoke in the area.

OHV use would continue to be limited to designated routes in the ACEC, which would limit impacts from OHVs, including disturbance to vegetation, increased erosion, and the visual and noise quality of an area and would preserve the cultural values of the ACEC by limiting potential damage caused by OHV use. The ACEC would also be a ROW exclusion area, which would ensure that no new infrastructure on the landscape would alter the scenic values of the ACEC.

John's Canyon Paleontological Area of Critical Environmental Concern (Nominated)

Under Alternative A, the John's Canyon Paleontological ACEC would not be designated. The special management ascribed to the ACEC under Alternatives D and E would not apply. Proposed management actions under other resources, however, would provide some protections to the relevant and important values identified for the ACEC. For example, under Alternative A, surveys would be required in PFYC Classes 4 and 5 prior to implementing discretionary actions, reducing the potential for impacts to paleontological resources. Sections 2.4.4, 2.4.14, 2.4.11, 2.4.13, and 2.4.7 detail management for paleontological, cultural, fish and wildlife, visual resources, and terrestrial vegetation.

Aquifer Protection Area of Critical Environmental Concern (Nominated)

Under Alternative A, the Aquifer Protection ACEC would not be designated. The special management ascribed to the ACEC under Alternatives D and E would not apply; however, proposed management actions under other resources would provide similar protections to the relevant and important values identified for the ACEC. For example, water resources in BENM would be managed to maintain and enhance water quantity and quality, desired mix of vegetation types, and landscape/riparian/watershed function to protect BENM objects, which would provide protection to Natural Systems/Aquifer Recharge values. As a result, management under Alternative A would contribute to protecting water resources; however, the Aquifer Protection ACEC could provide further protections. Resources listed as relevant and important values for this ACEC under Alternatives D and E would be managed under other pertinent resource management decisions under Alternative A, as detailed in Sections 3.4.1, 3.5.1, 3.4.12, and 3.4.3.

3.4.9.2.3. Impacts under Alternative B

Under Alternative B, 27,221 acres would be managed as ACECs (Appendix A, Figure 2-9).

Management impacts to the Lavender Mesa ACEC would be similar to Alternative A, except that there would be no specific prohibition on commercial wood product use; however, Section 2.4.8 provides for management that all commercial wood product use would be consistent with protecting BENM objects. Commercial wood product use is also not practicable in Lavender Mesa ACEC.

Under Alternative B, the San Juan River ACEC would not be designated. The management ascribed to the ACEC under Alternative A would not be carried forward; however, the area would be managed as the San Juan River SRMA, which would provide management that is nearly identical to the special management provided under Alternative A. As a result, the decision to not carry the San Juan River ACEC forward would be unlikely to have meaningful impacts to the resources located there, such as River House and San Juan Hill. Resources listed as relevant and important values for this ACEC under Alternative A would be managed under other pertinent resource management decisions under Alternative B, including those described in in Sections 3.4.12, 3.5.1, 3.4.11, 3.4.4, and 3.4.1.

Management impacts to the Indian Creek ACEC would be the same as under Alternative A with the exception that, if needed for restoration purposes, the agencies would collaborate with the BEC to determine desirable nonnative seeds to use to protect BENM objects if probability of success or adapted seed availability is low. This would promote swift restoration of degraded areas and likely benefit the scenic qualities of the ACEC by preserving and enhancing its natural character. Also, under Alternative B, the Indian Creek ACEC would be a ROW exclusion area as opposed to the ROW

avoidance area under Alternative A. In a ROW exclusion area, fewer ROWs could be authorized, which could decrease surface disturbance.

Under Alternative B, Shay Canyon ACEC would not be designated. The management ascribed to the ACEC under Alternative A would not be carried forward. Therefore, all of the benefits to the relevant and important values described under Alternative A and ACEC-specific management decisions would not apply under Alternative B, which may degrade relevant and important values over time; however, under all action alternatives, paleontological values would be protected from harmful impacts of improper grazing, construction, and recreation, and would be provided other protections and survey requirements (see Section 3.4.1). Cultural resources, as well as BENM objects, would also be allotted considerable protection under Alternative B (see Section 3.5.1).

Management impacts to the Valley of the Gods ACEC under Alternative B would be similar to those under Alternative A, with two exceptions. Instead of all acres of the ACEC being managed as VRM Class I, 57 acres of highway access portals would be managed as VRM Class II, which would somewhat impact the scenic quality of the ACEC by applying less stringent visual quality requirements on those 57 acres; however, VRM II portals would allow BLM discretion to develop minimal infrastructure with important resource protection rules and interpretive information that visitors would see upon entering the area. This may have a positive impact in protecting cultural and scenic values throughout the remainder of the ACEC. Campfires would be permitted in designated sites in agency-provided campfire rings. Campfire smoke and the risks posed by campfires may reduce the scenic quality of the ACEC to a minor degree.

Like Alternative A, the John's Canyon Paleontological and Aquifer Protection ACECs would not be designated under this alternative; however, proposed management actions for other resources would provide similar protections to the relevant and important values identified for these ACECs.

3.4.9.2.4. Impacts under Alternative C

Under Alternative C, there would be 27,221 acres managed as ACECs (Appendix A, Figure 2-9). Management impacts to the Lavender Mesa, San Juan River, Indian Creek, and Shay Canyon ACECs would be the same as under Alternative B.

Management impacts to the Valley of the Gods ACEC under Alternative C would be similar to those under Alternative B, except that campfires would not be allowed, which would reduce haze and preserve the visual quality of the area. Additionally, the Passage Zone would be managed as VRM II, which could allow for minor visual impacts to the visual quality of the area.

Like Alternative A, the John's Canyon Paleontological and Aquifer Protection ACECs would not be designated under this alternative; however, proposed management actions for other resources would provide similar protections to the relevant and important values identified for the ACECs.

3.4.9.2.5. Impacts under Alternative D

Under Alternative D, there would be 1,041,134 acres managed as ACECs (Appendix A, Figure 2-10). Management impacts to the Lavender Mesa, San Juan River, Indian Creek, and Shay Canyon ACECs would be the same as under Alternative B, and management impacts for the Valley of the Gods ACEC would be the same as under Alternative C.

John's Canyon Paleontological Area of Critical Environmental Concern (Nominated)

The proposed John's Canyon Paleontological ACEC would be designated in the southwestern portion of BENM within the Cedar Mesa SRMA and Grand Gulch WSA, just north of the San Juan River. Table 3-44 outlines the relevant and important values for this ACEC under Alternative D.

Table 3-44. John's Canyon Paleontological Area of Critical Environmental Concern Overview

ACEC Name	Acres	Relevant and Important Values
John's Canyon Paleontological ACEC	1,542	Paleontological, Cultural

Source: BLM (2023a).

Under Alternative D, all motorized and mechanized access would be limited to designated routes. No part of BENM would be OHV open.

Under this alternative, if monitoring demonstrates or recreation patterns change that result in impacts to cultural resources, recreation could be limited. Such management would preserve the cultural and paleontological values of this ACEC by preventing incidental impacts from visitors interacting with cultural resources.

This ACEC would be a ROW exclusion area, which would ensure that no new infrastructure on the landscape would alter the visual quality of the ACEC. This would also preserve the ACEC's character, benefiting the cultural value of the ACEC, because the site may host Indigenous practices and is within the culturally significant Cedar Mesa plateau.

Any surface-disturbing activities would require preemptive paleontological surveys and would be limited to those actions required to protect BENM objects. This would protect the paleontological values of the ACEC by preventing disturbance to paleontological resources, if discovered.

Aquifer Protection Area of Critical Environmental Concern (Nominated)

The proposed Aquifer Protection ACEC would cover almost all BLM-administered lands within the boundaries of BENM, except for other existing ACECs and small areas at the south end of BENM that do not fall within the extent of major aquifers. This ACEC would incorporate all aquifers and aquifer systems serving as primary drinking water sources for communities near BENM, including White Mesa, Mexican Hat, Bluff, Blanding, and Monticello and the public drinking water systems at NABR, Kane Gulch Ranger Station, Sand Island Ranger Station and Canyonlands National Park – Needles District. Table 3-45 below outlines relevant and important values for the Aquifer Protection ACEC.

Table 3-45. Aquifer Protection Area of Critical Environmental Concern Overview

ACEC Name	Acres	Relevant and Important Values
Aquifer Protection ACEC	1,012,371	Cultural, Scenic, Paleontological, Natural Systems/Natural Processes

Source: BLM (2023b).

Under Alternative D, all motorized and mechanized access would be limited to designated routes where not designated as OHV closed through other management decisions. This would protect the cultural value of this ACEC by preventing inadvertent damage to cultural resources, vegetation flattening, erosion, or the natural quality of the ACEC.

All discretionary uses would be managed to avoid adverse impacts to vegetation and to groundwater-dependent ecosystems. Habitat quality would likely increase, whereas disturbance due to vegetation trampling and soil erosion would likely be reduced, thereby preserving the natural character of the ACEC while benefiting natural groundwater filtration processes. This could also reduce disturbance to cultural sites, preserving these sites by preventing incidental impacts from discretionary uses. Protections limiting discretionary uses and surface disturbance could also decrease potential disturbance of or damage to paleontological values, thereby preserving them.

Surface-disturbing activities would be limited to those actions required to protect BENM objects, which would minimize the potential for future disturbance, protect cultural resources from ground disturbance and damage, and preserve scenic values by maintaining the natural characteristics and cultural significance of the area. This ACEC would also provide protection of groundwater recharge, water quality, and water quantity of the aquifers and aquifer systems that serve as the primary drinking water sources for adjacent communities mentioned above. Protection of the aquifer characteristics would be based on the limitation of surface-disturbing activities, discretionary uses, OHV use, and on the prohibition of new storage tanks for hazardous materials to remove possible sources of aquifer contamination. This would protect infiltration areas because decreased vegetation cover and soil compaction can reduce water infiltration, leading to an increase in surface water runoff, soil erosion, and sedimentation of adjacent waterways. Additionally, surface-disturbing activities can change the physical characteristics of streams and other surface waterbodies through direct disturbance of stream channels or by increasing runoff from the surrounding watershed, which could contribute to fluctuations in infiltration rates, drainage patterns, and stream flows that may have a connection to groundwater. To further protect groundwater resources, a hydrologic study would be required for all proposed groundwater withdrawals.

Visual impacts to the scenic quality of the Aquifer Protection ACEC would be similar to those described in Section 3.4.12.2.6.

3.4.9.2.6. Impacts under Alternative E

Under Alternative E, 126,216 acres of BENM would be managed as ACECs (Appendix A, Figure 2-11). Management impacts for the Shay Canyon ACEC would be the same as under Alternative A, and management impacts for the Lavender Mesa and Indian Creek ACECs would be the same as under Alternative B.

San Juan River ACEC management impacts under Alternative E would be the same as under Alternative A, with the exception that the ACEC would be classified as ROW exclusion due to its scenic relevance and importance. This would preserve the characteristics of the viewsheds for which this ACECs was designated by preventing new linear infrastructure or development from taking place across this landscape.

Valley of the Gods ACEC management impacts under Alternative E would be similar to those under Alternative B, except that campfires would not be allowed. This would reduce haze and preserve the visual quality of the area. Additionally, the Passage Zone along the road would be managed as VRM II, which could allow for minor visual impacts to the visual quality of the area, including basic facilities where necessary for education, interpretation, and protection of BENM objects.

John's Canyon Paleontological Area of Critical Environmental Concern (Nominated)

Table 3-46 outlines the relevant and important values for this ACEC under Alternative E.

Table 3-46. John’s Canyon Paleontological Area of Critical Environmental Concern Overview

ACEC Name	Acres	Relevant and Important Values
John’s Canyon Paleontological ACEC	11,465	Paleontological, Cultural, Scenic, Fish and Wildlife, T&E Species

Source: BLM (2023a).

Under Alternative E, management of this ACEC would be the same as under Alternative D, with additional limits to recreation if scenic resources or vegetation communities are impacted. This would preserve the cultural, scenic, fish and wildlife, and special status species values of this ACEC. Fish and wildlife values and vegetation values would directly benefit, because habitat quality would likely increase and disturbance due to vegetation trampling and soil erosion would likely be reduced. This would also preserve the natural character of the ACEC, benefiting its scenic qualities.

Vegetation management would require surveys of T&E species prior to implementation under Alternative E, which would preserve special status species and their habitat by ensuring that no vegetation management actions would disturb or disrupt established special status species in this ACEC.

This ACEC would be managed as VRM Class I, which would ensure that no new infrastructure on the landscape would alter the visual quality of the ACEC. This would also preserve the ACEC’s character, benefiting the cultural value of the ACEC, because the site may host Indigenous practices and is within the culturally significant Cedar Mesa plateau.

Aquifer Protection Area of Critical Environmental Concern (Nominated)

Under Alternative E, the proposed Aquifer Protection ACEC would cover 85,856 acres of the BLM-administered lands in BENM, which would be less than the Aquifer Protection ACEC under Alternative D. Relevant and important values for the Aquifer Protection ACEC would be the same as under Alternative D (see Table 3-45). This ACEC would incorporate portions of the aquifers and aquifer systems serving as primary drinking water sources for communities near BENM, including White Mesa, Bluff, and Blanding, and the public drinking water systems at NABR and Sand Island Ranger Station. This area includes important recharge areas on BLM-administered lands related to these public drinking water systems, the proposed sole source aquifer area for the community of White Mesa, and the groundwater protection zone surrounding NABR as designated by the State of Utah.

Management of this ACEC would generally be the same as under Alternative D, and would therefore have the same management impacts as Alternative D; however, the area covered by the this ACEC would be larger under Alternative D than under Alternative E, meaning that ACEC management and related impacts would apply to a smaller area under Alternative E. The only additional management under Alternative E for this ACEC would be managing it as VRM Class I in Outback and Remote Zones, and VRM Class II in Front Country and Passage Zones, which would largely preclude viewshed-disrupting development in these areas of the ACEC, preserving its scenic relevant and important value.

3.4.9.2.7. Impacts under the Proposed Plan

The Proposed Plan would manage 114,751 acres of BENM as ACECs. Under the Proposed Plan, management impacts for the Shay Canyon ACEC would be the same as under Alternative A, management impacts for the Lavender Mesa and Indian Creek ACECs would be the same as under Alternative B, and management impacts for the San Juan River and Valley of the Gods ACECs would be the same as under Alternative E.

Similar to Alternative A, the John's Canyon Paleontological ACEC would not be designated under the Proposed Plan; however, proposed management actions under other resources would provide sufficient protections to the relevant and important values identified for the ACEC, including stipulations on excavation permits that would incorporate Traditional Ecological Knowledge (Sections 2.4.4, 2.4.14, 2.4.11, 2.4.13, and 2.4.7 detail management for paleontological, cultural, fish and wildlife, visual, and vegetation resources).

Under the Proposed Plan, management impacts for the Aquifer Protection ACEC would be similar to Alternative E with the exception that a greater amount of acres would be managed as VRM II rather than VRM I, which would increase the potential for minor visual impacts and associated changes to the scenic quality of the area. The Aquifer Protection ACEC would be 85,856 acres under the Proposed Plan (926,515 acres fewer than Alternative D), but management actions for other resources would provide sufficient protections to the relevant and important values identified for the ACEC across the additional area that would have been included in the larger Aquifer Protection ACEC boundary under Alternative D (see Sections 2.4.6, 2.4.13, 2.4.14, and 2.4.4 for detail on management for water, visual, cultural, and paleontological resources).

3.4.9.2.8. Cumulative Impacts

The analysis area for cumulative impacts to ACECs and RNAs is the Planning Area for BENM. Grazing, recreation, and travel management actions, among others, are past and present actions contributing to cumulative impacts. Some RFFAs could lead to surface disturbance, degradation of scenic qualities, and deterioration of vegetation health or the spread of noxious and invasive weeds, which may impact the relevant and important values of an ACEC or the ecological intactness of an RNA. Surface-disturbing activities could also impact cultural or paleontological resources and the potential for scientific research in these areas. Some of these values are slow to recover or are not possible to recover at all (e.g., paleontological, cultural); however, because many relevant and important values are also BENM objects, these values would be protected under the designation of the Monument.

The Red House Cliffs Water Wells, Beef Basin and Dark Canyon Plateau Range Improvements, Flats Water Wells, Slickhorn Allotment Water Wells, and Indian Creek Range Improvements may impact the natural systems resources of the proposed Aquifer Protection ACEC by decreasing groundwater resources and decreasing flows at springs and spring-fed streams. Impacts from the proposed water wells could be detrimental to the aquifers and aquifer systems that serve as primary drinking water sources for adjacent communities. The Red Canyon water wells project outside of the Planning Area has the potential to have similar impacts.

The Mancos Mesa ROW access would create additional disturbance on the Aquifer Protection ACEC. This would result in vegetation removal, soil compaction, and changes to surface hydrology, which could reduce water infiltration rates and thereby affect the recharge of aquifers in this area. The House on Fire Trailhead improvements would cause slight new disturbance to the Aquifer Protection ACEC, as would the Bluff River Trail and the Cottonwood Wash bridge replacement. These disturbances would cause short-term impacts, but over the long term (after 2–3 years) the impacts would provide protection of the aquifers and aquifer systems that serve as primary sources of drinking water for adjacent communities as well as provide water to natural systems within the Planning Area.

Vegetation treatments like those at Tables of the Sun and White Canyon could benefit both fish and wildlife and vegetation values of the proposed Aquifer Protection ACEC by improving vegetation condition and habitat. Likewise, the Shay Mesa Retreatment/Maintenance would cause no new disturbance and would only serve to benefit both fish and wildlife and vegetation values of

the Aquifer Protection ACEC. The Indian Creek Water BDA and Erosion Mitigation project may benefit the scenic values of Indian Creek ACEC by increasing riparian vegetation and decreasing erosion on the landscape, likely improving the visual quality of the area. See Appendix J for a list of RFFAs.

3.4.10. Wilderness Study Areas

3.4.10.1. AFFECTED ENVIRONMENT

WSAs are applicable solely to BLM-administered lands. Eleven WSAs account for approximately 377,118 acres of the Planning Area. Table 3-47 provides a breakdown of each WSA and its acreage within BENM alongside the acreage originally identified for each WSA. There are 17,669 acres managed by the Utah Trust Lands Administration within BENM WSA boundaries. These parcels are considered inholdings because they are completely surrounded by WSA lands. With visitation numbers increasing, threats to WSAs include improper OHV usage; illegal incursions into WSAs, including for wood cutting; and degradation of natural and cultural resources, which result in impacts to the wilderness characteristics through noise, visual disturbances, and ground disturbances. See Appendix N for additional context concerning the affected environment related to WSAs.

Table 3-47. Wilderness Study Areas within Bears Ears National Monument

WSA Name	Total (acres)	1991 Utah Statewide Wilderness Study Report (acres)*
Bridger Jack Mesa WSA	5,233	5,290
Butler Wash WSA	24,312	24,185
Cheese Box Canyon WSA	14,871	15,410
Fish Creek Canyon WSA	46,097	46,440
Indian Creek WSA	6,469	6,870
Mancos Mesa WSA	50,846	51,440
Mule Canyon WSA	6,014	5,990
Road Canyon WSA	52,344	52,420
South Needles WSA	159	160
Dark Canyon WSA	67,840	68,030
Grand Gulch WSA	105,194	105,520
Total	377,118	381,755

Source: BLM and USDA Forest Service GIS (2022).

Note: Numbers have been rounded, so total may not match.

* BLM (1991).

3.4.10.2. ENVIRONMENTAL CONSEQUENCES

3.4.10.2.1. Impacts Common to All Alternatives

All WSAs would continue to be managed per applicable BLM guidance, including as VRM Class I, closed to OHV use, and ROW exclusion areas. These limitations would help protect the wilderness characteristics that support WSA classification and maintain the areas' suitability for potential wilderness designation. These limitations would also help protect BENM objects located in the WSAs. At the same time, management intended to protect Monument objects would help the BLM

meet the non-impairment standard and therefore help protect wilderness suitability. Protecting wilderness characteristics is also important to Indigenous peoples who share cultural connections with the sacred and cultural landscapes of BENM (see Appendix L). If WSAs were released by Congress, the BLM would conduct a land use plan amendment process with accompanying NEPA analysis to determine how those lands would be managed.

In the WSAs, effects on wilderness characteristics commonly come from recreation, vegetation treatment, wildfires, and the maintenance and use of range and wildlife improvements. Any surface-disturbing activities in WSAs, such as vegetation treatments, would only be allowed if considered necessary to maintain or enhance wilderness characteristics.

Grazing activities and related range improvements in WSAs may continue in the same manner and degree as on the date the FLPMA was enacted, even though the activity may impair wilderness suitability (BLM 2012). Structures such as fences, stock trails, springs, and stock ponds in WSAs would continue to be maintained, even though continued maintenance and presence of structures can affect the area's apparent naturalness.

Wildfire suppression would prevent catastrophic destruction of vegetation and would protect wilderness characteristics in these areas over the long term. Fire suppression restrictions, such as prohibitions or limitations on the use of heavy equipment or retardant, could limit the effectiveness of suppression actions; however, resource damage from suppression equipment would be reduced. MIST would limit unanticipated effects on wilderness characteristics during fire suppression. WSAs would be excluded from wood product use, reducing impacts to WSAs from harvest of woodlands and associated impacts (see Section 3.4.6).

Effects on WSAs from increasing visitation would continue as described Section 3.4.10.1.

3.4.10.2.2. Impacts under Alternative A

Under Alternative A, the 11 existing WSAs would continue to be managed as defined by the 2008 Monticello RMP and the 2020 ROD/MMPs.

Motorized use within the Fish Creek Canyon WSA would continue to have impacts to wilderness characteristics, including naturalness, opportunity for solitude, and primitive recreation, due to the presence of vehicle noise; however, because the 0.08-mile route into Fish Creek Canyon WSA that would continue to be conditionally opened to motorized recreation in order to access the Moon House site would continue to be limited in distance—approximately 422 feet—the effects of noise disturbance would be minimal.

3.4.10.2.3. Impacts under Alternative B

Under Alternative B, impacts to WSAs would be similar to what was described under Alternative A. If the lands were released from wilderness consideration, they would be inventoried; if the lands were determined to possess wilderness characteristics, they could be managed to protect those characteristics. As a result, management under Alternative B would protect the wilderness characteristics, including those that also have important significance for Tribes, compared with Alternative A. The Fish Creek WSA would be managed similar to what was described under Alternative A, with the exception that the route to Moon House would no longer be conditionally available for motorized use. Impacts described under Alternative A would no longer occur under Alternative B related to this use.

Fuels and vegetation treatments would only be allowed where consistent with the protection of BENM objects, which could reduce impacts to wilderness characteristics in the short-term but result in long-term impacts from increased fuel loading and wildfire risk.

3.4.10.2.4. Impacts under Alternative C

Under Alternative C, impacts to WSAs would be the same as those described under Alternative B.

3.4.10.2.5. Impacts under Alternative D

Under Alternative D, impacts to WSAs would be similar to those described under Alternative B; however, all recreational shooting would be prohibited in WSAs, which would prevent the degradation of outstanding solitude from shooting noise; degradation of naturalness from trash and bullet damage to rocks, soil, and vegetation; and damage to Monument objects from bullet impacts and noise disturbances near sensitive cultural sites.

3.4.10.2.6. Impacts under Alternative E

Under Alternative E, impacts to WSAs would be the same as Alternative D.

3.4.10.2.7. Impacts under the Proposed Plan

Under the Proposed Plan, impacts to WSAs would be the same as those described under Alternatives D and E.

3.4.10.2.8. Cumulative Impacts

The cumulative impacts analysis area for WSAs would comprised each WSA within the Planning Area. The temporal scale of analysis is the life of the Proposed RMP/Final EIS. Past and present actions in the cumulative impacts analysis area affecting WSA units and their associated wilderness characteristics include grazing, recreation, travel management, and vegetation treatments because these activities can impact the naturalness and outstanding opportunities for solitude or primitive and unconfined recreation that make these WSAs suitable for designation as wilderness. Management actions within BENM to protect identified designated objects would largely serve to protect the wilderness characteristics of these WSA units under all alternatives.

RFFAs may result in cumulative impacts to WSAs. The House on Fire Trailhead improvements could indirectly cause more visitation to Mule Creek Canyon, which may result in the reduction of solitude characteristics; however, better signage would guide visitors to stay on trails and reduce the use of social trails, which would increase overall naturalness. The construction of three water wells and a fence to prohibit cattle from accessing water sources in Kane Gulch would result in the protection of supplemental cultural values and improvement of primitive and unconfined recreation in Grand Gulch WSA. The reconstruction of the Salt Creek Trail would enhance opportunities for primitive and unconfined recreation in the Butler Wash WSA. As an allocated permit, there would be no anticipated loss of outstanding opportunities for solitude.

The temporary construction of several miles of roads across the Mancos Mesa WSA to access Utah Trust Lands may result in adverse impacts to naturalness and visual quality during implementation. The Dark Canyon Airstrip is located on the boundary of the Dark Canyon WSA. Reconstruction and use of the airstrip would cause impacts to solitude, though after construction regular use of the airstrip is anticipated to be low. Additionally, the direction of takeoff and landing face away from the canyon, which would result in limited disturbance.

The drilling of two water wells for livestock in the Slickhorn Allotment located adjacent to Grand Gulch WSA, along cherry stems or boundary roads, are anticipated to have minor, localized impacts to naturalness due to good vegetative screening in those areas. Similarly, the proposed replacement of three guzzlers would occur adjacent to the Cheesebox Canyon WSA, but no impacts to wilderness characteristics are anticipated.

3.4.11. Wildlife and Fisheries

3.4.11.1. AFFECTED ENVIRONMENT

The Planning Area provides habitat for at least 15 species of bats, numerous small mammal species, larger carnivores, fish, and many avian species, including raptors. Some of these species are identified as special status species, which includes T&E species currently listed under the ESA, species listed on BLM, USDA Forest Service, UDWR, or USFWS BCC sensitive species lists, and culturally important species. T&E fish species with potential to occur within the Planning Area are bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), and razorback sucker (*Xyrauchen texanus*). Additionally, three sensitive fish species, the flannelmouth sucker (*Catostomus latipinnis*), bluehead sucker (*Catostomus discobolus*), and roundtail chub (*Gila robusta*) are known to occur in the San Juan River. Flannelmouth and bluehead suckers are also found in Arch Canyon and Fish Canyon within the Planning Area. These species are described in Table 3-49. Critical habitat for T&E species, including southwestern willow flycatcher (*Empidonax traillii extimus*), Mexican spotted owl (*Strix occidentalis lucida*) (MSO), razorback sucker, and Colorado pikeminnow is also present on BENM. Several species of amphibians and reptiles are also known to occupy the Planning Area; population data are limited or nonexistent for most of these species. The Planning Area also includes a population of *Eucosma navajoensis*, an endemic species of moth recorded only in the vicinity of Comb Ridge and Valley of the Gods; information or studies on this moth are not readily available.

Table 3-49. Special Status Species Known to Occur or with Potential to Occur within the Planning Area

Common Name	Scientific Name	Status	Habitat Description and Potential for Occurrence within BENM
Amphibians			
Great Plains toad	<i>Anaxyrus cognatus</i>	BSS	Found in cropland/hedgerow, desert, grassland/herbaceous, shrubland/chaparral, and orchard habitats. Known to occur within BENM.
Northern leopard frog	<i>Lithobates pipiens</i>	Utah SGCN	Breeding and overwintering habitat consists of slow-moving waters and emergent vegetation adjacent to semi-open, wet meadows. Known to occur within BENM.
Birds			
American three-toed woodpecker	<i>Picoides dorsalis</i>	BSS/FSS	Nests and winters in coniferous forests generally above 8,000 feet. Known to occur within BENM.
American white pelican	<i>Pelecanus erythrorhynchos</i>	BSS, Utah SGCN	Found in shallow freshwater lakes, wetlands, and edges of lakes and rivers. Not known to nest within BENM but has been observed at Recapture Reservoir and on the San Juan River.
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA, BSS, FSS, Utah SGCN	Roost and nests in tall trees near bodies of water. Not known to nest within BENM; has been observed during migratory patterns during winter months.
Band-tailed pigeon	<i>Patagioenas fasciata</i>	Utah SGCN	Found between 5,000 and 10,000 feet of elevation, in coniferous or mixed forests dominated by pines and oaks. Known to occur within BENM.

Common Name	Scientific Name	Status	Habitat Description and Potential for Occurrence within BENM
Black rosy-finch	<i>Leucosticte atrata</i>	SCC, BCC, PIF, Utah SGCN	Breeds along cliffs and in talus in alpine areas. Over winter, the species descends below tree line into intermountain valleys. Known to occur in winter within BENM.
Black-chinned sparrow	<i>Spizella atrogularis</i>	BCC, PIF	Found in arid brushlands and grasslands on rugged mountain slopes. Known to occur within BENM.
Bobolink	<i>Dolichonyx oryzivorus</i>	BSS, PIF	Occupies wet meadows, irrigated agricultural fields, and habitats associated with riparian and/or wetland areas. Known to occur in San Juan County; may occur within BENM.
Broad-tailed hummingbird	<i>Selasphorus platycercus</i>	BCC	Found in mountain meadows and forests, including pine-oak and pinyon-juniper woods and spruce, Douglas-fir, and aspen. May occur within BENM; species range includes BENM.
Burrowing owl	<i>Athene cunicularia</i>	BSS, Utah SGCN	Occupies open grasslands and prairies. Observed within BENM along Indian Creek and the Colorado River.
California condor*	<i>Gymnogyps californianus</i>	FE, Utah SGCN, PIF	Roosts and nests in cliff habitats; forages in open areas. May occur within BENM. BENM is within the experimental population range, with one small portion east of U.S. Highway 191 outside the experimental range where California condor is considered endangered, but breeding has not been recorded.
California gull	<i>Larus californicus</i>	BCC	Breeds near lakes and marshes. May occur within BENM.
Cassin's finch	<i>Haemorhous cassinii</i>	BCC, PIF	Found in dry, open coniferous forests mostly at middle elevations. Known to occur within BENM.
Clark's grebe	<i>Aechmophorus clarkii</i>	BCC	Nests on large freshwater lakes and marshes with emergent vegetation. May occur within BENM.
Clark's nutcracker	<i>Nucifraga columbiana</i>	BCC	Found in mountain coniferous forests and is especially dependent on pine trees (e.g., whitebark pine, limber pine, pinyon). Known to occur within BENM.
Evening grosbeak	<i>Hesperiphona vespertina</i>	BCC, PIF	Breeds in coniferous and mixed forests. Known to occur within BENM.
Ferruginous hawk	<i>Buteo regalis</i>	BSS, Utah SGCN	Found in arid and semiarid grasslands and mid-elevation plateaus. No known nests within BENM; has been observed foraging within the Planning Area.
Flammulated owl	<i>Psiloscops flammeolus</i>	FSS, BCC, PIF	Occupies montane coniferous forests. Known to occur within BENM.
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA, BSS, MIS, Utah SGCN	Prefers open areas for hunting, surrounded by hills, cliff edges, or mountains where it can roost and nest. Known to occur within BENM.
Grace's warbler	<i>Setophaga graciae</i>	BCC, PIF	Breeds in ponderosa pine and mixed conifer habitats. Known to occur within BENM.
Lewis's woodpecker	<i>Melanerpes lewis</i>	BSS, BCC, Utah SGCN, PIF	Occupies ponderosa pine, Douglas-fir, mixed conifer, pinyon-juniper, and oak forests; also found in riparian cottonwoods. Known to occur within BENM.
Long-billed curlew	<i>Numenius americanus</i>	BSS	Occupies grasslands and herbaceous habitats. Known to occur within BENM.
Long-eared owl	<i>Asio otus</i>	Utah SGCN	Preferred habitat is pine stands or woods near grasslands and pastures. May occur within BENM.
MSO	<i>Strix occidentalis lucida</i>	FT, Utah SGCN	Occupies steep, rocky canyons. Known to occur but uncommon within BENM; present in areas with mixed-age forests with undisturbed cliff faces, canyons, and caves.
Northern goshawk	<i>Accipiter gentilis</i>	FSS, BSS,† MIS	Occupies mature mountain forest and riparian zone habitats. Known to occur within BENM; nests at higher elevations within BENM.
Olive-sided flycatcher	<i>Contopus cooperi</i>	BCC, Utah SGCN	Found in coniferous mountain forests, bogs, and muskeg. Known to occur within BENM.

Common Name	Scientific Name	Status	Habitat Description and Potential for Occurrence within BENM
Peregrine falcon	<i>Falco peregrinus</i>	FSS, Utah SGCN	Found in steep, rocky canyons near riparian or wetland areas. Known to occur within BENM; may nest within suitable habitat (cliffs).
Pinyon jay	<i>Gymnorhinus cyanocephalus</i>	BCC, PIF, Utah SGCN	Found in pinyon-juniper woodlands. Known to occur within BENM.
Scaled quail	<i>Callipepla squamata</i>	PIF	Found in dry desert grasslands and shrublands. May occur within BENM.
Short-eared owl	<i>Asio flammeus</i>	BSS, BCC	Occupies grasslands, shrublands, and other open habitats. No known occurrences within BENM; non-breeding range includes BENM.
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE, Utah SGCN	Found in low scrub, thickets, or groves of small trees, often near watercourses. Uncommonly occurs along riparian corridors associated with the Colorado and San Juan Rivers; potential breeding habitat may be present along the San Juan River within BENM.
Virginia's warbler	<i>Leiothlypis virginiae</i>	BCC, PIF	Breeds in deciduous woodlands on steep mountain slopes. Known occurrences in Fish Canyon and elsewhere within BENM.
Western grebe	<i>Aechmophorus occidentalis</i>	BCC, Utah SGCN	Nests on large freshwater lakes and marshes with emergent vegetation. May occur within BENM.
White-faced ibis	<i>Plegadis chihi</i>	Utah SGCN	Found in freshwater marshes, flooded pastures, and irrigated fields. Known to occur within BENM.
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	FT, Utah SGCN	Occupies riparian habitats and cottonwood galleries. May occur along riparian corridors associated with the Colorado and San Juan Rivers; potential breeding habitat may be present along the San Juan River within BENM.
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	BCC	Found in grasslands, prairies, and woodland edges. Known to occur within BENM.
Fish			
Bluehead sucker	<i>Catostomus discobolus</i>	BSS,† SCC, Utah SGCN	Occupies fast-flowing water in high-gradient reaches of mountain rivers. Known occurrences in Arch Canyon and the San Juan River, may be present in other tributaries of the Colorado River within BENM.
Bonytail	<i>Gila elegans</i>	FE, Utah SGCN	Found in backwaters with rocky or muddy bottoms and flowing pools. May occur within BENM. Assumed present in upper Colorado River tributaries during migration periods.
Colorado pikeminnow	<i>Ptychocheilus lucius</i>	FE, Utah SGCN	Adults found in habitats ranging from deep, turbid rapids to flooded lowlands; young prefer slow-moving backwaters. Known to occur within the San Juan River; critical habitat is designated along the San Juan River bordering BENM.
Colorado River cutthroat trout	<i>Oncorhynchus clarkii pleuriticus</i>	BSS†	Found in steep coldwater streams and rivers, often headwater streams in Utah. Specific occurrences within BENM are unknown; may be present in tributaries of the Colorado River within BENM.
Flannelmouth sucker	<i>Catostomus latipinnis</i>	BSS,† Utah SGCN	Occupies large rivers; often found in deep pools of slow-flowing, low-gradient reaches. Known occurrences in Arch Canyon and the San Juan River; may be present in other tributaries of the Colorado River within BENM.
Humpback chub	<i>Gila cypha</i>	FT, Utah SGCN	Adults found in turbulent, high-gradient, canyon-bound reaches. May occur within BENM. Assumed present in upper Colorado River tributaries during migration periods.
Razorback sucker	<i>Xyrauchen texanus</i>	FE, Utah SGCN	Occupies slow backwater habitats and impoundments. Known to occur within the San Juan River; critical habitat is designated along the San Juan River bordering BENM.

Common Name	Scientific Name	Status	Habitat Description and Potential for Occurrence within BENM
Roundtail chub	<i>Gila robusta</i>	BSS,† Utah SGCN	Occupies large rivers, most often in murky pools near strong currents. Known occurrences in the San Juan River, may be present in other tributaries of the Colorado River within BENM.
Invertebrates			
Aquatic macroinvertebrates	Dependent on species	MIS	Larvae can be found in aquatic habitats, including lakes, streams, tunnels, and canals, whereas adult and subimago stage invertebrates vary in occurrence based on specific species characteristics. Specific species are possible or known to occur within BENM.
Monarch butterfly	<i>Danaus plexippus</i>	FC	Breeding habitat is limited to areas with milkweed species (Family Asclepiadaceae). Known to occur within BENM.
Pale morning dun	<i>Ephemerella excrucians</i>	MIS	Larval stage occupies freshwater environments, whereas subimago and adult stages are found along freshwater banks associated with their emergent sites. Known to occur within BENM.
Silverspot butterfly	<i>Speyeria nokomis nokomis</i>	FpT	Occurs in permanent spring-fed meadows, seeps, marshes, and boggy streamside meadows. Known to occur in elevations ranging from 5,200 feet to slightly over 8,300 feet. May occur within BENM. The Planning Area is within the potential range of this species.
Western bumblebee	<i>Bombus occidentalis</i>	BSS, SCC	Occupies a range of habitats, including mixed woodlands, cropland, montane meadows, prairie grasslands, and urban areas. May occur within BENM; species range includes BENM.
Western green drake	<i>Drunella doddsii</i>	MIS	Larval stage occupies freshwater environments whereas subimago and adult stages are found along freshwater banks associated with their emergent sites. Known to occur within BENM.
Utah sallfly	<i>Sweltsa gaufini</i>	SCC, MIS	Nymphs are found in aquatic habitat in the stony bottoms of cold, permanent, and continuously flowing mountain streams. Populations are localized in the La Sal and Abajo Mountains. May occur within BENM.
Yavapai mountainsnail	<i>Oreohelix yavapai</i>	Utah SGCN	Found at higher elevations in aspen groves and spruce stands with open spaces of coarse grass and slides of sandstone. May occur within BENM; known from a historical sample collection in western San Juan County.
Mammals			
Abert's squirrel	<i>Sciurus aberti</i>	MIS	Found foraging and nesting within pine trees in mature ponderosa pine forests. Habitat can also extend into mixed conifer and upper pinyon-juniper woodlands. Known to occur within BENM.
Allen's big-eared bat	<i>Idionycteris phyllotis</i>	BSS, Utah SGCN	Occupies rocky and riparian areas in woodland and scrubland. Known to occur within BENM.
Big free-tailed bat	<i>Nyctinomops macrotis</i>	BSS	Found in rocky and woodland habitats. Known range overlaps BENM.
Bighorn sheep	<i>Ovis canadensis</i>	FSS	Known to occur within BENM.
Dwarf shrew	<i>Sorex nanus</i>	Utah SGCN	Found along rocky slopes with ponderosa pines, sedge marsh, pinyon-juniper woodlands, arid shortgrass prairies, subalpine meadows, and dry stubble fields. Known to occur within BENM.
Fringed myotis	<i>Myotis thysanodes</i>	SCC, Utah SGCN, BSS	Found in desert and woodland areas; roosts in caves, mines, and buildings. Known to occur within BENM.
Gunnison's prairie-dog	<i>Cynomys gunnisoni</i>	BSS, Utah SGCN	Found in grasslands and semidesert and montane shrublands. Known to occur within BENM.

Common Name	Scientific Name	Status	Habitat Description and Potential for Occurrence within BENM
Kit fox	<i>Vulpes macrotis</i>	BSS, Utah SGCN	Occupies semidesert grasslands and open shrublands. Occurrences are unknown within BENM, although spatial prediction analyses show this species occurring from the Cedar Mesa area north to Indian Creek.
Long-eared myotis	<i>Myotis evotis</i>	Utah SGCN	Found across lowland, montane, and subalpine forests; wooded stream courses; meadows; and shrublands. Daytime roosting occurs in caves and rock crevices as well as snags, hollow trees, and stumps. Known to occur within BENM.
Mule deer	<i>Odocoileus hemionus</i>	MIS	Known to occur within BENM.
Rocky Mountain elk	<i>Cervus elaphus nelsoni</i>	MIS	Known to occur within BENM.
Silky pocket mouse	<i>Perognathus flavus</i>	BSS	Found in sandy soils in arid grassland, woodland, and sagebrush areas. Known range overlaps BENM.
Spotted bat	<i>Euderma maculatum</i>	BSS, FSS, Utah SGCN	Uses various vegetation types, from desert shrub to montane forests; roosts in rock crevices high on steep cliff faces. Known to occur within BENM.
Townsend's big-eared bat; Townsend's western big-eared bat	<i>Corynorhinus townsendii</i> ; <i>Corynorhinus townsendii townsendii</i>	BSS, FSS (Western subspecies only), SCC, Utah SGCN	Occurs across many habitats but is often found near forested areas; roosts and hibernates in caves, mines, and buildings. Known to occur within BENM.
Western red bat	<i>Lasiurus blossevillii</i>	BSS, Utah SGCN	Occupies riparian channels dominated by cottonwoods, oaks, sycamores, and walnuts. Summer roosting usually takes place in tree foliage or large leafy shrubs. May occur within BENM.
Yuma myotis	<i>Myotis yumanensis</i>	Utah SGCN	Occurs across a variety of habitats, including riparian, desert scrub, moist woodlands, and forests, but is usually found near open water for foraging. Roosts are in caves, cliffs, abandoned cliff swallow dwellings, and cavities and nooks in large live trees. May occur within BENM.
Reptiles			
Corn snake	<i>Elaphe guttata</i>	BSS	Found near streams or in rocky or forest habitats. Known to occur within BENM.
Desert night lizard	<i>Xantusia vigilis</i>	BSS	Occupies arid and semiarid habitats; ranges into pinyon-juniper, sagebrush-blackbrush, and chaparral-oak. Occupies habitat along the Colorado River in western San Juan County; occurrences may extend into BENM.
Midget faded rattlesnake	<i>Crotalus concolor</i>	Utah SGCN	Occurs in sagebrush communities with rocky outcrops which can provide variable thermal conditions, cover, and safe hibernation areas. Known to occur within BENM.
Smooth green snake	<i>Ophedrys vernalis</i>	BSS	Prefers moist habitats, especially moist, grassy areas and meadows. Known to occur within BENM.

Sources: BLM (2018); eBird (2022); Partners in Flight (2016); Smith et al. (2022); UDWR (2020e, 2023); USDA Forest Service (2020); USFWS (2020, 2021, 2022a).

Status: BGEPA = Bald and Golden Eagle Protection Act; BSS = BLM special status species; FC = candidate species for listing; FE = federally endangered species; FpT = proposed for listing as threatened; FT = federally threatened species; MIS = Manti-La Sal National Forest Management Indicator Species; PIF = Partners in Flight Priority Species.

* The Planning Area is partially within the species' non-essential experimental population (NEP) area. Under Section 9 of the ESA, members of NEP populations within designated NEP areas are treated as species proposed for listing. Members of NEP populations outside designated NEP areas are treated as they are listed under the ESA.

† Conservation agreement species. Conservation agreements are developed to expedite implementation of conservation measures for species in Utah as a collaborative and cooperative effort among resource agencies.

The Planning Area is largely undeveloped; therefore, the habitats that support wildlife and fish are relatively undisturbed and play an important role in maintaining landscape intactness and connectivity for wildlife. Past and current impacts to fish and wildlife populations within the Planning Area result from regular climactic variation and extreme weather events; recreation,

including camping and hiking; development of roads and OHV use; livestock grazing ; vegetation management; competition with invasive species; and noise from anthropogenic sources.

See Appendix N for additional context concerning the affected environment related to wildlife and fisheries.

3.4.11.2. ENVIRONMENTAL CONSEQUENCES

3.4.11.2.1. Impacts Common to All Alternatives

Under all alternatives, management actions intended to benefit wildlife and fisheries would include incorporation of Tribal and state conservation strategies and collaboration with the BEC and the State of Utah, which could contribute to the protection of habitat for wildlife. Collaboration with the BEC would likely result in more focused management of culturally important species and communities, as well as more holistic, ecologically minded approaches to habitat management.

Within BENM, special designations would generally provide a higher level of protection than areas without those designations. The protections would be likely to benefit terrestrial and aquatic wildlife, even if the protection of those species is not the primary intent of the special designation. The Valley of the Gods ACEC contains habitat for the local endemic *Eucosma navajoensis* moth, and would be carried forward under all alternatives. In addition, grazing leases or permits that are voluntarily relinquished would be retired, which would eliminate impacts from livestock grazing in the long term if such relinquishments occur.

Aquatic Wildlife and Fisheries Habitats. Under all alternatives, aquatic wildlife and fisheries habitats and non-ESA special status fish and aquatic species would be managed to promote and restore healthy riparian habitat and riverscape health throughout the Planning Area; however, the impacts of management actions that may occur outside or upstream of the Planning Area would also need to be considered because these actions may also impact riparian and aquatic habitats, including those of special status species within the Monument.

The greatest impacts to amphibians and riparian-obligate reptiles, including special status species, would include aquatic habitat alteration from water withdrawals and stream diversions (within or outside the Planning Area), water pollution, and OHV use or other surface-disturbing activities in adjacent upland habitats (NPS 2015). Some aquatic species, such as some macroinvertebrates and coldwater fish are sensitive to changes in water quality, particularly changes in turbidity, sedimentation, or water temperature (Baker et al. 2003), though amphibious species and warm/coldwater fish species are generally less sensitive to changes in water quality. Species that are sensitive to temperature changes or require specific temperature ranges for breeding would be most likely to be impacted by management activities that impact water quality. Water temperatures across the southwestern and central United States are trending toward warmer conditions, and many aquatic species are already experiencing maximum thermal limitations (Roghair 2019). As a result, even the more tolerant species are likely to experience stress and impacts due to water quality changes under future conditions. Water quality parameters used for assessing the condition of aquatic habitat are detailed in Section 3.4.3.

Surface-disturbing activities can lead to increased sedimentation in aquatic habitat, soil compaction within riparian areas, loss of riparian vegetation, and erosion of streambanks. Loss of native vegetation along the riparian corridor due to surface disturbance could lead to bank destabilization, noxious weed invasion, and altered vegetation communities. These disturbances may result from ROW development, vegetation management, or other mechanical disruptions to surface resources. Other management activities with the potential to disturb fish and wildlife

include livestock grazing, dispersed camping, cross-country hiking, OHV use, and other forms of recreational activities. These activities could lead to compaction of soil in riparian areas, loss of native vegetation, erosion, and sedimentation and could alter bank stability and channel geomorphology, potentially leading to channel aggradation or degradation, widening or incising of channels, or other changes to stream morphology, especially where they would cross aquatic or riparian habitat. Potential impacts from OHV use include direct mortality from vehicle strikes, increased erosion, loss of native vegetation, and potential for fuel and oil contamination. The effects of these actions could result in decreased water quality (e.g., sedimentation and livestock feces), altered substrate composition (e.g., compaction and erosion), and thermal and geomorphic changes from a loss of vegetation canopy, thereby degrading habitat quality for fish and other aquatic species. These actions could lead to decreased habitat quality and habitat connectivity for avian, amphibious, and other species that might use riparian habitat for part or all of their life cycles. Impacts to riparian vegetation, including impacts from nonnative tree removal within riparian areas, could directly impact species that use riparian habitat by reducing vegetation cover for foraging, breeding, or protection from predator species.

Other impacts include changes to water quality and quantity. Increased sediment load in aquatic systems has the potential to impact water quality by increasing turbidity, thereby decreasing dissolved oxygen availability for fish and aquatic wildlife. Chemical contaminants, including those generated from common herbicide and pesticide applications, have been shown to influence the ability of amphibians to handle environmental stressors such as reduced water availability and increasing water temperatures (NPS 2015). As a result, these management activities could cause direct mortality to amphibious and reptile species and have indirect impacts to aquatic habitats.

Management activities, including alterations to water diversions, dams, and reservoirs within or upstream of BENM, would reduce habitat availability, connectivity, or hydrologic function, would impact aquatic species. Habitat range and population viability for native fish species can be restricted by construction of passage barriers and introduction of nonnative species (Tyus and Saunders 2000). Alterations to surface water and groundwater flow could potentially decrease water availability and habitat for aquatic species or could create changes in water quality, including water temperature.

Because amphibians may occupy any habitat in the Planning Area where water is available, any management action that impacts water availability could result in indirect impacts to the habitat of these species. In general, management actions that limit surface-disturbing activities within and adjacent to riparian and aquatic areas would protect aquatic habitat, including that of special status species. Under all alternatives, surface-disturbing activities would continue to be avoided within riparian areas where possible, and unavoidable disturbances would be minimized and/or mitigated. Limitations on these types of activities would help to promote a healthy riparian zone or aquatic buffer, which provides sufficient riparian vegetation to filter and reduce sediment loads, enhance bank stability, and provide cooler thermal microclimates in relation to the surrounding uplands (BLM 1993). A variety of management techniques are available to minimize livestock impacts to riparian areas, thereby protecting aquatic habitat.

Agencies would identify vegetation management priorities with the goal of improving vegetation conditions to minimize uncharacteristic fire risk and to control the spread of invasive and nonnative species. Wildfire events can lead to loss of vegetation and changes to soil composition, which can result in more surface water flowing over the landscape during storms and runoff events (Murphy et al. 2018). Flooding and erosion can deliver sediment, ash, pollutants, and other organic and inorganic debris material to aquatic habitats, which can result in decreased water quality and stream habitat degradation. Although vegetation removal could cause bank instability and erosion of riparian areas, leading to reduced habitat quality for fish and aquatic wildlife, the impacts of

removing nonnative vegetation to aquatic systems would be temporary. The long-term impacts of nonnative vegetation removal within riparian areas include increased native plant diversity, improved drought resiliency, and better quality habitat for riparian and aquatic species.

The impacts to fish species listed under the ESA would be similar to those described for general fish species because management plans would continue to emphasize the maintenance and restoration of critical habitat requirements for native fish, including Colorado pikeminnow and razorback sucker designated critical habitat in the Colorado River Basin. ESA-listed species would likely benefit from management activities that align with USFWS federal guidelines outlined in the Upper Colorado River Endangered Fish Recovery Program (USFWS 1987) and San Juan River Basin Recovery Implementation Program (USFWS 2022b). Under USFWS federal guidelines, any new water withdrawals or depletions occurring either within the Planning Area or upstream of the Planning Area would be subject to ESA Section 7 consultation to assess the potential impacts to T&E fish species.

Although conservation measures are in place to minimize impacts to ESA species, authorization of surface disturbance, recreation, livestock grazing and other types of activities may occur within critical habitat designated for ESA-listed species under all alternatives. Authorization of these activities would require consultation or coordination with the USFWS, and measures would be developed with the USFWS that would be designed to avoid, minimize, or mitigate impacts to the features of the critical habitat that are essential to the ESA-listed species. Table 3-51 lists the total acreages of critical habitat that overlap areas with identified uses or management decisions under each alternative. Table 3-52 lists the total acreages of critical habitat for listed fish species within land use allocations and recreation management areas (RMAs) by alternative. The potential impact of some management decisions, such as designation of an RMA or RMZ, may not be entirely adverse or beneficial to aquatic habitat. Although recreation can result in impacts to aquatic habitat, management under RMA and RMZ designation can respond to potential impacts through adjustment of permitted uses and visitor levels.

Table 3-51. Riparian and Aquatic Habitat Within Land Use Allocations and Recreation Management Areas by Alternative

	Alternative A (acres)	Alternative B (acres)	Alternative C (acres)	Alternative D (acres)	Alternative E (acres)	Proposed Plan (acres)
Riparian and aquatic habitat within Management Areas	15,997	9,604	9,604	7,981	18,727	8,753
Riparian and aquatic habitat within OHV closed areas	5,436	7,440	8,318	12,264	7,502	6,897
Riparian and aquatic habitat within OHV limited areas	13,245	11,240	10,363	6416	11,178	6,982
Riparian and aquatic habitat within areas available/suitable for livestock grazing*	16,018	15,481	15,481	12,135	15,481	15,356
Riparian and aquatic habitat within areas unavailable/not suitable for livestock grazing	2,372	2,880	2,880	5,668	2,880	2,767
Riparian and aquatic habitat within areas available for ROW development	9,651	141	0	0	0	141
Riparian and aquatic habitat within areas where for ROW development would be avoided	3,708	13,172	12,364	8,442	3,489	10,781
Riparian and aquatic habitat within areas where ROW development would be excluded	5,319	5,365	6,314	10,237	14,470	7,756

* These calculations do not include areas where grazing management is categorized as "trailing only," "trailing or emergency," or areas where data are unavailable.

Table 3-52. Acres of Listed Fish Species Critical Habitat within Land Use Allocations and Recreation Management Areas by Alternative

	Alternative A (acres)		Alternative B (acres)		Alternative C (acres)		Alternative D (acres)		Alternative E (acres)		Proposed Plan (acres)	
	Colorado Pikeminnow	Razorback Sucker	Colorado Pikeminnow	Razorback Sucker	Colorado Pikeminnow	Razorback Sucker	Colorado Pikeminnow	Razorback Sucker	Colorado Pikeminnow	Razorback Sucker	Colorado Pikeminnow	Razorback Sucker
Critical habitat within RMAs	649	649	513	513	513	513	510	510	578	578	513	513
Critical habitat within OHV closed areas	227	227	227	227	227	227	227	227	227	227	228	228
Critical habitat within OHV limited areas	350	350	350	350	350	350	350	350	350	350	350	350
Critical habitat within areas available/suitable for livestock grazing	575	575	417	417	417	417	417	417	270	270	416	416
Critical habitat within areas unavailable/not suitable for livestock grazing	0	0	158	158	158	158	158	158	158	158	158	158
Critical habitat within areas available for ROW development	257	257	0	0	0	0	0	0	0	0	0	0
Critical habitat within areas where ROW development would be avoided	249	249	524	524	466	466	306	306	4	4	353	353
Critical habitat within areas where ROW development would be excluded	69	69	50	50	109	109	269	268	571	571	221	221

Terrestrial Wildlife Habitats. Impacts common to all alternatives for terrestrial wildlife, including special status species, include any activities resulting in surface disturbance from ROWs, vegetation treatments, recreation facilities or range improvements, as well as disturbance from human noise and activities such as livestock grazing and recreation, including recreational shooting. Research has shown that wildlife responses to disturbances vary and can have detrimental effects such as altered behavior, reduced vigor, and decreased reproduction success (Anderson 1995). Disturbances would be more likely to occur in easily accessible areas, where human presence is high, and in areas where motorized use occurs. Permanent infrastructure such as roads, trails, parking lots, and campgrounds can disrupt movement patterns and migration routes for many wildlife species. Impacts also include the potential for injury or mortality to wildlife from vehicle collisions or lead poisoning from recreational shooting with lead ammunition. Lead from ammunition can be directly ingested by wildlife, and may also leach into soils and waterways, leading to potential for wildlife lead exposure and poisoning (Bellinger et al. 2013; EPA 2005; Fisher et al. 2006). Recreational shooting generally occurs in a dispersed manner in BENM; the level of lead leaching into soils is dependent on soil type, precipitation, and concentration of use of lead bullets. If disturbances persist, many species may permanently avoid those areas. Although there is likely to be a change in the wildlife community in areas subject to human disturbance (i.e., a decrease in overall diversity), some species or individuals may adapt to disturbances over time and can recolonize disturbed habitats. Impacts would be both short term and long term, depending on the type and source of noise and disturbance. These impacts would be difficult to quantify because different species and even individuals of the same species can have varying responses to disturbance (Barber et al. 2011; Radle 2007).

Treatments such as prescribed fire, chaining, and invasive plant removal are intended to remove certain types of vegetation, which would reduce resources available for wildlife species, including migratory birds, that depend on that vegetation, but may also promote new growth that could be beneficial to wildlife habitat. Some wildlife species, including some birds, may benefit from the presence of recently burned areas. The long-term objectives of vegetation management include restoration of desirable ecosystem conditions, reduction of fuels that support unnatural fire regimes, and creation of conditions that favor the establishment of native over nonnative plants. When these objectives are met after treatments, wildlife species dependent on native vegetation communities would be anticipated to benefit from the vegetation management; however, the targeted removal of pinyon-juniper woodlands for wood product harvest may result in a local loss of avian species that depend on those habitat types for foraging and nesting, such as gray vireo (*Vireo vicinior*) and brown-headed cowbird (*Molothrus ater*) (Crow and van Riper III 2010). Given the widespread availability of pinyon-juniper habitat type, impacts would be localized to harvested areas (Knick et al. 2017).

New trail, road, or ROW development would impact habitat by fragmenting the landscape and reducing habitat quality for species that require large contiguous habitat patches, including some big game, special status species, and species identified by Proclamation 10285. Long-term barriers may prevent these species from reaching seasonally important or crucial habitat, which could result in reduced gene flow among populations of species. Under all alternatives, seasonal restrictions on surface-disturbing activities would be implemented in key big game habitat areas to reduce the potential for disturbance, including during sensitive periods. Special designations would be generally managed with substantial restrictions on the development of features that would reduce or fragment wildlife habitat. Under all alternatives, fence construction or reconstruction would be sited and designed to avoid creating hazards and barriers to wildlife movement.

Livestock grazing and range improvements would continue to be prohibited within the BLM's five mesa tops area identified by Proclamation 10285 for bighorn sheep, and habitat improvement projects for this species would be prioritized. This would reduce the potential for transmittal of

disease between domestic and bighorn sheep and competition for forage, improve habitat conditions, and ultimately benefit current and future populations. Impacts to big game as a result of livestock grazing could include a decrease in vegetation biodiversity and density, increased competition for forage, and changes to the vegetation community characteristics (Olf and Ritchie 1998). Large native grazing species experience competition with livestock, may avoid areas where livestock are actively grazing, and may expend additional energy to forage in areas not suitable for livestock (Garrison et al. 2016; Stewart et al. 2002). Under all alternatives, livestock grazing would be managed to, at minimum, meet or make progress toward Utah rangeland health standards (BLM 1997) or USDA Forest Service desired conditions for rangelands, which should reduce Planning Area-wide or population-level conflicts between livestock, big game, and other wildlife species.

Invasive nonnative plants can reduce habitat suitability for species dependent on native vegetation, and in some cases invasive species may result in substantial or complete conversion of a vegetation community and can result in an area becoming unsuitable for some species. The agencies would coordinate with the BEC and Tribal Nations in controlling the spread of invasive nonnative plants using a variety of management techniques, thereby reducing impacts to wildlife from invasive nonnative plants.

Because many special status species require specific habitats that may be limited within BENM, even relatively small impacts to these habitats could result in greater effects on habitat quality or quantity than general wildlife. Authorization of surface disturbance, recreation, and other types of activities may occur within critical habitat designated for ESA-listed species under all alternatives. Authorization of these activities would require consultation or coordination with the USFWS, and measures would be developed with the USFWS and designed to avoid, minimize, or mitigate impacts to the features of the critical habitat that are essential to the ESA-listed species. Table 3-53 lists the total acreages of critical habitat that overlap areas with identified uses or management decisions under each alternative.

Management direction for all alternatives would include limiting discretionary uses to protect and recover special status species habitats and populations (including ESA-listed species). Seasonal restrictions or other protective measures would benefit special status raptor species such as northern goshawk and ESA-listed species such as MSO, yellow-billed cuckoo, and southwestern willow flycatcher. Implementation of educational outreach, group size limits, camping restrictions, and permits to protect MSO Protected Activity Centers (PACs) would reduce the potential for human noise and disturbance of this species and its habitat during breeding.

Vegetation management treatments, including prescribed burns, habitat maintenance and restoration, and removal of noxious and invasive species, have the potential to improve existing conditions, reduce soil loss, improve wildlife habitat, restore ecological function, and increase available forage. Decisions on habitat improvement methods and objectives may prioritize the creation or restoration of habitat conditions that support special status species, consistent with the agencies' special status species policies.

Raptor management, at minimum, would be guided by practices identified in *Best Management Practices for Raptors and Their Associated Habitats in Utah* and the approved recovery plan for the California condor (Kiff et al. 1996) and the *Mexican Spotted Owl Recovery Plan* (USFWS 2012). At the implementation level, any surface-disturbing activities with the potential to adversely impact listed raptor species, including habitat listed in Proclamations 10285 and 9558, would be coordinated with the USFWS to comply with the ESA. As a result, direct impacts to listed raptor species would be unlikely to occur. Under all alternatives, agencies would post or otherwise provide educational information to reduce climbing and canyoneering impacts to active raptor nests.

Table 3-53. Acres of Listed Terrestrial Species Critical Habitat within Land Use Allocations and Recreation Management Areas by Alternative

	Alternative A (acres)		Alternative B (acres)		Alternative C (acres)		Alternative D (acres)		Alternative E (acres)		Proposed Plan (acres)	
	MSO	Southwestern Willow Flycatcher	MSO	Southwestern Willow Flycatcher	MSO	Southwestern Willow Flycatcher	MSO	Southwestern Willow Flycatcher	MSO	Southwestern Willow Flycatcher	MSO	Southwestern Willow Flycatcher
Critical habitat within Management Areas	384,615	1,149	169,132	794	169,132	794	107,842	794	556,505	848	120,775	794
Critical habitat within OHV closed areas	160,190	124	238,976	124	254,201	124	399,836	124	242,052	124	183,043	124
Critical habitat within OHV limited areas	396,017	723	317,237	723	302,012	723	156,375	723	314,162	723	170,803	723
Critical habitat within areas available/suitable for livestock grazing	469,462	846	448,449	846	448,449	846	370,816	846	448,449	846	447,423	846
Critical habitat within areas unavailable/not suitable for livestock grazing	83,644	0	104,656	0	104,656	0	175,049	0	104,656	0	100,043	0
Critical habitat within areas available for ROW development	345,560	0	2,331	0	0	0	0	0	0	0	2,330	0
Critical habitat within areas where ROW development would be avoided	56,011	717	395,188	846	380,786	846	236,989	723	158,628	2	324,612	846
Critical habitat within areas where ROW development would be excluded	154,576	129	158,628	0	175,360	0	319,176	123	397,531	844	229,204	0

3.4.11.2.2. Impacts under Alternative A

Aquatic Wildlife and Fisheries Habitats. Under Alternative A, the condition and trends for aquatic wildlife and fisheries habitat as summarized in Section 3.4.11.1 would be expected to continue along similar trajectories.

Disturbance to aquatic and riparian habitat associated with recreational use would continue to occur within designated SRMAs and ERMAs (see Table 3-51). Potential effects on habitats within these RMAs would be commensurate with the type of and intensity of recreation that each would be managed for: approximately 58% (9,274 acres) would occur within RMAs that would experience higher rates of visitation than surrounding areas (such as the Cedar Mesa, Canyon Rims, and Indian Creek SRMAs), and approximately 42% (6,693 acres) would be located in areas with anticipated low to medium rates of visitation (such as the Monticello, Beef Basin, and Dark Canyon ERMAs). Indirect effects on fish and aquatic wildlife would be greatest in recreational areas that experience high visitation (see Section 3.4.11.2.1 for more detail); however, recreational use would be limited in areas where riparian habitats are observed to be unacceptably damaged, which would reduce the risk of long-term impacts to these habitats from recreation.

Recreational activities, including OHV use and dispersed camping, would remain available in riparian areas but with limited access near lakes and streams on NFS lands to minimize impacts to aquatic ecosystems, which would reduce potential risk of disturbance to habitats. Effects on aquatic wildlife and habitat caused by recreational activities would be similar to those discussed in Section 3.4.11.2.1.

The impacts to aquatic wildlife would be greatest where open roads and trails would cross aquatic or riparian habitat. Per the 2008 Monticello RMP, vehicle access and mechanized travel is prohibited from Comb Wash downstream to Lime Creek and below Mexican Hat Bridge, which would continue to minimize or prevent direct impacts to riparian and aquatic habitat from disturbance associated with OHV use in this area.

Alternative A would allow livestock grazing within the greatest amount of riparian and aquatic habitat of all alternatives, where effects would be similar to current conditions (see Section 3.4.11.2.1). Alternative A would continue to allow for the maintenance and installation of precipitation catchments and the development of springs in areas that lack proper water distribution or natural water sources, thereby improving or creating water availability for wildlife and livestock outside of riparian habitat, which would likely improve water quality and aquatic and riparian habitats by reducing impacts such as erosion and soil compaction.

Sensitive riparian areas such as Arch Canyon would continue to be unavailable/not suitable for livestock grazing, which would continue to protect and aquatic habitats in those areas. Alternative A would allow for ROW development within the greatest amount of riparian and aquatic habitat of all alternatives, and the least amount of habitat within which ROW development would be avoided or excluded (see Table 3-51). In areas where ROW development would be allowed, and to a lesser extent in areas where it would be avoided, the risk of effects on riparian and aquatic habitat would be increased (see Section 3.4.11.2.1).

BLM and USDA Forest Service sensitive species, Management Indicator Species (MIS), Regional Forester SCC, and Utah SGCN aquatic species and habitat would continue to be managed in a manner that promotes and restores riparian habitat; preserves hydrologic connectivity; and maintains, enhances, or restores habitat quality and quantity in order to provide for biologically diverse and healthy ecosystems. Impacts under this alternative would be similar to those described above for non-special status aquatic wildlife and fish; however, management under this alternative

specifically seeks to minimize impacts to special status species, including flannelmouth sucker, bluehead sucker, and roundtail chub. As a result, impacts to special status aquatic wildlife would be minimized, and management actions such as land acquisition, maintenance of instream flows, and removal of habitat barriers would be prioritized. These actions serve to increase aquatic habitat connectivity and availability, which would indirectly improve species population viability.

Under Alternative A, the greatest amount of designated critical habitat among all alternatives would be located within recreational areas, areas available for ROW development, OHV use, and livestock grazing (see Table 3-51). These discretionary actions and land uses have the potential to cause impacts to water quality or other components of ESA-listed fish habitat, as described in Section 3.4.11.2.1.

Terrestrial Wildlife Habitats. Existing management decisions and activities would be maintained unless modifying those actions is required to protect BENM objects; therefore, current trends and impacts to terrestrial wildlife and habitat would likely continue.

Alternative A would have the smallest acreage of ROW exclusion areas and the greatest acreage of areas open to ROW authorization. Because ROW development would result in surface disturbance, loss of habitat, disturbance associated with human presence and noise generation, and potentially create linear features that could form barriers to wildlife movement and habitat connectivity, those impacts would be likely to occur to the greatest extent under Alternative A.

Recreational use would likely continue to increase within the Planning Area, which would commensurately increase the potential for impacts to wildlife and habitat. As described in Section 3.4.11.2.1, impacts to terrestrial wildlife would largely be associated with disturbance associated with human noise and activity from recreation, which is anticipated to increase over time. This alternative would generally allow more intense recreational uses (i.e., larger groups, more permitted events, and fewer restrictions) than other alternatives. Increased recreational use and intensity would be anticipated to have greater risk of disturbance on all wildlife species and habitats. Potential impacts to wildlife and habitat within RMAs would be commensurate with the type and intensity of recreation for which each would be managed.

Management of SRMAs and ERMAs under Alternative A would continue existing management direction. Indirect impacts to wildlife and habitat would be greatest in recreational areas that experience high visitation, where there is a greater risk of direct impacts to habitat quality resulting from dispersed camping and other anthropogenic uses, and greater risk of disturbance of wildlife due to human noise and activity. For example, the Comb Ridge RMZ, which overlaps with habitat for *Eucosma navajoensis*, would likely continue to experience high visitation rates, leading to potentially greater disturbance to this species' habitat. Restrictions on recreational activity near sensitive sites could address potential disturbance and displacement of wildlife. Alternative A would include a prohibition on dispersed camping within 200 feet of springs and other water sources. Similarly, the closure of areas to OHV use would continue to reduce the potential disturbance to wildlife and habitat, whereas permitting OHV use on existing roads and trails would continue to contribute to disturbance of wildlife in those areas. Alternative A has the greatest area designated as OHV limited, and the smallest area designated as OHV closed.

Under Alternative A, habitat requirements for deer and elk would continue to be managed to minimize disturbance and maintain forage areas, hiding cover, and migration routes. Special conditions for all game species in crucial habitat could include restrictions on OHV use, low-flying aircraft, and noise-generating activities. Additionally, special conditions would be implemented in bighorn sheep lambing and rutting areas, which would benefit the species by reducing the potential for disturbance during sensitive periods. Maintaining and/or improving big game habitats within

the Planning Area would maintain or improve habitat conditions for big game, which would benefit current and future populations.

Lands would be available/suitable for grazing to the greatest extent and with the fewest restrictions under Alternative A, and Alternative A would include the lowest acreage of lands unavailable/not suitable for grazing. Although all alternatives would include requirements to manage grazing for ecosystem health and to minimize wildlife-livestock competition and conflict, impacts of grazing would be anticipated to occur to the greatest extent under Alternative A.

Alternative A would allow for the introduction, translocation, augmentation, and re-establishment of both native and naturalized (nonnative) species, in coordination with UDWR and subject to case-specific NEPA analysis. These actions would benefit the populations of the target species and, when carried out for the benefit of native species, would contribute to maintaining or restoring ecosystem health. Nonnative terrestrial species that may be managed in this way include upland game species such as chukar (*Alectoris chukar*).

Under Alternative A, management actions regarding BLM and USDA Forest Service sensitive species, MIS, Regional Forester SCC, and Utah SGCN wildlife and habitats, and those species listed under Proclamations 10285 and 9558 would be similar to those described in Section 3.4.11.2.1. Implementation of existing conservation strategies to protect and restore habitats and populations (including coordinating with UDWR to implement measures described in the Utah Wildlife Action Plan), protections for bat habitat, and translocations of special status species into the Planning Area would benefit existing and future populations of these species. Continued monitoring and inventories for special status species would also inform implementation of future habitat improvement efforts and establishment of seasonal restrictions to protect special status species from disturbance during sensitive periods. Seasonal restrictions and public education efforts regarding raptors would be similar to that discussed in Section 3.4.11.2.1.

Under Alternative A, management for ESA-listed wildlife and habitats (including critical habitats) would be similar to that discussed above for non-ESA-listed special status species and in Section 3.4.11.2.1. Similar to that discussed for aquatic critical habitats, potential impacts to terrestrial wildlife critical habitat within RMAs would be commensurate with the type and intensity of recreation for which each would be managed: of the 385,764 acres within these areas, 354,950 acres would occur within RMAs that would experience higher rates of visitation than surrounding areas, and 30,815 acres would be located in areas with anticipated low to medium rates of visitation. Implementation of guidelines outlined in species recovery or conservation plans and implementation of recreation management actions, such as seasonal limitations on motorized access into Arch Canyon to protect MSO from disturbance and prohibition of commercial overnight use in PACs during the breeding season, would result in a decreased potential for recreation-related disturbance during sensitive periods. Alternative A includes the highest acreage of critical habitat for MSO where ROW development may be available, and the lowest acreage of critical habitat for MSO where ROW development would be avoided or excluded, resulting in the highest potential among all alternatives for impacts to MSO critical habitat as a result of ROW development.

The road in Arch Canyon would remain open to OHV use, which would continue to impact water resources and water quality conditions for ESA-listed fish species. Maintaining the Arch Canyon Road for OHV use would also prevent beaver recolonization within the riparian areas and limit the application of low-tech process-based restoration techniques, thereby limiting the diversity and resiliency of aquatic and riparian habitat. See Section 3.4.3 for additional information.

3.4.11.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions.

Aquatic Wildlife and Fisheries Habitats. Disturbance associated with recreational use could occur in riparian habitats. Limitations on recreation activities such as camping near riparian resources, group size limits, and permits would reduce those impacts (see Table 3-51). Potential effects on habitats would be commensurate with the type and intensity of recreation use. Higher intensity recreation use would be anticipated in the Indian Creek SRMA, the Arch Canyon RMZ in the Cedar Mesa SRMA, and the Sand Island RMZ in the San Juan River SRMA. Implementation of stricter permit requirements in these areas would reduce the risk of recreational use-related effects and/or intensity of impacts to riparian and aquatic habitats and wildlife when compared to Alternative A.

Alternative B would continue to allow livestock grazing (including new water developments) and OHV use, though these activities would have the potential to occur in a reduced area within riparian and aquatic habitats compared to Alternative A (see Table 3-51). Riparian and aquatic habitat available for ROW development would also be reduced compared to Alternative A (see Table 3-51) because areas available for ROW development would be limited to areas along existing highways and other corridors, and the remainder of the Monument not already excluded from ROW development would be a ROW avoidance area. The reduction of areas available for ROW development would reduce potential impacts to aquatic wildlife and their habitats from those described under Alternative A.

Vegetation management would result in a reduction in potential surface-disturbing activities compared to Alternative A, which would reduce direct and indirect impacts to aquatic wildlife and habitats. For example, prioritization of vegetation treatment areas would be identified in collaboration with the BEC, Traditional Indigenous Knowledge would be incorporated into management actions, and light-on-the-land treatment methods would be used in WSAs. As a result, the risk of temporary indirect impacts from upland surface disturbance to riparian and aquatic habitats would be reduced from those described in Alternative A. Vegetation treatments to reduce woody and herbaceous invasive species in riparian areas would result in similar effects as the upland vegetation treatments; however, both the temporary and long-term effects would directly impact riparian and aquatic habitats. Removal of nonnative riparian vegetation by means of whole tree extraction methods would be used where practical.

The overall area of special designations would be reduced from Alternative A, because three ACECs would not be designated within the Monument. Riparian and aquatic habitats located within these areas would not be protected through ACEC designation from disturbance and degradation associated with impacts from surface-disturbing activities; however, because the overall area within the Monument that would be available for such surface-disturbing activities would be reduced from Alternative A, impacts to these areas that would no longer be within ACECs would not be anticipated to occur.

Management of and potential effects on BLM and USDA Forest Service sensitive species, MIS, Regional Forester SCC, and Utah SGCN aquatic species would be similar to those described for general aquatic wildlife. The area of designated critical habitat for the razorback sucker and Colorado pikeminnow located within recreational areas, areas available for ROW development, OHV use, and areas available/suitable for livestock grazing would be reduced compared to Alternative A (see Table 3-52). As a result, potential impacts to razorback sucker and Colorado pikeminnow populations and designated critical habitat would be reduced.

Terrestrial Wildlife Habitats. Impacts to terrestrial wildlife habitat would be concentrated where management actions allow for more intensive recreational use. Greater recreational restrictions to highly visited management areas would benefit endemic species such as *Eucosma navajoensis* compared to Alternative A.

The San Juan River and Shay Canyon ACECs would not be carried forward, and Alternative B would manage more of the Planning Area as LWC than Alternative A. This management would limit impacts from OHV recreation and other mechanized uses within terrestrial wildlife habitat, although OHV use may be allowed if it does not impact wilderness characteristics. Decreased use of OHVs and other mechanized equipment in the Monument would decrease impacts to wildlife related to noise generation, vehicle mortality, and avoidance of human activity. Alternative B would have a similar total acreage of ROW exclusion areas compared to Alternative A, but nearly all areas identified as open for ROW authorization under Alternative A would be identified as ROW avoidance areas under Alternative B. With these additional restrictions on certain types of activities that would directly disturb wildlife and reduce or fragment habitat, Alternative B would have lower potential impact to wildlife species from human activity, noise generation, and the risk of vehicle mortality compared to Alternative A.

Management actions for big game species would have a greater focus on collaboration with the State of Utah and BEC. Additional restrictions on noise-generating activities in sensitive areas and during sensitive seasons would be implemented under Alternative B. Any future proposal for a change in the kind of livestock would be evaluated based on the best available science. Proposals in crucial desert bighorn sheep habitat would be denied, reducing competition for forage and the potential transmission of disease from domestic to wild sheep. These management actions and restrictions are likely to result in more benefits to game species relative to Alternative A.

The acreage of land available/suitable for grazing under Alternative B would be lower than under Alternative A, and some sensitive riparian areas would be set aside for trailing only, which would reduce grazing impacts in those locations. Furthermore, Traditional Indigenous Knowledge would be incorporated into the fencing design, location, and seasonal restrictions associated with grazing. This would reduce impacts to wildlife and wildlife habitat compared to Alternative A.

Under Alternative B, the introduction, translocation, augmentation, and re-establishment of native species would be permitted, but not nonnative species. Although Alternative A would not include management for many nonnative terrestrial species, managing only for native species under Alternative B would benefit overall native ecosystem health to a greater degree than Alternative A.

Management of habitat for special status species and those species listed under Proclamations 10285 and 9558 would incorporate Tribal and Utah statewide conservation strategies with UDWR and the USFWS to protect habitat connectivity. Unrestricted movement between seasonal use areas and ecological zones are important for sustainable populations. This would likely improve connectivity relative to Alternative A.

When developing pre-activity monitoring requirements and seasonal restrictions for special status species, agencies would collaborate with the BEC. Projects with the potential to impact these species would be designed to avoid impacts to these species and/or to achieve no net loss to species and their habitats. This would result in fewer impacts to these species relative to Alternative A.

Casual overnight use of MSO nesting areas would not be encouraged, and commercial overnight use of MSO PACs would be prohibited from March 1 to August 31. Visitor limitations and seasonal

closure would likely benefit MSOs and their habitat. This alternative would have a lesser impact to MSOs than Alternative A because of increased limitations on access to MSO habitat.

Fewer acres of critical habitat would be located within SRMAs and ERMAs relative to Alternative A, and the extent of potential impacts to critical habitat from visitor use and recreational disturbance would likely be the same or lower under Alternative B. Fewer recreational developments within these management areas could mean less visitor use and disturbance; however, it would also mean less management and fewer regulations. Alternative B would also include an increase in acres of critical habitat where ROW development would be avoided as compared to Alternative A (see Table 3-53). Therefore, Alternative B would reduce the potential for surface disturbances to critical habitat and would likely benefit the species.

Raptor management under Alternative B would include temporary closures of OHV routes, trails, and climbing routes where active nests are located. Agencies would collaborate with the BEC when determining seasonally restricted activities that impact roosting, hibernating, and breeding habitats. Agencies would collaborate with the BEC and Tribal Nations when closing active raptor nesting areas, including the temporary closure of OHV route access to nesting areas, and the closure of trails and climbing routes where active nests could be located. Closing areas involving nesting raptor species would decrease the chances of nest failure and could increase raptor populations. Under Alternative B, educational outreach would be developed in collaboration with the BEC.

3.4.11.2.4. Impacts under Alternative C

Impacts under Alternative C would be similar to Alternative B with the following exceptions.

Aquatic Wildlife and Fisheries Habitats. More flexibility in management actions to protect and prevent disturbance to Monument objects would result in further reduction of the risk of recreational use-related effects and/or intensity of impacts to riparian and aquatic habitats and wildlife when compared to Alternatives A and B. Alternative C would place restrictions on water pumping for recreational activities conducted under a SRP, which would result in a reduced risk of effects on aquatic wildlife and habitat. As a result, effects on aquatic wildlife and habitat from pumping would be reduced from those described for Alternatives A and B.

No new range improvements would be permitted unless the primary purpose is shown to protect, restore, and/or increase the resiliency of aquatic wildlife and their habitat. This would result in a reduced risk of disturbance and/or change in water availability for aquatic wildlife and riparian and aquatic habitats within the Monument. Additionally, trailing of livestock along riparian areas would be avoided, which would further protect riparian and aquatic habitats from disturbance within the Monument. Under Alternative C, OHV use would be reduced in areas of riparian and aquatic habitats (see Table 3-51), which would reduce the risk of disturbance and/or direct impacts to aquatic wildlife and habitats when compared to Alternatives A and B. Under Alternative C, riparian and aquatic habitat available for ROW development would be reduced compared to Alternatives A and B (see Table 3-51), because no areas within the Monument would be available for ROW development, and the remainder of the Monument not already excluded from ROW development would be a ROW avoidance area. The reduction of areas available for ROW development would reduce potential impacts to aquatic wildlife and their habitats from those described under Alternatives A and B.

Chaining for vegetation removal would be prohibited, which would reduce the risk of temporary indirect impacts from upland surface disturbance to riparian and aquatic habitats. Alternative C would also exclude the use of mechanized or motorized equipment and structural development

within riparian areas and floodplains unless to protect BENM objects, thereby reducing surface-disturbing impacts in riparian and aquatic habitat areas when compared to Alternatives A and B. Alternative C would result in a reduction in potential surface-disturbing activities compared to Alternatives A and B, which would reduce direct and indirect impacts to aquatic wildlife and habitats.

Management of and potential effects on BLM and USDA Forest Service sensitive species, MIS, Regional Forester SCC, and Utah SGCN aquatic species would be similar to those described for general aquatic wildlife under this alternative.

The area of designated critical habitat for the razorback sucker and Colorado pikeminnow located within areas where ROW development would be available and/or avoided would be reduced compared to Alternative A and B. This area would also be further reduced in recreational areas, areas available for ROW development, OHV use, and areas available/suitable for livestock grazing compared to Alternative A (see Table 3-52). As a result, potential impacts to razorback sucker and Colorado pikeminnow populations and designated critical habitat would be commensurately reduced.

Terrestrial Wildlife Habitats. This alternative would provide for more developed forms of recreation in the front country and more primitive forms of recreation in the backcountry. RMZs under Alternative C would likely allow for decreased impacts to habitat in remote areas and other locations with low visitation rates through implementation of permit systems, group size, and visitation limits, and would likely have similar or increased impacts to areas with high visitation rates as compared to Alternatives A and B.

In general, Alternative C would result in less potential for surface disturbance and recreational opportunities than Alternatives A and B and would include more management actions addressing potential impacts to wildlife and the proper care and management of relevant Monument objects. ROW exclusion areas and OHV closed areas would be greater under Alternative C, decreasing potential disturbance associated with human presence, noise generation, and vehicle use from those activities, and decreasing potential surface disturbance and barriers to wildlife movement resulting from ROW development.

Development of new water catchments would not be allowed unless necessary to protect BENM objects. Compared to Alternatives A and B, Alternative C would carry additional restrictions on pumping and consumptive water use that could affect aquatic sites, which may be especially critical to wildlife during drought conditions. The additional protections extended to aquatic sites would be anticipated to benefit wildlife to a greater degree than Alternative A and B.

The addition of a permit system or greater restrictions on permits and group sizes in highly visited recreational areas within the Monument would benefit special status species by having greater management control in these areas. Greater management control could lead to less disturbance to wildlife in response to evidence of impacts associated with recreational activities, reducing the extent, frequency, and/or intensity of impacts.

Under Alternative C, no MSO critical habitat would be within areas where ROW development may be allowed, and a greater acreage of critical habitat would be within areas where ROW development would be avoided or excluded relative to Alternatives A and B.

3.4.11.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternatives B and C with the following exceptions.

Aquatic Wildlife and Fisheries Habitats. Disturbance associated with recreational use would be reduced compared to Alternatives A, B, and C within aquatic and riparian habitat located within designated Management Areas (see Table 3-51). Potential effects on habitats within these Management Areas would be commensurate with the type and intensity of recreation for which each would be managed (see Section 3.4.11.2.1 for more detail). Under Alternative D, active management of recreation would be reduced when compared to Alternatives A, B, and C, with a focus on general limitation of uses and activities and development of recreational infrastructure limited to that necessary to protect Monument objects. Some management actions addressing water quality would result in a reduced risk of contamination and potential for disturbance of riparian and aquatic habitats compared to Alternatives A, B, and C. Overall, these prohibitions on use of aquatic habitats would result in further reduction of the risk of recreational use-related effects on and/or intensity of impacts to riparian and aquatic habitats and wildlife when compared to Alternatives A, B, and C.

Livestock grazing would occur in a reduced area within riparian and aquatic habitats compared to Alternatives A, B, and C (see Table 3-51). Modifications to existing water developments would be prohibited unless the primary purpose is shown to protect, restore, and/or increase the resiliency of aquatic wildlife and their habitat, which would further protect riparian and aquatic habitats within the Monument. Similarly, the further reduction of riparian and aquatic habitats within areas where OHV use would occur would reduce the potential risk of disturbance to these habitats when compared to Alternatives A, B, and C. Under Alternative D, riparian and aquatic habitat within ROW exclusion areas would be greater than under Alternatives A, B, and C, which would result in further reductions in the risk for disturbance of aquatic wildlife and their habitats.

Vegetation management would emphasize a more passive vegetation management approach than Alternatives A, B, and C. Restoration actions would rely on natural vegetation recruitment, and light-on-the-land vegetation management techniques would be implemented throughout the entire Monument. Although these actions would be less likely to result in temporary, indirect effects to riparian and aquatic habitats than more active management approaches, passive techniques may be less likely to achieve desirable habitat conditions for existing degraded habitats in the short term. Alternative D would result in a reduction in potential surface-disturbing activities compared to Alternatives A, B, and C, which would reduce direct and indirect impacts to aquatic wildlife and habitats.

Two additional ACECs would be designated under Alternative D, which could result in additional management protections for riparian and aquatic habitats.

Management and potential effects on BLM and USDA Forest Service sensitive species, MIS, Regional Forester SCC, and Utah SGCN aquatic species would be similar to those described for general aquatic wildlife.

Terrestrial Wildlife Habitats. Alternative D would have the greatest area closed to OHV use of any alternative. Under Alternative D, some areas identified under Alternative C as ROW avoidance areas would be identified as ROW exclusion areas, and Alternative D would have a greater acreage of ROW exclusion areas than Alternatives A, B, or C. These management decisions would result in greater protection of wildlife from human presence, noise generation, and vehicle use from those activities. Alternative D would also decrease potential surface disturbance and barriers to wildlife movement resulting from ROW development compared to Alternatives A, B, or C.

Alternative D would include the most acres managed under special designations of all alternatives. The 1,012,371-acre Aquifer Protection ACEC would encompass nearly all portions of BENM that are not already within a special designation. Special designations under Alternative D would be similar

to those under Alternative B, with the addition of the Aquifer Protection ACEC and John's Canyon Paleontological ACEC. Special designations under Alternative D would provide a higher level of protection to wildlife habitat through those designations than Alternatives A, B, or C.

Permit systems for recreation would be used to the highest degree under Alternative D compared to all other alternatives, allowing for a management response to address potential recreation-related impacts to wildlife. Under Alternative D, Comb Ridge Management Zone would be managed for predominantly backcountry physical and social recreation settings and, therefore, would have the least impact to *Eucosma navajoensis* compared to all other alternatives. Portions of the moth's habitat would be within the proposed Aquifer Protection ACEC. Alternative D includes a prohibition on camping within 0.25 mile of springs and similar water sources, which would minimize potential disturbance to wildlife around those critical sites to a greater extent relative to the smaller buffer implemented for Alternatives A, B, and C.

Alternative D would have the least area available/suitable for livestock grazing of any alternative, with other limitations on grazing, such as having the most area of any alternative open to trailing only. Alternative D would allow the maintenance of existing water catchments but would not allow the installation of additional water catchments unless necessary to protect BENM objects. This management approach would preserve natural conditions but would potentially result in fewer water sources available for wildlife, particularly during drought conditions. Because climate change has already resulted in increasing temperature and greater unpredictability in rainfall patterns in the region, provision of supplemental water sources could be necessary to protect BENM objects in some cases.

A passive vegetation management approach may result in a longer period required to achieve desired conditions after disturbance, which could result in a temporary reduction in the quality and productivity of vegetation beneficial to native wildlife.

This alternative would include a reduction of habitat that overlaps with areas available for OHV use and available/suitable for grazing activities, which would benefit wildlife and their habitats more than Alternatives A, B and C due to increased regulations and less disturbance.

All overnight use in MSO PACs would be prohibited seasonally, which could increase MSO nesting success. Some areas identified under Alternative C as ROW avoidance areas would be identified as ROW exclusion areas, and Alternative D would have a higher acreage of MSO critical habitat within ROW exclusion areas. Alternative D would have fewer potential impacts to MSO critical habitat than Alternatives A, B, and C.

Acres of critical habitat for southwestern willow flycatcher overlapping with ROW avoidance areas would be reduced when compared to Alternatives B and C. Therefore, there would be potential for an increase in impacts as a result of surface disturbance because more acres would be designated as ROW avoidance (Table 3-53).

3.4.11.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternatives B, C, and D with the following exceptions.

Aquatic Wildlife and Fisheries Habitats. Alternative E would not use the same recreation management framework as Alternatives A, B, C, and D and instead would manage recreation within four landscape-level zones. Potential effects on habitats within these landscape-level zones would be commensurate with the type and intensity of recreation for which each would be

managed (see Section 3.4.11.2.1 for more detail). Riparian and aquatic habitat within front or middle country zones would likely experience higher intensity of recreational uses and visitation, and riparian and aquatic habitat within back country or primitive zones would likely experience a lower intensity of recreational use and visitation. Under Alternative E, recreation management would be preventative (such as closing areas to recreation where damage is anticipated), would implement a permit system for all overnight and day use in canyons, and would reduce group sizes. These management actions would reduce the risk of recreational use-related effects and/or intensity of impacts to riparian and aquatic habitats and wildlife when compared to Alternative C, and would provide even greater reductions when compared to Alternatives A and B. Similar to Alternative C, Alternative E would provide flexibility in management to protect and prevent disturbance to Monument objects by encouraging the practice of Leave No Trace principles, prohibiting dispersed camping within 0.25 mile of surface water unless in an existing or designated campsite or area, and monitoring water resources to identify whether recreational water pumping needs to be limited. These management actions would result in a reduction of the risk of recreational use-related effects and/or intensity of impacts to riparian and aquatic habitats when compared to Alternatives A and B. A prohibition of swimming in in-canyon stream and pool habitats would result in further reductions in risk of contamination and potential for disturbance of riparian and aquatic habitats when compared to Alternative D. See Section 3.4.3.2 for more detail.

Livestock grazing would be managed to protect streams, springs, and other riparian areas, and, as in Alternative D, new water developments and trailing along the length of riparian areas would be prohibited, unless to protect BENM objects, which would result in additional reductions in risk of disturbance to riparian and aquatic habitats. OHV areas would be similar to those described for Alternative B. As with Alternatives C and D, no areas within the Monument would be available for ROW development, and the remainder of the Monument not already excluded from ROW development would be a ROW avoidance area. Under Alternative E, riparian and aquatic habitat within ROW exclusion areas would be greater than under Alternatives A, B, C, and D, which would result in further reductions in the risk for disturbance of aquatic wildlife and their habitats. Overall, Alternative E would result in a reduction in potential surface-disturbing activities compared to Alternatives A, B, C, and D, which would reduce direct and indirect impacts to aquatic wildlife and habitats.

Vegetation management would emphasize a Traditional Indigenous Knowledge approach. Restoration actions would rely on natural vegetation recruitment, and mechanical vegetation management techniques (not inclusive of chaining) would be implemented only when necessary to protect Monument objects. Restoration actions in wilderness areas and other LWC would be required to maintain or enhance wilderness characteristics. These actions would be less likely to result in temporary, indirect effects on riparian and aquatic habitats, though they may be less likely to achieve desirable habitat conditions for existing degraded habitats in the short term.

Management of and potential effects on BLM and USDA Forest Service sensitive species, MIS, Regional Forester SCC, and Utah SGCN aquatic species would be similar to those described for general aquatic wildlife under this alternative. Coordination between the BEC, Tribal Nations, and UDWR would prioritize the introduction, transplanted, augmentation, and re-establishment of the Colorado River cutthroat trout and other endangered Colorado River fish species. Therefore, actions under Alternative E would be likely to benefit special status fish populations through stocking efforts and habitat restoration efforts.

The area of designated critical habitat for the razorback sucker and Colorado pikeminnow located within areas where ROW development would be available and/or avoided would be reduced compared to Alternative D. Areas available for ROW development and OHV use would all overlap

less designated critical habitat compared to Alternative C; areas available/suitable for livestock grazing would overlap the same amount of critical habitat as Alternative B (see Table 3-52).

Terrestrial Wildlife Habitats. Alternative E would include the 85,856-acre Aquifer Protection ACEC and 11,465-acre John's Canyon Paleontological ACEC, which would provide additional protection to wildlife compared to Alternatives A, B, C, and D. Alternative E would also prohibit livestock access to catchments and require that catchments be constructed to prevent wildlife entrapment, resulting in a greater benefit to wildlife.

Agencies would collaborate with the BEC and the USFWS in applying special status species conservation measures for all activities to comply with the ESA, FSM 2600, Chapter 2670 – *Threatened, Endangered, and Sensitive Plants and Animals*, BLM Manual 6840 – *Special Status Species Management*, and UDWR guidance. Agencies would collaborate with the BEC in the development of pre-activity monitoring requirements for special status species for Indigenous peoples' traditional and ceremonial uses. Projects with the potential to impact these species would be designed to avoid impacts to these species and/or achieve no net loss of the species and their habitats and habitat connectivity, forage, and/or prey species. Due to this management, Alternative E would have fewer adverse impacts to special status species within the Monument compared to impacts under Alternatives A, B, C, and D.

Impacts to special status species and those species listed under Proclamations 10285 and 9558 would be similar to impacts described for terrestrial wildlife species. Translocation of special status species for conservation and recovery would occur only if culturally appropriate and would include genetic and disease monitoring. Management of Gunnison's prairie dogs (*Cynomys gunnisoni*) would be similar to Alternative D but with additional consideration of other species dependent on prairie dogs and the ecosystems created by their presence.

Management of MSO under Alternative E would be similar to Alternative B but with additional restrictions. All recreational uses within PACs would be prohibited seasonally, and wood harvesting within 100 feet of PACs would be prohibited. Prohibiting all recreational uses in PACs could increase MSO nesting success rates (Table 3-53).

Raptor management under Alternative E would be similar to Alternative B, with the addition of potential permanent closures of OHV routes, trails, and climbing trails in nesting areas. Reducing travel and activities within areas with nesting raptors could decrease nest failure for raptors, which would potentially positively affect population trends. The increased regulations and education opportunities under this alternative would have more of a net benefit to raptors than Alternatives A, B, C, and D.

3.4.11.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternatives B, C, D, and E with the following exceptions.

Aquatic Wildlife and Fisheries Habitats. Under the Proposed Plan, special status species native to BENM would be allowed to be translocated to aid in conservation and recovery efforts only when culturally appropriate and if appropriate genetic and disease monitoring has been conducted prior to translocation. Unlike Alternatives B, C, and D, the Proposed Plan would consider conservation and relocation strategies in regard to Traditional Indigenous Knowledge and emphasize the need for additional monitoring efforts. The impacts would be similar to Alternative E. The impacts to NFS lands from livestock grazing would be the same as described in Alternative E.

Terrestrial Wildlife Habitats. Under the Proposed Plan, John's Canyon Paleontological ACEC would not be designated, which would reduce protection for wildlife and wildlife habitat. Additional collaboration with the UDWR could afford additional protection for wildlife and wildlife habitat compared to Alternatives A, B, C, D, and E.

On NFS lands, retaining Hammond Canyon and Upper Dark Canyon as suitable for grazing may impact the terrestrial species within the area by increasing competition between wildlife and the cattle grazing in these areas. Additionally, hydrologic and soil erosion and compaction impacts may also increase in these areas compared to Alternatives B, C, D, and E. Conversely, the closure of John's Canyon of the Perkins South allotment and North Cottonwood pastures would reduce competition with livestock for forage and provide further protection against soil erosion and compaction impacts in these areas compared to Alternatives B, C, D, and E.

The Proposed Plan would enforce adherence to the BLM Bighorn Sheep Rangeland Management Plan and the Utah BLM Statewide Desert Bighorn Sheep Management Plan only on BLM-administered lands. Because these plans are only enforceable on BLM-administered land, no additional impacts to bighorn sheep would be expected on non-BLM-administered lands under the Proposed Plan compared to Alternative E.

3.4.11.2.8. Cumulative Impacts

The cumulative impacts analysis area for fisheries, wildlife, and their associated habitats consists of BLM-administered lands, NFS lands, NPS lands, and adjacent state, Tribal, county, and privately owned lands surrounding BENM. The cumulative impacts of past and present actions to wildlife, fisheries, and their habitats in the Planning Area are captured in the description of the affected environment. RFFAs with the potential to impact fish and wildlife species include specific proposed range improvements, ROW developments, recreational developments, recreational uses, vegetation management, prescribed fire treatments, oil and gas exploration, water withdrawals and depletions, and paleontological excavations (see Appendix J). These actions are likely to have various impacts to surface disturbance and, therefore, are also likely to impact fish, wildlife, and their associated habitats.

Approximately 42 acres of disturbance is anticipated from all RFFAs within the Planning Area, with a majority of these actions being for recreational facility development, range improvement, and well development projects (see Appendix J). Approximately 3,162 acres of disturbance is anticipated from all RFFAs outside the Planning Area for vegetation management and fuels reduction projects. The impacts of these actions could extend into the Planning Area if the associated impacts are hydrologically connected and if the RFFA is located upstream of the Planning Area. The intensity of potential impacts to fish, wildlife, or their habitats is dependent on several factors, including seasonal timing, duration, and proximity of the action to the Planning Area.

Reasonably foreseeable range improvement projects include livestock enclosures and water development projects that would help protect riparian habitat important for fish and amphibian species, including sensitive aquatic species and some species of migratory birds. Development of alternative water sources for livestock would benefit aquatic fish and wildlife by providing localized and concentrated watering areas for livestock, thereby reducing the potential cumulative impacts of trampling, grazing, and increased waste and nutrient levels in riparian areas. Under all alternatives, priority would be given to meeting or making progress toward meeting the Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah, at minimum, (BLM 1997) or to USDA Forest Service desired conditions for rangelands, thus minimizing potential contribution to cumulative impacts from livestock grazing.

Another RFFA that would have direct impacts to aquatic habitat is the Cottonwood Wash bridge replacement project. The impacts of this proposed action would likely be temporary and may include temporary displacement of aquatic species, substrate disturbance, and sedimentation.

The proposed actions within the Planning Area are likely to result in the temporary displacement of wildlife as a result of noise and human presence; however, some of the proposed recreational facilities (e.g., Goosenecks Campground and Trails) would occur in highly visited RMAs. Although disturbance to wildlife would likely be greater in these areas, the long-term disturbance effects would also be locally concentrated. Areas outside of concentrated recreational use areas would likely retain relatively low levels of disturbance and impact. Some recreational project disturbances would be located partially in shrubland and grassland communities that provide habitat for big game and some avian species. Potential cumulative impacts to big game migration could occur; however, a site-specific analysis of impacts is not possible because most big game seasonal movements in Utah are elevational, and UDWR has not mapped migration corridors in the Planning Area to date. Other projects would occur in areas that were previously disturbed, offering minimal habitat for wildlife.

RFFAs that are being proposed for habitat improvement include the North Elk Ridge Forest Health Project, Mormon Pasture Mountain Wildlife Habitat Improvement Project, Maverick Point Project, Abajo-BENM watershed restoration project, and South Elk Ridge Aspen restoration project and Shay Ridge retreatment project. These actions would likely have temporary impacts to wildlife species and their associated habitats due to noise and ground-disturbing activities; however, the long-term impacts would benefit habitat for wildlife by restoring native plant communities, thereby increasing foraging and nesting habitat for big game and avian species.

The Arch Canyon Road and related maintenance (e.g., beaver and dam removal) impact riverscape health most directly by limiting the population of beavers, the area beaver can inundate without conflict, and the space for natural processes to operate. This, in turn, significantly restricts the restoration potential through the application of low-tech process-based restoration techniques that would improve riverscape health and expand riparian and aquatic habitats, including habitat for sensitive fish species living within Arch Canyon.

Future management under the 2008 Monticello RMP and the 1986 Manti-La Sal LRMP would continue to allow activities that would impact wildlife habitat, including oil and gas development, timber harvest, recreation, grazing, and OHV use. Vegetation management in the immediate vicinity of the Planning Area under the 2008 Monticello RMP and the 1986 Manti-La Sal LRMP would continue, as needed, to minimize impacts from these resource uses and maintain continued ecological health. Similarly, impacts to wildlife habitat under Alternatives B, C, D, E, and the Proposed Plan would contribute to cumulative impacts authorized by the RMPs for surrounding federal lands, but vegetation management under Alternatives B, C, D, E, and the Proposed Plan would help reduce these cumulative impacts by managing vegetation to maintain the ecological health of existing wildlife habitats. All alternatives would contribute cumulatively to these impacts by allowing for future grazing, OHV use, and ROW development over the life of the RMP/EIS; however, these alternatives also provide vegetation management, rehabilitation, and reclamation as necessary to maintain long-term vegetation and soil health, thereby reducing the contribution of each alternative to cumulative impacts of reasonably foreseeable projects in the Planning Area. Vegetation management and habitat improvement projects would have temporary impacts to fish and wildlife species but would have long-term positive impacts that would increase habitat quality for fish, wildlife, and their associated habitats.

3.4.12. Visual Resources

3.4.12.1. AFFECTED ENVIRONMENT

The visual resources of BENM are highly scenic, valued by the public, and intact. Many areas within BENM possess a high degree of scenic quality and a high level of sensitivity to change. BENM contains internationally recognized scenic destinations and draws an increasing number of visitors who come to recreate, take photographs, and sightsee. For some, including Indigenous peoples, the entire BENM landscape is considered sacred, which heightens the visual sensitivity of the landscape. As naturally intact lands become scarcer throughout the United States, it is expected that the demand for intact, natural viewsapes like those found in BENM will increase and that viewer sensitivity to changes in landscape (scenic) character in places like BENM will also increase.

Tables 3-54 through 3-58 depict BENM’s components of the BLM Visual Resource Inventory (VRI) and Table 3-59 depicts the current BLM VRM classes. Table 3-60 depicts the USDA Forest Service current VQOs and SIOs for BENM. NFS lands within the Shash Jáa unit adopted SIO, whereas the remainder of the NFS lands within BENM retain the VQOs described in the 1986 Manti-La Sal LRMP. For more information related to the BLM VRI, please refer to Appendix N. Appendix A, Figures 3-28 through 3-33, display these data.

Table 3-54. BLM Visual Resource Inventory Class Acres with Administrative Overlay of the Visual Resource Inventory Class I

BLM VRI Class	Acres
Class I	379,466
Class II	605,920
Class III	69,067
Class IV	20,402

Source: BLM (2023).

Table 3-55. BLM Visual Resource Inventory Class Acres without Administrative Overlay of the Visual Resource Inventory Class I

BLM VRI Class	Acres
Class II	962,833
Class III	91,931
Class IV	20,089

Source: BLM (2023).

Table 3-56. BLM Visual Resource Inventory Scenic Quality

BLM Scenic Quality	Acres
Scenic Quality A inventoried	779,581
Scenic Quality B inventoried	287,558
Scenic Quality C inventoried	7,715

Source: BLM (2023).

Table 3-57. BLM Visual Resource Inventory Sensitivity Levels

BLM Sensitivity Level	Acres
Maintenance of visual quality has high value	882,340
Maintenance of visual quality has moderate value	192,329
Maintenance of visual quality has low value	185

Source: BLM (2023).

Table 3-58. BLM Visual Resource Inventory Distance Zones

BLM Distance Zone	Acres
Foreground-Midleground	656,344
Background	10,832
Seldom-Seen	407,678

Source: BLM (2023).

Table 3-59. Current BLM Visual Resource Management Class Acres

BLM VRM Class	Acres
Class I	411,245
Class II	304,949
Class III	212,623
Class IV	143,845

Sources: BLM (2008a, 2008b, 2020).

Table 3-60. Current USDA Forest Service Visual Quality Objective and Scenic Integrity Objective Acres

USDA Forest Service VQO	Acres
Preservation	50,666
Retention	4,342
Partial Retention	92,267
Modification	108,114
USDA Forest Service SIO	
Very High	12,775
High	19,815
Moderate	0
Low	0

Source: USDA Forest Service (1986, 2020).

Most of BENM is undeveloped and exhibits intact visual characteristics due to its remoteness, ruggedness, and inaccessibility. Manifestations of some management actions are visible but not dominant, including transmission lines, roads, livestock grazing infrastructure, vegetation management, and recreational developments. See Appendix N for additional context concerning the affected environment related to visual resources.

3.4.12.2. ENVIRONMENTAL CONSEQUENCES

3.4.12.2.1. Impacts Common to All Alternatives

The BLM has allocated VRM Class I to lands within WSAs, specific ACECs (i.e., Valley of the Gods [except for a portion that is Class II], San Juan River, and Indian Creek), and WSRs where administrative decisions, beyond typical management decisions, have been made to preserve a natural landscape (Table 3-61; Appendix A, Figures 2-15 through 2-19). The USDA Forest Service has assigned either a Preservation VQO (Alternative A) or Very High SIO (all other alternatives) to all lands within designated wilderness areas (Table 3-62, Figure 2-23). The agencies would collaborate with the BEC to protect viewsheds and visual resources consistent with Tribal values. Viewer sensitivity is expected to increase as undeveloped, naturally intact lands become scarcer throughout the United States. Management prescriptions would not measurably change sensitivity levels beyond continuation of existing trends and forecasts. No changes to BLM distance zones are anticipated because no new primary travel corridors or other changes to major viewing platforms are anticipated. To enhance visual resources to the extent practicable, existing contrasting visual elements remaining from past land uses would be brought into plan conformance with allocated VRM class objectives and VQO/SIOs. By seeking to reduce impacts from prior land uses, the overall visual landscape would more closely resemble the natural landscape character and enhance those landscapes modified prior to designation of BENM. The agencies would reclaim landscapes, restore native vegetation, and rehabilitate waterways and riparian areas to enhance natural and historical scenic values that have been significantly degraded.

Changes affecting scenic quality and scenic character outside of the agencies' influence or control, including climate change and development of adjacent lands or inholdings not under federal management, would continue to impact scenic character within BENM.

Table 3-61. Summary of Scenic Quality Rating and Proposed Visual Resource Management Class by Alternative on BLM-Administered Lands

Alternative Area	Scenic Quality A Inventoried (acres)	Scenic Quality B Inventoried (acres)	Scenic Quality C Inventoried (acres)
Alternative A			
VRM Class I	364,408	46,837	0
VRM Class II	196,935	107,066	884
VRM Class III	113,395	96,732	2,476
VRM Class IV	103,837	35,600	4,362
Alternative B			
VRM Class I	363,434	46,792	0
VRM Class II	408,090	231,460	6,898
VRM Class III	8,025	9,282	829
VRM Class IV	0	0	0
Alternative C			
VRM Class I	424,944	82,792	0
VRM Class II	346,697	195,918	6,898
VRM Class III	7,908	8,823	829
VRM Class IV	0	0	0

Alternative Area	Scenic Quality A Inventoried (acres)	Scenic Quality B Inventoried (acres)	Scenic Quality C Inventoried (acres)
Alternative D			
VRM Class I	629,711	174,059	558
VRM Class II	149,501	113,482	7,170
VRM Class III	512	3	0
VRM Class IV	0	0	0
Alternative E			
VRM Class I	767,719	273,540	7,703
VRM Class II	11,317	13,670	6
VRM Class III	0	0	0
VRM Class IV	0	0	0
Proposed Plan			
VRM Class I	487,527	108,476	0
VRM Class II	283,297	169,156	6,906
VRM Class III	8,838	9,936	818
VRM Class IV	0	0	0

Sources: BLM (2023); BLM and USDA Forest Service GIS (2022).

Table 3-62. Summary of Acres of Each Scenic Integrity Objective (or Visual Quality Objective) by Alternative on National Forest System Lands

Alternative Area	Acres
Alternative A	
Preservation VQO	50,666
Retention VQO	4,342
Partial Retention VQO	92,267
Modification VQO	108,114
Very High SIO	12,775
High SIO	19,815
Moderate SIO	0
Low SIO	0
Alternative B	
Very High SIO	46,858
High SIO	242,933
Moderate SIO	0
Low SIO	0
Alternative C	
Very High SIO	46,858
High SIO	242,933
Moderate SIO	0
Low SIO	0

Alternative Area	Acres
Alternative D	
Very High SIO	6,858
High SIO	242,933
Moderate SIO	0
Low SIO	0
Alternative E	
Very High SIO	287,613
High SIO	1,238
Moderate SIO	0
Low SIO	0
Proposed Plan	
Very High SIO	46,858
High SIO	242,933
Moderate SIO	0
Low SIO	0

Source: BLM and USDA Forest Service GIS (2022); USDA Forest Service (2022).

3.4.12.2.2. Impacts under Alternative A

The BLM would continue to manage large portions of BENM under VRM Class I and II where management activities would preserve or retain the natural landscape character and would not attract the attention of casual viewers (see Table 3-61). The BLM would continue to manage portions of landscapes inventoried as having high scenic quality under VRM Class III and IV where management activities could moderately alter (VRM Class III) or dominate (VRM Class IV) the characteristic landscape (see Table 2-12).

NFS lands within BENM would continue to be managed per the VQO acres as currently distributed by the 1986 Manti-La Sal LRMP and for the Shash Jáa Unit SIOs as included under the 2020 amendment to the 1986 Manti-La Sal LRMP.

By continuing to manage toward VQOs, the USDA Forest Service would continue to manage scenery inconsistent with the latest direction under the 1995 SMS, including use of outdated terminology, processes, and values. This includes managing without recognition of visually valued landscapes that may show signs of management, such as historic structures, and recognition that some natural processes may cause visual deviations and alterations, such as those from landslides, avalanches, natural ignition wildfires, or insect and disease infestations. VQOs for critical travel ways, use areas, and administrative sites would continue to be considered during the planning process for any proposed management activity except in the Shash Jáa Unit, where SIOs would be used during the planning process. Dark Canyon Wilderness would continue to be managed for a Preservation VQO to preserve the wilderness characteristics and associated dominance of the natural visual composition throughout the wilderness. In addition to those approximately 46,333 acres, another 17,108 acres are also currently managed and would continue to be managed under Alternative A as Preservation VQO or Very High SIO (Shash Jáa Unit). In total, approximately 22% of the NFS lands within BENM would be managed to meet or exceed the Preservation VQO. In the Shash Jáa Unit, 12,775 acres would continue to be managed as a Very High SIO within the Arch Canyon Backcountry RMZ.

To minimize impacts and to allow only management activities that would not be visually evident, 24,157 acres (8%) of NFS lands within BENM are assigned a Retention VQO (or High SIO) with 19,815 acres within the Shash Jáa Unit assigned a High SIO. Similarly, 92,267 acres (32%) are managed as a Partial Retention VQO, where management activities must remain visually subordinate to the overall characteristic landscape but there may be some minor deviations visible. Finally, 108,114 acres (38%) of NFS lands within BENM possess a Modification VQO, where management activities could dominate the characteristic landscape but must remain compatible with the natural surroundings. All these acres would continue to be managed as described above under Alternative A.

Per the 1986 Manti-La Sal LRMP, the USDA Forest Service would continue to rehabilitate areas that do not meet their assigned VQO to move those areas toward meeting or exceeding their VQO.

Management for vegetation, forestry and woodlands, lands and realty, livestock grazing, range improvements, recreation, and transportation under Alternative A could result in direct and indirect impacts to visual resources. Specifically, approximately 735,000 acres would be open to ROW authorization, approximately 716,000 acres open for wood product harvest, and approximately 1,225,000 acres available/suitable for livestock grazing. Future management actions under these programs, including additional livestock grazing infrastructure, vegetation management projects, and local and regional-scale utility ROWs, could result in modest increases in visual contrast, especially in the foreground and middleground distance zones throughout the Planning Area. These management decisions are not forecasted to be implemented in locations or at scales or densities that would cause scenic quality ratings to shift, especially where managed as VRM Class I or II by the BLM. Future actions under Alternative A would be reviewed in a site-specific analysis of the impacts of the activities to the scenic quality and could change the scenic quality ratings where VRM Class III or IV has been allocated by the BLM, allowing for a change in level of visual contrast. Similar types of impacts to USDA Forest Service scenic character could also occur due to future activities, and under Alternative A the presence of approximately 38% of the NFS land acres in the Modification VQO could allow deviations from management actions to impact the visual landscape collectively across the NFS lands within BENM. Another 32% of the NFS acres within the BENM under the current Partial Retention VQO could also experience visual deviations, although still subordinate to the natural visual composition, across BENM. Collectively, under Alternative A, approximately 70% of BENM would continue to be managed to allow management activity deviations to impact the visual composition of the NFS lands within BENM.

Management of visual resources on federal lands may also be incompatible with visual management on adjacent lands. Alternative A includes VRM Class IV within the viewsheds of NABR and Glen Canyon NRA, where Class IV could allow for adverse impacts to these NPS landscapes. Management activities in these areas could dominate the characteristic landscape and be the major focus for viewers. Additionally, Alternative A includes VRM Class III within the viewsheds of Glen Canyon NRA, Canyonlands National Park, and NABR; this could result in adverse impacts to these NPS landscapes where management activities would be allowed to attract attention of the casual viewer.

3.4.12.2.3. Impacts under Alternative B

Impacts under Alternative B would be the same as under Alternative A, with the following exceptions. Alternative B would contain 1,000 fewer acres of VRM Class I areas than Alternative A. The BLM would not manage the San Juan River ACEC as VRM Class I; however, VRM Class I areas would protect WSAs, other ACECs, and WSRs. This would result in less protection of landscape character on lands within the San Juan River ACEC than under Alternative A because management decisions could allow for a low level of visual change. Areas adjacent to existing communication

sites, within 0.25 mile of U.S. Highway (US) 191, existing ROW corridors, ROW open areas, the area adjacent to the Bluff Airport, and specific RMZs would be allocated as VRM Class III to allow for moderate change to the landscape character, which would result in potential effects on views from Utah State Route (SR) 95, SR-211, and SR-261 from future utility development within these designated ROW corridors. To minimize potential visual impacts to the majority of BENM, including LWC, the BLM would allocate VRM Class II for all other lands not managed as VRM Class I or VRM Class III. The BLM would manage approximately 194,479 fewer acres as VRM Class III, with these areas being managed as VRM Class II where the existing character of the landscape would be retained and the allowable level of change to the characteristics would be low. This would result in further protection of landscape character in these portions of BENM. Because no lands would be managed as VRM Class IV under Alternative B, no management activities would be allowed to dominate the view or be the major focus of viewer attention resulting in further protection of landscape character compared to Alternative A.

Portions of Scenic Quality A–inventoried areas were allocated as VRM Class III under this alternative, where future management activities would continue to be allowed to moderately change the landscape character (see Table 3-61). This includes areas where future utility development within designated ROW corridors could cross these landscapes. This could result in a decrease in scenic quality in those areas and, therefore, lower inventory scores (see Table 2-12).

The USDA Forest Service would manage all of BENM under the 1995 SMS, which should provide scenery management more aligned with current best available scientific information and direction. This should provide more adaptable scenery management with values around historic and archeological resources incorporated into the scenic character descriptions for NFS lands within BENM. Dark Canyon Wilderness would be managed as Very High SIO, under which no deviations from the scenic character should occur. Compared to Alternative A, the USDA Forest Service would manage approximately 16,600 fewer acres of BENM in Very High SIO or Preservation VQO. This could result in very minor modifications of scenic character within these areas, including the Arch Canyon Backcountry RMZ within the Shash Jáa Unit, which would be managed as a High SIO under Alternative B, compared to the Very High SIO assigned under Alternative A. All NFS acres in BENM outside of Dark Canyon Wilderness would be managed to a High SIO. Approximately 24,000 acres would be within the Retention VQO/High SIO under Alternative A; therefore, managing 240,000 acres as High SIO under Alternative B should emphasize management for the scenic character with limited deviations driven by management actions. All acres in Alternative A Modification VQO would be managed for a High SIO. This prioritizes the intactness of the scenic character compared to Alternative A.

The agencies would reclaim landscapes, restore native vegetation, and rehabilitate waterways and riparian areas to enhance natural and historical scenic values that have been degraded. This would include maintaining and enhancing natural and cultural landscapes to contribute to a visitor's sense of place and connection with nature, resulting in increased landscape sensitivity for some visitors. By incorporating a broader approach for management of visual resources, including more restrictive visual management objectives, the protection of visual values would be more extensive under this alternative compared with Alternative A.

Impacts to visual resources associated with management for lands and realty, livestock grazing, and recreation would be reduced compared to Alternative A. There would be reduced potential for utility projects because there would be more area managed as ROW exclusion or avoidance. The agencies would manage more areas as unavailable/not suitable for livestock grazing, which could help restore native vegetation and limit range improvements, which could impact visual resources. Potential additional recreation facilities would be constructed primarily in existing high use areas where there is low visual or scenic quality, which would limit impacts to visual resources. These

restrictions, in combination with more acres being managed under more restrictive VRM classes (Class I and II) and SIOs (Very High and High SIO), should result in fewer impacts to visual resources than under Alternative A.

Alternative B would include smaller areas of VRM Class III within the viewsheds of Glen Canyon NRA, NABR, and Canyonlands National Park compared to Alternative A. Because no areas would be allocated VRM Class IV under Alternative B, no VRM Class IV would occur within the viewsheds of NABR or Glen Canyon NRA. This would limit the potential effect on these adjacent NPS units.

3.4.12.2.4. Impacts under Alternative C

Impacts under Alternative C would be the same as under Alternative B with the following exceptions. LWCs managed to protect wilderness characteristics would be managed as VRM Class I, resulting in approximately 97,000 more acres managed as VRM Class I compared to Alternative A. This would result in further protection of the natural landscape character within larger portions of BENM.

The entire BENM would be designated as either a ROW exclusion or avoidance area. This could result in less potential modification of visual resources. Additional restrictions on construction of new water wells and range improvements when only necessary to protect Monument objects could further limit potential modifications to landscape (scenic) character.

3.4.12.2.5. Impacts under Alternative D

Impacts under Alternative D would be the same as under Alternatives B and C with the following exceptions. Most BLM-administered lands would be managed as VRM Class I or II, except for approximately 500 acres managed as VRM Class III. There would be more than 393,000 additional acres managed as VRM Class I because LWCs managed to protect wilderness characteristics would be managed as VRM Class I, and there would be more acres of protected LWC under Alternative D.

The BLM would only allocate areas adjacent to existing communication sites (near the Bluff Airport) and within existing ROW corridors as VRM Class III, resulting in further protection of landscape character.

Additional recreation facilities would only be constructed if necessary to protect BENM objects, which should further protect visual character compared to Alternatives A, B, or C. By managing more acres in more restrictive VRM Classes and SIOs compared to Alternative A, potential changes to scenic quality, scenic character, and the characteristic landscape associated with proposed management decisions should be minimized.

Additional VRM Class I lands adjacent to Canyonlands National Park and NABR would further protect those viewsheds.

3.4.12.2.6. Impacts under Alternative E

Impacts under Alternative E would be the same as under Alternatives B, C, and D with the following exceptions. All lands in BENM would be managed as VRM Class I or II and Very High or High SIO. Alternative E would have more than 925,000 additional acres managed as VRM Class I compared to Alternative A. This includes areas where previous administrative decisions have been made to preserve the natural landscape as well as where the BEC identified outback and remote Management Zones. Because all other lands would be managed as VRM Class II, where management activities would need to retain the existing characteristic landscape and not attract a

viewer's attention, BENM visual resources would be the most protected as compared to other alternatives. No land would be managed under VRM Class III, where management activities would need to partially retain the existing landscape character. This would result in approximately 212,000 fewer acres managed as VRM Class III under Alternative E compared to Alternative A, with these areas being managed as VRM Class I or II under Alternative E. In these areas, the existing character of the landscape would be preserved or retained, with the allowable level of change to the characteristics being limited. The management of Front Country and Passage Zones as VRM Class II could result in limiting recreation infrastructure development, including any new developed campgrounds, restrooms, and other proposed facilities within these Management Zones, due to the more stringent visual requirements associated with VRM Class II compared to VRM Class III or IV.

The USDA Forest Service would manage all NFS lands as Very High SIO, apart from approximately 1,000 acres that would be managed as High SIO. The impacts to these acres managed as High SIO all lie along the primary roads within the NFS portions of BENM. The impacts of managing these acres as High SIO would be the same as those described for High SIO in Alternatives B, C, and D. Although deviations may occur on these acres and have minor visual perceptibility, they are unlikely to distract or dominate the scenic character of the collective NFS lands within BENM.

Because Alternative E would only allocate VRM Class I and VRM Class II, it would further protect viewsheds from the adjacent NPS units, including Glen Canyon NRA, Canyonlands National Park, and NABR relative to all other alternatives. Alternative E includes additional protection for the portions of the Bears Ears landscape within the Remote and Outback Zones, which would be managed under a Very High SIO for this alternative, where only subtle deviations are allowed.

3.4.12.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternative C, with the following exceptions. VRM Class I areas would protect WSAs, suitable WSRs, Indian Creek ACEC, much of the Valley of the Gods ACEC, and LWCs managed to protect those characteristics with approximately 108,000 additional acres of LWCs managed to protect wilderness characteristics managed as VRM Class I compared to Alternative C. This would result in further protection of the natural landscape character within large portions of BENM under the Proposed Plan compared to Alternatives A, B, and C, but not Alternatives D and E.

Under the Proposed Plan, there would be an additional approximately 1,500 acres of VRM Class III adjacent to US-191 resulting from a 0.75-mile buffer compared to a 0.25-mile buffer under Alternative C, which could allow more development in proximity to this highway based upon this less restrictive management objective. Existing ROW corridors would be managed as VRM Class II instead of VRM Class III, under the Proposed Plan, resulting in more acres being managed to protect visual character than Alternative C in these areas. This would require future utility projects in these areas to meet these more stringent management objectives to reduce their level of visual contrast.

3.4.12.2.8. Cumulative Impacts

The cumulative impacts analysis area for visual resources is the visible area surrounding BENM up to 15 miles beyond the boundary. This is the same as the effects analysis area, which corresponds to the background distance zone of the BLM BENM visual inventory. Views can extend beyond this distance, but this 15-mile distance was selected because it represents the limit of visibility beyond which most anticipated development and management actions within BENM would not be noticeable to casual observers.

Past and present actions in the cumulative impacts analysis area that have and would likely continue to affect visual resources include previous development of non-federally managed inholdings and adjacent areas for residential, commercial, industrial, and other uses as described in Section 3.4.12.1 that have modified the landscape (scenic) character in those interface zones.

RFFAs and conditions (see Appendix J) in the cumulative impacts analysis area that would likely affect visual resources include development of non-federally managed inholdings and adjacent areas for residential, commercial, industrial, and other uses (e.g., Aneth D-212X Oil and Gas Well, Summit Operating Pipeline ROW, UDOT Bluff Material Site, and Daneros Mine Expansion). Within BENM, all proposed road construction projects in Appendix J have the potential to result in additive effects on visual resources. The proposed ROW UTU-96101 for geotechnical bore holes project has the potential to affect scenic quality where a large water storage tank could be constructed on high point within BENM. This water tank may not meet the assigned VRM class objectives under Alternative E and would be unlikely to be constructed under Alternative E; potential cumulative impacts would only exist under other alternatives. All future management actions on federal lands would be required to meet the proposed VRM class objectives or SIOs (or VQOs for Alternative A) allocated under each alternative. Alternatives B, C, D, and E and the Proposed Plan would offer more protection of visual resources than Alternative A.

It is anticipated that VRI values will remain mostly stable into the future; however, viewer sensitivity to landscape change is more likely to increase than scenic quality or distance zones are likely to change. As undeveloped, naturally intact lands become scarcer throughout the country, local development pushes closer to the boundaries of BENM, and as inholdings are developed, it is likely that national and local general publics will become increasingly sensitive to changes in landscape (scenic) character within BENM. This may result in increases to the landscape's sensitivity ratings (or concern levels for NFS lands) in some inventoried areas of moderate and low sensitivity. Increases in sensitivity are anticipated to rise due to both the increasing number of visitors and visitation expansion into lesser-known areas as popular destinations become overcrowded. These factors are assumed to result in more of the landscape being explored and valued by more visitors compared to the existing condition. Distance zones are established on important viewing platforms like primary travel corridors, communities, trails, and viewpoints. Although development on the edges of local communities is likely to expand to some degree, and some internal travel corridors may become more popular with increased travel counts, the viewing platforms are assumed to remain mostly the same as they were when used in the inventory.

Climate change is a factor that is outside of the agencies' influence or control that could also impact BENM scenic quality. The intensifying drought and severe wildfires associated with climate change are forecasted to change vegetation (e.g., dead and/or burnt stands of trees, reduced shrub and grass cover, increasing insect and disease pressure, reduced water availability, etc.), especially in shrubland, riparian, and pinyon-juniper woodland vegetation communities, as well as reduce the presence of surface water, potentially to the degree that inventoried scenic quality values would shift. Management action in the Proposed RMP/Final EIS, such as those that protect water resources like requiring hydrologic studies or only allowing for land use authorization for water withdrawal to protect Monument objects, could limit some of these impacts. Management actions in the Proposed Plan to increase resiliency of native vegetation and using native plants seeds may also limit impacts from fire and protect natural vegetation and, therefore, maintain visual quality.

3.4.13. Natural Soundscapes

3.4.13.1. AFFECTED ENVIRONMENT

Proclamation 9558 describes the natural soundscape of BENM as follows: “The star-filled nights and natural quiet of the Bears Ears area transport visitors to an earlier eon. . . . As one of the most intact and least roaded areas in the contiguous United States, Bears Ears has that rare and arresting quality of deafening silence.”

Although no soundscape studies have been conducted in BENM, based on acoustic monitoring and audibility logging in a similar setting in the adjacent Grand Staircase-Escalante National Monument, the most frequently encountered unnatural sound sources were high-altitude jet aircraft and vehicles or engines (Southern Utah University 2020). Additionally, the use of unstaffed aerial systems (UASs or drones) for recreational and scientific purposes generated increased noise levels while in use, especially when flying at low altitude. Dominant ambient natural sounds included the wind and birdsong, as well as natural quiet. Based on NPS modeling of existing noise levels as part of their *Mapping Sound Project*, a large portion of the Monument is very quiet—less than 30 A-weighted decibels (dBAs)—which equates to a quiet whisper or ticking watch (NPS 2021). As described in the 2022 BEITC LMP, the auditory environment and natural soundscape are valued by the Tribal Nations of the BEC. Table 3-63 (see Appendix N) lists the acres of BENM where different thresholds of modeled sound levels currently exist, based on the abovementioned NPS noise modeling, with examples of common sounds to relate the different sounds levels. Natural soundscape resources are of increasing public concern; they were noted during scoping for planning efforts and review of proposed projects on BLM-administered and NFS lands in BENM. Increasing awareness of BENM recreation opportunities and high-quality landscapes is resulting in increased visitation along travel corridors and in some quiet, backcountry areas. Increases in noise are anticipated to continue as recreational visitation and air travel increase.

See Appendix N for additional context concerning the affected environment related to natural soundscapes.

3.4.13.2. ENVIRONMENTAL CONSEQUENCES

For analysis and comparison of alternatives, management associated with OHV use was compared to identify areas closed to these noise-producing uses and, where allowed, the potential impacts to natural soundscapes. Alternatives with more acres closed to OHV use associated with each modeled sound level indicate that the management actions under those alternatives would result in fewer impacts to soundscapes and further protection of the soundscapes in these areas, including very quiet areas (less than 25 dBA) (Table 3-64). Table 3-64 also includes the percentage of each modeled noise threshold (e.g., less than 25 dBA, 25–30 dBA, and more than 30 dBA) protected by prohibiting OHV use, reducing potential additional noise in the landscape. This analysis did not consider the extent of OHV use in these areas, but instead focuses on the extent of protection of soundscapes through closing areas to OHV. BMPs associated with all alternatives (see Appendix G) identify the establishment of quiet hours at developed campgrounds, resulting in a reduction of potential intermittent noise associated with those recreation uses, such as generators.

Table 3-64. Modeled L50 Sound Levels (A-weighted decibels) and Areas Closed to Off-Highway Vehicle Use to Protect Soundscapes by Alternative

Alternative	Less than 25 dBA (acres) (percentage of total noise threshold area)	25–30 dBA (acres) (percentage of total noise threshold area)	More than 30 dBA (acres) (percentage of total noise threshold area)
Alternative A	194,031 (51%)	240,542 (22%)	1,502 (4%)
Alternative B	194,031 (51%)	365,134 (34%)	7,755 (23%)
Alternative C	210,955 (56%)	445,613 (41%)	7,755 (23%)
Alternative D	310,562 (82%)	661,815 (61%)	10,537 (32%)
Alternative E	194,031 (51%)	368,478 (34%)	7,755 (23%)
Proposed Plan	239,540 (63%)	396,335 (36%)	1,713 (6%)

Sources: BLM and USDA Forest Service GIS (2022); NPS (2021).

3.4.13.2.1. Impacts Common to All Alternatives

All alternatives would include collaboration with the BEC (informed by Traditional Indigenous Knowledge) and management associated with noise-producing activities, including BMPs to reduce noise levels, resulting in protection of BENM natural soundscapes with the level of protection varying amongst the alternatives as described by alternative.

Impacts to soundscapes from scenic overflights and drones in flight would occur under all alternatives. The agencies do not have the ability to restrict travel on rural highways (e.g., SR-95 and SR-211) within BENM or aircraft flying over BENM; these would be expected to continue to impact soundscapes within BENM under all alternatives.

Increasing use along primary and secondary travel routes would be assumed to continue under all alternatives as visitation increases. This may result in areas adjacent to these routes becoming less quiet over time under all alternatives. Under all alternatives, the use of motorized vehicles in OHV limited areas would be likely to continue to introduce noise to the BENM soundscape, and those areas of OHV closed would be likely to continue to be quieter.

3.4.13.2.2. Impacts under Alternative A

Existing trends for soundscapes would continue under Alternative A (see Table 3-64). The management of soundscapes in BENM would continue as outlined in the 2020 ROD/MMPs with the application of BMPs established in the 2020 ROD/MMPs for the Shash Jáa and Indian Creek Units to reduce the proliferation of noise-producing facilities and activities within BENM. Impacts to soundscapes could affect BENM objects, including those associated with recreational values as well as culturally affiliated Tribes' cultural practices requiring quiet. BMPs would only be associated with the Shash Jáa and Indian Creek Units, and a similar level of protection would not occur in areas within BENM managed under the 2008 Moab RMP, 2008 Monticello RMP, or 1986 Manti-La Sal LRMP, as amended. Table 3-64 identifies the acres under Alternative A, by modeled noise threshold, where OHV use would be prohibited, resulting in protection of soundscapes from potential noise associated with OHV use in these areas.

Alternative A identifies two airstrips where landing or takeoff of aircraft would be allowed with exceptions for filming permits. Additional new backcountry airstrips could be designated through implementation-level planning. Under a filming permit, Alternative A would continue to allow landing or takeoff of aircraft outside of WSAs or designated wilderness, leading to impacts to BENM soundscapes during takeoffs and landings outside of these designated areas. Alternative A

includes additional criteria for filming permits to avoid impacts to soundscapes from aircraft in areas with high recreational use and within 0.5 mile of designated campgrounds during high levels of use. By limiting aircraft to specific airstrips and including additional criteria for filming permits, Alternative A would seek to protect BENM soundscapes. Alternative A would not limit UAS use, which could lead to impacts to soundscapes during use as well as when UASs fly at low altitudes over BENM.

Management of other resources, which includes use of motorized transportation, heavy equipment, mechanized tools, and other generators of human-activity-based sound could result in impacts to natural soundscapes. Specifically, approximately 524,000 acres would be open to ROW authorization, approximately 685,000 acres would be managed as OHV limited, approximately 716,000 acres would be open for wood product harvest, approximately 1,224,000 acres would be available for livestock grazing, and recreational shooting would be generally allowed except at certain areas. These uses could result in short-term impacts to soundscapes, especially where located in proximity to very quiet areas (less than 25 dBA). The effects on soundscapes in WSAs and other areas managed for wilderness values would be limited because existing protections in these areas limit the use of motorized equipment.

3.4.13.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. Existing soundscapes would be more protected than under Alternative A because the BMPs designed to protect natural soundscapes would be applied to all of BENM instead of limited to the smaller Shash Jáa and Indian Creek Units. Existing trends for soundscapes would continue under Alternative B with the proposed soundscape management plan identifying methods to mitigate effects associated with trends and specific effects on soundscapes in BENM. This would include inventorying and monitoring soundscapes in collaboration with the BEC.

Additional acres would be protected from potential noise impacts from OHV use compared to Alternative A (see Table 3-64).

Motorized aircraft landings and takeoffs would be allowed on routes designed for such use in a TMP; however, the only two currently designated airstrips are the Bluff Airport and the Fry Canyon Airstrip. Additional case-by-case landings and takeoffs at could be authorized in the future if the use is beneficial to protecting BENM objects, which may limit their effect on natural soundscapes. By limiting drones to take off or land only on routes designated in a manner that allows for such use in a TMP, therefore focusing drone use where other human-generated noise would occur, Alternative B would facilitate further protection of soundscapes throughout BENM compared to Alternative A.

Impacts to soundscapes associated with management for vegetation, lands and realty, livestock grazing, range improvements, fire management, recreation, and transportation may be reduced compared to Alternative A, due to more acres with constraints on management activities that generate noise. More areas designated as ROW avoidance or exclusion, and more acres designated OHV closed, could reduce ROW development and motorized route use and associated noise. Similarly, reduced acres available/suitable for livestock grazing may reduce the potential noise associated with management of livestock. Increases in areas open for wood product harvest (an additional 215,000 acres) compared to Alternative A could result in increased and more widespread noise levels during those activities compared to Alternative A. An additional 8,814 acres would be closed to recreational shooting compared to Alternative A, which could reduce localized impacts to soundscapes from this use.

3.4.13.2.4. Impacts under Alternative C

Impacts under Alternative C would be similar to Alternative B with the following exceptions. Additional acres would be protected from potential noise from OHV use compared to Alternatives A and B (see Table 3-64), reducing impacts to soundscapes compared to Alternatives A and B.

Under Alternative C, the prohibition of public motorized aircraft (including UASs) taking off and landing within BENM except for at the Bluff Airport and Fry Canyon Airstrip would facilitate further protection of soundscapes compared with Alternative A. UAS use would only be allowed if permitted through formal authorization and only when it would be beneficial to protecting BENM objects. Additionally, because aircraft and UASs would not be allowed for commercial filming permits, there would be a reduction in impacts to soundscapes under this alternative during filming activities compared to Alternatives A and B.

An additional 74,783 acres of recreational shooting closures could further reduce the localized impacts to soundscapes from this activity.

3.4.13.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternative C with the following exceptions. Additional acres would be protected from potential future noise from OHV use compared to Alternatives A, B, and C (see Table 3-64).

Approximately 196,000 additional acres would be unavailable/unsuitable for livestock grazing compared to Alternative B, reducing potential noise associated with construction and maintenance of range improvements. Recreational shooting would be prohibited in more areas than Alternatives A, B, and C, which could further reduce the localized impacts to soundscapes from this activity.

3.4.13.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternative D with the following exceptions. The agencies would collaborate with the BEC to survey existing impacts to soundscapes and identify those that damage or degrade culturally affiliated Tribes' cultural practices requiring quiet. This additional collaboration with the BEC would result in more integration of Traditional Indigenous Knowledge than would occur under other alternatives, and potential impacts to traditional Indigenous practices may be reduced compared to Alternatives A, B, C, and D.

All of BENM would be designated as either ROW exclusion or avoidance, reducing potential noise from ROW construction and use of utility projects. Prohibiting recreational shooting in all areas of BENM would eliminate the localized impacts to soundscapes from this activity.

3.4.13.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternative B with the following exceptions. The Proposed Plan would protect an approximately 24,000 additional acres from potential noise from OHV use under this alternative compared to Alternative B (see Table 3-64). Specific OHV area designations would be similar to Alternative B except that areas adjacent to Canyonlands National Park and NABR would be closed to OHV use, further protecting the soundscapes in these areas.

3.4.13.2.8. Cumulative Impacts

The cumulative impacts analysis area for natural soundscapes consists of the Planning Area and extends 3 miles beyond it based on the attenuation of a typical OHV (75 dBA) to levels acceptable

in BENM (30 dBA) at this distance. Past and present actions in the cumulative impacts analysis area that have adversely affected and would likely continue to adversely affect natural soundscapes include recreation uses (e.g., OHVs or generators at recreation sites); air travel, including scenic overflights; travel along primary and secondary corridors; and UAS use for recreational and scientific purposes as described in Section 3.4.13.1 and Appendix N. Based on future increases in population and visitation to the Planning Area, increasing vehicle noise along SR-95, SR-211, and other public roads within the Planning Area would be anticipated.

RFFAs and conditions (see Appendix J), including new water wells and range improvement projects; construction of new or expanded recreation facilities; and road construction projects, including the Goosenecks Campground and Trails, Hamburger Rock Campground Improvements and Expansion, and Cottonwood Wash bridge replacement, would generate additional noise during their construction and operation in and adjacent to BENM. The rehabilitation of the Dark Canyon South Landing Strip could result in elevated noise levels adjacent to this site during takeoff and landings due to potential increased use of this previously unimproved backcountry airstrip.

Implementation of air tour management plans for adjacent NPS units could result in increased, additive noise along the periphery of BENM, where BENM is within 0.5 mile of Glen Canyon NRA, Canyonlands National Park, and NABR. The Canyonlands Air Tour Management Plan (NPS 2022a) identified fixed-wing and helicopter routes that cross the northern portion of BENM near Dead Horse Point and Beef Basin; this could result in potential increased noise in these areas near Canyonlands National Park during scenic overflights. Similarly, the Natural Bridges Air Tour Management Plan (NPS 2022b) identified a series of fixed-wing and helicopter routes that radiate from NABR, resulting in a potential increase in noise in this portion of BENM during scenic overflights.

3.4.14. Air Quality

3.4.14.1. AFFECTED ENVIRONMENT

The existing air quality in the Planning Area is typical of undeveloped regions in the western United States. The analysis area for air quality is the airsheds that overlap with the Planning Area. The EPA provides county-level annual emission estimates, which, in the absence of airshed-specific data, is being used to describe the airshed air quality as the most comparable geographic area. San Juan and Grand Counties are currently designated attainment/unclassifiable for all criteria air pollutants. The criteria pollutant emissions (those compounds for which pollution criteria have been established) in tons per year from the most recent (2020) National Emissions Inventory¹¹ (EPA 2023b) are shown in Table 3-65 in Appendix N.

The EPA also monitors hazardous air pollutants (HAPs), which are known or suspected to cause cancer and noncarcinogenic respiratory effects, as well as other serious health effects. A summary of HAP emissions by source type is presented in Table 3-66 in Appendix N. In 2019, the total cancer risk from HAPs for San Juan and Grand Counties was 11.04 and 11.74 in a million, respectively (AirToxScreen 2023), which are both below the threshold value of 100 in a million according to 40 CFR 300.430. The hazard index for noncancer respiratory risks in both counties was 0.1; values below 1.0 indicate that air toxics are unlikely to cause adverse noncancer health effects over a lifetime of exposure (AirToxScreen 2023).

Although not a recognized air quality issue in the Planning Area, ground-level ozone and its precursors (volatile organic compounds and nitrogen oxides) are regional concerns and can be

¹¹ First released version of the 2020 National Emissions Inventory.

transported both into and out of the Planning Area. There is only one Utah Division of Air Quality (UDAQ)-operated air monitoring station near the Planning Area, which monitors ozone in the town of Escalante in Garfield County (UDAQ 2022). Monitors recently installed in Moab, Utah, will provide data on nitrogen dioxide (NO₂), particulate matter less than 2.5 microns in diameter (PM_{2.5}), and ozone near the Planning Area. Based on data collected by UDAQ in the town of Escalante and by federal agencies at Canyonlands National Park, ozone concentrations show a relatively unchanging trend between 2012 and 2022. Table 3-67 in Appendix N shows the highest and fourth highest¹² annual 8-hour ozone concentrations in the Planning Area between 2012 and 2022. Particulate matter is another issue during dust storms or when kicked up from other activities in this dry region. The primary source of particulate emissions in the Planning Area is reported from area sources (over 97% of particulate matter less than 10 microns in diameter [PM₁₀] and 84% of PM_{2.5} emissions), which include the total from sources that range from prescribed fires to outdoor grilling and residential wood burning to trains.

Prescribed and naturally caused fires present a concern to air quality. Short-term effects on air quality from prescribed fires include a general increase in particulate matter, carbon dioxide (CO₂), and ozone precursor emissions. Any smoke emissions resulting from annual prescribed burning projects or treatments in the Planning Area are managed in compliance with guidelines in the Utah Smoke Management Plan and interagency group program (UDAQ 2021).

See Appendix N for additional context concerning the affected environment related to air quality.

3.4.14.2. ENVIRONMENTAL CONSEQUENCES

3.4.14.2.1. Impacts Common to All Alternatives

Management activities that involve fuel-burning equipment and vehicles or result in surface disturbance would result in emissions of air pollutants (criteria air pollutants and HAPs) and fugitive dust in the Planning Area. Under all alternatives, agencies would manage emissions to protect air quality and air quality-related values such as visibility and ensure compliance with state and federal air quality standards. Allocations and activities within the Planning Area that have the potential to contribute to emissions involve livestock grazing, recreation and travel management, vegetation management, wildland fire and prescribed fire, forestry and woodlands, and wood gathering.

Emissions from on-road vehicles, OHVs, road construction and maintenance work, range improvement projects, mechanical vegetation treatments, and fires, including recreational campfires and prescribed fires, would be a primary source of air pollutant emissions in the Planning Area. These activities would generate particulate matter from unpaved surfaces or from smoke that result in temporary local increases in concentrations of air pollutants. Heavy equipment, OHVs, and vegetation treatments that uproot vegetation such as tilling would contribute air pollutants at a greater rate, compared with hand-held equipment such as chain saws; however, vegetation treatments and construction or development projects would have appropriate measures (such as dust abatement) as part of the permit or contract to reduce impacts to air quality. Under all alternatives, the demand for recreation and OHV use is expected to continue to grow, resulting in increased recreation and travel-related emissions. Additionally, the activities mentioned above can have indirect impacts on air quality, damaging vegetation and increasing soil erosion, which contributes to an increase in “frequency of dust storms” (see Appendix L), during particularly dry seasons or extended periods of drought.

¹² Used to assess air quality relative to the NAAQS, which requires the annual fourth highest daily maximum 8-hour ozone concentration, averaged over 3 years, not exceed 0.070 parts per million.

Use of prescribed fires for restoration creates smoke (particulate matter) and other criteria air pollutants and HAPs. Smoke and PM_{2.5} emissions depend strongly on fuel type and density as well as burning conditions (Jaffe et al. 2020). Prescribed fire is regulated by the state through the Utah Smoke Management Program. This program limits the conditions and timing under which prescribed fire can occur; therefore, complying with these provisions would ensure that prescribed fire treatments would continue to minimize air quality impacts to downwind locations under all alternatives.

Vegetation management that decreases woody plants and increases grasses and forbs could reduce impacts to air quality from wildfire by changing composition of and/or decreasing fuel loads. Concentrations of PM_{2.5} from prescribed fires are estimated to be smaller in magnitude and shorter in duration than hypothetical scenarios or actual wildfires. This can be attributed to the small size of each prescribed fire and the meteorological characteristics of the days during which the prescribed fires occurred. Well-designed prescribed fires that are targeted for specific locations can potentially reduce the size and resulting air quality and public health impacts of future wildfires (EPA 2021). Maintaining or restoring vegetation communities would have indirect, long-term impacts to the extent that vegetation management creates more resilient vegetation communities that are less prone to wildfire.

Sources of air pollutants in the Planning Area from livestock management activities include emissions from equipment used during range maintenance and improvement projects and seasonal transportation of livestock. Livestock are also a major source of methane emissions, a precursor to ozone, in the Planning Area. Movement of livestock across the Planning Area, particularly during dry conditions, can create short-term, localized impacts. Improper grazing can also affect vegetation cover and soil conditions, which could indirectly affect air quality from windborne dust generation. The agencies, under all alternatives and in collaboration with the BEC, would manage grazing to maintain healthy vegetation and restore soils, such that any disturbance and its associated impacts on air quality would be minimized.

Under all alternatives, lands covered by grazing permits or leases voluntarily relinquished by existing holders would be retired from livestock grazing in accordance with Proclamation 10285. If permits and leases are voluntarily relinquished over time, emissions from livestock grazing activities would decrease as the demand for maintenance projects and transportation of livestock would be eliminated.

Under Presidential Proclamation 10285, subject to valid existing rights, BENM is withdrawn from all forms of mineral entry, location, selection, sale, leasing, or other disposition; therefore, no current or future emissions from leasable or salable mineral activities would be anticipated under any of the alternatives. Any potential impacts to air quality would be possibly beneficial impacts from reclamation of abandoned and improperly plugged wells and would not vary by alternative.

The region within and around the Planning Area is rich in uranium, and although there are no active uranium mining claims or production in BENM, there is concern from Tribes regarding Technologically Enhanced Naturally Occurring Radioactive Material,¹³ which would be mitigated through proper reclamation of disturbed areas.

¹³ Naturally occurring radioactive materials that have been concentrated or exposed to the accessible environment as a result of human activities such as manufacturing, mineral extraction, or water processing. Naturally Occurring Radioactive Material may contain any of the primordial radioactive elements, including uranium. "Technologically enhanced" means that the radiological, physical, and chemical properties of the radioactive material have been concentrated or further altered by having been processed, or beneficiated, or disturbed in a way that increases the potential for human and/or environmental exposures (EPA 2008).

Forest management, under all alternatives, would be used as appropriate to protect BENM objects, and timber and wood product harvest activities would result in emissions from equipment operation and surface-disturbing activity. Forest management activities that occur under applicable authorizations would be much lower compared with motorized recreation, visitation, and prescribed fire emissions.

3.4.14.2.2. Impacts under Alternative A

Under Alternative A, the agencies would continue to manage air quality and resources that impact air quality under current management directions of the 2020 ROD/MMPs, the 2008 Monticello RMP, the 2008 Moab RMP, and the 1986 Manti-La Sal LRMP. Under these guidelines, the current air quality and visibility trends would continue, as described in Section 3.4.14.1. Table 3-68 shows the total annual criteria air pollutant and HAP emissions from quantifiable sources in the Planning Area under Alternative A. Potential impacts from emissions not quantified (e.g., from minerals or forestry and woodlands management decisions) are discussed qualitatively.

Table 3-68. Annual Criteria Air Pollutant and Hazardous Air Pollutant Emissions by Source (short tons per year)

Source	CO	NO _x	PM ₁₀	PM _{2.5}	SO ₂	VOCs	HAPs
Livestock grazing	<0.001	<0.001	0.4	0.05	<0.001	0.02	0.002
Prescribed fires and vegetation treatments	109	1.1	347.4	59.07	0.6	25.35	2.534
Recreation and travel management	26	1.7	336.0	67.82	0.1	1.53	0.048
Total	135	2.8	683.9	126.95	0.7	26.89	2.584

Note: Emissions inventory was prepared in coordination with BLM resource specialists and based on existing historical data indicative of existing management activities under current directions (Alternative A); CO = carbon monoxide; NO_x = nitrogen oxides; SO₂ = sulfur dioxide; VOC = volatile organic compounds.

Emissions from increased travel to and within the Planning Area would continue to increase, as described in Section 3.4.14.2.1. Localized impacts to air quality from OHV use would continue along designated routes where such use occurs, including within the 928,080 acres where OHV travel would be allowed but limited to designated routes. Under Alternative A, 436,075 acres (32% of the Planning Area) would remain closed to OHV travel, where impacts to air quality would not be expected.

Ongoing emissions would occur from recreation site maintenance and development of new sites, facilities, or trails. Encouraging the location of recreational activities near population centers and highway corridors would concentrate air quality impacts of recreation in these areas while minimizing impacts in other locations in the Planning Area.

Impacts from vegetation management and prescribed fires would continue at their current levels, depending on capacity and budget (see Table 3-68). Alternative A would continue to prioritize vegetation management in wildland-urban interface (WUI) and developed recreation areas, temporarily increasing emissions at or near the treatment area. Long-term improvements to vegetation conditions and soils that would occur because of treatment would reduce emissions from potential wildfire or dust emissions. The long-term impacts to air quality from individual treatment types would be as described in Section 3.4.14.2.1.

Emissions from livestock grazing activities would continue at their current levels as listed in Table 3-68 or decrease over time if future voluntary relinquishment of permits and leases occurred as described in Section 3.4.14.2.1. Alternative A would continue to allow development of off-site water

sources, which would increase livestock distribution and could reduce soil and vegetation trampling from congregating livestock over time and reduce particulate matter and dust emissions in the Planning Area.

Emissions from wood product harvest would continue at their current levels based on private use in the Planning Area and commercial harvest that may occur on NFS lands. Localized impacts that could occur from increased emission concentration during wood product harvest activities, depending on capacity and budget, would be limited to 715,667 acres (52% of the Planning Area) that would continue to remain open to wood product harvest activities.

3.4.14.2.3. Impacts under Alternative B

Impacts to air quality would be similar to those described under Alternative A with the following exceptions. Under Alternative B, the agencies would manage resources, including air quality, using a landscape-wide approach and would include collaboration with the BEC, Tribal Nations, local and county government, and surrounding communities to manage emissions and discretionary actions in the Planning Area to enhance air quality. Through this collaboration, agencies may be able to more effectively manage air quality and resources that impact air quality on a landscape-wide scale, which could reduce potential emissions and enhance air quality compared with Alternative A. For example, fuel treatments would be timed and implemented during appropriate seasons and under appropriate meteorological conditions, as determined in collaboration with the BEC, Tribal Nations, and UDEQ to minimize air quality impacts and identify treatment priorities with the goal of improving vegetation conditions to minimize uncharacteristic fire risk and associated emissions.

Project-specific analyses would consider use of quantitative air quality analysis methods when the project has substantial emissions as determined by the agency. This could improve air quality in the Planning Area compared with Alternative A, which would consider use of project-specific analysis only as appropriate; however, Alternative B would have less flexibility to consider use of project-specific analysis for non-substantial emissions.

Approximately 10% more acres would be closed to OHV use than under Alternative A (see Table 2-1). In the remainder of the Planning Area, OHVs would be limited to designated routes. In areas closed to OHVs, direct emissions from OHVs would be eliminated. Because demand for recreational use of OHVs is expected to be the same as under Alternative A, closure of 10% more acres to OHV use would likely result in displaced emissions or increased concentrations of pollutants along designated routes where OHV use is permitted.

Concentrating visitor use infrastructure near high-use areas would result in fewer acres of surface disturbance across the Planning Area, which could reduce particulate emissions in the long term. Additionally, this could increase the concentration of recreational activity near high-use areas; therefore, pollutant concentrations would be expected to increase in those areas and may decrease in other parts of the Planning Area.

Vegetation management and prescribed fires would be implemented with the goal of returning to the natural fire return intervals and historical conditions. Under this approach, prescribed burning could be conducted with more frequency than under Alternative A, resulting in short-term impacts to air quality from prescribed fire. As described in Section 3.4.14.2.1, such fires would be subject to the Utah Smoke Management Plan, which would minimize air quality impacts to downwind locations. Using a landscape-wide approach for restoring natural fire return intervals and improving vegetation conditions could create more resilient vegetation communities that are less prone to wildfire, resulting in long-term benefits to air quality.

Existing and new water development and rangeland improvement projects would occur if consistent with protection of BENM objects, which could result in short-term impacts to air quality during associated construction and maintenance. An increased focus on drought mitigation under Alternative B could reduce indirect impacts to air quality to the extent that grazing use would be altered during times of drought. Loss of soil moisture coupled with grazing use can increase disturbed areas that are susceptible to windblown soil erosion. Therefore, Alternative B could reduce disturbed areas and indirectly improve air quality compared with Alternative A.

Wood product harvest would be allowed in 10% more of the Planning Area than Alternative A, resulting in increased localized impacts from increased air pollutant concentration during wood product harvest activities, but could reduce air quality impacts by increasing distribution of activity and reducing localized concentrations.

3.4.14.2.4. Impacts under Alternative C

Under Alternative C, management for air quality would be the same as Alternative B with the same impacts to air quality as described in Section 3.4.14.2.3, with the following exceptions. Approximately 17% more acres would be closed to OHV use than under Alternative A (see Table 2-1). In the remainder of the Planning Area, OHV use would be limited to designated routes. More acreage closed to OHV use would minimize impacts as described in Section 3.4.14.2.1. Alternative C would place more limitations on new facility placement than Alternative A and could result in a reduction of emissions from construction of new recreational facilities, particularly fugitive dust emissions during surface disturbance. Under Alternative C, chaining would not be allowed. Although this would eliminate emissions from heavy equipment during treatment, emissions may be replaced with other types of mechanical treatments that may result in fewer, the same, or higher direct emissions, depending on the equipment used, type of fuel, and hours of operation. Under Alternative C, new water development and range improvements would be allowed only for the primary purpose to protect BENM objects. This may reduce the frequency of such projects and the overall emissions from these activities compared with Alternative A.

3.4.14.2.5. Impacts under Alternative D

Management for air quality under Alternative D would be the same as Alternative B, with the same impacts to air quality as described in Section 3.4.14.2.3 with the following exceptions. Under Alternative D, 72% of the Planning Area would be closed to OHVs, reducing total emissions based on vehicle miles traveled; however, because the demand for recreational use of OHVs is expected to be the same as under Alternative A, closure of more acres to OHV use would likely result in displaced emissions or increased concentrations of pollutants along designated routes or to locations outside of the Planning Area that are part of the same airshed. Alternative D would place more limitations on recreation facility maintenance and would not allow new recreation facilities to be developed unless specifically necessary to protect BENM objects. This could result in a reduction of emissions from construction of new recreational facilities and maintenance of existing facilities compared with Alternative A. Under Alternative D, a reduction of animal unit months (AUMs) and head months (HMs) could result in fewer emissions. New water development and range improvements would be prohibited, which would reduce air quality impacts compared with Alternative A.

3.4.14.2.6. Impacts under Alternative E

Under Alternative E, additional emphasis would be placed on the use of Traditional Indigenous Knowledge, which may allow agencies to more effectively manage air quality and resources that impact air quality on a landscape-wide scale over the longer term, compared with Alternative A.

Approximately 10% more acres would be closed to OHV use than under Alternative A with the same impacts to air quality as discussed in Section 3.4.14.2.2, but to a greater degree. Existing developed recreation facilities would be maintained as needed to address visitor impacts and critical resource protection needs, and developed recreation facilities would be removed if inconsistent with the need to protect BENM objects. This would result in a long-term reduction in maintenance-related emissions compared with Alternative A. Mechanical treatments would not be used except when necessary to protect BENM objects. Natural processes would be prioritized, which could result in more fires and greater emissions from prescribed fire than under Alternative A. As described in Section 3.4.14.2.1, such fires would be subject to the Utah Smoke Management Plan, which would minimize air quality impacts to downwind locations. No new water developments would be allowed, and range improvements would be allowed only if needed to protect BENM objects. This would result in a reduction in emissions from these activities compared with Alternative A. Alternative E would further reduce the potential for emission of fugitive dust by emphasizing grazing management that reduces impacts from soil erosion and by requiring a formal drought management plan. Under Alternative E, air quality impacts related to wood produce harvest could be reduced through consultation with Tribes and using a more holistic approach as well as by increasing distribution of activity and reducing localized concentrations.

3.4.14.2.7. Impacts under the Proposed Plan

Under the Proposed Plan, air quality would be managed similar to Alternative E with similar impacts to air quality as described in Section 3.4.14.2.6 with the following exceptions. Approximately 47% acres of the Planning Area would be closed to OHV use; however, the demand for recreational use is expected to be similar under all alternatives. More acreage closed to OHV use would minimize impacts as described in Section 3.4.14.2.1.

Placement of major recreational developments such as visitor centers on the periphery of BENM and near local communities would concentrate air quality impacts of recreation in these areas while minimizing impacts in other locations in the Planning Area. Impacts from management actions for vegetation management and prescribed fires to air quality would be the same as impacts under Alternative B. Impacts from management actions for livestock grazing to air quality would be the same as impacts under Alternative B, except that due to John's Canyon being made unavailable to grazing and North Cottonwood being limited to trailing only, AUMs would likely be decreased at the implementation level, resulting in reduced impacts to air quality over time. Impacts from wood product harvest activities as described in Section 3.4.14.2.1 would be limited to 63% of the Planning Area (more acreage than Alternative A).

3.4.14.2.8. Cumulative Impacts

The cumulative impact analysis area for air quality is San Juan County and any sensitive Class I areas within approximately 62 miles of the Planning Area (i.e., Canyonlands National Park), which represents the effective distance that pollutants that impact air quality and air quality-related values (such as visibility) can travel. The cumulative impacts for air quality are considered for the duration of the 20-year life of the plan. Past and present actions that contribute air pollutant emissions are described in Section 3.4.14.1 and Appendix N. Impacts from these types of sources are expected to continue and contribute to the cumulative air quality impacts in the Planning Area (see Appendix J).

Reasonably foreseeable vegetation treatments and prescribed fires within (e.g., North Elk Ridge Forest Health Project or Shay Mesa Project) and outside (e.g., Cactus Park Project) the Planning Area would have short-term air quality impacts similar to those described in Section 3.4.14.2.1 but on a wider geographic scale. Road and trail, recreational facility, and rangeland maintenance

projects (such as drilling water wells), both in and outside of the Planning Area, would increase surface disturbance that can contribute to the creation of windborne fugitive dust. These activities also contribute criteria pollutant and HAP emissions, some of which contribute to the formation of ozone. Wood burning in the area, including from material harvested in the Planning Area, can contribute to poor air quality. In addition, an increasing trend in recreation (including OHV use) and travel to the area is expected to continue to grow.

Potential changes in air quality from cumulative sources were presented in the BLM’s Western United States Photochemical Air Quality Modeling study (Ramboll 2023), which modeled the effects of anticipated future oil, gas, and coal development; other human-caused (anthropogenic) emissions; and natural sources on air quality and air quality–related values (visibility and deposition) for the year 2032. Based on this modeling study, air pollutant concentrations in San Juan County and Canyonlands National Park are projected to be below the current National Ambient Air Quality Standards (NAAQS) for all criteria pollutants in 2032 (Table 3-69), with some exceedances of the PM₁₀ and 24-hour PM_{2.5} NAAQS in other portions of Utah due to wildfires.

Table 3-69. 2032 Ambient Air Quality Estimates, Western United States Photochemical Air Quality Modeling Study

Pollutant	Averaging Time	Estimated Modeled Range (Utah)	Estimated Modeled Range (San Juan County)	NAAQS	Primary Source
CO	8 hour	0.1 to 5	0.1 to 1	9 ppm	-
CO	1 hour	0.1 to 11 ppm	0.1 to 3 ppm	35 ppm	-
NO ₂	1 hour	<1 to 50 ppb	<1 to 10 ppb	100 ppb	Outside of Utah: federal oil and gas development Within Utah: other anthropogenic sources, natural sources, coal combustion, wildfires
NO ₂	Annual	<1 to 17 ppb	1 to 5 ppb	53 ppb	-
Ozone	8 hour	55 to 65 ppb	55 to 60 ppb	70 ppb	Sources outside of Utah Within Utah: non-oil, gas, coal, natural sources
PM ₁₀	24 hour	1 to 225 µg/m ³	1 to 30 µg/m ³	150 µg/m ³	Wildfires, other anthropogenic sources
PM _{2.5}	24 hour	2 to 42 µg/m ³	2 to 4 µg/m ³	12 µg/m ³	Sources outside of Utah Within Utah: wildfires, other anthropogenic sources
PM _{2.5}	Annual	<1 to 5 µg/m ³	<1 to 2 µg/m ³	35 µg/m ³	-
SO ₂	1 hour	<1 to 10 ppb	<1 to 5 ppb	75 ppb	Wildfires, other anthropogenic sources, coal combustion

Source: Ramboll (2023).

Note: ppb = parts per billion; ppm = parts per million; SO₂ = sulfur dioxide; µg/m³ = micrograms per cubic meter.

Table 3-69 describes the top contributors air pollutants in Utah. Federal and non-federal oil and gas development both within and outside of Utah are also cumulative contributors of criteria pollutant emissions, but to a lesser degree than the other sources described above. Air quality improvements have partially occurred due to the work of the Four Corners Air Quality Group, which conducts air quality monitoring, dispersion modeling, air quality planning, compliance and enforcement, permits, and smoke management programs.

The regional air study also modeled nitrogen and sulfur deposition and visibility. Cumulative annual nitrogen deposition in Utah varies between 0.6 and 4.5 kilograms nitrogen per hectare (kg N/ha), with values of 4 kg N/ha or below in San Juan County (Table 3-70). In general, the largest contributors to nitrogen deposition are other anthropogenic sources followed by boundary conditions, natural source groups, and wildfires. Cumulative annual sulfur deposition in Utah varies between 0.01 and 1.1 kilograms sulfur per hectare (kg S/ha), with values of 0.5 kg S/ha or below in San Juan County. In general, the largest contributors to sulfur deposition are other anthropogenic sources followed by coal combustion in electrical generating units, sources outside of Utah, and wildfires. Nitrogen and sulfur deposition in Canyonlands National Park were below their respective critical loads. Visibility at Canyonlands National Park was modeled at 0.22 deciviews on the 20% clearest days and 4.24 deciviews on the 20% most impaired days. The visibility design values for the most impaired days are projected to be below the uniform rate of progress toward the 2064 visibility goals (Ramboll 2023).

Table 3-70. Nitrogen and Sulfur Deposition and Primary Sources in Utah

Pollutant	Cumulative Annual Deposition In Utah	Cumulative Annual Deposition In San Juan County	Primary Source(s)
Nitrogen	0.6 – 4.5 kg N/ha	< 4 kg N/ha	Other anthropogenic sources, boundary conditions, natural sources, wildfires
Sulfur	0.1 – 1.1 kg S/ha	< 0.5 kg S/ha	Other anthropogenic sources, coal combustion, sources outside of Utah, wildfires

Source: Ramboll (2023).

3.4.15. Night Skies

3.4.15.1. AFFECTED ENVIRONMENT

The dark night sky resources of BENM are described in Proclamation 9558. “The star-filled nights and natural quiet of the Bears Ears area transport visitors to an earlier eon. Against an absolutely black night sky, our galaxy and others more distant leap into view.” As identified in the 2022 BEITC LMP, each Tribe has formed deep, ancestral connections to the night sky such that “there is consensus [amongst the Hopi, Zuni, Navajo, and Utes] that the night sky in open spaces should be protected in order to preserve these ancestral connections” (see Appendix L:25). In 2017, the Ogden Valley Chapter of the International DarkSky Association measured on-the-ground readings of existing light pollution levels from five locations within BENM (Newspaper Rock, Dugout Ranch, Butler Wash Ruins, Mule Canyon Indian Ruins, and Bears Ears Buttes), which revealed that BENM is one of the most naturally dark outdoor spaces of its size left in the lower 48 states (Ogden Valley International DarkSky Association Chapter 2017). Appendix A, Figure 3-35, shows these locations, and Table 3-71 (see Appendix N) depicts these readings as well as the acres of BENM where different thresholds of existing sky glow currently exist. Table 3-72 (see Appendix N) and Appendix A, Figure 3-35, display different thresholds of existing sky glow areas within the boundaries of BENM with these thresholds expressed in Bortle Scale classes. The Bortle scale is a way of measuring the quality (brightness) of the night sky for a particular location with Class 1 being an excellent dark sky site. Night sky resources are increasingly of public concern and were noted during scoping for planning efforts and review of proposed projects on BLM-administered lands. Although BENM is not located in proximity to any cities or large towns, communities on the immediate periphery (e.g., Monticello, Blanding, Bluff, and Mexican Hat, Utah), as well as those farther away like Salt Lake, Utah, and Las Vegas, Nevada, are anticipated to continue to expand with residential, commercial, and industrial development and associated artificial lighting. This growth is forecasted to increase the encroachment of sky glow into the edges of the Monument.

See Appendix N for additional context concerning the affected environment related to night skies.

3.4.15.2. ENVIRONMENTAL CONSEQUENCES

3.4.15.2.1. Impacts Common to All Alternatives

Each alternative identifies areas where permanent night lighting would be restricted and prohibited, resulting in different extents of protection, as shown in Table 3-73. Additionally, Table 3-74 compares (by alternative) the areas where permanent lighting would be prohibited in context with existing sky glow thresholds to identify the extent of protection for BENM dark night sky resources. The prohibition of permanent night lighting would result in further protection of dark night sky resources, compared to places where lighting would be restricted, because the BMPs designed to restrict permanent night lighting could still result in some additional light pollution spillover. By reducing or avoiding sources of light pollution through BMPs or lighting restrictions within BENM, the agencies seek to manage night skies to maintain visible clarity of astronomical phenomena and ensure a natural dark environment for wildlife and people.

Management for lands and realty, recreation, and transportation could result in direct and indirect impacts to dark night sky resources. Vehicle headlights and recreation users could introduce local light pollution along motorized and non-motorized routes where these uses occur. Additionally, during the construction phase of lands and realty actions, there could be additional light pollution during night construction activities requiring illumination of work areas. Additionally, application of BMPs from BLM Technical Note 457 *Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Managed Lands* (BLM 2023) would reduce impacts to dark night skies.

Table 3-73. Areas Where Permanent Lighting would be Restricted and Prohibited

Alternative	Areas with Lighting Restrictions (Acres)	Areas where Lighting is Prohibited (Acres)
Alternative A	216,498	12,392
Alternative B	18,144	1,346,646
Alternative C	17,568	1,347,222
Alternative D	516	1,364,591
Alternative E	0	1,363,014
Proposed Plan	19,681	1,345,211

Source: BLM and USDA Forest Service GIS (2022).

Table 3-74. Existing Sky Glow and Areas Where Permanent Lighting would be Prohibited

Alternative	0–0.01 (Bortle Class 1)	0.01–0.02 (Bortle Class 2)	> 0.02–0.04 (Bortle Class 2)	> 0.04–0.08 (Bortle Class 2)	> 0.08–0.16 (Bortle Class 3)
Alternative A	12,392	0	0	0	0
Alternative B	1,190,276	113,313	27,477	9,356	5,515
Alternative C	1,190,722	113,313	27,566	9,356	5,557
Alternative D	1,204,149	117,169	28,231	9,356	5,557
Alternative E	1,202,548	117,375	28,192	9,346	5,554
Proposed Plan	1,189,424	113,409	27,504	9,357	5,518

Sources: Falchi et al. (2016); BLM and USDA Forest Service GIS (2022).

3.4.15.2.2. Impacts under Alternative A

Under Alternative A, permanent lighting would be prohibited on approximately 1% of BENM. Permanent lighting would be prohibited in Bortle Class 1 areas where VRM Class I areas were allocated under the 2020 ROD/MMPs, resulting in less than 1% of the Bortle Class 1 skies in BENM being protected under this alternative.

3.4.15.2.3. Impacts under Alternative B

Compared to Alternative A, Alternative B expands the areas where no permanent lighting would be allowed to include BLM VRM Class I and II, and USDA Forest Service Very High and High SIO, resulting in approximately 1,334,000 more acres protected from light pollution within BENM. As part of collaborating with the BEC, the agencies would inventory and monitor dark night sky resources, culminating in a night skies management plan to mitigate effects from BENM uses. Based on the expansion of areas where no permanent lighting would be allowed and through development of a night skies management plan, more of BENM's dark night skies would be protected under this alternative than under Alternative A. These night sky protections to prohibit permanent night lighting would cover 98% of the BLM-administered portion of BENM and 100% of the NFS lands within BENM. Based on the extent of BENM where permanent lighting would be prohibited, as shown in Table 3-74, most of the Bortle Class 1 areas would be protected from adjacent light pollution, with large areas of Bortle Class 2 lands also being protected. This additional level of protection of dark night skies under Alternative B would allow for less sky glow within BENM compared to Alternative A, resulting in increased opportunities to view astronomical phenomena and ensure a natural dark environment for wildlife and people within BENM.

3.4.15.2.4. Impacts under Alternative C

Impacts to dark night skies under Alternative C would be the same as those described under Alternative B, except as noted in Table 3-74: more Bortle Class 1 and 2 areas would be protected because more of the BLM-administered portion of BENM would be managed under BLM VRM Class I and II, where permanent lighting would be prohibited.

3.4.15.2.5. Impacts under Alternative D

Impacts to dark night skies under Alternative D would be the same as those described under Alternative B, except as noted in Table 3-74: more Bortle Class 1 and 2 areas would be protected because more of the BLM-administered portion of BENM would be managed under BLM VRM Class I and II, where permanent lighting would be prohibited.

3.4.15.2.6. Impacts under Alternative E and the Proposed Plan

Impacts to dark night skies under Alternative E and the Proposed Plan would be similar to those described under Alternative B, except that the agencies would collaborate with the BEC to survey existing impacts to night skies and identify those that damage or degrade culturally affiliated Tribes' cultural practices requiring darkness. Based on this additional level of collaboration with the BEC, impacts to dark night skies potentially affecting traditional Indigenous practices would be reduced where identified by the BEC. Additionally, because all the BLM-administered portions of BENM would be managed under VRM Class I or II, where permanent night lighting would be prohibited, 100% of the BLM-administered portion of BENM would be protected from increased light pollution. Because all NFS lands within BENM would be managed under either a Very High or High SIO, where permanent night lighting would be prohibited, 100% of NFS lands within BENM would be protected from increased light pollution. As shown in Tables 3-73 and 3-74, all Bortle

Class 1 and 2 areas would be protected from adjacent light pollution, by prohibiting permanent lighting.

3.4.15.2.7. Cumulative Impacts

The cumulative impacts analysis area for dark night skies corresponds to the Planning Area and adjacent communities producing sky glow in BENM. Past and present actions in the cumulative impacts analysis area that have and would likely continue to adversely affect dark night skies include artificial lighting associated with residential, commercial, and industrial developments including those located adjacent to BENM as described in Section 3.4.15.1. Impacts from proposed projects beyond the boundaries of BENM on non-federal-managed lands, including communication towers, would continue to impact dark night skies within BENM. Towns and cities close to BENM, as well as those farther away (e.g., Salt Lake, Utah, and Las Vegas, Nevada), are anticipated to continue to grow and lead to further encroachment of sky glow into the edges of BENM. Because the agencies do not have the ability to restrict or prohibit lighting on non-federal lands, impacts to dark night skies from adjacent communities could occur. Additionally, RFFAs and conditions (see Appendix J); construction of new or expanded recreation facilities; and road construction projects, including the Goosenecks Campground and Trails and Hamburger Rock Campground Improvements and Expansion, could generate additional sky glow in and adjacent to BENM if lighting is proposed as part of these projects. Effects from these proposed improvements and facilities would be reduced through implementation of Technical Note 457's management strategies and BMPs listed in the 2020 ROD that apply to all actions.

3.5. Built Environment

As described in the 2022 BEITC LMP,

Native people have constructed culturally meaningful features on the land, often in the vicinity of notable natural landmarks. Archaeological sites, the physical remains of where people once lived, are found throughout the Bear's Ears region. All Tribal Nations that are part of the BEITC have always had respect for places that were used by all ancestors, regardless of whether there is a direct cultural affiliation to individual sites. (see Appendix L:20)

In addition to archaeological sites, other resources considered in this Proposed RMP/Final EIS are human constructs and for this reason they have been included in this section.

3.5.1. Cultural Resource Management, Indigenous Peoples' Religious Concerns, and Tribal Use

See Appendix N for the BLM definition of a cultural resource and an expanded definition from the perspectives of Indigenous peoples that includes natural resources, as described in Appendix L.

3.5.1.1. AFFECTED ENVIRONMENT

Cultural resources can include archaeological resources, structures, topographic features, habitats, plants, wildlife, and minerals that Indigenous peoples, Tribal Nations, or other groups consider essential for the preservation of traditional culture and traditional values. Traditional values of living communities can be manifested at locations called TCPs, American Indian sacred sites, or cultural landscapes. Much of the Traditional Indigenous Knowledge regarding culturally significant resources of the BENM region is kept and passed down from generation to generation through oral

tradition. The summary of cultural resources, Indigenous peoples' religious concerns, and Indigenous use provided here is derived principally from the 2022 BEITC LMP (see Appendix L).

In traditional societies, people depended directly on plants, animals, and the surrounding environment to survive; thus, these resources, which are frequently classified by Western science as natural resources, become cultural resources (see Appendix L), including viewsheds, air quality, night skies, water, wildlife, vegetation and woodland resources, geological resources, paleontology, and archaeological resources. Important summaries from the 2022 BEITC LMP have been incorporated throughout this entire document into their respective resource sections to integrate these Traditional Indigenous Knowledge concepts more fully into a holistic understanding of the BENM resource landscape.

See Appendix N for additional context concerning the affected environment related to cultural resources management, Indigenous peoples' religious concerns, and Tribal use.

3.5.1.2. ENVIRONMENTAL CONSEQUENCES

3.5.1.2.1. Impacts Common to All Alternatives

Activities associated with increased visitation are anticipated to impact important cultural resources, including cultural landscapes and traditional uses, by bringing more visitors to these locations. Increased visitation of culturally significant landscapes for the use of non-Indigenous people could interfere with religious ceremonies or with Indigenous peoples' landscape use activities. Impacts to culturally important localities and structural sites resulting from visitation and recreational use are more fully addressed in Section 3.5.7 of this document. Designated management areas or zones would affect the allowable recreation activities and provide an opportunity for timing restrictions or visitor education to limit the potential for impacts and facilitate broader use. Certain culturally important site types like rock writing and standing archaeological structures that are easily seen are particularly susceptible to impacts from recreational shooting. The BLM retains authority under 43 CFR 8364.1 to issue closures to facilitate Tribal uses within the Monument. Tribal access to the Monument for firewood collection in accordance with applicable law would be provided for under all alternatives.

Use of the current travel network impacts cultural resources by facilitating access to them, thus providing both educational opportunities that may encourage public desire to protect them, as well as potential opportunities for intended or unintended harm to them. Under all alternatives, use of the travel network would continue, and this use and any changes or additions to the travel network would likely expand these impacts. Restrictions in Proclamations 10285 and 9558 on the designation of new motorized vehicle routes should generally limit the scope of impacts from additions to the travel network.

Reducing the acres on which future motorized travel might be developed, such as designating areas as closed to OHVs, may limit traditional uses of religious or cultural importance to Tribal nations. No areas of the Monument would be designated as OHV open under any alternative.

Tribal access to the Monument for firewood collection would be provided for under all alternatives.

Similarly, granting of additional future ROWs may increase travel to and use of those acres associated with the ROW, which could expand impacts to cultural resources. Therefore, areas in which ROWs would not be granted may be more protective of cultural resources than those in which ROWs may be granted.

Under all alternatives, actions associated with vegetation management are expected to occur. When vegetation management actions are undertaken, under all alternatives, impacts to cultural resources would be considered in the context of goals to protect culturally important plants and to incorporate Traditional Indigenous Knowledge into these projects.

Similarly, wildfire protection activities and fuels management projects would also incorporate Traditional Indigenous Knowledge and would be aimed at cultural resource protection and resilience in the event of a wildfire. Moreover, ESR and restoration efforts following wildfires would be implemented to protect and maintain cultural resources from impacts such as postfire flooding and erosion.

Cattle grazing has the potential to impact cultural resources by introducing an intrusive presence of nonnative animals whose presence is inconsistent with the cultural and/or spiritual significance of a particular location. Grazing may also impact cultural resources in places where livestock tend to congregate or are concentrated such as at water sources or in canyons. These areas in BENM also contain some of the most fragile cultural resources. Accordingly, when grazing is limited in areas of congregation or concentration this can provide greater protection for cultural resources than in similar areas that are available for grazing.

Agencies would collaborate with the BEC when planning, developing, and implementing management of the Monument. The specific locations of culturally important landscapes and exactly how those landscapes are used by Indigenous peoples are considered sacred and/or important cultural information that is sometimes not shared widely. Because such information is sensitive, direct involvement of the BEC through collaboration should ensure that culturally significant sacred places and landscapes are fully considered during implementation-level Monument management decisions while preserving the information in a sensitive and sacred way.

3.5.1.2.2. Impacts under Alternative A

Lands within BENM would be managed according to prescriptions provided by the 1986 Manti-La Sal LRMP, the 2008 Monticello RMP, or the 2020 ROD/MMPs (see Table 2-1). Cultural resources within SRMAs or ERMAAs would be managed for recreational visitation under this alternative, up to and including signage and stabilization to respond to damage or potential damage.

OHV use would be managed by designating areas or zones of appropriate use (see Table 2-1) under travel and transportation management. The BLM currently manages 389,645 acres as closed to OHVs and 685,403 acres as OHV limited. The USDA Forest Service manages 46,430 acres as NFS OHV closed and 242,677 acres and NFS OHV limited. The agencies currently manage no areas as open to cross-country OHV travel.

The agencies currently manage 1,223,820 acres as available/suitable for grazing, 3,952 acres as trailing only, 1,277 acres as trailing or emergency use, and 135,007 acres as unavailable/not suitable for grazing. Cultural resources in areas available to grazing can be more vulnerable to impacts. Many areas unavailable to grazing under current management are canyons where livestock can be concentrated and impact more fragile cultural resources (Appendix A, Figure 2-41; see Table 2-1).

Vegetation management could include all available tools, including mechanical methods, which could impact cultural resources.

Moon House would be managed as a public use site where visitation is only allowed via an allocated permit system that allows up to 20 people per day to visit the site. Only four people would

be allowed in the interior corridors of Moon House at any given time. No camping or campfires would be allowed, and solid human waste would be required to be packed out of the Moon House RMZ. These stipulations would help to manage and limit impacts from visitation.

3.5.1.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. Fewer acres of BLM-administered lands would be designated as SRMAs, ERMAs, or RMZs (see Table 2-1). Alternative B prioritizes direct intervention at locations where recreational impacts are occurring, regardless of the RMA/RMZ. Because those interventions might involve adding signs near or in a location or defining a pathway through a location, they may cause more direct changes to the fabric of more sites; however, those changes would be made by the agencies, in collaboration with the BEC, reducing the likelihood of inadvertent impacts by visitors. Active management of recreation areas would also provide an opportunity for visitor education about culturally important Tribal practices that could minimize visitor impacts to cultural resources. Moreover, direct coordination with the BEC in establishing allowable uses of recreation areas would better ensure that confidential ceremonies, practices, and traditional uses that are not generally shared outside of Tribal communities are accommodated.

Direct involvement of the BEC in travel management planning would better ensure that culturally important landscapes, practices, and traditional uses and access to them are considered during future travel planning.

A total of 728,970 fewer acres would be open to ROW grants under Alternative B compared to Alternative A, which should reduce the potential impacts from this potential future use to cultural resources.

More acres would be unavailable/not suitable for grazing than under Alternative A (see Table 2-1). This reduction in areas available for grazing should provide greater protection for cultural resources relative to Alternative A. Additionally, more acres in the side canyons of Comb Ridge would be unavailable, which would limit grazing access to these canyons where there are fragile cultural sites that are more vulnerable to concentrated livestock use.

The BLM would continue to require permits to visit Moon House, but visitors would no longer be able to enter the interior corridors of the Moon House site. This would protect the interior structure of the site from erosion caused by consistent visitation that undercuts the structure and can cause walls to collapse. Under all the action alternatives, management in the Moon House area would require regular consideration of visitor permit numbers.

3.5.1.2.4. Impacts under Alternative C

Impacts under Alternative C would be similar to Alternative B with the following exceptions. Alternative C would target direct intervention at visitor locations within certain RMZs; however, it would restrict more direct interventions within some RMAs/RMZs in favor of more permits and off-site management. Permit restrictions to address damage could include additional stipulations, lower group sizes, or changes to the allocation. This alternative would have less overall change to the fabric of visitor locations caused by stabilization actions, but would have more potential for irreversible, inadvertent damage by self-directed visitors. Direct collaboration with the BEC would better ensure that such resources are accommodated.

The area of BLM-administered public lands designated as OHV closed would increase by 97,403 acres compared to Alternative B. This could limit access to cultural resources and therefore may limit impacts from visitation at more remote cultural resources.

Under Alternative C, no acres would be open for ROW authorizations. This should reduce the impacts from this potential future use to cultural resources more than Alternatives A or B (see Table 2-1).

Under Alternative C, chaining would not be allowed. This limitation on available tools for mechanical vegetation treatment should reduce potential impacts from chaining to cultural resources. Additionally, light-on-the-land methods would be used in certain special designation areas such as designated wilderness, WSAs, and lands managed for wilderness characteristics, which should also reduce impacts to cultural resources in this alternative.

Management of Moon House would not prohibit visitors from entering the interior corridors, but (similar to Alternative A) only four visitors would be allowed in the interior corridors at any time. Erosion impacts to the site would continue similar to Alternative A in the interior corridors of Moon House.

3.5.1.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternative B with the following exceptions. Fewer acres of BLM-administered lands would be designated as Management Areas or Management Zones.

There would be fewer management interventions than under Alternatives A, B, and C, because it would de-emphasize both physical intervention and permits. This reduction in management interventions may provide fewer opportunities for public education about how to appropriately visit archaeological and historical sites as well as to connect Tribal Nations to the BENM cultural landscape; however, the larger acreage managed as OHV closed under Alternative C would restrict dispersed camping on many spur roads, which should reduce the impacts from motorized use and dispersed camping on more acres than under Alternatives A, B, and C.

The increase in OHV closed acres in Alternative D (a result of closing all LWCs to OHV use) should reduce impacts to cultural resources to a greater extent than under Alternatives A, B, and C (see Table 2-1); however, reducing the acres on which future motorized travel might be developed, resulting from the increase in OHV closed acres, may limit traditional uses of religious or cultural importance to Tribal Nations. In OHV limited areas, direct involvement of the BEC in establishing allowable OHV use would better ensure that culturally important landscapes, practices, and traditional uses would be considered during future travel planning. The substantial increase in acres managed as OHV closed under Alternative D could result in some concentrated use of OHVs in specific areas, which could result in increased impacts to cultural resources in those concentrated areas. Like Alternative C, closing all the Monument to ROW authorizations should reduce potential future impacts to documented post-contact historic sites under this alternative as compared to Alternative A or B.

Substantially more acres would be unavailable/not suitable for grazing compared to Alternative B (see Table 2-1). This should expose fewer of these sites to potential impacts from grazing. Additionally, more acres of canyons around Comb Ridge and other areas would be unavailable/not suitable compared to Alternative B, which would protect these cultural resources where they are more vulnerable to grazing.

Impacts from vegetation management would be the same as Alternative C.

3.5.1.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternative B with the following exceptions. The amount of BLM-administered land designated as OHV closed would increase slightly, and the amount of BLM-administered land designated as OHV limited would be reduced slightly compared to Alternative B (see Table 2-1). The area managed as OHV closed consists of Arch Canyon, which is on BLM-administered land and has a high density of cultural resources. This OHV closure may lessen impacts to cultural resources in Arch Canyon but may result in increased non-motorized visitation to the canyon, which could result in increased impacts from camping, hiking, and/or solid human waste.

Like Alternatives C and D, closing all the Monument to ROW authorizations should reduce potential future impacts to cultural resources under this alternative compared to Alternative A or B.

Prioritizing review and processing of grazing permits and leases; identifying subareas of allotments necessary for closure; reassessing stocking levels and season of use; and identifying resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources could provide additional protection from grazing compared to Alternative B.

Vegetation management methods would emphasize Traditional Indigenous Knowledge and/or natural processes. Limiting surface-disturbing vegetation treatment methods across the Monument wherever practical should minimize impacts to cultural resources from such ground disturbances.

3.5.1.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternative B with the following exceptions.

The Proposed Plan would designate more acres as Outback, Front Country, and Passage, and fewer acres as Remote (see Table 2-1). In addition, the Proposed Plan would designate more acres to RMAs compared to Alternative E. In doing so, the Proposed Plan would minimize impacts to cultural resources by directing visitor use to specific locations and limiting the exposure of other cultural resources sites to increased visitation through the absence of recreation amenities such as maintained trails, designated parking areas, and restroom facilities. Among landscape-level Management Zones, a majority of the BENM area would be designated as Outback or Remote Zones. These zones would emphasize an unsupported backcountry visitor experience, and they would not explicitly highlight the locations of cultural resources. By minimizing widely available information regarding the locations of these locations, visitation and its associated impacts to cultural resources would be expected to be reduced.

More acres would be designated as OHV closed and fewer acres would be designated as OHV limited compared to Alternative B (see Table 2-1). In addition, Arch Canyon would be accessible only through a permit system. Requiring a permit for OHV access would provide an opportunity for visitor education regarding the canyon's cultural significance and would accordingly minimize the potential for inadvertent impacts to those important resources resulting from motorized and non-motorized access by reducing the number of OHV trips in Arch Canyon and better educating visitors.

Fewer acres would be available/suitable for grazing compared to Alternative B; there would be more acres designated as trailing only, which should limit impacts to cultural resources. The acres that are trailing only would limit livestock grazing near water sources where cultural resources are

more concentrated. Additionally, more canyons would be closed to livestock grazing where more fragile cultural resources may be located.

Similarly, impacts to cultural resources resulting from wood product harvesting would be minimized by designating areas closed for harvest. Fewer acres would be closed compared to Alternative A, but the Proposed Plan would have more acres closed to woodland harvest under any of the other action alternatives (see Table 2-1).

Impacts to cultural resources from lands and realty actions would be minimized by excluding portions of the Monument to new ROWs. More acres of the Monument would be closed to ROWs than under Alternatives A, B, or C, but fewer acres would be excluded than under Alternatives D and E.

3.5.1.2.8. Cumulative Impacts

The cumulative impacts analysis area for cultural resources is the Planning Area. Past, present, or reasonably foreseeable future projects within the analysis area that could contribute to cumulative impacts are listed in Appendix J. Recreation and tourism are expected to increase regionally and to increase accordingly within BENM, which would likely bring increased OHV use and associated access to more and more remote cultural resources. Additional visitation to these more remote locations would likely have an associated impact to these sites. An increase in foot traffic at cultural sites establishes social trails and accelerates erosion.

Wildfire and other natural forces will continue to stress resources within BENM. Sensitive materials and objects may be damaged or destroyed, but postfire conditions may threaten sites through intensified erosion or other postfire processes. The removal of the vegetative cover also encourages unauthorized motorized use within burn areas. Fluctuations in precipitation, freeze-thaw cycles, and seasonal access to the Monument are also stressing cultural resources. High-intensity rainfall will continue to alter erosional patterns and accelerate structural decay, while fluctuations in weather patterns may permit a wider window of visitor access.

Some types of future actions have the potential to impact cultural resources, particularly those that involve new ground disturbance (see Appendix J). Although ground disturbance may impact cultural resources, many of the projects noted in Appendix J would require analysis and consultation under 36 CFR 800 and NEPA, which would ameliorate many potential impacts to cultural resources. Additionally, cultural resources are often avoided during project design.

3.5.2. Archaeological Sites

3.5.2.1. AFFECTED ENVIRONMENT

As of August 2022, approximately 231,000 acres of the Monument have been surveyed, and more than 6,600 individual sites have been identified, from both pre-contact and post-contact temporal periods. This section will only analyze the pre-contact archaeology; analysis of impacts to post-contact archaeology can be found in Section 3.5.3. Many more sites are likely present but have not yet been documented. Proclamation 10285 notes the Monument's archaeological heritage, including abundant rock writings, cliff houses, towers, and granaries, among others.

See Appendix N for additional context regarding the affected environment related to archaeological sites.

3.5.2.2. ENVIRONMENTAL CONSEQUENCES

3.5.2.2.1. Impacts Common to All Alternatives

Increased visitation is anticipated to impact important archaeological resources. Increased visitation to archaeological sites may impact them through increased surface trampling, establishment of social trails across sites with associated surface erosion, an increased likelihood for casual artifact collecting, and damage to existing standing structures. Additionally, certain culturally important site types like rock writing and standing archaeological structures that are easily seen are particularly susceptible to impacts from recreational shooting. When carefully managed, however, visitation to archaeological sites can provide important educational opportunities to the public. Doll House, a BENM object specifically identified in the Proclamation, would be managed to disallow camping and campfires under all alternatives.

Use of the current travel network impacts archaeological sites by facilitating access to them, thus providing both educational opportunities that may encourage public desire to protect them, as well as potential opportunities for intended or unintended harm to them. Under all alternatives, use of the travel network would continue and this use and any changes or additions to the travel network would likely expand these impacts.

Similarly, granting of additional future ROWs may increase travel to and use of those acres associated with the ROW, which could expand impacts to archaeological resources from increased travel and use. Areas where ROWs would not be granted may be more protective of archaeological resources than those where ROWs may be granted.

Wood product harvest can impact archaeological sites in ways very similar to travel access by providing for increased use and access to areas that contain these resources. Areas closed to wood product harvest would have fewer impacts to archaeological sites than those that are open to this use across all alternatives.

Livestock grazing can impact archaeological sites through trampling, livestock wallowing, and establishment of livestock trails through sites. In general, where grazing is made available, there is greater potential impact to archaeological sites than in areas where grazing activity is limited or prohibited.

When vegetation management actions are undertaken, impacts to archaeological resources would be considered in the context of goals to protect culturally important plants and to incorporate Traditional Indigenous Knowledge into these projects.

Similarly, wildfire protection activities and fuels management projects would also incorporate Traditional Indigenous Knowledge and would be aimed to benefit archaeological resource preservation and resiliency in the event of a wildfire. Moreover, ESR and restoration efforts following wildfires would be implemented to protect and sustain resources, including archaeological resources, from impacts such as postfire flooding and erosion.

3.5.2.2.2. Impacts under Alternative A

Lands within BENM would be managed according to prescriptions provided by the existing 2020 ROD/MMPs, 2008 Monticello RMP, or 1986 Manti-La Sal LRMP. All known archaeological sites found within SRMAs and/or ERMAs would be managed for recreational visitation under this alternative, including use of signage and stabilization to respond to damage or potential damage (Table 3-77).

Table 3-77. Documented Archaeological Sites by Management Action under Alternative A

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
SRMAs/ERMAs	8	1,516	796	1,398	3,718
Travel and Transportation Management					
OHV closed	3	367	159	451	980
OHV limited	6	1,670	1,001	2,613	5,290
Grazing					
Available/Suitable	9	1,992	1,148	3,008	6,157
Trailing	0	15	4	27	46
Trailing/Emergency	0	4	0	21	25
Unavailable/Not suitable	2	216	75	639	932
Wood Product Harvest					
Open	4	1,256	849	2,219	4,328
Closed	7	834	331	887	2,059
Lands and Realty					
ROW open	5	1,144	737	1,951	3,837
ROW avoidance	5	733	319	765	1,822
ROW exclusion	3	369	169	497	1,038

In general, increased access to archaeological sites by motorized vehicles correlates with increased impacts to those resources. Accordingly, OHV closed or limited areas should manage motorized access to reduce impacts to archaeological resources compared to OHV open areas. Similarly, ROW open areas may experience more travel and access-caused impacts to archaeological resources than those acres under ROW avoidance or exclusion (see Table 3-77).

Wood product harvest is also likely to have more impacts to archaeological resources when acres are available for this use than when they are not, because of more potential direct surface disturbance associated with both the wood product harvesting itself as well as access to undertake this resource use (see Table 3-77).

Under Alternative A, acres available/suitable for grazing or open for trailing may experience more inadvertent impacts to archaeological resources from trampling and concentration of livestock around feeding and watering locations. Areas unavailable/not suitable for grazing or trailing would experience fewer impacts (see Table 3-77).

Vegetation management activities under Alternative A could use all available tools, including those that could impact archaeological resources through surface disturbance.

3.5.2.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. Alternative B would prioritize direct intervention at archaeological sites where recreational impacts are occurring. Because those interventions might be things like adding signs near or in a site or defining a pathway through a site, it would cause more direct changes to the fabric of more sites. Such changes would be made in collaboration with the BEC, would incorporate Traditional

Indigenous Knowledge, and would be made in a controlled manner, which should reduce inadvertent impacts from visitors.

In general, areas that are closed to OHV access would provide greater protection of archaeological sites by limiting easy access to those locations. The increase in OHV closed acres in Alternative B should reduce impacts to archaeological resources compared to Alternative A. Similarly, fewer acres would be open to ROW grants under Alternative B, which should reduce the impacts from this potential future use.

Under Alternative B, more acres containing archaeological resources would be open to wood product harvest and related impacts (Table 3-78).

Table 3-78. Documented Archaeological Sites by Management Action under Alternative B

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
SRMAs/ERMAs	8	1,161	525	1,059	2,753
Travel and Transportation Management					
OHV closed	3	512	275	1,273	2,063
OHV limited	6	1,535	898	1,850	4,289
Grazing					
Available/Suitable	9	1,992	1,148	2,997	6,146
Trailing	0	15	4	39	58
Trailing/Emergency	0	4	0	20	24
Unavailable/Not suitable	2	223	80	700	1,005
Wood Product Harvest					
Open	6	1,703	997	2,614	5,320
Closed	3	335	165	449	952
Lands and Realty					
ROW open	1	82	17	39	139
ROW avoidance	6	1,661	1,001	2,637	5,305
ROW exclusion	3	332	159	452	946

Approximately comparable numbers of known archaeological sites are found in areas that are unavailable/not suitable to grazing in Alternatives A and B, so impacts should also be comparable.

Under Alternative B, vegetation management would include all available tools, like Alternative A which should have similar impacts.

3.5.2.2.4. Impacts under Alternative C

Alternative C would provide some direct intervention at documented archaeological resources such as signs and site stabilization. In other locations, off-site education and permit stipulations, group size reductions, and allocation changes would be applied to address concerns associated with visitor use impacts to archaeological sites. This reduction in on-site management mitigation should have less physical impact to archaeological sites, but off-site and permit-induced management

mitigation may allow more irreversible, inadvertent damage by self-directed visitors who are unaware of the off-site education and are not visiting with a permitted group (Table 3-79).

Table 3-79. Documented Archaeological Sites by Management Action under Alternative C

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management – Same as Alternative B					
Travel and Transportation Management					
OHV closed	3	584	305	1,546	2,438
OHV limited	6	1,484	872	1,580	3,942
Grazing – Same as Alternative B					
Wood Product Harvest – Same as Alternative B					
Lands and Realty					
ROW open	-	-	-	-	-
ROW avoidance	6	1,703	1,002	2,594	5,305
ROW exclusion	3	339	163	473	978

Under Alternative C, more documented archaeological sites would be within OHV closed areas than under Alternatives A and B. Thus, impacts to these sites would be expected to be less than Alternatives A and B; however, fewer documented archaeological sites would be within OHV limited areas under Alternative C than under Alternatives A or B. Thus, the impacts to those sites not within OHV limited or closed areas may be higher under Alternative C than Alternative A or B. Closing all of the Monument to ROW authorizations should reduce potential future impacts to documented archaeological sites under this alternative compared to Alternative A or B.

Grazing and wood product harvest management under Alternative C would be identical to Alternative B.

Under Alternative C, chaining would not be allowed. This limitation on available tools for mechanical vegetation treatment should reduce potential impacts from chaining to archaeological resources. Additionally, light-on-the-land methods would be used in certain special designation areas such as designated wilderness, WSAs, and lands managed for wilderness characteristics, which should also reduce impacts to archaeological resources under this alternative.

3.5.2.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternatives B and C with the following exceptions. There would be fewer management interventions than under Alternatives A, B, and C, because it de-emphasizes both physical intervention and permits. This reduction in management interventions may provide fewer opportunities for public education about how to appropriately visit archaeological sites as well as to connect Tribal Nations to the BENM cultural landscape; however, the larger acreage managed as OHV closed under Alternative D would restrict dispersed camping on many spur roads and should reduce the impacts from motorized use and dispersed camping to more acres.

Making LWCs OHV closed under Alternative D would increase the number of archaeological resources that overlap with OHV closed acres. This should reduce the impacts from motorized use

to archaeological resources compared to Alternative A; however, fewer documented archaeological sites would be within OHV limited areas under Alternative D than under Alternatives A, B, and C. Thus, the impacts to those sites not within OHV limited or closed areas may be higher under Alternative D (Table 3-80). Like Alternative C, closing all the Monument to ROW authorizations should reduce potential future impacts to documented archaeological sites under Alternative D.

Alternative D would expose fewer documented archaeological sites to grazing-related impacts, because more sites would overlap with areas unavailable/not suitable for grazing than under Alternatives A, B, and C (see Table 3-80).

Wood product harvest management under Alternative D would be identical to that of Alternative C.

Table 3-80. Documented Archaeological Sites by Management Action under Alternative D

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
Management Areas	8	961	365	816	2,150
Travel and Transportation Management					
OHV closed	4	797	302	983	2,086
OHV limited	4	837	546	475	1,862
Grazing					
Available/Suitable	8	1,937	1,096	2,913	5,954
Trailing	1	75	58	133	267
Trailing/Emergency	0	4	0	20	24
Unavailable/Not suitable	5	482	243	1,082	1,812
Wood Product Harvest - Same as Alternative B					
Lands and Realty					
ROW open	-	-	-	-	-
ROW avoidance	6	1,381	870	2,085	4,342
ROW exclusion	4	839	356	1,124	2,323

3.5.2.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternatives B, C, and D with the following exceptions. Alternative E would not establish RMAs but would establish recreation zones. A direct comparison between alternatives cannot be made with regard to the impacts of this difference to archaeological resources; however, under Alternative E, the public would be encouraged to stay on trails when hiking in the Monument, which could reduce some unintentional impacts from off-trail use to archaeological resources. Trails and trail systems would be designated to help guide and focus visitors to locations where visitation can be managed to reduce impacts and be culturally appropriate. Trails and/or areas may also be closed, and areas may be made unavailable to off-trail hiking to protect BENM objects and provide additional protection from recreation-related visitor impacts.

Wood product harvest management under Alternative E would identify areas to be open or closed to wood product harvest and analyze their impacts at the implementation level in collaboration with the BEC.

Acres of overlap between OHV closed areas and archaeological resources in this alternative would be less than those under Alternative C, but greater than those under A, B, and D. This may provide some reduction in impacts compared to Alternatives A, B, and D but less than Alternative C. Fewer documented archaeological sites would be within OHV limited areas under Alternative E than under Alternatives A and B, but more than under Alternatives C and D. Thus, the impacts to those sites not within OHV limited or closed areas may be lower than under Alternatives C and D but higher than Alternatives A and B. Like under Alternatives C and D, closing all the Monument to ROW authorizations should reduce potential future impacts to documented pre-contact sites under this alternative compared to A or B (see Table 3-81).

Table 3-81. Documented Archaeological Sites by Management Action under Alternative E

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
Outback	4	1,040	653	852	2,549
Front Country	1	114	46	66	227
Passage	0	62	38	59	159
Remote	5	1,168	643	2,302	4,118
Travel and Transportation Management					
OHV closed	3	566	284	1,305	2,158
OHV limited	6	1,515	898	1,836	4,255
Grazing - Same as Alternative B					
Lands and Realty					
ROW open	-	-	-	-	-
ROW avoidance	4	627	379	1,690	2,700
ROW exclusion	9	1,677	881	1,552	4,119

Prioritizing review and processing of grazing permits and leases; identifying subareas of allotments necessary for closure; reassessing stocking levels and season of use; and identifying resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources could provide additional protection to archaeological sites from grazing compared to Alternatives B, C and D. The acres unavailable/not suitable for grazing that would overlap with archaeological resources would be the same as Alternative B; therefore, the impacts would be the same as well.

Vegetation management methods would emphasize Traditional Indigenous Knowledge and/or natural processes. Limiting surface-disturbing vegetation treatment methods across the Monument wherever practical would minimize impacts to archaeological resources from such ground disturbances.

3.5.2.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternatives B, C, D, and E with the following exceptions. The Proposed Plan would substantially minimize impacts to archaeological resources by directing visitor use to specific locations and limiting the exposure of other sites to increased visitation through the absence of recreation amenities such as maintained trails, designated parking areas, and restroom facilities.

Among landscape-level Management Zones, a majority of archaeological sites would be found in the Outback or Remote Zones. These zones emphasize an unsupported backcountry visitor experience and they do not explicitly highlight the locations of archaeological resource localities. By minimizing widely available information regarding the locations of these sites, visitation and its associated impacts to these sites is expected to be reduced; however, unintended impacts may result from less on-site education and management.

Acres of overlap between OHV closed areas and archaeological resources in this alternative would be fewer than under Alternatives B, C, D, and E, but greater than under Alternative A. This may provide some reduction in impacts compared to Alternative A but less than under Alternatives B, C, D, and E; however, fewer documented archaeological sites would be within OHV limited areas under the Proposed Plan than all other alternatives. Thus, the impacts to those sites not within OHV limited or closed areas may be greater than under other alternatives. Exclusions of portions of the Monument to ROWs should reduce the impacts from this potential future use compared to Alternatives A and B, but not placing the entire Monument in ROW avoidance or exclusion in this alternative compared to Alternatives C, D, and E may increase the impacts. Under the Proposed Plan, Arch Canyon would only be accessible through a permit system. Requiring a permit for OHV access to Arch Canyon would minimize potential visitation to this site and thus minimize impacts associated with visitation.

There would be fewer documented archaeological sites under the Proposed Plan that overlap with acres managed as unavailable/not suitable for grazing and the lowest number of sites overlapping with acres managed as available/suitable for grazing compared to Alternatives A, B, C, D, and E.

Impacts to archaeological sites resulting from wood product harvest should be minimized by designating areas closed to harvest. Under the Proposed Plan, fewer documented archaeological sites would be found in areas closed to wood product harvest than under Alternative A; however, more sites would be found in areas closed to wood product harvest under the Proposed Plan than under Alternatives B, C, or D (Table 3-82).

Table 3-82. Documented Archaeological Sites by Management Action under the Proposed Plan

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
Outback	4	1,155	725	1,160	3,044
Front Country	2	154	59	101	316
Passage	0	136	78	243	457
Remote	4	700	352	1,687	2,743
Management Areas	8	1,019	440	917	2,384

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Travel and Transportation Management					
OHV closed	4	465	167	537	1,173
OHV limited	4	717	482	429	1,632
Grazing					
Available/Suitable	10	2,001	1,165	2,618	5,794
Trailing	0	21	4	25	50
Trailing/Emergency	0	4	0	20	24
Unavailable/Not suitable	1	163	65	577	806
Wood Product Harvest					
Open	4	1,535	930	2,582	5,051
Closed	6	518	235	494	1,253
Lands and Realty					
ROW open	1	82	17	39	139
ROW avoidance	5	1,543	948	2,476	4,971
ROW exclusion	4	472	217	629	1,322

3.5.2.2.8. Cumulative Impacts

The cumulative impacts analysis area for archaeological sites is the Planning Area. Past, present, or reasonably foreseeable future projects within the analysis area that could contribute to cumulative impacts are listed in Appendix J. Recreation and tourism are expected to increase regionally and to accordingly increase within BENM. Such increases in visitation will likely bring increased motorized use, which may increase impacts to archaeological resources, including those that are remote.

Continued risk of wildfires to archaeological resources, including sensitive materials and objects that may be damaged or destroyed, is likely to continue to be a potential impact Monument wide. Additionally, postfire natural conditions such as flooding and erosion and vegetative cover removal may also impact archaeological resources either by physically eroding/flooding resources or by exposing more areas to unauthorized access and off-designated-route use. Fluctuations in precipitation, freeze-thaw cycles, and seasonal access to the Monument also impact archaeological resources. High-intensity rainfall may alter erosional patterns and accelerate structural decay, and fluctuations in weather patterns may permit a wider window of visitor access.

Future actions, including House on Fire Trailhead improvements, Bluff River Trail, Salt Creek Trail Reconstruction, and Utah Back Country Pilot Association Dark Canyon Airstrip have the potential to increase visitation to archaeological sites. Moreover, proposed improvements to the Goosenecks and Hamburger Rock Campgrounds could draw more visitors to the area, which may result in increased recreation-related impacts. Finally, new ground disturbance from future actions such as Indian Creek Allotment Range Improvements, ROW UTU-96101 for geotechnical bore holes, Cottonwood Wash bridge replacement, and Flats Water Wells and Kane Fence could each impact either known or undocumented archaeological sites.

3.5.3. Historic Resources

3.5.3.1. AFFECTED ENVIRONMENT

The rich post-contact history of the BENM area is discussed in Proclamation 10285. Euro-American settlement of the region was facilitated by the historic Hole-in-the-Rock Trail, which bisects a portion of the Monument, and historic cattle ranching cabins dot the BENM landscape. Western outlaws Butch Cassidy and the Sundance Kid made extensive use of the BENM area, particularly along the Outlaw Trail and within Hideout Canyon.

The post-contact history of the inventory area can be divided into four major periods: Early Euro-American Exploration and Settlement (A.D. 1765–1880); Industry and Euro-American Population Growth (A.D. 1880–1929); the Great Depression and World War II (A.D. 1929–1945); and the Postwar period (A.D. 1945–present).

Historic resources in the Planning Area are currently being affected by increasing recreational use as well as increasing visitation resulting from increasing OHV use. See Appendix N for additional context concerning the affected environment related to historic resources.

3.5.3.2. ENVIRONMENTAL CONSEQUENCES

3.5.3.2.1. Impacts Common to All Alternatives

Recreation is expected to increase within BENM. Accordingly, impacts associated with increased visitation are anticipated to impact important historic resources, including post-contact historic sites. Increased visitation to post-contact historic sites may impact them through increased surface trampling, establishment of social trails across sites with associated surface erosion, and an increased likelihood for casual artifact collecting and damage to existing standing structures. Additionally, certain culturally important site types like rock writing and standing archaeological structures that are easily seen are particularly susceptible to impacts from recreational shooting. When carefully managed, however, visitation to these sites can provide important educational opportunities to the public. Under certain recreation management alternatives, designated recreation areas or zones would affect the allowable recreation activities and thus limit the potential for impacts. All such implementation-level recreation management actions would be developed in coordination with the BEC.

New and ongoing OHV use in areas where use is currently limited would impact historic resources by providing greater access to those resources; however, OHV use would be managed in a way that ensures the travel network supports education and protection of BENM objects in locations that allow the public to better understand the historic landscape without impacting objects. Moreover, no cross-country OHV use would be allowed under any alternatives. Impacts to historic resources specifically called out in the Proclamations, like the Hole-in-the-Rock Trail, the Scorup Cabin, and other historic resources are expected to be similar to OHV related impacts to other post-contact historic resources because these resources are accessible by OHVs. Livestock grazing can impact post-contact historic sites through trampling, livestock wallowing, and establishment of livestock trails through sites. In general, where grazing is made available, there is greater potential impact to such sites than in areas where grazing activity is limited or disallowed.

Wood product harvest can impact post-contact historic sites in ways similar to OHV use by providing for increased use and access to areas that may contain documented or unknown sites. Areas where such harvests are disallowed would provide greater protection to post-contact historic sites from wood product harvest activities than those areas that are open.

Although a ROW grant itself does not necessarily yield impacts to post-contact historic resources, the activity for which the grant is issued may. It follows that areas where ROW grants are not allowed would provide greater protection to post-contact historic resources than in areas where such grants are permitted, particularly by limiting the potential for surface disturbance.

For vegetation management actions, impacts to post-contact historic resources would be actively considered with goals to protect culturally important plants and to incorporate Traditional Indigenous Knowledge into the management techniques of vegetation communities. Under certain alternatives, vegetation management methods would be allowed that may impact post-contact historic resources through surface disturbance.

Wildfire protection activities and fuels management projects would incorporate Traditional Indigenous Knowledge to benefit historic resource preservation and resiliency in the event of a wildfire. These projects and techniques could reduce the potential for wildfire to destroy historic sites. Moreover, ESR and restoration efforts following wildfires would be implemented to protect and sustain resources, including historic resources, from impacts related to wildfire such as erosion.

3.5.3.2.2. Impacts under Alternative A

Lands within BENM would be managed according to prescriptions provided by the existing 2020 ROD/MMPs, 2008 Monticello RMP, and 1986 Manti-La Sal LRMP, as amended. Historic resources within SRMAs and or ERMA's would be managed for recreational visitation under this alternative, including use of signage and stabilization to respond to damage or potential damage. Table 3-83 provides the number of documented historical sites and NRHP status sites in SRMAs and/or ERMA's.

Table 3-83. Documented Post-contact Historic Sites by Management Action under Alternative A

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
SRMAs/ERMA's	3	80	52	39	174
Travel and Transportation Management					
OHV closed	2	9	13	5	29
OHV limited	1	117	93	62	273
Grazing					
Available/Suitable	3	125	104	66	298
Trailing	0	1	0	1	2
Trailing/Emergency	0	0	0	0	0
Unavailable/Not suitable	2	7	9	7	25
Wood Product Harvest					
Open	1	96	77	47	221
Closed	3	36	34	24	97
Lands and Realty					
ROW open	1	89	77	39	206
ROW avoidance	3	39	44	24	110
ROW exclusion	2	26	19	9	56

The number of post-contact historic sites in OHV closed and OHV limited areas under Alternative A are included in Table 3-83. Impacts to post-contact historic sites related to OHV access is discussed in Section 3.5.3.2.1. OHV closed or limited areas would generally provide greater protection to historic resources and have fewer associated impacts compared to OHV open areas.

Historic sites included in ROW open, avoidance, and exclusion areas under Alternative A are also included in Table 3-83. ROW open areas may experience more travel and access-caused impacts to historic resources than those acres under ROW avoidance or exclusion (see Section 3.5.3.2.1).

Wood product harvest similarly has more impacts to historic resources when acres are available for this use than when they are not, because of more potential direct surface disturbance associated with both the wood harvesting itself as well as access to undertake this resource use (see Table 3-83).

Table 3-83 lists the number of post-contact historic sites in areas available/suitable and unavailable/not suitable for grazing. Acres available/suitable for grazing or trailing may experience more inadvertent impacts to historic resources from trampling and concentration of livestock around feeding and watering locations (see Section 3.5.3.2.1). Therefore, areas unavailable/not suitable for grazing or trailing should experience fewer impacts.

Vegetation management activities under Alternative A could use all available tools, including those that could impact post-contact historic resources through surface disturbance. See a description of potential impacts in Section 3.5.3.2.1.

3.5.3.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. For recreation management, Alternative B (Table 3-84) would prioritize direct intervention at locations where recreational impacts to historic resources are occurring. Direct interventions may reduce impacts by informing visitors of the impacts their visitation can have to historic resources. They can also change the character of sites by placing physical barriers, paths, or signs in or near historic sites. Undertaking these interventions in collaboration with the BEC would also incorporate more Traditional Indigenous Knowledge into management actions around historic sites than under Alternative A.

Table 3-84. Documented Post-contact Historic Sites by Management Action under Alternative B

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
SRMAs/ERMAs	3	56	41	34	134
Travel and Transportation Management					
OHV closed	2	19	37	23	81
OHV limited	1	109	72	45	227
Grazing					
Available/Suitable	3	125	104	66	298
Trailing	0	1	0	1	2
Trailing/Emergency	0	0	0	0	0
Unavailable/Not suitable	2	7	12	10	31

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Wood Product Harvest					
Open	1	119	91	62	273
Closed	2	8	15	5	30
Lands and Realty					
ROW open	0	8	6	2	16
ROW avoidance	1	117	92	62	272
ROW exclusion	2	9	14	5	30

In general, areas that are closed to OHV access would provide greater protection of post-contact historic sites by limiting easy access to those locations. The increase in OHV closed acres under Alternative B would reduce impacts to historic resources in areas closed to OHV access to a greater extent than under Alternative A. Similarly, fewer acres would be open to ROW grants under Alternative B compared to Alternative A, which should reduce the impacts from this potential future use.

More documented post-contact historic sites would be open to wood product harvest under Alternative B than Alternative A, which could also impact these resources.

Under Alternative B, six more documented post-contact historic sites would be in grazing unavailable/not suitable areas compared to Alternative A, which should reduce potential impacts to those sites from livestock grazing.

Vegetation management impacts under Alternative B would be the same as those described for Alternative A.

3.5.3.2.4. Impacts under Alternative C

Alternative C would provide some direct intervention at documented post-contact historic resources such as interpretive signs and site stabilization; however, in other locations off-site education and permit stipulations, group size reductions, and allocation changes would be applied to address concerns associated with visitor use impacts to historic sites. These reductions in on-site management mitigations should have less physical impact to historic resource sites, but the emphasis on off-site and permit-induced management mitigations may allow increased irreversible, inadvertent damage by self-directed visitors who are unaware of the off-site education and are not visiting with a permitted group. Thus, Alternative C would have more direct interventions than Alternative A, but fewer than Alternative B.

Under Alternative C, more documented post-contact historic sites would be within OHV closed areas than under Alternative A (Table 3-85), but fewer than under Alternative B. Thus, impacts to these sites would be expected to be more than Alternative B but less than Alternative A. Fewer documented post-contact historic sites would be within OHV limited areas under Alternative C than under Alternative A or B. Impacts to those sites not within OHV limited or closed areas may be higher under Alternative C than Alternative A or B.

Closing all of the Monument to ROW authorizations should reduce potential future impacts to documented post-contact historic sites under this alternative compared to Alternative A or B.

Chaining would be disallowed throughout the Monument, but other mechanical vegetation treatment methods would be allowed. Light-on-the-land methods would be used in certain special designation areas such as designated wilderness, WSAs, and LWC managed to protect wilderness characteristics, which should also reduce impacts to historic resources.

Table 3-85. Documented Post-contact Historic Sites by Management Action under Alternative C

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management - Same as Alternative B					
Travel and Transportation Management					
OHV closed	1	11	20	16	48
OHV limited	1	42	16	6	65
Grazing - Same as Alternative B					
Wood Product Harvest - Same as Alternative B					
Lands and Realty					
ROW open	-	-	-	-	-
ROW avoidance	1	117	92	62	272
ROW exclusion	2	11	15	5	33

3.5.3.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternatives B and C with the following exceptions. There would be fewer agency interventions (on- or off-site) under Alternative D than under Alternatives A, B and C because it would de-emphasize both physical intervention and permits. This reduction in management interventions may provide less opportunity for public education about how to appropriately visit historic sites as well as to connect Tribal Nations to the BENM cultural landscape; however, the larger acreage in OHV closed under Alternative D would restrict dispersed camping on many spur roads, which should reduce impacts from motorized use and dispersed camping on more acres under this alternative than under Alternatives A, B, and C.

Making LWC OHV closed under Alternative D would increase the number of historic resources overlapping with OHV closed acres (Table 3-86). This should reduce the impacts from motorized use to historic resources under this alternative compared to Alternatives A and C, but Alternative B would have more post-contact historic sites in OHV closed areas than Alternative D. Fewer documented post-contact historic sites would be within OHV limited areas under Alternative D than under Alternative A or B, but more than under Alternative C. Thus, the impacts to those sites not within OHV limited or closed areas may be higher under Alternative D than Alternatives A or B, and less than under Alternative C. The larger acreage in OHV closed areas in Alternative D compared to Alternatives A, B, and C could also unintentionally concentrate recreation in parts of the Monument that are OHV limited and increase impacts to historic resources in those areas. Like under Alternative C, closing all the Monument to ROW authorizations should reduce potential future impacts to documented post-contact historic sites under this alternative compared to Alternative A or B.

Table 3-86. Documented Post-contact Historic Sites by Management Action under Alternative D

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
Management Areas	3	48	34	30	115
Travel and Transportation Management					
OHV closed	2	21	24	24	71
OHV limited	1	67	43	20	131
Grazing					
Available/Suitable	3	119	103	64	289
Trailing	0	7	2	2	11
Trailing/Emergency	0	0	0	0	0
Unavailable/Not suitable	2	24	25	19	70
Wood Product Harvest - Same as Alternative B					
Lands and Realty					
ROW open	-	-	-	-	-
ROW avoidance	1	115	90	48	254
ROW exclusion	2	24	45	28	99

More documented post-contact historic sites would be in areas designated as unavailable/not suitable for grazing in this alternative compared to Alternatives A, B, and C. This should expose fewer of these sites to potential impacts from grazing (see Table 3-86).

Wood product harvest management under Alternative D would be identical to that of Alternative B and C.

3.5.3.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternatives B, C, and D with the following exceptions. Alternative E would not establish RMAs, but would establish zones. A direct comparison between alternatives cannot be made with regard to the impacts of this difference to historic resources; however, under Alternative E, the public would be encouraged to stay on trails when hiking in the Monument, which could reduce some unintentional impacts from off-trail use to historic resources. Trails and trail systems would be designated to help guide and focus visitors to locations where visitation can be managed to reduce impacts and be culturally appropriate. Trails and/or areas may also be closed, and areas may be made unavailable to off-trail hiking, to protect BENM objects and provide additional protection from recreation-related visitor impacts.

Under Alternative E, areas open and closed to wood product harvest and associated impacts would be determined at the implementation level in collaboration with the BEC.

Acres of overlap between OHV closed areas and historic resources under this alternative would be less than under Alternatives A and B, but greater than under Alternatives C and D (Table 3-87). This may provide some reduction in impacts compared to Alternatives C and D but less than under Alternatives A and B. Fewer documented post-contact historic sites would be within OHV limited areas under Alternative E than under Alternatives A, B, and C but more than under Alternative D.

Thus, the impacts to those sites not within OHV limited or closed areas may be lower than under Alternative D but higher than Alternatives A, B, and C.

Table 3-87. Documented Post-contact Historic Sites by Management Action under Alternative E

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
Outback	4	1,040	653	852	2,549
Front Country	1	114	46	66	227
Passage	0	62	38	59	159
Remote	5	1,168	643	2,302	4,118
Travel and Transportation Management					
OHV closed	0	6	3	3	12
OHV limited	1	107	72	45	225
Grazing - Same as Alternative B					
Lands and Realty					
ROW open	-	-	-	-	-
ROW avoidance	1	69	66	33	169
ROW exclusion	5	77	82	43	207

Like Alternatives C and D, closing all the Monument to ROW authorizations should reduce potential future impacts to documented post-contact historic sites under this alternative compared to Alternative A or B.

Prioritizing review and processing of grazing permits and leases; identifying subareas of allotments necessary for closure; reassessing stocking levels and season of use; and identifying resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources could provide additional protection to archaeological sites from grazing compared to Alternative B. The acres unavailable/not suitable to grazing overlapping with historic resources would be the same as Alternative B and thus the impacts would be the same as well.

Vegetation management methods would emphasize Traditional Indigenous Knowledge and/or natural processes. Limiting surface-disturbing vegetation treatment methods across the Monument wherever practical should minimize impacts to post-contact historic resources from such ground disturbances.

3.5.3.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternatives B, C, D, and E with the following exceptions. The Proposed Plan would substantially minimize impacts to post-contact historic resources by directing visitor use to specific locations and limiting the exposure of other sites to increased visitation through the absence of recreation amenities such as maintained trails, designated parking areas, and restroom facilities. Moreover, under the Proposed Plan, recreational shooting would be prohibited throughout the Monument thus protecting susceptible historic localities from associated impacts.

Among landscape-level Management Zones, most of the post-contact historic sites would be found in the Outback or Remote Zones. These zones would emphasize an unsupported backcountry visitor experience and would not explicitly highlight the locations of post-contact historic localities. By minimizing widely available information regarding the locations of these sites, visitation and its associated impacts to these sites would be expected to be reduced.

Acres of overlap between OHV closed areas and historic resources would be less than under Alternatives A, B, C, and D, but greater than those under Alternative E (Table 3-88). This may provide some reduction in impacts compared to Alternative E but less than Alternatives A, B, C, and D. Fewer documented post-contact historic sites would be within OHV limited areas under the Proposed Plan than Alternatives A, B, D, and E but more than under Alternative C. Thus, the impacts to those sites not within OHV limited or closed areas may be greater than under Alternatives A, B, C, and D, and similar to Alternative E.

Table 3-88. Documented Post-contact Historic Sites by Management Action under the Proposed Plan

NRHP Status by Management Action	Listed	Eligible	Not Eligible	Unevaluated/ No Information	Total
Recreation Management					
Outback	0	76	49	35	160
Front Country	1	17	20	5	43
Passage	0	21	14	2	37
Remote	2	26	41	30	99
Management Areas	3	50	37	33	123
Travel and Transportation Management					
OHV closed	2	8	8	10	28
OHV limited	1	46	28	13	88
Grazing					
Available/Suitable	3	134	135	62	334
Trailing	0	2	0	1	3
Trailing/Emergency	0	0	0	0	0
Unavailable/Not suitable	2	8	9	8	27
Wood Product Harvest					
Open	1	112	81	61	255
Closed	2	19	26	6	53
Lands and Realty					
ROW open	0	8	6	2	16
ROW avoidance	1	73	44	32	150
ROW exclusion	2	8	10	10	30
ROW special use avoidance	0	44	47	27	118
ROW special use exclusion	0	1	6	0	7

Exclusions of portion of the Monument to ROWs should reduce the impacts from this potential future use compared to Alternatives A and B, but not placing the entire Monument in ROW avoidance or exclusion as would be done under Alternatives C, D, and E may increase the impacts.

Arch Canyon would only be accessible through a permit system. Requiring a permit for OHV access to Arch Canyon would minimize potential visitation to this site and, therefore, minimize associated impacts.

Compared to Alternative A, there would be fewer documented post-contact historic sites under the Proposed Plan that would overlap with acres managed as unavailable/not suitable for grazing and the highest number of sites overlapping acres available/suitable for grazing (Table 3-88). Historic sites located in areas available/suitable for grazing may experience more inadvertent impacts from trampling and concentration of livestock around feeding and watering locations (see Section 3.5.3.2.1).

Impacts to post-contact historic sites resulting from wood product harvesting should be minimized by designating areas closed for harvest. Under the Proposed Plan, fewer documented post-contact historic sites would be located in areas closed to wood product harvest than under Alternative A; however, more sites would be located in wood product harvest closed areas under the Proposed Plan than under Alternative B, C, or D (see Table 3-88).

3.5.3.2.8. Cumulative Impacts

The cumulative impacts analysis area for historic resources is the Planning Area. Past, present, or RFFAs within the analysis area that could contribute to cumulative impacts are listed in Appendix J. Recreation and tourism are expected to increase regionally and to accordingly increase within BENM. Such increases in visitation will likely bring increased OHV use and associated access to more and more remote historic localities. Additional visitation to these more remote locations will likely have an associated impact to historic sites. A simple increase in foot traffic at historic localities establishes social trails and accelerates erosion.

Wildfire and other natural forces will continue to stress resources within BENM. In the case of wildfire, sensitive materials and objects may be damaged or destroyed, and postfire conditions may threaten sites through intensified erosion or other postfire processes. Additionally, the removal of the vegetative cover also encourages unauthorized motorized use within burn areas. Fluctuations in precipitation, freeze-thaw cycles, and seasonal access to the Monument are also stressing historic localities. High-intensity rainfall may alter erosional patterns and accelerate structural decay, while fluctuations in weather patterns may permit a wider window of visitor access.

Future actions, including House on Fire Trailhead improvements, Bluff River Trail, Salt Creek Trail Reconstruction, and UT Back Country Pilot Association Dark Canyon Airstrip have the potential to increase visitation to post-contact historic sites. Moreover, proposed improvements to the Goosenecks and Hamburger Rock Campgrounds could draw more visitors to the area, which may result in increased recreation-related impacts. Finally, new ground disturbance from future actions such as Indian Creek Allotment Range Improvements, ROW UTU-96101 for geotechnical bore holes, Cottonwood Wash bridge replacement, and Flats Water Wells and Kane Fence could each impact historic localities. The Moab FO signed the *Finding of No Significant Impact; Canyon Rims (Indian Creek) Travel Management Plan* in 2021. Route closures would be anticipated to impact the Moab FO due to the geographic nature of the travel management area.

3.5.4. Fuels, Wildfire, and Prescribed Fire

3.5.4.1. AFFECTED ENVIRONMENT

Frequent drought, fire suppression-based forest management tactics, and climate change have increased forest and rangeland vulnerability to wildfire. Across BENM, many fire-adapted vegetative

communities exist, including grasslands, sagebrush, mountain shrub, aspen, and mixed conifer communities (BLM 2018). Some communities, such as salt desert shrub and blackbrush, are not adapted to frequent fire and instead have historically experienced long fire return intervals. The spread of invasive, nonnative species has altered fire regimes across the landscape.

Fuels management projects over the past 10 years have focused on reducing fire hazard with an emphasis on WUI areas and restoring and/or improving VCCs. Prescribed fire is typically used by the agencies to restore natural forest and rangeland conditions and enhance and/or maintain natural resource benefits.

BLM and USDA Forest Service fire management plans (FMPs) describe desired resource conditions related to fire management in terms of Fire Regime Groups (FRGs) and VCC (see Appendix N). FRGs within the Monument are provided in Table 3-89 (see Appendix N).

Fire Management Units (FMUs) are specific land management areas defined by fire management objectives, management constraints, topographic features, access, values to protect, political boundaries, and fuel types. The FMUs were created based on similarities of the specific resource objectives identified in the BLM's Canyon Country FMP 2021 update. An interdisciplinary team developed 15 FMUs that serve to define management objectives, physical characteristics, resource values, and management actions necessary to achieve resource management objectives across the Moab and Monticello FOs, as identified in the current Canyon Country FMP. FMUs have dominant management objectives and preselected fire suppression strategies assigned to accomplish these objectives. Seven of these FMUs cover BLM-administered lands within BENM and are listed in Table 3-97 (see Appendix N).

See Appendix N for additional context concerning the affected environment related to fuels, wildfire, and prescribed fire.

3.5.4.2. ENVIRONMENTAL CONSEQUENCES

3.5.4.2.1. Impacts Common to All Alternatives

Under all alternatives, firefighter and public safety would continue to be primary goals for all fire management decisions and actions in BENM and determining prioritization for fire response.

Fire regime. During wildfire incidents, agencies would use the best and current available tools, including Traditional Indigenous Knowledge and the WFDSS, to make strategic and tactical decisions in fire response. ESR and restoration efforts following wildfires would also be implemented to protect and sustain ecological, cultural, and social values and resources.

Management objectives would be established through implementation-level fire management planning based on best available data, including Traditional Indigenous Knowledge and the consideration of other resource objectives. A database with maps for fire-sensitive cultural resources would be developed and made available within 3 years of the publication of the Proposed RMP/Final EIS. Wildland fire would continue to be used as a tool when possible to manage vegetation and ecological conditions.

Ecosystem function. Under all alternatives, agencies would continue to work with the BEC, the State of Utah, other partners, and impacted groups and individuals to restore ecosystems, prioritizing areas where there is increased ignition potential and where VCCs have significantly departed from historical conditions. These partnerships would include potential agency and partner collaborations and trainings to exchange perspectives, which should meet ecosystem management objectives and

support a cross-jurisdiction, whole-landscape approach to management as well as integrate Indigenous fire management traditions and Traditional Indigenous Knowledge into management decisions and actions.

Fuels would continue to be impacted by livestock grazing, recreational use, vegetation composition, encroachment, insect and disease infestations, and other resource-driven impacts that may alter risk of wildfires in vegetation communities, change potential fire behavior, and change surface fuel composition and load. Under all alternatives, there would be a potential for voluntary relinquishment of grazing permits, which could reduce the total acreage available/suitable for livestock grazing and the potential for a wildfire that would decrease productivity and increase the potential for nonnative and invasive annual grasses (Davies et al. 2010) due to buildup of fine fuels on areas closed to grazing.

Fire and fuels management would consider maintaining healthy ecosystems, protecting high-priority subbasins or watersheds, and protecting special status species when assessing impacts to ecosystem function and fire regimes. A primary overarching management action for all alternatives would be to use wildland fire to protect, maintain, and enhance natural resources and, when possible, allow it to function in its natural ecological role. This would increase ecosystem function while still providing fire and fuel management.

There are multiple fire-adapted vegetation communities within BENM. Fuels treatments, such as natural or prescribed fire in these communities, would be expected to reduce excess woody and fine fuels, restore fire-adapted vegetation, and help maintain natural ecological conditions and functions. Unplanned natural ignitions may be managed to achieve wildland fire management objectives when risk is within acceptable limits. Overall, natural and prescribed fire would help maintain the VCCs and FRGs at or close to historical conditions.

Manual removal methods may also be used depending on underlying resource management goals. Agencies would provide for wood product harvest to support fuels treatment projects. These activities would also improve and restore healthy forest conditions, reduce hazardous fuels, and restore natural fire regimes. The activities could be complementary to mechanical fuels reduction activities by helping to remove slash and other down woody material.

Wildfire would not be used to meet resource objectives when certain resources and values would be impacted and there would be no reasonable resource protection measures to protect such resources and values. This would reduce potential for spread of invasive species, reduce impacts to important or non-fire-adapted habitat, or reduce potential for erosion. Unplanned wildfires could put these sensitive resources at risk or lead to further ecological degradation, and wildfire suppression would be the primary response tactic. Under all alternatives, floodplains, riparian habitat, and aquatic resources would also be subject to fire suppression, but only when necessary to protect riparian habitats, reducing potential for impacts to those habitats.

Treatment actions to support threatened, endangered, or special status species' habitats to restore impacted populations would be designed according to the type and severity of wildfire impacts and resource management goals (BLM 2021). It is necessary to quickly restore threatened, endangered, or special status species habitat populations to prevent impacts. This would improve habitat for listed species and drive fire regime decisions.

Wildfires can adversely affect surface and shallowly buried paleontological resources, especially when they occur on steep slopes where vegetation has been previously burned. Fire and fuels management could reduce the risk to paleontological resources from wildfire, but vegetation

management that includes ground disturbance could directly impact paleontological resources. The magnitude would vary by alternative depending on the methods authorized.

In areas managed to protect wilderness characteristics, fire suppression would use MIST strategies and tactics that effectively meet suppression and resource objectives and cause fewer environmental, cultural, and social impacts.

Cultural resources. For all alternatives, fire and fuels management would consider the protection of BENM objects, cultural resources and/or cultural landscapes, and high-priority subbasins or watersheds (including watersheds that support important cultural resources) when assessing impacts to cultural resources. A primary overarching management action for all alternatives is to enhance cultural resource resilience to fire, including the use of Traditional Indigenous Knowledge, to benefit cultural resource preservation and resiliency.

Hazardous fuels reduction treatments would be used, where appropriate, to protect cultural resources (these treatment methods are described above). During planned fuels reduction activities, agencies would collaborate with the BEC to protect and/or enhance culturally important plant communities. Traditional Indigenous Knowledge would also be used to manage fire-prone landscapes to contribute to responsible stewardship. Hazardous fuels would be proactively reduced around cultural resource sites, including archaeological sites that are susceptible to destruction from prescribed burns or wildfire. In collaboration with the BEC, agencies would establish a Fuelwood Working Group, which would provide wood products to Indigenous communities, reduce fuel loading in project areas and wildfire severity and extent, and restore healthy VCCs. Agencies would collaborate with the BEC to protect culturally modified trees during fuels treatments and fire suppression, as practicable. This would increase protection for trees of cultural importance, but could also result in additional fuels.

In coordination with the BEC, the State of Utah, and Tribal Nations, the agencies' decisions on fire and fuels management would use the best and current available tools, including Traditional Indigenous Knowledge, sound science, and the WFDSS to manage for important cultural and Tribal resources by preventing uncharacteristically severe wildfires. These management decisions would provide for more integration with communities and support environmental justice populations.

Health and human safety. Firefighter and public safety would continue to be the primary goal for all fire management decisions and actions in BENM. Prioritization of fire response would be determined based on human health and safety, the values to be protected and the costs of protection, protection of BENM objects, and benefits to other resources.

As described in Section 3.5.10.2.1, fuels management would emit greenhouse gases (GHGs) under all alternatives.

Fuels management actions to reduce fuel loads and improve vegetation conditions would likely reduce carbon stocks in the short term by removing vegetation and potentially disturbing soils, but this reduction in carbon would be small relative to the overall carbon stored in BENM. Over the long term, fuels management actions should maintain or increase carbon storage and sequestration by reducing the severity or extent of wildfire disturbance, which reduces acres or amount of biomass burned and carbon released through wildfire combustion (see also Section 3.4.4).

Fuels management-driven air quality impacts such as smoke from fires and emissions from mechanical treatment operations would be likely to continue when those activities occur.

3.5.4.2.2. Impacts under Alternative A

Under Alternative A, current management of fuels would continue under existing management plans and USDA Forest Service's Spatial Fire Planning contained in the WFDSS. The current conditions, trends, and forecasts for the fire regime, ecosystem function, cultural resources, and health and human safety, as summarized in Section 3.5.4.1 and Appendix N, would be expected to continue along similar trajectories.

Alternative A would use federal wildland fire land management decisions when managing wildfire and fuels. Vegetation and fuels treatments would be prioritized in high-value/high-risk areas, such as the WUI, developed recreation facilities (e.g., campgrounds), and regions of BENM with VCC IIIA and IIIB areas. Impacts from fire management would continue to be similar to existing conditions.

Fire management under Alternative A would allow application of a suite of options to manage for ecosystem health and function and to manage for historical fire regimes but does not prioritize these outcomes.

On NFS lands, certain vegetative types (see Table 2-6) would be managed such that varying successional stages would be present to provide for a high level of vegetative diversity and productivity relative to conditions described in the 1986 Manti-La Sal LRMP; on BLM-administered lands, vegetation types would be managed in accordance with Desired Wildland Fire Condition (see Appendix D). Under Alternative A, a suite of management tools, including mastication and chaining, could be employed to manage fuels and vegetation. Chaining and mastication could result in soil compaction, spread of invasive species, and inadvertent destruction of cultural resources; BMPs would be applied during implementation-level planning to reduce the potential for these impacts. Impacts from fire management would continue similar to existing conditions.

Authorized wood product harvest by Indigenous peoples and other members of the public could be used to support hazardous fuels treatment projects as needed. This could reduce fuel loads in areas where wood is harvested. All WSAs would be excluded from wood product harvest except for limited on-site collection of dead wood for campfires under Alternative A, which could help protect the integrity of forests in WSAs.

The use of heavy equipment during initial wildfire attack and suppression in aquatic and riparian ecosystems would be avoided to the extent possible. This would continue to protect riparian ecosystems similar to existing conditions.

Alternative A would use preplanned prescribed fire resulting from planned or unplanned ignitions to accomplish resource management objectives. Fire and fuels management would be allowed in Dark Canyon Wilderness only if it were determined that it would maintain or enhance wilderness characteristics and would be carried out through application of MIST and light-on-the-land techniques. Fire suppression within protected LWC would also use techniques that would help protect apparent naturalness by reducing potential surface disturbances. These techniques may increase fire containment time and overall burn areas due to their less-aggressive approach. Impacts from using these techniques in designated wilderness and LWC would continue similar to existing conditions.

In the remainder of BENM, MIST and light-on-the-land techniques may still be applied, as with other more-aggressive responses to unplanned ignitions, which may result in more need for similarly more-aggressive postfire ESR efforts under Alternative A.

Ecosystem function. Wood product harvest would be allowed in areas of approved fuels treatment or habitat treatment projects, and impacts would be the same as those discussed in Section 3.5.4.2.1. All WSAs and IRAs would be excluded from wood product use except for limited on-site collection of dead wood for campfires, which could help protect the integrity of forests in WSAs and IRAs.

Cultural Resources. Agencies would proactively reduce hazardous fuels or mitigate the potential hazard around archaeological and cultural resources sites that are susceptible to destruction by prescribed fire or wildfire and during fire response. Agencies would also follow guidelines in their current management documents, including implementation-level fire management planning documents. This would continue to protect cultural resources similar to existing conditions.

Health and human safety. Protection of life and property would take priority over other resource concerns. This would reduce protections for other resources in areas where threats to human health and safety or property are present.

Prescribed fire and vegetation treatments would continue to contribute particulate matter emissions to the Planning Area and adjacent areas. Alternative A would continue to prioritize vegetation management in the WUI and developed recreation areas, temporarily increasing emissions at or near those locations for the duration of the treatments. Long-term improvements to fuels conditions and soils because of treatment would reduce emissions from subsequent potential wildfire or dust emissions. The long-term impacts to air quality from individual treatment types would be as described in Section 3.4.14.2.2.

3.5.4.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. Alternative B would actively manage wildfire to prioritize the protection of the same resources under Alternative A and would emphasize the protection of other natural resources (e.g., riparian, wetland, and water resources), which would provide increased protection to compared to Alternative A.

Alternative B would implement vegetation and fuels treatments using all available tools, including mechanical methods, in a manner that is consistent with the protection of BENM objects, which would provide additional protection for BENM objects.

In addition to MIST and light-on-the-land techniques for vegetation and fuels treatments in all designated wilderness areas and WSAs, management in these areas would be consistent with protection of BENM objects and would maintain or enhance long-term wilderness character or characteristics, as applicable. Fire suppression would use light-on-the-land and MIST techniques in LWC, reducing impacts to wilderness characteristics from heavy machinery. This would provide increased protection to wilderness areas, WSAs, LWCs, and BENM objects compared to Alternative A.

In the remainder of BENM, fuels management techniques would be permitted similar to alternative A, but with the addition of collaboration with the BEC to identify stewardship contracts or other partnerships to help reduce fuels and to help provide fuelwood to Tribal Nations. This should provide increased protection to BENM objects and integrate Traditional Indigenous Knowledge into fuels management to a greater extent than under Alternative A.

Fuels treatments and non-structural range improvements with the primary purpose of increasing forage for livestock would be prohibited, which could limit available forage but also reduce postfire impacts from fire and fuels removal.

The use of heavy equipment as part of fire response or during fuel management activities would only be permitted when, specifically, life, property, and/or BENM objects are at risk. This would reduce impacts to vegetation from fuels treatments compared to Alternative A.

Ecosystem function. Alternative B would emphasize, where practicable, Tribal and public use of wood product harvest to support hazardous fuels reduction treatment projects as needed. This may help maintain cultural ties to the landscape. Under Alternative B, approximately 930,910 acres would be open to wood product harvest (approximately 68% of the Monument; 16% more than Alternative A). This could provide increased opportunities for wood product harvest when compared to Alternative A. This increased wood product harvest could thin overgrown forests and reduce fuel load, which could help decrease the risk of high-severity wildfires compared to Alternative A.

Vegetation management and prescribed fires would be implemented with the goal of returning to the natural fire return intervals and historical conditions. Using a landscape-wide approach for restoring natural fire return intervals and improving vegetation conditions would have long-term effects by creating more resilient vegetation communities that are less susceptible to uncharacteristic wildfire behavior compared with Alternative A.

Wildfire would not be acceptable in traditional use sites that might be vulnerable to damage from fire and areas of special cultural significance to Indigenous communities. Additionally, in traditional use areas that might be vulnerable to fire, as identified by the BEC, fire and fuels management would emphasize Traditional Ecological Knowledge and traditional techniques for managing fire. This would provide increased protection to traditional use sites and areas of special cultural significance compared to Alternative A, which emphasizes management of fire in cultural resources, but not necessarily traditional use sites.

Health and human safety. Agencies would collaborate with the BEC to identify areas of high value/high risk and prioritize treatment in those areas. Traditional Indigenous Knowledge would be incorporated in guiding vegetation management and emphasis would be on maintaining desirable future conditions of vegetation cover types for Indigenous peoples' traditional and ceremonial uses and maintaining desired Ecological Site Descriptions/VCC. When compared to Alternative A, there would be less of an emphasis on treatments in the WUI and recreational sites, ahead of treatment areas identified in collaboration with the BEC, which may change the prioritized sites for treatments as it shifts the values away from infrastructure and toward cultural values, BENM objects, and fire as a part of the cultural landscape. This would increase Traditional Indigenous Knowledge application in fuels and fire management, but may also increase risk to infrastructure both within the Planning Area and adjacent to it, including potential impacts to health and human safety, compared to Alternative A.

3.5.4.2.4. Impacts under Alternative C

Impacts to fire regime, ecosystem function, cultural resources, and health and human safety under Alternative C would be similar to Alternative B with the following exceptions.

Fire regime. Chaining as a vegetation and fuels management tool would not be permitted, and light-on-the-land fuels treatments would be required in LWC in addition to designated wilderness and WSAs, allowing for reduced surface disturbance from fire management compared to Alternatives A and B.

Ecosystem function. A landscape-wide approach to fire return interval and vegetation condition would be used to a greater extent than under Alternatives A or B. This would create more long-term resilient vegetation communities that are less prone to uncharacteristic wildfire behavior when compared to Alternatives A and B.

Cultural resources. Agencies would prioritize fuel and vegetation treatments to reduce fire risk in areas with motorized access, high visitation, and/or developed recreation facilities. This management approach would balance the protection of natural and cultural resources with the protection of health and human safety when compared to Alternatives A and B and would reduce the risk of wildfire ignitions and uncharacteristic wildfire behavior in these areas.

3.5.4.2.5. Impacts under Alternative D

Impacts to fire regime, ecosystem function, cultural resources, and health and human safety under Alternative D would be similar to Alternatives A, B, and C with the following exceptions.

Fire regime. Agencies would avoid the construction of fire lines within 50 feet of all riparian, wetland, and water resources unless necessary to protect human life and/or BENM objects, protecting those resources by reducing ground disturbance, vegetation removal, and potential for erosion. Light-on-the-land fuels treatments would be used throughout the entire BENM, wherever practicable, further reducing ground disturbance, soil compaction, and excessive vegetation removal.

Mechanical treatments to manage vegetation to reduce fuels would be used only when necessary to protect BENM objects. This constraint on the tools available to treat fuels and protect BENM objects may reduce surface disturbance of the BENM landscape but also reduce the options and adaptability of the agencies to reduce fuels.

Areas available for wood product harvest would be the same as under Alternative B; however, Alternative D would manage 985,612 acres as OHV closed, limiting OHV access to areas available for wood product harvest, which could reduce the amount of wood product harvested in those areas compared to Alternatives A, B, and C but may contribute to the risk of larger, hotter fires by not reducing fuel loads as much.

3.5.4.2.6. Impacts under Alternative E and the Proposed Plan

Impacts to fire regime, ecosystem function, cultural resources, and health and human safety under Alternative E and Proposed Plan would be similar to Alternatives A, B, C, and D with the following exceptions.

Fire and fuels management under Alternative E and the Proposed Plan would incorporate more Traditional Ecological Knowledge to protect ecosystem function compared to all other alternatives. The main goals of Alternative E and the Proposed Plan would be to restore ecosystems and return to natural fire intervals and vegetation conditions in BENM, including maintaining plant and wildfire habitat, habitat connectivity, and allowing for the migration needs of threatened, endangered, or special status species (including culturally important species) without large-scale human interference and impacts. This should provide increased emphasis on ecosystem function compared to Alternatives A, B, C, and D.

Agencies would avoid constructing fire lines within 50 feet of critical habitat unless necessary to protect human life and/or BENM objects. Foam retardant or other chemical spraying would not be used for fire suppression within 300 feet of perennial waterbodies except for protection of human

lives. This would provide increased protection to ecological resources; habitat and habitat connectivity; threatened, endangered, or special status species, including culturally important species; and critical habitat compared to Alternatives A, B, C, and D.

Agencies would avoid the construction of fire lines within 50 feet of all cultural resources sites unless necessary to protect human life and/or BENM objects. This would provide reduced likelihood of unintended impacts to cultural resources during fire line construction and fire response activities compared to Alternatives A, B, C, and D.

3.5.4.2.7. Cumulative Impacts

The BLM-administered, NFS, NPS-administered, and adjacent state, Tribal, county, and privately owned lands surrounding BENM are considered the cumulative impacts analysis area for fire and fuels management. The time frame for cumulative environmental impacts for future actions is 15 years.

Portions of BENM adjoin other BLM-administered lands, NFS lands, national parks, and NRAs, each with its own LMP to guide fire and fuels management in its respective administrative area. Fire and fuels management is becoming more broadly consistent across federal land ownerships due to updated plan adherence with current federal law, regulation, and policy (see Appendix J). The BENM decision would contribute to the continuation of fire and fuels management across federal land.

RFFAs outside the boundary of BENM but within the cumulative impacts analysis area include federal- and state-funded hazardous fuels reduction, prescribed fire, natural wildland fire use, habitat enhancement, and range improvement projects on BLM-administered lands and NFS lands. The hazardous fuels reduction, prescribed and natural fire, and habitat enhancement projects generally aim to move vegetation conditions and fuels loading toward historical conditions and restore historical fire regimes and can influence ecosystem health and fire regimes throughout the cumulative impact analysis area.

RFFAs within BENM include federal fuels reduction and prescribed fire projects. There are numerous planned fire and fuels projects within BENM. The Shay Mesa Retreatment is a BLM project that plans to treat 2,500 acres within previously treated lands in the Shay Mesa vicinity (within the Cedar FMU). Fuels treatments would consist of hand-treating via lop and scatter of pinyon and juniper saplings that are attempting to re-establish within the previously treated area. This treatment would continue to maintain the original treatment for wildlife habitat and reduced pinyon and juniper encroachment, reducing the potential for uncharacteristic wildfire.

The Mormon Pasture Mountain Wildlife Habitat Improvement Project is a USDA Forest Service-led project situated within the Dark Canyon FMU. This project would contribute to previous treatments (see Table 3-95 in Appendix N) and would consist of using prescribed fire in ponderosa pine/oak type to increase diversity in vegetation and age class structure and reduce continuity of existing vegetative fuels. The North Elk Ridge Forest Health Project is another USDA Forest Service lease project situated in the Dark Canyon FMU. This project would use prescribed fire in ponderosa pine and aspen-mixed conifer forests. Approximately 7,500 acres of ponderosa pine forest would be treated with understory prescribed fire. Approximately 40% to 80% of 5,200 acres of aspen-mixed conifer forest would be treated with moderate- to high-intensity prescribed fire. The South Elk Ridge Aspen Restoration Project (another USDA Forest Service project also situated in the Dark Canyon FMU) would use thinning and prescribed fire treatments in mixed ponderosa pine-aspen to help restore natural conditions. This project is in its early planning stages. Finally, the Maverick Point Project is also a USDA Forest Service project that would use commercial timber harvesting, ponderosa pine thinning and stand improvement, and prescribed fire to improve forest health. This

project is also in its early planning stages and would occur within the Abajo FMU. Together, these RFFAs would improve ecosystem health and restore fire regimes. Additionally, through Tribal collaboration and input (as required to some degree under all alternatives) these actions would have minimal impact to cultural resources.

Proposed fire and fuels management activities under the alternatives would contribute to the cumulative impacts to regional ecosystem function and fire regimes. Together, these management efforts would contribute to landscape restoration and ecological resilience on a larger scale, with a focus on achieving improved ecosystem health and fire regime restoration. Generally, these actions would seek to protect cultural resources, but the degree of protection would vary depending on treatments located within and outside BENM boundaries.

3.5.5. Environmental Justice and Social and Economic Values

3.5.5.1. AFFECTED ENVIRONMENT

The social and economic analysis area encompasses San Juan County, Utah, which is the county in which BENM is located and where the economic and social impacts will likely be concentrated. In order to assess potential for disproportionate adverse impacts to environmental justice populations, the environmental justice analysis area is expanded to include Duchesne and Uintah Counties, Utah; Apache, Coconino, and Navajo Counties, Arizona; McKinley and San Juan Counties, New Mexico; and Montezuma County, Colorado, because these counties intersect with the five Tribal Nations that surround BENM.

A variety of groups and communities use and are affected by management of BLM-administered and NFS lands, including Tribal and cultural resources, habitat and resource conservation, recreation, livestock grazing, mineral development and production, and visual resource communities, as well as local residents.

BLM-administered and NFS lands and federal mineral estate managed within the social and economic analysis area affect government budgets at local, state, and federal levels based on revenues from sales taxes, property taxes, payments in lieu of taxes, mineral royalties, severance taxes, fees, and other funding sources. Likewise, lands and federal mineral estate in the social and economic analysis area result in government expenditures for management, law enforcement, and other activities.

Economic contributions from resource management decisions about recreation and livestock grazing were calculated using the Impact Analysis for Planning Model (IMPLAN). The modeled direct impacts were calculated from estimated recreation expenditures per visitor party and economic value from grazing per billed AUM for each alternative. These impacts were then multiplied by the projected number of visitor parties and projected billed AUMs to calculate the total direct impacts from the agencies' management in BENM.

Table 3-98 shows the spending patterns per party per day based on the visit type and type of expenditures.¹⁴ A party of visitors staying overnight off BENM tends to spend more on expenses such as hotels or camping fees, restaurants, entry fees, and souvenirs and other expenses than a party of visitors staying overnight in BENM. Local day-trip visitor parties tend to spend less overall than nonlocal day-trip visitor parties, except for groceries and takeout food, which are similar between the two groups. Table 3-99 shows the percentage of visitors by type in Indian Creek and Cedar Mesa and the weighted average of the two. On average, approximately 13% of the visitors to

¹⁴ On average, a party size on BLM-administered land is approximately 2.8 visitors (BLM 2017).

BENM were local, visiting for the day, and approximately 24% of visitors were staying overnight off BENM (BLM 2017).

Table 3-100 shows a range of percentages for each visitor type taken from agency reports and the resulting number of visitors on BLM-administered and NFS lands, shown separately, calculated from the estimated percentages and the estimated total visitation numbers. The number of parties by visit type and the spending profile per party per day by visit type were used in the modeling of economic contributions under Alternative A to understand the impacts of the agencies' management decisions regarding recreation to the local economy.

Table 3-98. Spending Profile per Party per Day by Visit Type (2021 dollars)

Type of Expenditure	Nonlocal Day Trip	Local Day Trip	Overnight Staying In BENM (camping)	Overnight Staying Off BENM (camping)	Overnight Staying Off BENM (lodging)
Motel	\$0.00	\$0.00	\$0.00	\$0.00	\$129.50
Camping fees	\$0.00	\$0.00	\$12.67	\$34.14	\$1.33
Restaurants and bars	\$14.22	\$7.26	\$8.73	\$15.52	\$53.86
Groceries and takeout food	\$6.21	\$6.47	\$11.73	\$14.10	\$12.37
Gas and oil	\$18.33	\$10.96	\$17.06	\$35.67	\$27.55
Local transportation	\$3.83	\$1.11	\$4.38	\$4.94	\$15.74
Admission and fees	\$11.08	\$6.03	\$5.73	\$12.01	\$15.56
Souvenirs and other expenses	\$13.28	\$5.58	\$10.61	\$14.66	\$19.16

Source: BLM (2017).

Table 3-99. Percentage of Visitors by Visit Type in Bears Ears National Monument on BLM-Administered Lands, 2017

Visit Type	Indian Creek	Cedar Mesa	Weighted Average for BLM RMAs
Nonlocal day trip	10%	4%	8%
Local day trip	15%	7%	13%
Overnight staying in BENM (camping)	20%	37%	25%
Overnight staying off BENM (camping)	30%	30%	30%
Overnight staying off BENM (lodging)	25%	22%	24%

Source: BLM (2017).

Note: See also Table 3-129 in Appendix N.

Table 3-100. Range of Percentage of Visitors by Visit Type in Bears Ears National Monument

Visit Type	High Local Day Trips and Low Overnight Off BENM			Weighted Average for BLM RMAs			Low Local Day Trips and High Overnight Off BENM		
	Percentage of Total Visitors	Number of Visitors on BLM-Administered Lands	Number of Visitors on NFS Lands	Percentage of Total Visitors	Number of Visitors on BLM-Administered Lands	Number of Visitors on NFS Lands	Percentage of Total Visitors	Number of Visitors on BLM-Administered Lands	Number of Visitors on NFS Lands
Nonlocal day trip	10%	67,172	131,524	8%	53,738	105,220	5%	33,586	65,762
Local day trip	30%	201,516	394,573	13%	87,324	170,982	10%	67,172	131,524
Overnight staying in BENM (camping)	20%	134,344	263,049	25%	167,930	328,811	25%	167,930	328,811
Overnight staying off BENM (camping)	20%	134,344	263,049	30%	201,516	394,573	25%	167,930	328,811
Overnight staying off BENM (lodging)	20%	134,344	263,049	24%	161,213	315,659	35%	235,102	460,336
Total*	100%	671,720	1,315,245	100%	671,720	1,315,245	100%	671,720	1,315,245

Source: BLM (2017, 2022b); USDA Forest Service (2011, 2023).

* Total number of visitors is calculated by multiplying the BLM visitation number in 2022 by the 5-year average growth rate, from 2015 to 2019 (11.9%) (BLM 2022b) and the USDA Forest Service Manti-La Sal National Forest visitation number in 2021 by the 10-year average growth rate, from 2011 to 2021 (17.2%) (USDA Forest Service 2011, 2023).

The economic value of livestock grazing was calculated based on the average value of cattle production per AUM over 10 years (USDA Economic Research Service 2022), and the value of a horse is 1.25 times the value of a cow (Stam et al. 2018). Table 3-101 shows the value of production per cow, AUMs per cow, adjusted value of cow production per AUM, and the estimated value of horse per AUM. The 10-year average value of cow production per AUM (in 2021 dollars) was approximately \$52.69 and the estimated value of horse per AUM was \$65.86.

Table 3-102 shows the total number of permitted AUMs by allotment type, the calculated percentage of permitted AUMs by type, the total billed AUMs, and the calculated percentage of total billed AUMs to total permitted AUMs for BLM-administered and NFS lands.¹⁵ The estimated projected number of billed AUMs by allotment type for each alternative was calculated by multiplying the total allocated AUMs by the percentage of billed AUMs to permitted AUMs (58.588%) and the percentage type of permitted AUMs (99.033% and 0.967% for cattle and horses, respectively; see Table 3-103 for estimated projected number of billed AUMs by alternative).

Table 3-101. Value of Production for Grazing

Year	Value of Production per Cow (nominal \$)	AUMs per Cow	Adjusted Value of Cow Production per AUM (2021 dollars)	Estimated Value of Horse per AUM (2021 dollars)
2012	\$744.93	16	\$52.39	\$65.48
2013	\$780.50	16	\$56.46	\$70.57
2014	\$1,076.00	16	\$93.34	\$116.67
2015	\$1,015.79	16	\$81.00	\$101.25
2016	\$704.62	16	\$46.84	\$58.55
2017	\$710.20	16	\$48.46	\$60.57
2018	\$589.29	16	\$38.75	\$48.44
2019	\$558.00	16	\$36.69	\$45.86
2020	\$565.77	16	\$35.06	\$43.82
2021	\$606.07	16	\$37.88	\$47.35
10-Year Average	\$735.12	16	\$52.69	\$65.86

Source: IMPLAN (2022); USDA, Economic Research Service (2022).

Table 3-102. Number of Permitted and Billed Animal Unit Months by Allotment Type, 2021–2022 Grazing Season

Allotment Type	Permitted AUMs	Billed AUMs	Percentage of Billed AUMs to Permitted AUMs	Percentage Type of Permitted AUMs
Total	59,441	34,825	58.588%	-
Cattle	58,866	-	-	99.033%
Horse	575	-	-	0.967%

Note: - = Data not available.

¹⁵ USDA Forest Service reports billed grazing data in HMs. For the purposes of this analysis, HMs were converted to AUMs by assuming that one HM of cattle or horses is equal to one AUM (Godfrey 2008). This methodology most likely overestimates the number of AUMs, because calves, which can be counted as one HM, are treated as one AUM, although they would not use as much forage as one cow or one horse.

Table 3-103. Number of Allocated Animal Unit Months and Estimated Billed Animal Unit Months by Allotment Type and Alternative

Allotment Type	Allocated AUMs			Estimated Total Billed AUMs*	Estimated Billed AUMs for Cattle†	Estimated Billed AUMs for Horse‡
	BLM	USDA Forest Service§	Total	Total	Total	Total
Alternative A	62,035	10,520	72,555	42,509	42,097	411
Alternative B	62,035	10,520	72,555	42,509	42,097	411
Alternative C	62,035	10,520	72,555	42,509	42,097	411
Alternative D	56,347	7,908	64,255	37,646	37,282	364
Alternative E	62,035	10,520	72,555	42,509	42,097	411
Proposed Plan	62,035	10,520	72,555	42,509	42,097	411

* Calculated by multiplying the percentage of billed AUMs to permitted AUMs for all allotments (58.588%) by the total allocated AUMs for each alternative.

† Calculated by multiplying the percentage type of permitted AUMs for cattle (99.03%) by the estimated total billed AUMs for each alternative.

‡ Calculated by multiplying the percentage type of permitted AUMs for horse (0.97%) by the estimated total billed AUMs for each alternative.

§ USDA Forest Service reports billed grazing data in HMs. For the purposes of this analysis, HMs were converted to AUMs by assuming that one HM of cattle or horses is equal to one AUM (Godfrey 2008). This methodology most likely overestimates the number of AUMs, because calves, which can be counted as one HM, are treated as one AUM, although they would not use as much forage as one cow or one horse.

See Appendix N for additional context concerning the affected environment for environmental justice and social and economic values.

3.5.5.2. ENVIRONMENTAL CONSEQUENCES

3.5.5.2.1. Impacts Common to All Alternatives

BENM would provide value to the local and regional economy by providing recreational opportunities as well as grazing and ranching allotments through local jobs, wages, and economic output. As the population in the analysis area is expected to continue to increase, the local jobs, labor income, and economic output that are provided in BENM are increasingly important to the communities. For the purposes of this analysis, growth in the recreation activities in the Planning Area is expected to continue.¹⁶ See Section 3.5.7 for more information. Lands would be managed to protect and restore BENM cultural resources, which could increase the nonmarket value associated with traditional, cultural, and spiritual uses and resources, especially for the Tribes.

Under all alternatives, the lands from voluntarily relinquished grazing permits would be retired. The economic impact from this reduction in acres available for grazing would depend on the timing and number of allotments retired, but, due to the voluntary nature of the retiring of permits, the economic impact is not expected to be substantial. Continued grazing would support public services, such as education, that are funded through revenues collected on Utah Trust Lands parcels. Alternatives that make more of the Monument unavailable/not suitable for livestock grazing could impact the quality of these public services by reducing the revenues collected on Utah Trust Lands parcels; however, these impacts would not be expected to be large because few areas of currently permitted lands would be closed. Therefore the decrease in revenue from these closures would likely be minimal. Expenditures from recreation-related activities depend on the number of visitor parties that come to BENM, the amount of spending per party for each visit type and type of expense, and the type of each visitor (White 2017, 2022). If there is an increase in the

¹⁶ It is unclear how long and what kind of impacts will continue from the 2020 COVID-19 pandemic to the recreation and tourism sectors. There could be a decrease in recreation in the short term, but the growth rate is likely to return to the historical average over a longer period.

percentage of visitors who stay off-site, there could be an increase in recreation-related expenditures, which could result in an increase in economic contributions; however, if there are fewer total visitors to BENM, there might be fewer expenditures and economic contributions from the BLM and USDA Forest Service's management decisions. The extent to which this change in the number of recreation visitors and type of visitor would impact overall economic contributions would depend on the number of projected visitors and the change in percentage of visitor segments.

The nonmarket values associated with recreation could be affected due to the limitations in recreational use on LWC. Visitors would likely recreate in other areas of BENM, which could lead to congestion in more popular areas, especially because the number of visitors is expected to increase over time; however, many of the nonmarket and ecosystem services from recreation would likely continue, such as support for mental and physical health and opportunities for family and multigenerational connection.

Coordination with the BEC and management decisions that focus on protecting cultural resources would provide increased value to Tribes and could also provide value to other communities of interest such as those who value habitat and resource preservation. Communities of interest that value recreation could be impacted, but would likely continue through recreation in other areas of BENM.

Under all alternatives, acres managed as closed to OHV travel could impact economic values associated with decreased public access to Utah Trust Lands parcels or through reduced quality or access to public services that are funded through revenues collected on Utah Trust Lands parcels, including education.

Timber harvesting would be available for noncommercial use in accordance with applicable law in parts of BENM under all alternatives; however, because most of the timber harvest is public, noncommercial use, these activities do not contribute commercial funds to the local economies.

Total economic value is the combination of all benefits people receive from agency-administered managed lands and resources. Total economic value is the sum of the market value from economic activities and the nonmarket value.

Under all alternatives, open space would provide many benefits to the surrounding communities, such as increasing quality of life through visual resources, fresh water, and air quality; waste regulation; biodiversity maintenance; soil formation; protection from natural hazards; and opportunities for solitude and spiritual connection to the landscape.

Although livestock grazing is important to the 26 permittees whose grazing operations use BENM lands, livestock grazing also impacts local community members who do not hold permits but do benefit socially and culturally from nearby livestock grazing. Many farmers and ranchers dedicate their entire working lives to the practice. The resources that BENM provides under all alternatives often support the livelihoods of these community members and their families. Protected natural resources provide nonmarket values to the Tribes that use and have ties to BENM land (see Appendix L). Under all alternatives, changes in natural resources through activities that increase disturbance would impact nonmarket benefits, especially for the Tribes surrounding BENM, by reducing opportunities for engaging in subsistence activities; increasing social conflicts among user groups; reducing individuals' health due to reductions in air and water quality and limitations in meeting nutritional dietary needs; and disruptions in traditional, cultural, and spiritual practices.

Under all alternatives, the agencies' management decisions regarding fire and fuels management aim to provide for resilient and resistant landscapes, protecting fire-adapted communities by

reducing the fire hazard, especially within WUI areas, and improving safe and effective wildfire response. Under all alternatives, the agencies would continue to provide these nonmarket benefits that would support safety and increase visual scenery, which can increase quality of life throughout the community. See Section 3.5.4 for more information.

Under all alternatives, there could be adverse impacts from surface-disturbing activities that affect environmental justice communities, including impacts to water quality; traditional cultural use of plants, animals, and minerals; travel and transportation; air quality; and economic contributions. Livestock grazing, recreation, and ROW developments may also result in similar impacts; however, the degree to which these impacts disproportionately affect environmental justice communities often depends on the site-specific activities that cause the impacts, and any associated mitigation measures. Under all alternatives, agency management decisions would be developed in collaboration with the BEC and would incorporate the intent of the intergovernmental cooperative agreement to collaborate in the management of BENM and incorporate Traditional Indigenous Knowledge where applicable, which may reduce impacts to environmental justice communities.

The agencies would restore and preserve springs to protect water quality for traditional uses, which could minimize impacts to environmental justice communities. Livestock grazing and water wells that are required for livestock could also impact drinking water sources and water quantity for nearby communities as well as water supply for wildlife that some environmental justice communities rely on for subsistence use; however, the level to which these impacts to water quality could disproportionately affect environmental justice populations depends on the magnitude of the water quality impacts, location of the impacts, and whether the impacts would affect public water systems or water used for personal consumption or traditional use. Measures would be taken to stabilize soils to prevent runoff, and surface-disturbing actions would be limited to areas that do not pose a threat to public water systems. Therefore, environmental justice populations would likely not be disproportionately impacted by the agencies' management decisions that might impact water quality.

Under all alternatives, environmental justice communities may be disproportionately impacted if certain designations on BLM-administered land contain restrictions on travel that adversely affect transportation and access, such as special designations (e.g., ACECs and WSAs and management of LWC). Routes could be maintained and improved to meet public health and safety and access needs, which could result in fewer concerns as routes are improved. This would provide benefits to the local communities. These benefits to non-environmental justice communities could disproportionately impact environmental justice communities through greater visitation, especially Tribal populations, who value the cultural resources potentially accessed by these routes for traditional and spiritual uses. See Sections 3.5.1 and 3.5.8 for more information.

Commercial harvesting in woodlands would be restricted, and wood product harvest would be allowed in certain areas. This could benefit environmental justice communities who rely on wood product harvesting for heating sources or other uses; however, more wood use for heating purposes could result in air quality impacts, which would adversely impact the local communities, including environmental justice populations, especially during the winter months due to inversion conditions. Under all alternatives, increased timber harvest could also impact culturally significant resources and sites due to disturbance from foot or vehicle traffic. These impacts would be site specific. See Sections 3.4.6 and 3.4.14 for more information.

The agencies' decisions on fire and fuels management could protect important cultural and Tribal resources by preventing catastrophic wildfires, which would provide beneficial impacts to the local communities and could benefit environmental justice populations, due to the importance of these culturally significant resources and areas to Tribal members. Additionally, fire and fuels

management decisions that reduce the risk of severe wildfires could protect property and the health and safety of the local communities, including environmental justice populations. See Sections 3.5.1 and 3.5.4 for more information.

Under all alternatives, visual and sound resources could be impacted through agency-authorized activities; however, these impacts would depend on site-specific projects, and they may affect all communities regardless of race or ethnic identities or low-income status. They would likely not disproportionately impact environmental justice communities. See Sections 3.4.12, 3.4.13, and 3.4.15 for more information.

BENM would contribute to the local economy by providing jobs, labor income, and net economic output. This contribution to the economy would affect the community as a whole, including environmental justice communities.

Table 3-121 provides a summary of economic, social, and environmental justice impacts by alternative.

Table 3-121. Summary of Economic, Social, and Environmental Justice Impacts by Alternative

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Economic contributions	<p>Under Alternative A, there would be no change to recreational opportunities from current conditions. The projected number of visitor parties in 2023 was estimated to be approximately 702,000 parties (an increase of approximately 15.4% from 2022). Under Alternative A, under the weighted average of visitor types scenario would result in economic contributions of approximately 1,100 employees, \$27.7 million in labor income, and \$92.2 million in economic output.</p> <p>Under Alternative A, there would be no change to the number of allocated allotments, and there would continue to be approximately 42,509 billed AUMs total (42,097 AUMs for cattle allotments and 411 AUMs for horse allotments) on BLM-administered and NFS lands. Under Alternative A, the economic contribution from grazing would result in approximately 55 total jobs, \$1.3 million in labor income, and \$3.4 million in economic output.</p>	<p>Under Alternative B, the agencies' management decisions would support more recreational use by allowing for more development of visitor amenities in backcountry and primitive areas. This could increase visitors to BENM, which could increase or decrease economic contributions from recreation depending on the type of visitors and projected expenditures for the visitors.</p> <p>Under Alternative B, there would be no change in allocated AUMs or HMs on agency-administered lands, so the economic contributions from livestock grazing activities would be the same as under Alternative A.</p>	<p>Under Alternative C, economic contributions from recreation would be similar to Alternative A.</p> <p>Under Alternative C, there would be no change in allocated AUMs or HMs on agency-administered lands, so the economic contributions from livestock grazing activities would be the same as under Alternative A.</p>	<p>Under Alternative D, there would be more restrictions on recreation. The extent to which the restrictions impact economic contributions from recreation depends on the number of visitors, the type of visitors, and the expenditures.</p> <p>Under Alternative D, the estimated billed AUMs would decrease by 4,863 AUMs compared with Alternative A.</p> <p>Under Alternative D, the economic contributions for grazing would likely be approximately \$3 million in economic output, 48 employees, and \$1.1 million in labor income, which would be approximately \$390,000 less in output, approximately six fewer jobs and almost \$143,000 less in labor income than under Alternative A, respectively.</p>	<p>Under Alternative E, economic contributions from recreation would be similar to Alternative D.</p> <p>Under Alternative E, there would be no change in allocated AUMs or HMs on agency-administered lands, so the economic contributions from livestock grazing activities would be the same as under Alternative A.</p>	<p>The management decisions for recreation under the Proposed Plan would likely result in a similar level of recreation visitors as described under Alternative E, but with more potential for additional recreation visitors due to fewer restrictions on film permits and recreational use in MSO PAC areas, and managing Arch Canyon Sub-Area as OHV limited rather than closed to motorized use, compared with Alternative E. If there were an increase in visitors, under the Proposed Plan compared with Alternative E, then there would likely be similar but slightly larger economic contributions from recreation activity as those described under Alternative E.</p> <p>Under the Proposed Plan, John's Canyon would be managed as unavailable/not suitable for grazing and North Cottonwood would be limited to trailing only; this would likely lead to a reduction in AUMs available for the Perkins South and Indian Creek Allotments. This reduction in available AUMS, if made at the implementation level, would likely lead to a reduction in billed AUMs, which would result in fewer jobs, less labor income, and less economic output supported by livestock grazing activity on federal land compared with Alternative A. This change in AUMs would be done at the implementation level, however.</p>

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Social conditions	<p>Under Alternative A, the nonmarket benefits, ecosystem services, and social conditions would continue as described in the current conditions.</p>	<p>Under Alternative B, the acres managed to protect LWC would increase compared to Alternative A, which could increase the overall value of nonmarket benefits provided through protected open space, compared with Alternative A, especially for those who value habitat and resource preservation.</p> <p>The benefits associated with recreation (such as impacts to mental and physical health) could increase due to the increase in developed facilities and access to remote locations.</p> <p>Under Alternative B, the cultural and social values associated with grazing would be the same as Alternative A.</p>	<p>Under Alternative C, the acres managed to protect LWC would be the same as under Alternative B and could increase the overall value of nonmarket benefits provided through protected open space, especially for those who value habitat and resource preservation.</p> <p>Under Alternative C, the value of BENM for recreationalists and farmers and ranchers and their families would be similar to Alternative A and would continue as discussed in the current conditions.</p>	<p>Under Alternative D, the increase in lands managed for their wilderness characteristics could impact the communities of interest that value habitat and resource preservation by providing additional value. The estimated billed AUMs would decrease compared with Alternative A, which would lead to a reduction in the cultural and way-of-life value for local farmers and ranchers and their families. Communities of interest that value recreation could be impacted, but recreation would likely continue in other areas of BENM.</p>	<p>Under Alternative E, lands would be managed to protect and restore BENM cultural resources, which could increase the nonmarket value associated with traditional, cultural, and spiritual uses and resources, especially for the Tribes. The acres managed to protect LWC would be the same as under Alternative D; however, in coordination with the BEC, additional standards for LWC would be developed. These additional standards would include limitations on recreation, which could impact communities of interest associated with recreation, but recreation would likely continue in other areas of BENM. The management decisions could provide value to other communities of interest such as those who value habitat and resource preservation.</p> <p>The estimated billed AUMs would be the same as Alternative A, so there would be no anticipated change in the cultural and way-of-life value for local farmers and ranchers and their families.</p>	<p>Under the Proposed Plan, impacts to access and quality of nonmarket values due to changes in lands managed to protect and restore BENM cultural resources and acres managed to protect LWC would be similar to Alternative E.</p> <p>The nonmarket values associated with recreation would likely be similar to those described in Alternative E.</p> <p>Compared to Alternative A, there would likely be a reduction in billed AUMs, which would result in fewer jobs, less labor income, and less economic output supported by livestock grazing activity on federal land.</p> <p>Under the Proposed Plan, communities of interest that value recreation could be impacted by site-specific limitations, but recreation would likely continue in other areas of BENM.</p>

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Environmental justice	<p>Under Alternative A, there would be no change to air quality management from current conditions.</p> <p>Under Alternative A, access for noncommercial harvest would be the most restricted across all alternatives, which could result in disproportionate impacts to environmental justice communities, who rely on wood burning for traditional use; however, the reduced burning could result in benefits to the local communities due to decreased emissions and particulate matter, especially during the winter months due to inversion conditions. Impacts to emissions from burning wood would likely occur in the analysis area, but outside of the Planning Area. The reduced harvest, under Alternative A, could also result in benefits to cultural resources due to decreased disturbance from foot or vehicle traffic.</p>	<p>Under Alternative B, there would likely be reductions in emissions and dust from the agencies' management decisions compared with Alternative A, which would impact all surrounding communities, including environmental justice populations.</p> <p>Under Alternative B, public access to harvesting wood products would increase compared to Alternative A. This increase in public access or noncommercial harvesting could benefit environmental justice populations such as Tribes by allowing more opportunities for Tribal members to collect wood products; however, this could have adverse impacts to environmental justice communities through increased emissions from wood burning and potential increase in disruption to cultural resources from increased foot and vehicle traffic.</p>	<p>Air quality impacts to environmental justice communities under Alternative C would be similar to Alternative B, but there could be further reductions in air quality impacts than under Alternatives A and B. These impacts would affect all surrounding communities, including environmental justice populations.</p> <p>The impacts to environmental justice populations from management decisions on timber harvest under Alternative C would be the same as under Alternative B.</p>	<p>Under Alternative D, the impacts to environmental justice communities from air quality would be similar to those described under Alternatives B and C.</p> <p>The impacts to environmental justice populations from management decisions on timber harvest under Alternative D would be similar to Alternatives B and C.</p>	<p>Collaboration with the BEC and Tribal Nations and implementing Traditional Indigenous Knowledge would be prioritized the most under Alternative E. This integral collaboration could result in the least number of adverse impacts to Tribal Nations and their members, across the other alternatives.</p> <p>Under Alternative E, impacts to air quality would be reduced compared with all other alternatives.</p> <p>The impacts to environmental justice populations from management decisions on timber harvest under Alternative E would be similar to Alternatives B, C, and D.</p>	<p>Under the Proposed Plan, impacts to environmental justice populations due to changes in air quality and private wood product harvest would be similar to those under Alternative E.</p> <p>Impacts to environmental justice populations due to changes in OHV use under the Proposed Plan would largely follow those described for Alternative B, with the exception that Arch Canyon would be accessible only through a permit system. These management decisions would likely impact environmental justice populations, especially Tribal populations.</p> <p>Limitations and closures on some OHV routes could result in site-specific reductions in motorized recreation, potentially impacting ability of recreators with mobility impairments to access some opportunities. Limits would be increased over Alternative A, but would be less than under Alternative D.</p>

3.5.5.2.2. Impacts under Alternative A

There would be no change to existing recreational opportunities under Alternative A.

The projected number of visitor parties in 2023 was estimated to be approximately 702,000 parties (an increase of approximately 15.4% from 2022). Low local day trips and high overnight use off BENM result in more total economic contributions. This is due to the higher expenditures from visitors who stay in hotels and other lodging outside of BENM, and lower expenditures from local visitors who only recreate for the day (Tables 3-122, 3-123, and 3-124).

Table 3-122. Economic Contributions for Recreation under Alternative A for High Local Day Trips and Low Overnight Off Bears Ears National Monument Visits (2023 dollars)

Impact	Employment		Labor Income (\$000)		Value Added (\$000)		Output (\$000)	
	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total
Direct	1.2	842	27.32	19,192	42.90	30,136	85.27	59,898
Indirect	0.1	72	3.71	2,608	6.01	4,224	15.09	10,600
Induced	0.1	42	2.10	1,478	5.32	3,738	9.54	6,704
Total†	1.4	956	33.14	23,277	54.24	38,099	109.91	77,202

Source: IMPLAN (2023).

Note: All dollar values are shown in thousand dollars, so \$33.14 per 1,000 parties shown in the table for labor income would be \$33,140 per 1,000 parties.

* Economic contribution results from IMPLAN modeling are linear, so changes in recreation party estimates could be multiplied by the per-1,000 party multipliers to get the total contributions from the new recreation party number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

Table 3-123. Economic Contributions for Recreation under Alternative A for Low Local Day Trips and High Overnight Off Bears Ears National Monument Visits (2023 dollars)

Impact	Employment		Labor Income (\$000)		Value Added (\$000)		Output (\$000)	
	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total
Direct	1.7	1,168	38.66	27,157	62.18	43,677	121.93	85,650
Indirect	0.1	105	5.40	3,795	8.71	6,118	21.77	15,291
Induced	0.1	60	2.99	2,099	7.56	5,311	13.56	9,523
Total†	1.9	1,333	47.05	33,051	78.45	55,106	157.26	110,464

Source: IMPLAN (2023).

Note: All dollars values are shown in thousand dollars, so \$47.05 per 1,000 parties shown in the table for labor income would be \$47,050 per 1,000 parties.

* Economic contribution results from IMPLAN modeling are linear, so changes in recreation party estimates could be multiplied by the per-1,000 party multipliers to get the total contributions from the new recreation party number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

Table 3-124. Economic Contributions for Recreation under Alternative A for Weighted Average Percentage of Visitor Types (2023 dollars)

Impact	Employment		Labor Income (\$000)		Value Added (\$000)		Output (\$000)	
	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total	Per 1,000 Parties*	Total
Direct	1.4	1,011	32.53	22,853	51.38	36,091	101.89	71,569
Indirect	0.1	86	4.43	3,115	7.19	5,052	18.02	12,658
Induced	0.1	50	2.50	1,759	6.33	4,449	11.36	7,978
Total†	1.6	1,147	39.47	27,727	64.91	45,592	131.26	92,205

Source: IMPLAN (2023).

Note: All dollars values are shown in thousand dollars, so \$39.47 per 1,000 parties shown in the table for labor income would be \$39,470 per 1,000 parties.

* Economic contribution results from IMPLAN modeling are linear, so changes in recreation party estimates could be multiplied by the per-1,000 party multipliers to get the total contributions from the new recreation party number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

Under Alternative A, the economic contribution from grazing would result in approximately 55 total jobs, \$1.3 million in labor income, \$1.2 million in value added, and \$3.4 million in economic output (Table 3-125). Economic contributions of grazing do not constitute a measure of economic values, but rather demonstrate the role of grazing activity in the local economy. The economic values of various land uses and activities include both market and nonmarket values, neither of which are directly measured by economic contributions.

Table 3-125. Economic Contributions for Grazing under Alternative A (2023 dollars)

Impact	Employment		Labor Income (\$)		Value Added (\$)		Output (\$)	
	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total
Direct	1.0	43	21,695	922,212	19,568	831,820	53,724	2,283,732
Indirect	0.2	9	5,490	233,383	2,347	99,752	16,108	684,714
Induced	0.1	3	2,221	94,412	5,639	239,712	10,097	429,194
Total†	1.3	55	29,406	1,250,007	27,554	1,171,284	79,928	3,397,640

Source: IMPLAN (2023).

* Economic contribution results from IMPLAN modeling are linear, so changes in estimated AUMs could be multiplied by the per-1,000 AUM multipliers to get the total contributions from the new grazing number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

The nonmarket benefits and ecosystem services provided by the agencies' management decisions in the analysis area would be as described in Section 3.5.5.2.1.

The communities of interest that value habitat and resource preservation would continue to gain value from protected LWC, designated wilderness, and WSAs in BENM. Farming and livestock grazing would continue to be an important cultural and economic lifestyle for many of the local residents discussed in Section 3.5.5.2.1. Recreation communities of interest could continue to get value from the BLM through recreational access and opportunities on BLM-administered and NFS lands as discussed in Section 3.5.5.2.1.

The agencies would continue to manage air quality and resources that impact air quality under current management directions of the 2020 ROD/MMPs, the 2008 Monticello RMP, the 2008 Moab RMP, and the 1986 Manti-La Sal LRMP, as amended.

Approximately 715,667 acres would continue to be open to wood product harvest; access for noncommercial harvest would be the most restricted due to the small number of acres available for harvest under Alternative A. This could result in disproportionate impacts to environmental justice communities who rely on wood burning for traditional use and who would be required to pay higher prices for alternative fuels or for fuelwood procured from more distant sources. Some users may go without heat more frequently, resulting in higher social health costs; however, the reduced burning could result in benefits to the local communities due to decreased emissions and particulate matter, especially during the winter months due to inversion conditions. Impacts to emissions from burning wood would likely occur in the analysis area, but outside of the Planning Area (see Section 3.4.14). The reduced harvest under Alternative A could also result in benefits to cultural resources due to decreased disturbance from foot or vehicle traffic.

3.5.5.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. The agencies' management decisions would support more recreational use by allowing for more development of visitor amenities in backcountry and primitive areas compared to Alternative A. This could increase visitors to BENM, especially those who enjoy dispersed camping and recreating in more remote areas and could increase the percentage of visitors who stay overnight on BENM, rather than outside BENM. A decrease in the percentage of visitors who stay off-site could result in an overall decrease in recreation-related expenditures, and a reduction in economic contributions compared to Alternative A (Tables 3-126 and 3-127); however, an overall increase in the number of total visitors to BENM could increase expenditures and economic contributions depending on the number of projected visitors and the change in percentage of visitor segments.

The area in BENM unavailable/not suitable for livestock grazing would increase compared to Alternative A; however, there would be no change in allocated AUMs on BLM-administered lands or NFS lands, and the estimated billed AUMs would remain the same as under Alternative A (see Table 3-103). As a result, the economic contribution from grazing would be the same as Alternative A (see Table 3-126). The estimated billed AUMs would remain the same as under Alternative A; therefore impacts would be the same as described in Alternative A.

Table 3-126. Economic Contributions for Grazing under Alternative B (2023 dollars)

Impact	Employment		Labor Income (\$)		Value Added (\$)		Output (\$)	
	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total
Direct	1.0	43	21,695	922,212	19,568	831,820	53,724	2,283,732
Indirect	0.2	9	5,490	233,383	2,347	99,752	16,108	684,714
Induced	0.1	3	2,221	94,412	5,639	239,712	10,097	429,194
Total†	1.3	55	29,406	1,250,007	27,554	1,171,284	79,928	3,397,640

Source: IMPLAN (2023).

* Economic contribution results from IMPLAN modeling are linear, so changes in estimated AUMs could be multiplied by the per-1,000 AUM multipliers to get the total contributions from the new grazing number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

The acres of LWC managed to protect their wilderness characteristics would increase compared to Alternative A (see Table 2-1), which could increase the overall value of nonmarket benefits provided through protected open space compared with Alternative A.

Prescribed fire management decisions might increase emissions and dust in the short term, but in the long term, the decisions would likely reduce the severity of future wildfire, which would reduce the risk of higher emissions and degraded air quality for the surrounding communities, including the local environmental justice communities.

Commercial harvesting would be more restricted, and public access for wood product harvest would increase compared to Alternative A, which could benefit environmental justice populations such as Tribes by allowing more opportunities for Tribal members to collect wood products; however, this could have adverse impacts to environmental justice communities through increased emissions from wood burning and potential increase in disruption to cultural resources from increased foot and vehicle traffic.

Alternative B would designate fewer acres as OHV limited, which could result in site-specific reductions in motorized recreation, potentially impacting the ability of recreators with mobility impairments to access some opportunities.

3.5.5.2.4. Impacts under Alternative C

Impacts under Alternative C would be similar to Alternative B with the following exceptions. The agencies' management decisions regarding recreation under Alternative C would focus on improvements and maintenance to facilities and amenities in high-use areas. Remote areas would still be accessible by experienced recreators, similar to current conditions, so impacts from recreation to economic contributions would be similar to Alternative A.

The acres managed to protect LWC would be the same as under Alternative B, but these lands would be managed as OHV closed rather than OHV limited. This change could increase the value of nonmarket benefits provided through protected open space compared with Alternative A. Because there would still be OHV limited lands within BENM, the impacts to nonmarket benefits of recreation, including OHV travel, would likely be minimal. Limitations on and closures of some OHV routes could result in site-specific impacts similar to Alternative B.

There could be a further reduction in air quality impacts due to more acres closed to OHV travel and more restrictions on when certain surface disturbances are allowed to occur than under Alternatives A and B, which would affect all surrounding communities, including environmental justice populations.

Public access and noncommercial wood product harvest would increase, which could benefit environmental justice populations by allowing more opportunities for Tribal members to collect wood products; however, the increased emissions from wood burning could have adverse impacts to environmental justice communities as discussed in Section 3.5.5.2.1.

3.5.5.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternative C with the following exceptions. More acres of BLM-administered and NFS lands would be closed to OHV travel than under Alternative A (see Table 2-1). Dispersed camping would also be restricted in areas designated as OHV closed, which could impact recreators, especially those who camp on BENM. Under Alternative D, more recreators might choose to recreate in the frontcountry, which could lead to crowding; stay overnight off-site; or recreate in another location entirely, which could lead to a reduction in visitors to BENM.

The area in BENM unavailable/not suitable for livestock grazing would increase compared to Alternative A; additionally, the allocated AUMs/HMs in the Planning Area would decrease on BLM-administered and NFS lands, respectively (see Table 2-1). The decrease in available AUMs and HMs would likely lead to a reduction in the estimated billed AUMs compared to Alternative A. This could result in a decrease in economic contributions from grazing compared with Alternative A. The economic output for grazing would likely be less in output than under Alternative A (Table 3-127).

Table 3-127. Economic Contributions for Grazing under Alternative D (2023 dollars)

Impact	Employment		Labor Income (\$)		Value Added (\$)		Output (\$)	
	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total
Direct	1.0	38	21,695	816,714	19,568	736,663	53,724	2,022,482
Indirect	0.2	8	5,490	206,685	2,347	88,341	16,108	606,386
Induced	0.1	2	2,221	83,612	5,639	212,290	10,097	380,096
Total†	1.3	48	29,406	1,107,011	27,554	1,037,294	79,928	3,008,963

Source: IMPLAN (2023).

* Economic contribution results from IMPLAN modeling are linear, so changes in estimated AUMs could be multiplied by the per-1,000 AUM multipliers to get the total contributions from the new grazing number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

All lands that have been inventoried as having wilderness characteristics would be managed to protect these wilderness characteristics. This would result in an increase in acres managed to protect LWC compared to Alternative A (see Table 2-1). Management prescriptions for protected LWCs would be the same as Alternative C. The benefits associated with protected open spaces would be greater under Alternative D than under Alternative A. There could be an impact to the nonmarket values associated with OHV recreation; areas closed to OHV travel would increase on BLM-administered and NFS lands compared to Alternative A (see Table 2-1). Recreators would likely use other areas in BENM for OHV travel, which could lead to congestion in more popular areas; however, many of the nonmarket and ecosystem services from recreation would likely continue as described in Section 3.5.5.2.1.

The estimated billed AUMs would decrease compared with Alternative A, which would lead to a reduction in the cultural and way-of-life value for local farmers and ranchers and their families. Communities of interest that value recreation could be impacted by reduced recreational access but would likely continue to recreate in other areas of BENM.

There would likely be fewer adverse impacts to environmental justice communities from air quality compared to Alternative A due to management decisions on acres closed to OHV travel, prescribed fire and vegetation management, management of surface-disturbing activities, and reduction in acres available/suitable for livestock grazing.

More areas would be closed to OHV use under Alternative D compared to Alternative A (see Table 2-1), which would provide decreased benefits for access to cultural products and resources due to travel management decisions, compared with Alternative A.

Areas available for wood product harvest would be the same as Alternative B; however, more acres would be designated as OHV closed, limiting access to some of these areas, resulting in similar impacts as Alternative B, but to a lesser degree.

Alternative D would result in the most limitations to and closures of OHV routes, which could increase the impacts to recreators with mobility impacts compared to the other alternatives.

3.5.5.2.6. Impacts under Alternative E

Impacts under Alternative D would be similar to Alternative A with the following exceptions. Recreation use would be managed through zones, focusing developed recreational opportunities to frontcountry or high-use areas. More acres would be designated as closed to OHV travel and more restrictions would be placed on dispersed camping compared with Alternative A (see Table 2-1), which could lead to a smaller number of visitors to BENM, a change in locations where visitors recreate, or a change in the type of visitor compared with Alternative A. Potential impacts to recreation-related expenditures are described in Section 3.5.5.2.1.

The area in BENM unavailable/not suitable for livestock grazing would increase compared to Alternative A; however, there would be no change in allocated AUMs on BLM-administered lands and allocated HMs on NFS lands. As a result, the economic contribution from grazing would be the same as Alternatives A (Table 3-128).

Table 3-128. Economic Contributions for Grazing under Alternative E on Agency-Administered Lands (2023 dollars)

Impact	Employment		Labor Income (\$)		Value Added (\$)		Output (\$)	
	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total	Per 1,000 AUMs*	Total
Direct	1.0	43	21,695	922,212	19,568	831,820	53,724	2,283,732
Indirect	0.2	9	5,490	233,383	2,347	99,752	16,108	684,714
Induced	0.1	3	2,221	94,412	5,639	239,712	10,097	429,194
Total†	1.3	55	29,406	1,250,007	27,554	1,171,284	79,928	3,397,640

Source: IMPLAN (2023).

* Economic contribution results from IMPLAN modeling are linear, so changes in estimated AUMs could be multiplied by the per 1,000 AUM multipliers to get the total contributions from the new grazing number.

† Totals may not exactly equal the sum of the impacts above due to rounding.

The acres managed to protect LWC would be the same as under Alternative D; however, in coordination with the BEC, additional standards for LWC would be developed to protect the natural and cultural resources throughout BENM lands and ensure that management standards are guided by traditional knowledge and expertise from Tribes. This could increase the value of nonmarket benefits provided through protected open space compared with Alternative A. Impacts to nonmarket values associated with recreation would be as described in Section 3.5.5.2.1.

The estimated billed AUMs would decrease compared with Alternative A, which would lead to a reduction in the cultural and way-of-life value for local farmers and ranchers and their families.

Collaboration with the BEC and Tribal Nations and implementing Traditional Indigenous Knowledge would be prioritized under Alternative E, which could result in the least amount of adverse impacts to Tribal Nations and their members across all alternatives.

Impacts to air quality would be reduced due to the emphasis on collaborating with the BEC and Tribal Nations and the use of Traditional Indigenous Knowledge and techniques in addition to Best Available Control Technology, emission controls, and site-specific mitigation measures. These tools would enable the agencies to manage air quality and resources in a way that would minimize

impacts to environmental justice populations and Tribal Nations by only allowing mechanical treatments when necessary, limiting prescribed burns to occur during times when they would not impact traditional and cultural uses, and limiting commercial timber harvest. Air quality impacts from OHV travel would be similar to those discussed under Alternative D.

More acres of BLM-administered areas would be closed to OHV travel (see Table 2-1) compared to Alternative A, which would support the protection and restoration of BENM cultural resources, subsistence activities, and Tribal access for traditional and cultural uses. These management decisions would likely impact environmental justice populations, especially Tribal populations.

Private wood product harvest would be allowed in areas that would be designated, in collaboration with the BEC, as areas where cultural resources could be avoided and where wood product harvest could protect and restore vegetation, wildlife, and ecosystems or where removal of pinyon and juniper is necessary. Impacts would be similar to those described in Section 3.5.5.2.1, but to a greater degree.

Limitations and closures on some OHV routes could result in site-specific reductions in motorized recreation potentially impacting ability of recreators with mobility impairments to access some opportunities.

3.5.5.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternative A with the following exceptions. Recreation use would be managed through zones with additional management areas designated to provide specific management of certain recreational uses while continuing to protect BENM objects. Dispersed camping would not be allowed within 0.5 mile of a developed recreation area, which is a greater distance than under Alternative E, which could result in more overcrowding in developed recreation areas. The management decisions for recreation under the Proposed Plan would likely result in a similar level of recreation visitors to Alternative E, but would provide for additional recreational opportunities due to fewer restrictions on recreational use in MSO PAC areas and Arch Canyon Sub-Area being managed as OHV limited rather than closed to motorized use. An increase in visitors would result in similar impacts to economic contributions as discussed in Section 3.5.5.2.1.

Although the Proposed Plan makes no direct change to allocated AUMS (as shown in Table 3-103), making John's Canyon as unavailable/not suitable for grazing and limiting North Cottonwood to trailing would likely lead to a reduction in AUMs available for the Perkins South and Indian Creek Allotments and would likely lead to a reduction in billed AUMs, which would result in fewer jobs, less labor income, and less economic output supported by livestock grazing activity on federal land compared with Alternative A. This change in AUMs would be done at the implementation level.

The acres of LWC managed to protect wilderness characteristics would be approximately half of the area under Alternative E, with additional acres of LWC managed to minimize impacts to wilderness characteristics. The BLM would collaborate with the BEC to incorporate Traditional Ecological Knowledge and Tribal expertise if further wilderness characteristics inventories are conducted. This change could increase the value of nonmarket benefits provided through protected open space compared with Alternative A.

The impacts to nonmarket values associated with recreation would be similar as those described in Alternative E.

Air quality impacts would be similar, but to a lesser degree, to those discussed under Alternative E from additional areas being designated as OHV closed and more acres being made unavailable/not suitable for livestock grazing.

The agencies' management decisions for travel and transportation would support the protection and restoration of BENM cultural resources, subsistence activities such as hunting on Elk Ridge, and Tribal access for traditional and cultural uses. Impacts from OHV use would largely follow those described for Alternative B with the exception that Arch Canyon would be accessible only through a permit system. These management decisions would likely impact environmental justice populations, especially Tribal populations, by providing enhanced protection for important cultural resources and sources of subsistence activities.

Compared to Alternatives B, C, D, and E, acres open to wood product harvest would be slightly reduced (7.6% reduction); therefore, impacts would be anticipated to be similar to that described under these alternatives.

Limitations and closures on some OHV routes could result in site-specific reductions in motorized recreation, potentially impacting ability of recreators with mobility impairments to access some opportunities. Limits would be increased over Alternative A, but far less than under Alternative D.

3.5.5.2.8. Cumulative Impacts

The cumulative impacts analysis area is the same as the social and economic analysis area as described in Section 3.5.5.1. Past, present, and reasonably foreseeable recreation projects that improve or add hiking and mountain biking trails, dispersed camping sites, and site facilities would increase the number of visitors to recreational sites in and around BENM, which would contribute to cumulative impacts to economic contributions associated with recreation in BENM. House of Fire Trailhead project, North Cottonwood toilet construction and installation project, and Hamburger Rock Campground improvements and expansion project would improve parking areas and campground facilities. Bluff River Trail project, Salt Creek Trail reconstruction project, and Goosenecks Campground and trails project would construct new trails or improve existing trails. SUP projects would contribute to cumulative economic contributions through increased participation in recreation events and outfitter guide services.

The 2022 BEITC LMP proposes programs that could lead to cumulative impacts to economic contributions. These programs would employ Tribal members from surrounding regions, which could increase population in the area (see Appendix L).

Range and livestock improvement projects would contribute to cumulative economic impacts to the surrounding communities through increasing economic activities associated with grazing (see Appendix J). These projects focus on maintaining and developing new and existing fences for livestock control and water wells that provide reliable water for livestock, which would improve management on grazing allotments in the long term, especially during times of drought. Projects such as water developments, recreation infrastructure construction and maintenance, and restoration projects might result in surface disturbance, which could lead to cumulative impacts through decreased economic activities associated with livestock grazing; however, these impacts would be short term and the surface acres that would be disturbed would be small. Projects that improve water wells for grazing could provide value to local residents and those in communities of shared interest associated with farming and ranching.

Vegetation management projects such as noxious weed control efforts, silvicultural treatments, prescribed fire, and restoration efforts could contribute to the nonmarket benefits from fire and

fuels management decisions within BENM. Protecting areas for hunting and subsistence gathering and educating future generations on traditional and cultural uses and values could lead to cumulative impacts to nonmarket benefits and social values, especially to the Tribes (see Appendix L).

Projects such as water developments, recreation infrastructure construction and maintenance, ROW developments, and forest restoration projects would result in surface disturbance, which could lead to cumulative impacts through reduced air quality from increased dust and emissions from prescribed fires or disturbance to resources that are important to environmental justice populations, such as subsistence resources (see Appendix J). These impacts would be short term, however, and the surface acreage that would be disturbed would be small. Additionally, the extent to which environmental justice communities would be disproportionately and adversely impacted would depend on the location of the project; the impacts would need to be analyzed at the implementation level for those projects.

The 2022 BEITC LMP would implement programs that would employ Tribal members from the surrounding regions. This would likely result in cumulative impacts to environmental justice communities through increased economic contributions and improvements in public services.

Alternatives B, C, D, E, and the Proposed Plan would reduce the potential for cumulative impacts to environmental justice populations through measures to protect water quality. Related to wildfire risk, action alternatives would result in enhanced protection of cultural resources with importance for environmental justice communities, but variation in authorized fire suppression techniques under each alternative may result in some increased risk to communities and related resources. See Section 3.5.4 for more information.

3.5.6. *Lands and Realty*

3.5.6.1. AFFECTED ENVIRONMENT

Landownership adjustments are made to improve national forest management by consolidating ownership, reducing wildlife-human conflicts, providing for wildlife connectivity, improving public access to public lands, and retaining or acquiring key lands for wildlife, fish, and cultural resources.

The Planning Area includes avoidance areas, exclusions areas, and areas open for ROW authorization (see Table 2-1). There are 7,146 acres of BLM utility corridors within the Planning Area. Currently, there are no utility corridors on NFS lands within the Planning Area.

The BLM typically issues communication use leases for communication facilities on BLM-administered lands. There are three communication sites within the Planning Area; all are either currently under a lease renewal or undergoing the lease renewal process. There have been no applications for new communication site leases within the Planning Area in the last 4 years. There are two NFS-only communication sites within the Planning Area; however, there are no commercial communication sites on NFS lands within the Planning Area.

Commercial filming generally occurs at Newspaper Rock, the Moki Dugway, SR-95, and Valley of the Gods. The Monticello FO has made a specific effort to accommodate filming activity in these areas. The BLM has issued 44 film permits in the Planning Area since 2017. The USDA Forest Service is currently authorizing film permits on a case-by-case basis. The USDA Forest Service has authorized four film permits in the last 5 years.

See Appendix N for additional context concerning the affected environment related to lands and realty.

3.5.6.2. ENVIRONMENTAL CONSEQUENCES

3.5.6.2.1. Impacts Common to All Alternatives

Agencies would collaborate with the BEC and Tribal Nations on Management of Land Boundaries planning, including but not limited to developing implementation-level Management of Land Boundaries plans for high-risk, high-value lands, including special-designation areas, inholdings, and other valid existing rights, ROWs, and BENM boundaries. This would serve to improve the overall manageability of public lands within the Planning Area by maintaining administration of BLM and NFS lands by the agencies.

The existing BLM utility corridors within the Planning Area would continue to exist, and there would be no new designated corridors on BLM-administered and NFS lands within the Planning Area. The three existing communication sites on BLM-administered lands would continue undergoing the lease renewal process. The two NFS-only communication sites would continue to exist within the Planning Area. Eliminating the designation of the new corridors throughout the Planning Area would serve to consolidate utility ROWs and structures. This would place additional requirements on ROW applicants and would increase management efforts and costs related to proposals submitted by ROW applicants. This impact would be further increased if these restrictions result in relocation (re-siting) or redesign of ROW facilities, especially if it results in longer linear routes and/or placement of ROWs in areas that are difficult to develop.

3.5.6.2.2. Impacts under Alternative A

Land tenure adjustments (LTAs) would occur if the land acquisitions of potential/occupied special status species habitat would be increased. Lands would be considered for acquisition if the changes are in accordance with the current resource management objectives, other RMP decisions, and existing activity plans, including government interests, a gain of manageable resources on public lands, and to ensure public access to lands. Land acquisitions would be managed in the same manner as adjoining lands, unless acquired for a specific purpose. Land exchanges would be given priority; the State of Utah would resolve inholding issues and the BLM would assist the state in identifying opportunities for LTAs that further its mission. The USDA Forest Service would prioritize lands for acquisition if the land meets resource management goals, provides habitat for T&E species, has cultural resources, is suitable for development by the private sector, and when important resource effects would be mitigated by reserving interests to protect the resource. The USDA Forest Service would affect jurisdictional transfers that improve and enhance management and administration operations. Acquisition of lands that meet the criteria specified above would benefit the overall management of public lands by obtaining lands that serve to enhance management of sensitive resources, consolidating surface ownership, and reducing the number of fragmented parcels.

WSAs and wilderness areas would continue to be ROW exclusion areas on BLM-administered lands, and the BLM would continue to grant the State of Utah reasonable access to state lands for economic purposes on a case-by-case basis. Existing ROW designations on BLM-administered lands in the Planning Area would remain as described for the affected environment (see Section 3.5.6.1 and Appendix N; Appendix A, Figure 2-24). Applications for new ROWs would continue to be considered on a case-by-case basis, and wind and solar energy development would continue to be authorized by ROW grants.

Existing ROW exclusion (BLM)/unavailable (NFS) areas on BLM-administered and NFS lands in the Planning Area would total 449,283 acres (see Table 2-1). Managing these areas as ROW exclusion/unavailable would preclude ROW development within these areas. This could result in the re-siting of proposed ROW facilities outside of these exclusion areas or preclude development of some ROW facilities that could not be effectively located in other areas. Re-siting of ROW facilities could also occur within 180,329 acres managed as ROW avoidance areas. If avoidance of these areas were not possible, other mitigation measures could be required, such as restrictions on height, width, or length, that serve to redesign ROWs to mitigate impacts. Land use restrictions that result in the re-siting or redesign of proposed ROWs would increase management efforts and costs related to proposals submitted by ROW applicants, which are administered by the lands and realty program. This impact would be further increased if re-siting resulted in longer linear routes and/or placement of ROWs in areas that are difficult to develop.

Under Alternative A, the BLM and USDA Forest Service would continue to authorize communication site facilities on 734,339 acres designated as open to new ROWs. Commercial filming would continue to be allowed within all areas of the Planning Area, provided the minimum impact filming criteria are met. The use of aircraft would also continue to be allowed; however, no landing, taking off, or dropping or picking up any material or supplies with UAS would be allowed within designated wilderness. This would facilitate management efforts under the lands and realty program to locate communication sites and to manage commercial filming activities across the Planning Area.

3.5.6.2.3. Impacts under Alternative B

Impacts under Alternative B would be the same as Alternative A with the following exceptions. Acquisition of lands under Alternative B within BENM would only be pursued with willing sellers or by donation where it would provide for the protection of BENM objects. LTA (ownership) would therefore be stricter under Alternative B because only lands that align with BENM objectives would be considered for acquisition. This could reduce opportunities for land acquisitions and thereby reduce the ability to consolidate surface ownership and improve management of sensitive resources that may remain outside of federal agency administration.

Areas managed as ROW exclusion/unavailable would increase by 1% to 453,381 acres (see Table 2-1). This would slightly increase the potential for ROW development to be precluded or for ROW facilities to be re-sited. Areas managed as ROW avoidance areas would increase by over 400% to 905,136 acres (see Table 2-1). This could greatly increase the areas in which new ROW facilities would be redesigned to mitigate impacts, which would increase management efforts and costs related to proposals submitted by ROW applicants.

No wind and solar energy development would be allowed on BLM-administered lands within the Planning Area unless needed to power facilities, which would reduce the number of ROW applications submitted under the lands and realty program and thereby reduce overall workload.

ROWs could be authorized within existing utility corridors. Existing BLM utility corridors, however, would fall within ROW avoidance areas; therefore, ROWs could only be authorized within existing utility corridors if the applicant can demonstrate that there is no practicable route outside of the area, and the proposed ROW would be consistent with the proper care and management of BENM objects. This would impact project applicants interested in establishing new ROWs within or through BENM; it is likely they would have to route around BENM or carefully route their ROW within the 5,477 acres of land open for ROWs. This alternative would be more restrictive than Alternative A and would likely result in fewer ROW applications.

Commercial filming would not be allowed in designated wilderness. The use of aircraft would continue to be allowed; however, no landing, taking off, or dropping or picking up any material or supplies with a UAS would be allowed within designated wilderness. Additionally, film permittees would continue to observe Federal Aviation Administration flight advisories for flying over designated wilderness. These additional restrictions on filming would likely reduce the number of film permit applications, relative to Alternative A.

3.5.6.2.4. Impacts under Alternative C

Impacts under Alternative C would be the same as Alternative A with the following exceptions. Areas managed as ROW exclusion/unavailable would increase by 23% to 552,278 acres (see Table 2-1). This would increase the potential for ROW development to be precluded or for ROW facilities to be re-sited. Areas managed as ROW avoidance areas would increase by 346% to 804,717 acres (see Table 2-1). This could greatly increase the areas in which new ROW facilities would be redesigned to mitigate impacts, which would increase management efforts and costs related to proposals submitted by ROW applicants.

Impacts related to restrictions on LTAs and to wind and solar energy development would be the same as Alternative B.

Project applicants interested in establishing new ROWs within or through BENM would likely have to route around BENM or within the ROW avoidance areas, because there would be no ROW open areas within the Planning Area under this alternative. This alternative would be more restrictive than Alternative A and would likely result in fewer ROW applications.

Commercial filming would be allowed in the Planning Area as long as the minimum impact filming criteria are met; however, film permittees would not be allowed to use aircraft and UASs. These additional restrictions on filming would likely substantially reduce the number of film permit applications relative to Alternative A.

3.5.6.2.5. Impacts under Alternative D

Impacts under Alternative D would be the same as Alternative A with the following exceptions. Areas managed as ROW exclusion/unavailable would increase by 90% to 851,672 acres (see Table 2-1). This would increase the potential for ROW development to be precluded or for ROW facilities to be re-sited. Areas managed as ROW avoidance areas would increase by 73% to 312,484 acres (see Table 2-1). This could increase the areas in which new ROW facilities would be redesigned to mitigate impacts, which would increase management efforts and costs related to proposals submitted by ROW applicants.

Impacts related to restrictions on LTAs and to wind and solar energy development would be the same as Alternative B.

Project applicants interested in establishing new ROWs within or through BENM would likely have to route around BENM or within the ROW avoidance areas, because there would be no ROW open areas within the Planning Area under this alternative. This alternative would be more restrictive than Alternative A and would likely result in fewer ROW applications.

No commercial filming would be allowed within the Planning Area, and no film permits would be issued in WSAs. Aircraft takeoffs and landings would be prohibited within the Planning Area for any non-administrative and non-emergency purposes. Public UAS usage would be prohibited; however, permitted UAS use that would benefit the protection of BENM objects may be allowed via formal

authorization. Such authorizations would be granted by the agencies in coordination with the BEC. The prohibition on film permits would substantially impact film permit applications, relative to Alternative A.

3.5.6.2.6. Impacts under Alternative E

Impacts under Alternative E would be the same as Alternative A with the following exceptions. Areas managed as ROW exclusion/unavailable would increase by 146% to 1,104,956 acres (see Table 2-1). This would increase the potential for ROW development to be precluded or for ROW facilities to be re-sited. Areas managed as ROW avoidance areas would increase by 44% to 259,039 acres (see Table 2-1). This could increase the areas in which new ROW facilities would be redesigned to mitigate impacts, which would increase management efforts and costs related to proposals submitted by ROW applicants.

Impacts related to restrictions on LTAs and to wind and solar energy development would be the same as Alternative B.

Project applicants interested in establishing new ROWs within or through BENM would likely have to route around BENM or within the ROW avoidance areas, because there would be no ROW open areas within the Planning Area under this alternative. This alternative would be the most restrictive and would likely result in the fewest number of ROW applications.

Impacts related to commercial filming permits would be the same as Alternative D.

3.5.6.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be the same as Alternative A with the following exceptions. Areas managed as ROW exclusion/unavailable would increase by 43% to 643,967 acres (see Table 2-1). This would increase the potential for ROW development to be precluded or for ROW facilities to be re-sited. Areas managed as ROW avoidance areas would increase by 296% to 714,714 acres (see Table 2-1). This could greatly increase the areas in which new ROW facilities would be redesigned to mitigate impacts, which would increase management efforts and costs related to proposals submitted by ROW applicants.

Impacts related to restrictions on LTAs and to wind and solar energy development would be the same as Alternative B.

Existing designated corridors, US-163 and US-191, would be retained. The designation of new corridors would not occur; however, ROWs could be authorized within existing utility corridors and ROW avoidance areas. Therefore, ROWs could be authorized within existing utility corridors if the applicant can demonstrate that there is no practicable route outside of the area and the proposed ROW would be consistent with the proper care and management of BENM objects.

Permitting for UASs would be allowed under the Proposed Plan. Additional minimum impact filming criteria for WSAs on BLM-administered lands must also be met (see Table 2-18). These additional restrictions on filming would likely reduce the number of film permit applications.

3.5.6.2.8. Cumulative Impacts

The cumulative impacts analysis area is the Planning Area. Lands and realty actions underway, which are proceeding to the extent legally possible, could be affected by decisions in this Proposed RMP/Final EIS (see Appendix J for the full list of new ROW projects).

There is a ROW proposal to construct a 300,000-gallon water storage tank on BLM-administered lands within the Planning Area. This project would create approximately 2 acres of disturbance, pending Proposed RMP/Final EIS decisions. Utah State University is seeking a ROW to disturb less than 0.01 acre of land for soil sampling. The applicant of the Mancos Mesa ROW access project is seeking another ROW on BLM-administered lands within the Planning Area. These 8 acres of disturbance would allow access to six Utah Trust Lands sections in order to perform maintenance on existing stock ponds and to drill and develop new water wells. If these three projects occur in ROW exclusion/unavailable areas, additional efforts by the lands and realty program will be needed to relocate the projects outside of the exclusion/unavailable areas. In addition, if these projects occur in ROW avoidance areas, additional efforts may be needed to redesign the project to mitigate impacts.

3.5.7. Recreation Use and Visitor Services

Public recreational uses in the Planning Area include cultural site visitation, hiking, camping, backpacking, OHV riding, scenic driving, canyoneering, rock climbing, rafting and boating, heritage tourism, mountain biking, hunting, and other activities. Current recreation management is directed by the 2020 ROD/MMPs, 2008 Monticello RMP, 2008 Moab RMP, and the 1986 Manti-La Sal LRMP, as amended.

3.5.7.1. AFFECTED ENVIRONMENT

BLM. RMAs are the BLM's primary means for planning and managing recreational use of public lands. The BLM identifies RMAs for designation in the LUP process based on recreation demand and issues, resolving use/user conflicts, compatibility with other resource uses, and resource protection needs. See Appendix E for detailed information and management frameworks. RMAs are classified as either a SRMA or an ERMA. SRMAs recognize unique and distinctive recreation values that are managed to enhance a targeted set of activities, experiences, benefits, and RSCs, which becomes the priority management focus. ERMAs recognize existing recreation use, demand, or recreation and visitor services program investments; recreation is managed commensurately with other resources. SRMAs and ERMAs may be subdivided into RMZs with discrete objectives. Currently, the BLM manages 10 SRMAs and two ERMAs in BENM, with varying levels of recreational infrastructure and opportunities based on RMA objectives and visitor demand. The portions of the Canyon Rims SRMA and the San Juan River SRMA that are outside the Planning Area will continue to be managed under their respective RMPs (Appendix A, Figure 3-39).

The BLM Monticello FO commissioned University of Alaska–Fairbanks researchers to conduct recreational use studies in two subunits of BENM (Fix et al. 2023), which identified areas with high recreational demand, issues, and user preferences for these areas. These data were used to identify and develop objectives for RMAs and RMZs. See Appendix N for a summary of results.

Dispersed recreation occurs where there are no formal recreational facilities, mostly along or adjacent to roads. There is increasing public demand or expectations for BLM-developed campgrounds and interpretive sites, as well as a need to reduce damage from dispersed camping in heavily used areas (Fix et al. 2023) due to general visitation increases. There are limited developed campsites within the Planning Area. During busy spring and fall weekends, it can be difficult to find an open dispersed site near a designated route and trailhead parking areas. BLM monitoring data have shown impacts to soil and vegetation, some human waste and litter, multiple access points, the increasing size of disturbed areas, and in some cases, damage to archaeological resources in such areas (BLM 2023b; Nelson 2021). The Navajo ethnobotanist Arnold Clifford has documented the development of numerous trails, which has led to the destruction of fragile and

essential BSCs; damage to forbs; and damage caused to the terrain by all-terrain vehicles (ATVs) and motorbikes (see Appendix L).

As authorized by the Federal Lands Recreation Enhancement Act, there are five types of use for which SRPs are required: 1) commercial, 2) competitive, 3) vending, 4) individual or group use in special areas, and 5) organized group activity and events. SRPs are issued to outfitters, guides, vendors, recreation clubs, and commercial competitive event organizers that provide recreation opportunities or services. Tables 3-133 and 3-134 (see Appendix N) list the numbers and types of active SRPs in 2022 and ISRPs issued in 2021, respectively.

USDA Forest Service. The USDA Forest Service manages recreation using the Recreation Opportunity Spectrum (ROS) framework, which is divided into classes based on access, remoteness, social encounters, visitor impacts, visitor management, facilities and site management, and naturalness. The ROS classes, from most developed to least, are Urban, Rural, Roaded Modified, Roaded Natural, Semi-Primitive Non-Motorized, Semi-primitive Motorized, and Primitive (USDA Forest Service 1990). Recreational pursuits in the Manti-La Sal National Forest include scenic driving, hiking, backpacking, horseback riding, OHV riding, visiting cultural sites, camping, and hunting. Hunting is more common on the Manti-La Sal National Forest, where big game is more abundant than on BLM-administered lands. There are no visitor use data specific to NFS lands in the Planning Area, but total visitation to the Manti-La Sal National Forest in 2021 was estimated as 957,500 visits (USDA Forest Service 2023). See Appendix N for more detail about the volume of recreational visitation to national forests and grasslands and satisfaction with access, services, safety, crowding, and weekday and weekend average daily traffic. Overall, visitation is increasing on the NFS lands within the Monument. OHV use and availability, coupled with technological advances, have allowed visitors to travel to places within the Planning Area that were previously difficult to access. Providing for non-motorized activities separated from motorized uses has become increasingly difficult. The popularity of dispersed camping, coupled with the increased size of recreational vehicles (RVs), has impacted natural resources at dispersed campsites. The NFS portion of the Planning Area contains a limited amount of developed recreation sites. A network of roads and trails access many parts of NFS lands and beyond onto BLM-administered lands. There are developed trailheads, minimal signage, and several restroom facilities; however, there are no developed campgrounds (USDA Forest Service 1986). The NFS lands within the Monument offer more dispersed and undeveloped recreational experiences compared to developed opportunities. The USDA Forest Service requires SUPs for all commercial uses and some non-commercial group uses. New SUP demand is increasing in the Planning Area. Table 3-135 (see Appendix N) lists the numbers and types of active SUPs in 2022.

See Appendix N for additional context concerning the affected environment related to recreation use and visitor services.

3.5.7.2. ENVIRONMENTAL CONSEQUENCES

3.5.7.2.1. Impacts Common to All Alternatives

The agencies would collaborate with the BEC to protect BENM objects in a manner that respects traditional uses, values, and perspectives of Tribal Nations. The agencies would also seek input from the MAC when developing implementation-level plans, including RAMPs on BLM-administered lands. Under all alternatives, implementation-level plans would be developed with the BEC and would address restoration of dispersed campsites and redundant or user-created trails and routes if they impact BENM objects. Closure or restoration of campsites or trails could lead to greater concentrations of recreation in other portions of the Monument, which could diminish some types of recreational experiences.

Traditional Indigenous Knowledge and Indigenous ways of knowing would be given equal consideration with the Western scientific paradigm when designing educational materials, which would expand the educational materials available to visitors and provide a more comprehensive picture of the history of BENM. These new educational materials would present a service to visitors wishing to learn more about the history and significance of BENM and would teach visitors to use proper respect and etiquette when interacting with the landscape, benefiting visitors of all backgrounds who wish to experience BENM.

Resource management actions that would limit or prohibit surface disturbance to protect Monument resources and objects would likely benefit recreation visitors seeking more remote experience.

BLM SRPs and USDA Forest Service SUPs would be used to protect recreation objectives; manage visitor use; protect recreational and natural resources; and provide for visitor health and safety while protecting BENM objects. The Monument constitutes a special area, and ISRPs and associated permits could constrain some recreational opportunities and impose limitations on those who are unable to obtain permits but could also facilitate quieter, uncrowded recreation opportunities.

There are no areas designated as OHV open in BENM. OHV limited areas would be provided under all alternatives, although in different quantities of acres and distributions across the BENM landscape. See Section 3.5.8 for additional analysis of travel management impacts.

ROS classifications on NFS lands would be the same under all action alternatives, as shown in Table 3-136. Because ROS management would not change, OHV access and non-motorized access on the NFS lands of BENM would remain constant.

The BLM manages units of land as open, limited, or closed to OHV use. "OHV open" areas do not regulate cross-country OHV travel (BLM 2016b). "OHV limited" areas are managed with one or more defined limitations on vehicular uses or users that may be spatial, temporal, and/or directed toward specific vehicle type or users (BLM 2016b). The standard limitation is limiting vehicular use to designated routes. "OHV closed" areas are managed as closed to all OHV use to protect resources, promote visitor safety, or reduce user conflicts (BLM 2016b). Cross-country OHV travel would be prohibited under all alternatives (Table 3-137). OHV users could be impacted due to limitations or closures in LWC managed to conserve wilderness characteristics, which may impact the ability of specialized user groups to recreate in LWC and redirect such users to areas where OHV travel is allowed; however, management aimed at preserving LWC would benefit recreation, especially for remote recreation users. Characteristics such as solitude and remote recreational opportunities would be preserved due to closures imposed on surface-disturbing activities and other uses.

Like LWC, ACECs would close areas to OHV use or limit OHV and mechanized routes, limiting the ability of such user groups to recreate in ACECs. In ACECs, camping or recreational use may be restricted to protect ACEC relevant and important values such as cultural sites. Such management, while limiting access to relevant and important values, would preserve those values far into the future by preventing incidental impacts from visitors interacting with ACEC resources.

WSR designations could also lead the BLM to manage such areas as closed to OHV use or motorized boating use, and WSAs would also be managed as closed to OHV use. This would limit recreational opportunities for motorized users while preserving the naturalness of recreation experiences for non-motorized users. Limitations may be implemented on camping in WSAs. This would limit recreational opportunities in such areas and redirect visitors to other areas of the

Monument. SRPs for certain uses would also be prohibited in WSAs, limiting the ability for competitive events, vending, and OHV/motorized uses to occur and redirecting these users to other areas.

Cultural resource management actions are intended to protect Monument objects listed in Proclamation 10285 and areas of cultural significance. Areas of BENM could be subject to closures by the agencies after coordination with the BEC. Proactively working with the BEC to determine proper strategies to address potential impacts to BENM objects, including educating visitors about Indigenous peoples' connections to BENM, teaching etiquette to avoid impacts to cultural resources, and, if necessary, constraining levels of recreational visitation, should support integrating Traditional Indigenous Knowledge into the management of recreational use. Such limitations or controls on visitation would impact the ability of some visitors to recreate and could prevent visitation to some sites on the Monument, potentially detracting from BENM's recreational potential; however, such controls may have beneficial impacts to some visitors' experiences by reducing crowds and mitigating evidence of visitation in some areas of BENM. Additionally, cultural resource sites could be closed when their condition is at risk or when there is a safety hazard. This would limit recreational opportunities in such areas and redirect visitors to open areas of the Monument.

Pets would be prohibited in archaeological resource sites except historic roads and trails, which could constrain the recreational opportunities for visitors with pets but also manage for protection of BENM objects.

Trails in Shay Canyon could be closed or rerouted if impacts to paleontological resources from recreational use are persistently indicated through monitoring; trails could also be closed seasonally to allow for resource rest. In areas where paleontological resources are detected, trails and access points could be closed or rerouted and other appropriate actions would be taken to avoid impacts to such resources under all alternatives. This could impact the ability of visitors to access or interact with paleontological resources but would benefit users in the long term by preserving such resources in perpetuity.

Management actions to protect soil resources could benefit some recreational users by reducing evidence of use and improving the natural characteristics of BENM. The agencies would work with the BEC to determine protections to BSCs, which may close some areas to visitation during periods of drought or during ceremonially or traditionally significant times of year, limiting off-trail recreational opportunities in parts of the Monument. Management actions aimed at enhancing landscape/riparian/watershed function and maintaining the desired vegetation types and structural stages would benefit recreational experiences by improving the natural character of riparian and wetland areas. Limitations to dispersed recreation use in riparian areas or areas where water quality conditions are being impacted by recreational uses would reduce recreational opportunities in BENM.

Vegetation management would manage culturally important plants to protect them from recreation. This would limit recreational opportunities and may redirect visitors to open areas. Areas could be seasonally closed to seed gathering, which could impact the ability of recreationists to access certain areas of BENM and to engage in private seed collecting activities.

Wood product harvest would continue to be excluded from all developed recreation areas, thereby protecting the natural appearance, vegetative screening and tree shade for recreational users in developed sites. Additional restrictions for on-site down and dead wood for campfires in certain locations would reduce the potential for damage to cultural sites from human-caused wildland fire and reduce the chance of inadvertent collection of wood from archaeological sites.

Management decisions to protect habitat connectivity through vegetation management, conserving habitat connectivity, and prioritizing special status species movements would restore the natural characteristics of the landscape and improve the potential for wildlife viewing. Such management would benefit visitors seeking more remote recreational experiences. Protection of special status species could warrant seasonal or other area closures, restricting recreational activities on certain portions of BENM and impacting recreational potentials. Seasonal restrictions or closures on areas or activities would occur to protect raptor nesting and foraging habitat, provide natural resource rest, and support traditional uses. Closures for big game habitat would likely cause temporary annual closures to recreational activities in certain areas of BENM but would protect the natural quality of the recreation setting by allowing for resource rest and wildlife habitat.

Seasonal restrictions on use in MSO PACs for both commercial and private users would constrain recreational opportunities.

Grazing would be excluded from developed recreation facilities and cultural sites designated as Public Use (Developed) and may be seasonally limited for the purpose of resource rest, which should continue reduce conflicts between livestock and recreational uses.

Fire management such as fuels treatments could close areas of BENM to visitation, temporarily constraining recreational opportunities under all alternatives; however, fuels reduction treatments should support future recreational opportunities by reducing the potential safety risks to recreationists from uncharacteristic wildfires.

Visual resources, night skies, and soundscapes management would likely benefit recreational users and other BENM visitors seeking remote recreational experiences.

Table 3-138 provides additional details on the impacts to recreational activities under each alternative.

Table 3-136. USDA Forest Service Recreation Opportunity Spectrum Classes under Alternatives A, B, C, and D

ROS Classes	Acres under Alternative A	Acres under Alternatives B, C, and D
Primitive	45,884	48,440
Roaded Natural	65,946	25,700
Semi-Primitive Motorized	151,320	86,163
Semi-Primitive Non-Motorized	25,906	128,752
Total	289,056	289,055

Table 3-137. Off-Highway Vehicle Designations on BLM-Administered and National Forest System Lands under All Alternatives

Travel and Transportation Management	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
BLM OHV closed	389,645	389,645	487,048	808,630	392,989	591,185
BLM OHV limited	685,403	685,403	588,000	266,429	682,059	483,917
BLM OHV open	0	0	0	0	0	0
NFS OHV closed	46,430	176,982	176,982	176,982	176,982	46,430
NFS OHV limited	242,677	112,122	112,122	112,122	112,122	242,677
Total	1,364,155	1,364,152	1,364,152	1,364,153	1,364,152	1,364,209

Table 3-138. Targeted Recreational Activities by Alternative

Targeted Activities	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Backpacking	Acres: 38,220	Acres: 535,367	Acres: 535,367	Acres: 374,066	N/A	Acres: 62,524
	Canyon Rims SRMA, Dark Canyon SRMA	Cedar Mesa SRMA, Cedar Mesa Backpacking RMZ, Dark Canyon ERMA, Dark Canyon Backpacking RMZ, White Canyon ERMA, White Canyon Canyoneering RMZ, Beef Basin ERMA	Cedar Mesa SRMA, Cedar Mesa Backpacking RMZ, Dark Canyon ERMA, Dark Canyon Backpacking RMZ, White Canyon ERMA, White Canyon Canyoneering RMZ, Beef Basin ERMA	Cedar Mesa Management Area, Cedar Mesa Backpacking Management Zone, Dark Canyon Management Area, White Canyon Management Area		Cedar Mesa Backpacking Sub-Area, Dark Canyon Management Area, White Canyon Canyoneering Sub-Area
Camping (Developed)	Acres: 95,574	Acres: 424,862	Acres: 424,862	Acres: 420,659	N/A	Acres: 16,935 (Front Country and Passage Zones only)
	Indian Creek SRMA, Canyon Rims SRMA	Indian Creek SRMA, Cedar Mesa SRMA, San Juan River SRMA, Sand Island RMZ, Goosenecks RMZ	Indian Creek SRMA, Cedar Mesa SRMA, San Juan River SRMA, Sand Island RMZ, Goosenecks RMZ	Indian Creek Management Area, Cedar Mesa Management Area, San Juan River Management Area, Sand Island Management Zone		Cedar Mesa Management Area, Indian Creek Management Area, San Juan River Management Area, Valley of the Gods Management Area, Natural Bridges Overflow Sub-Area
Camping (Dispersed)	Acres: 90,163	Acres: 293,616	Acres: 293,616	Acres: 93,483		Acres: 152,847
	Indian Creek SRMA	Indian Creek SRMA, Canyon Rims SRMA, Dark Canyon ERMA, White Canyon ERMA, Valley of the Gods ERMA, Goosenecks RMZ	Indian Creek SRMA, Canyon Rims SRMA, Dark Canyon ERMA, White Canyon ERMA, Valley of the Gods ERMA, Goosenecks RMZ	Indian Creek Management Area, Canyon Rims Management Area, Dark Canyon Management Area		White Canyon Management Area, Natural Bridges Overflow Sub-Area, Valley of the Gods Management Area
Canyoneering	Acres: 2,825	Acres: 124,827	Acres: 124,827	Acres: 7,222	N/A	Acres: 7,025
	White Canyon SRMA	White Canyon ERMA, White Canyon Canyoneering RMZ	White Canyon ERMA, White Canyon Canyoneering RMZ	White Canyon Management Area		White Canyon Canyoneering Sub-Area
Climbing	Acres: 90,163	Acres: 74,783	Acres: 74,783	Acres: 67,267	N/A	Acres: 75,036
	Indian Creek SRMA	Indian Creek SRMA	Indian Creek SRMA	Indian Creek Management Area		Indian Creek Management Area

Targeted Activities	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Cultural site visitation	Acres: 516,446	Acres: 449,849	Acres: 449,849	Acres: 420,659	N/A	Acres: 421,903
	Indian Creek SRMA, Shash Jáa SRMA, Cedar Mesa SRMA, Tank Bench SRMA, Comb Ridge RMZ	Indian Creek SRMA, Cedar Mesa SRMA, Comb Ridge RMZ, Cedar Mesa Backpacking RMZ, Arch Canyon RMZ, Moon House RMZ, San Juan River SRMA, Sand Island RMZ, San Juan Hill RMZ, Beef Basin ERMA	Indian Creek SRMA, Cedar Mesa SRMA, Comb Ridge RMZ, Cedar Mesa Backpacking RMZ, Arch Canyon RMZ, Moon House RMZ, San Juan River SRMA, Sand Island RMZ, San Juan Hill RMZ, Beef Basin ERMA	Indian Creek Management Area, Cedar Mesa Management Area, Cedar Mesa Backpacking Management Zone, Moon House Management Zone, San Juan River Management Area, Sand Island Management Zone		Cedar Mesa Management Area, Cedar Mesa Backpacking Sub-Area, Comb Ridge Sub-Area, Arch Canyon Sub-Area, Moon House Sub-Area, Indian Creek Management Area, San Juan River Management Area, San Juan Hill Sub-Area
Heritage Tourism		Acres: 1,717	Acres: 1,717		N/A	Acres: 1,693
		San Juan Hill RMZ	San Juan Hill RMZ			San Juan Hill Sub-Area
Hiking	Acres: 7,411	Acres: 344,628	Acres: 344,628	Acres: 348,042	N/A	Acres: 341,523
	Canyon Rims SRMA	Cedar Mesa SRMA, Cedar Mesa Backpacking RMZ, Arch Canyon RMZ	Cedar Mesa SRMA, Cedar Mesa Backpacking RMZ, Arch Canyon RMZ	Cedar Mesa Management Area, Cedar Mesa Backpacking Management Zone		Cedar Mesa Management Area, Comb Ridge Sub-Area, Arch Canyon Sub-Area, Moon House Sub-Area
Mountain Biking	Acres: 7,411				N/A	
	Canyon Rims SRMA					
OHV Opportunities	Acres: 95,574	Acres: 153,254	Acres: 153,254		N/A	Acres: 118,452
	Indian Creek SRMA, Canyon Rims SRMA	Arch Canyon RMZ, White Canyon ERMA, Beef Basin ERMA	Arch Canyon RMZ, White Canyon ERMA, Beef Basin ERMA			Arch Canyon Sub-Area, White Canyon Management Area
River Boating	Acres: 5,643	Acres: 5,355	Acres: 5,355	Acres: 5,350	N/A	Acres: 5,343
	San Juan River SRMA, San Juan Hill RMZ	San Juan River SRMA, Sand Island RMZ	San Juan River SRMA, Sand Island RMZ	San Juan River Management Area, Sand Island Management Zone		San Juan River Management Area
Scenic Driving	Acres: 7,411	Acres: 390,391	Acres: 390,391	Acres: 382,431		Acres: 569,407
	Canyon Rims SRMA	Cedar Mesa SRMA, Valley of the Gods ERMA	Cedar Mesa SRMA, Valley of the Gods ERMA	Cedar Mesa Management Area, Valley of the Gods Management Area		Cedar Mesa Management Area, Valley of the Gods Management Area, White Canyon Management Area, Indian Creek Management Area

Targeted Activities	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Visiting Scenic Overlooks	Acres: 423,663 Indian Creek SRMA, Canyon Rims SRMA, Cedar Mesa SRMA	Acres: 7,414 Canyon Rims SRMA	Acres: 7,414 Canyon Rims SRMA	Acres: 7,414 Canyon Rims Management Area	N/A	
Visitor education (including etiquette at cultural sites)	Acres: 433,693 Shash Jáa SRMA, Canyon Rims SRMA, Cedar Mesa SRMA, Tank Bench SRMA	Acres: 14,184 Indian Creek Corridor RMZ, Trail of the Ancients RMZ, Arch Canyon RMZ, Moon House RMZ	Acres: 14,184 Indian Creek Corridor RMZ, Trail of the Ancients RMZ, Arch Canyon RMZ, Moon House RMZ	Acres: 10,840 Indian Creek Corridor Management Zone, Trail of the Ancients Management Zone, Moon House Management Zone	N/A	Acres: 595,415 Indian Creek Management Area, San Juan River Management Area, Cedar Mesa Management Area, Dark Canyon Management Area, White Canyon Management Area, Valley of the Gods Management Area

3.5.7.2.2. Impacts under Alternative A

Alternative A represents current management actions enacted under the plans that manage areas covered by the Planning Area: the 2020 ROD/MMPs, the 2008 Monticello RMP, the 2008 Moab RMP, and the 1986 Manti-La Sal LRMP. Alternative A provides the fewest regulations and limits on recreation, benefiting existing recreational users by keeping the majority of recreational opportunities open to the greatest extent possible.

Alternative A would continue to strive to locate recreational activities near population centers and highway corridors and would provide facilities for recreationists where there are concentrations of users. Such management would direct recreational users to more concentrated areas, potentially resulting in crowding, while preserving the naturalness of more remote areas of the Monument. Hiking trails would be developed if they are consistent with maintaining BENM objects, and redundant hiking trails and social trails would be closed and reclaimed. Facilities would be provided that are adequate for current and anticipated uses. Restrictions on filming activity would preserve remote recreational experiences, as would limitations on aircraft use associated with commercial filming.

In the areas covered by the 2020 ROD/MMPs, casual collecting of petrified wood and fossils would not be allowed, thereby maintaining the recreational values of the Monument setting and preserving paleontological resources for the enjoyment of future visitors. The prohibition of casual fossil collection and casting would impact the opportunities of recreational collectors but would benefit other visitors by leaving such resources intact for future recreationists to experience. In the areas covered by the 2020 ROD/MMPs, camping would be prohibited in cultural resource sites, protecting those resources for future recreationists. In the rest of BENM, dispersed camping would be allowed where not specifically restricted, providing additional recreational opportunities for dispersed camping, but potentially impacting cultural resources.

Pets would continue to be required to be kept under control at all times and would be prohibited at alcoves, rock writing sites, or archaeological sites in areas covered by the 2020 ROD/MMPs. Under the 2008 Monticello RMP, pets would not be allowed in certain canyon systems in the Cedar Mesa SRMA. Such management would place greater responsibility on pet owners recreating in the Monument and could limit where such visitors can recreate when accompanied by pets; however, this management would likely reduce visitor conflict, promote safety on BENM, and protect resources from incidental impacts from pets.

SRPs and SUPs would continue to be used as described in Section 3.5.7.2.1. Permits systems for public use would be in place, or put in place as necessary, for areas of Shash Jáa SRMA, Cedar Mesa SRMA, McLoyd Canyon-Moon House RMZ, San Juan River SRMA, Dark Canyon SRMA, White Canyon SRMA, and Arch Canyon RMZ (NFS lands), and would result in impacts as discussed in Section 3.5.7.2.1.

Alternative A would continue to use ROS classes to manage NFS lands (Table 3-136).

Alternative A would maintain the fewest acres as OHV closed and would provide the most OHV limited acreage, which would continue to provide the most OHV recreation opportunities compared to the other alternatives (see Table 3-137). Such management could lead to increased conflicts between user groups and could impact the experiences of non-motorized users given the character of their surroundings, and as described in Section 3.5.7.2.1.

Recreational shooting activities would continue to be generally allowed under Alternative A except for areas covered by the 2020 ROD/MMPs, where target shooting is prohibited at campgrounds or

developed recreation sites, rock writing sites, and structural cultural sites. This management would continue to result in potential conflicts between user groups over recreational shooting and could lead to health and safety issues as visitation to the Monument increases.

The BLM would continue to manage the existing 10 SRMAs (577,498 acres) and two ERMAs (500,188 acres within BENM), and a total of 112,508 acres would continue to be managed as RMZs. These areas would be managed using a management framework that identifies targeted recreational activities and outcomes and management actions prescribed to each RMA. Alternative A designates the most acres of SRMAs, allowing the BLM to manage and protect specific recreational opportunities and experiences on BENM (Table 3-138).

3.5.7.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. Management under Alternative B would limit or restrict public use as little as possible without compromising the protection of BENM objects. Alternative B would provide the most on-site interpretation and educational materials. Alternative B outlines an extensive list of areas where recreation sites would be developed, maintained, or improved, to the benefit of recreationists who use these facilities.

Dispersed camping would be allowed with the following exceptions: closures could be implemented seasonally as impacts at dispersed campsites warrant, camping would be limited in or near riparian areas and water sources if impacts are detected, and camping in non-designated sites would not be allowed near springs and water improvements. This would inhibit recreational users from camping in certain areas or during certain times of the year and could result in limited campsite availability and crowding in other camping areas that remain open. Additionally, camping would be prohibited within cultural resource sites under Alternative B, providing similar protection to cultural resources as discussed in Alternative A, but across the entire Monument. No visitors would be allowed into the interior rooms of cultural sites except in structures that are specifically identified as open to entry. Although this could restrict the ability of some visitors to experience these cultural resources, visitors would ultimately benefit from such management because it would prolong the preservation of such resources and sites. Under Alternative B, redundant hiking trails and social trails would be closed when new hiking trails are designated, unless consistent with the protection of BENM objects. This may provide for more trails than under Alternative A, providing more recreational opportunities for recreational users.

Filming would only be prohibited in designated wilderness and would be limited in areas with sensitive natural or cultural resources. The use of aircraft for filming would only be allowed for up to 2 days in areas of high recreational use and would only be allowed within 0.5 mile of designated campgrounds during low use times. Such decisions would preserve remote recreational experiences and ensure that natural settings are not adversely impacted for long periods of time by filming operations.

Agencies would also collaborate with the BEC when creating or updating recreation permits, which would involve creating stipulations to educate users about BENM rules and regulations and limiting use levels where necessary. Such management should increase permit holders' knowledge of how to be prepared and recreate responsibly.

Agencies would collaborate with the BEC to provide for the protection of paleontological resources and the protection of BENM objects while providing public access to those resources for scientific education and study, and casting would be by permit only. The prohibition on casual fossil

collection would impact the opportunities of recreational collectors but would benefit other visitors by leaving such resources intact for future recreationists to experience.

Pet restrictions would include prohibition in certain RMAs and RMZs and requirements of being under voice or leash control. Additionally, pets must not harass or harm wildlife, stock or cattle, or visitors and their pets. Pets would be prohibited from swimming in potholes and springs, and pet waste disposal requirements would be identical to human waste disposal requirements. Impacts to recreationists from pet restrictions would be similar to those described under Alternative A, but to a larger magnitude.

SRPs and SUPs would also be used to provide educational opportunities for visitors about BENM, with materials developed in conjunction with the BEC. All SUPs and SRPs would be consistent with the protection of BENM objects. Such management would enrich the educational opportunities provided to SUP and SRP users on the Monument. Alternative B would close 617,625 acres of BENM to competitive mechanized or motorized activities, restricting where such user groups could host such activities but potentially reducing user group conflict and creating more non-motorized or non-competitive motorized opportunities. Overall, however, impacts to existing competitive motorized or competitive mechanized events would likely be limited because the area closure would not overlap with areas where such competitive events are typically held on BLM-administered lands and because there are only two competitive mechanized events in BENM on NFS lands. Permits systems for public use would be in place, or put in place as necessary, for areas of Cedar Mesa RMZ, Moon House RMZ, San Juan River SRMA, and Dark Canyon SRMA. Impacts of permit systems to recreation opportunities would be similar to those described in Section 3.5.7.2.1.

Alternative B would close more areas to OHV use than Alternative A while also providing fewer acres of OHV limited areas; however, of all the action alternatives, Alternative B would provide the most acreage of OHV limited and close the fewest acres to OHV use (see Table 2-1). This would benefit OHV users while also resulting in potential user group conflicts and potentially damaging recreational settings in OHV limited areas by increasing noise and dust levels. Motorized aircraft and UAS takeoff and landing would be limited to the Bluff Airport, the Fry Canyon Airstrip, and to routes identified via implementation-level planning, limiting the potential for using motorized aircraft and UASs on the Monument. Such management would limit noise pollution and preserve backcountry and remote social RSCs in areas where those settings are desired, likely improving the experience of non-motorized, non-UAS recreational users.

Recreational shooting activities would be further prohibited within the San Juan River SRMAs and Indian Creek Corridor RMZs. In problem areas, the BLM would post restrictions and would consider additional recreational shooting closures. This would result in potential conflicts between user groups and health and safety concerns where recreational shooting would be permitted. An additional 8,814 acres would be closed to recreational shooting compared to Alternative A.

The BLM would coordinate with the BEC and the MAC when developing RAMPs for BENM RMAs. RAMPs could include temporary closures of recreation areas for various reasons, including to preclude disturbance during Indigenous peoples' traditional and ceremonial uses. These closures would reduce the availability of recreational opportunities at certain times of the year and would redirect recreationists to open areas of BENM.

The BLM would manage four SRMAs (432,180 acres) and four ERMAs (236,502 acres). Additionally, the BLM would establish 14 RMZs (112,615 acres). Alternative B would include the greatest acreage of designated SRMAs, ERMAs, and RMZs of all action alternatives (although Alternative A would designate the most acres of SRMAs). Additionally, of all alternatives, Alternative B would manage for the most acres of RSCs, which would allow the BLM to manage

areas to intentionally preserve or enhance their social, operational, and physical qualities (see Table 3-138, see Appendix E).

Camping would be allowed in designated sites and areas or developed campgrounds in the Indian Creek and Canyon Rims SRMAs, Arch Canyon RMZ, and Dark Canyon Backpacking RMZ and in designated campsites along designated routes in Cedar Mesa SRMA and Valley of the Gods ERMA. There would be no dispersed camping at San Juan Hill RMZ. These restrictions on camping activity would reduce the availability of campsites on the Monument for visitors and may result in crowding at designated campgrounds; however, this management would preserve areas of the Monument for future enjoyment, protecting certain areas from dispersed camping encroachment and allowing areas previously used for dispersed camping that are not designated in the future to recover.

No pets or pack animals would be allowed in the Doll House RMZ, which could limit where pet owners could recreate or present difficulties for those relying on pack animals for recreational activities.

All new bolts, anchors, or fixed gear on new climbing routes in the Indian Creek SRMA would require BLM approval. This would limit the ability of climbers to set new climbing routes but would benefit other visitors by preserving cultural resources, visual characteristics, and wildlife habitat, thereby conserving the natural character of the Monument.

Solid human waste would be required to be carried out in Indian Creek SRMA, Comb Ridge RMZ, Cedar Mesa Canyons RMZ, Moon House Remote RMZ, San Juan River SRMA, Dark Canyon Backpacking RMZ, White Canyon Canyoneering RMZ, Natural Bridges Overflow RMZ, Beef Basin ERMA, Valley of the Gods ERMA, and Doll House RMZ. This management would impact recreationists in any of these designated areas of the Monument and would add difficulty to backpacking trips, particularly longer trips. This management would also impact visitor experiences at trailheads, where such waste may be improperly disposed; however, this management would preserve these areas for future visitors by minimizing visitor impact, especially if visitation continues to increase.

3.5.7.2.4. Impacts under Alternative C

Impacts under Alternative C would be similar to Alternative B with the following exceptions. Alternative C would mainly confine on-site interpretational materials to public use areas. In areas without recreational development, Alternative C would provide mostly off-site interpretational materials unless required on-site to address impacts to Monument objects. The same management would apply to NFS Semi-Primitive Non-Motorized and Primitive ROS classes and would benefit users at developed sites by providing adequate information while retaining the remote quality of more remote areas by reducing on-site interpretive infrastructure. Existing facilities would be maintained, and new facilities would be placed in high-use areas as needed. Trail cameras would be allowed via permit only, impacting hunters' ability to track the movements of game animals with remote cameras on BENM but preserving wildlife and benefiting hunters who do not have the advantage of game camera access.

If water is scarce, agencies would monitor waterbodies to determine necessary restrictions on recreational water pumping or purification activities under SRPs or ISRPs to maintain habitat for aquatic organisms. This restriction may impact the ability of permittees to recreate in certain areas of the Monument at certain times of the year.

Permits systems for public use would be in place, or put in place as necessary, for areas of Indian Creek SRMA, Cedar Mesa SRMA, Arch Canyon RMZ (BLM-administered land), Moon House RMZ,

San Juan River SRMA, Dark Canyon ERMA, White Canyon ERMA, Beef Basin ERMA, and Valley of the Gods ERMA. Impacts of permit systems to recreation opportunities would be similar to those described in Section 3.5.7.2.3 but would apply to a much larger portion of the Monument. Although ISRPs may be free, if fees were to be applied to ISRPs in all or most of these areas, the fees could become a financial burden for recreational users and thus may concentrate users in those areas without fees.

Alternative C would have more acres closed to OHV travel and fewer acres designated as OHV limited compared to Alternative A (see Table 2-1). All LWC would be OHV closed; impacts would be as described in Section 3.5.7.2.1, and impacts to outstanding opportunities for primitive and unconfined recreation or solitude from OHV presence and noise would be reduced. UAS use would be prohibited except at Bluff Airport and Fry Canyon Airstrip and where allowed by permit, limiting the potential for using UASs on the Monument. Such management would limit noise pollution and preserve backcountry and remote social RSCs in areas where that is the desired setting, likely improving the experience of non-motorized, non-UAS recreational users.

Recreational shooting would be prohibited in the Indian Creek SRMA, adding an additional 74,783 acres of recreational shooting closure. The nature of management impacts would be identical to those under Alternative B except in the Indian Creek SRMA, where those who wish to engage in recreational shooting would no longer be able to do so in that area.

The designation of SRMAs and RMZs, and, to a lesser degree, ERMAs, would serve to manage and protect specific recreational opportunities and experiences on BENM. SRMAs and RMZs, in particular, benefit recreational resources and experiences by setting management strategies for recreational values and characteristics within their boundaries. Measurable outcomes, focused objectives, and management actions guiding types and levels of use are attached to each SRMA and RMZ (see Appendix E). RAMPs would be developed for RMAs and could include temporary closures of recreation areas for various reasons, including to preclude disturbance during Indigenous peoples' traditional and ceremonial uses. These closures would reduce the availability of recreational opportunities at certain times of the year and would redirect recreationists to open areas of BENM.

In Indian Creek SRMA and Cedar Mesa SRMA, all camping activity would require ISRPs, and group size limitations would be imposed on dispersed camping. Similarly, in the Natural Bridges Overflow RMZ and Valley of the Gods ERMA, campsites would be designated; camping would then be restricted to designated sites and would require a permit. In Arch Canyon RMZ, camping would be allowed only in designated camping areas, and designated dispersed camping would not be allowed in MSO PACs from March 1 to August 31. There would be no dispersed camping in San Juan Hill RMZ. In Canyon Rims SRMA, Comb Ridge RMZ, and Dark Canyon Backpacking RMZ, camping would be restricted to designated sites or developed campgrounds. These restrictions on camping activity, particularly those related to MSO PACs, would drastically reduce the availability of campsites on the Monument for visitors and may result in crowding at designated campgrounds; however, this management would preserve areas of the Monument for future enjoyment, protecting certain areas from dispersed camping encroachment and allowing areas previously used for dispersed camping that are not designated in the future to recover.

ISRPs would also be required for all climbing activities, and group size limits would be imposed. The permit requirement and group size limits might reduce the number of recreationists allowed to access the climbing at Indian Creek SRMA or place additional financial burdens on climbers, but would benefit some users by reducing crowding and preserving both the quality of the rock and the natural character of the SRMA. The requirements for agency approval of new bolts, anchors, and fixed gear for new routes would result in the same impacts as described in Section 3.5.7.2.1.

3.5.7.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternatives B and C with the following exceptions. Alternative D would place more restrictions and limits on recreational use in low use areas. Such restrictions would impact users seeking more remote recreation experiences on BENM. Alternative D would allow for implementing restrictions on some or all types of recreation in areas of BENM as necessary to protect other resources, specifically those named as Monument objects. Such closures would limit recreational access to such areas of BENM and likely redirect visitors to open areas of the Monument, potentially resulting in crowding but allowing for needed resource rest and potential recreation benefits if such areas are reopened. If on-site interpretational materials are required, they would mainly be used at cultural sites allocated for Public Use (Developed) and for Roaded Natural and Semi-Primitive Motorized designations. These restrictions for on-site interpretive materials would also apply to other mitigation measures, such as fences, site stabilization, and development of trails to protect cultural resources. In areas without recreational development, Alternative D would provide mostly off-site interpretational materials unless required on-site to address impacts to Monument objects. Such management would benefit users at Public Use (Developed) sites by providing adequate information while retaining the remote quality of more remote areas of the Monument by reducing on-site interpretive infrastructure.

Pet restrictions in Management Areas and Management Zones would be carried over from Alternative A until implementation-level plans are written. Impacts would initially be similar to those under Alternative A, but could change in implementation-level plans.

SRP size thresholds would be determined as needed in implementation-level plans. Permit systems would be the same as Alternative A until implementation-level planning, which would result in continuation of impacts as described under Alternative A.

Under Alternative D, hiking impacts would be the same as those described under Alternative A until implementation-level planning is completed. Swimming or bathing in in-canyon stream/pool habitat would be prohibited in BENM. This would limit aquatic recreational opportunities in such areas. Recreationists would be encouraged not to pump from any water sources, which would increase the complexity and difficulty of multi-day backpacking trips in places like Dark Canyon and Grand Gulch.

Alternative D would maintain existing developed facilities until implementation-level or site-specific planning is completed. Facilities not serving an administrative, resource protection, public education, or public safety purpose would be removed. No new facilities would be developed under Alternative D except for the explicit purpose of protecting BENM objects, and levels of maintenance or improvement would be determined in subsequent planning efforts. Such management could lead to crowding in areas where resources are provided and might lead to increased impacts such as damage to cultural resources or improperly disposed of human waste in more remote areas due to lack of education and facilities. This would limit services for recreationists in certain areas of the Monument but could benefit those seeking more remote experiences by reducing crowding in areas where services are unavailable. Camping would not be allowed within 0.25 mile of springs and water improvements, unless in a designated site. This would close more camping opportunities than under Alternative A, potentially leading to crowding or heavy use at designated sites. Additionally, there would be limitations imposed based around MSO PACs, such as no MSO PAC overnight use from March 1 to August 31. These closures, combined with new camping regulations in areas that may overlap the PAC, could drastically limit camping opportunities during the PAC restriction season. Approximately 5.64 miles of Dark Canyon routes, including Black Steer Canyon, 0.33 mile of Fable Valley Trail, 2.85 miles of Hammond Canyon, 2.07 miles of Horse Pasture

Canyon, and 1.79 miles of Texas Trail would be impacted by this MSO PAC closure for camping activity, potentially making backpacking trips in canyon settings more difficult.

No commercial filming would be allowed. No film permits would be issued in WSAs. The use of aircraft for filming would not be allowed. Such decisions would preserve remote recreational experiences and ensure that natural settings are not adversely impacted by filming operations. Alternative D would also prohibit competitive mechanized or motorized activities throughout BENM, restricting where such user groups may host such activities but likely reducing user group conflict and creating more non-motorized or non-competitive motorized opportunities. Alternative D designates the fewest acres of OHV limited areas, which would impact OHV users' ability to recreate in the majority of the Monument. Approximately 190 miles of existing routes would be within the OHV closed area. Of the routes that would be closed, the majority are short spur routes (some for camping) and rarely used routes, but named routes and route networks, including Arch Canyon, Bull and Imperial Valleys, Lavender Mesa Bench, routes on Baullie Mesa, Lower Mule Canyon and Moqui Canyon would be located within the OHV closed area. This would preserve naturalness and improve the experience for non-motorized users by reducing impacts from OHV use such as noise and dust but would also remove access to some OHV and permitted opportunities on NPS lands. UAS use would be prohibited except at Bluff Airport, Fry Canyon Airstrip, and where allowed by permit. Such management would limit noise pollution and preserve backcountry and remote social RSCs in areas where that is the desired setting, likely improving the experience of non-motorized recreational users.

Recreational shooting would be prohibited as under Alternative C, with the addition of all WSAs, recommended wilderness, and LWC. This management would have impacts of the same nature as Alternative C but would close more of the Monument to recreational shooting, which would further reduce the area available to those who wish to engage in recreational shooting. Within WSAs and LWC, prohibiting recreational shooting would ensure that naturalness, outstanding opportunities for solitude, visual resources, wildlife, and cultural sites remain undisturbed. Sufficient alternative sites for recreational shooting would still be available within and outside the Monument, especially closer to populated areas to the east.

Under Alternative D, the BLM would manage 561,263 acres as Management Areas. Management of Management Areas is similar to management of ERMA's under H-8320-1. The BLM would establish seven Management Zones comprising 72,733 acres. As a result, the BLM would only manage for specific recreational values and prospects in a subset of the Monument. This, in turn, would limit recreation potential and opportunities for users in certain areas of BENM and concentrate use in areas that are managed for recreational purposes. This management could potentially make it more difficult for the BLM to manage areas intentionally for specific recreation objectives and outcomes, activities, and settings than under Alternatives A, B, and C.

The BLM and the BEC would develop management plans for all Management Areas and Management Zones. In the interim, existing implementation-level decisions, including but not limited to existing permit systems, allocations, group size limits, camping restrictions, fire pan requirements, fire restrictions, pet restrictions, SRP requirements, and human waste restrictions applied to the RMAs in Alternative A would remain. In the future, camping areas would be designated, as needed, to reduce user conflicts, provide for public safety, and protect BENM objects in Cedar Mesa Management Area, San Juan River Management Area, Dark Canyon Management Area, and White Canyon Management Area. In Canyon Rims Management Area, camping would be restricted to designated sites or developed campgrounds. In the San Juan River Management Area, campsites would be for permitted users only, and camping would only be allowed in the designated campground in Sand Island Management Zone. Camping would also be prohibited at Moon House Management Zone. These restrictions on camping activity, combined with the fact that camping

activity on BENM is not evenly dispersed across the Monument, but rather concentrated in certain areas, would reduce the availability of campsites on the Monument for visitors and may result in crowding at designated campgrounds; however, new campgrounds and new designated dispersed camping could be developed in areas that receive heavy use.

No new SUPs would be issued to the Doll House Management Zone, and existing permits would not be renewed. This may preclude certain visitors from experiencing the Doll House Structure and could impact current SUP holders such as guides and outfitters in a financial sense. The general public, who are not subject to the same stipulations and educational measures as those under an SUP, would continue to be allowed to visit the site, potentially reducing the educational quality of the experience of visitors at this site and resulting in less regulated visitor behavior.

3.5.7.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternatives B, C, and D with the following exceptions. Under Alternative E, the agencies would work with BEC to create an interpretation plan for visitation, using a zoned approach to designate areas, including Front Country, Passage, Outback, and Remote Zones. The management outlined in Alternative E would be centered on the perspective of the Tribal Nations of the BEC (BEC 2023).

Alternative E would implement elements such as permits and fees (as necessary) and user number limitations across the entire Monument to limit or control recreational uses that impact Monument objects. Permits would be required for recreational river trips on the San Juan River and all private day and overnight use in all canyons, which would provide for increased visitor education on the cultural landscape of BENM, Monument rules and regulations, and where penalties and fines apply for permit violations. Impacts to recreationists from permits would be similar, but greater in magnitude than those described in Section 3.5.7.2.2, because permits would be required for a much larger portion of the Monument.

Alternative E would implement area closures as necessary to prevent recreation-caused damage. Such closures would limit recreational access to such areas of BENM and likely redirect visitors to open areas of the Monument, potentially resulting in crowding but allowing for needed resource rest and potential recreation benefits if such areas are reopened. Agencies would monitor waterbodies to identify areas where recreational water pumping activities may need to be limited to protect BENM objects. Such management may impact the ability of recreationists to engage in multi-day recreational activities such as backpacking in certain areas of the Monument when pumping limitations are necessary.

Pets would be prohibited in a number of canyons, Moon House, Doll House, and other sites as designated by the agencies in coordination with the BEC. Pets would also be required to be on leash at all times except for in the lawful pursuit of game. Impacts to recreationists would be similar to those under Alternative B but to a greater magnitude.

The public would be encouraged to stay on trails under Alternative E. The trail system would be inventoried, and the agencies, in collaboration with the BEC, MAC, state, local, and Tribal governments, would designate trails to guide visitors to culturally appropriate places. Trails and/or areas may also be closed, and areas may be made unavailable to off-trail hiking to protect BENM objects. Potential future area closures could reduce the recreational opportunities available to some visitors and may lead to increased visitation of remaining designated trails. Launching or landing of paragliders, hang gliders, base jumpers, and wing-suit flyers; highlining; geocaching; and rock stacking would be prohibited in the Monument, which would limit recreational opportunities for participants of those activities. Very few visitors to the BENM region participate in most of these

activities except for stacking rocks, otherwise known as “cairning,” limiting the extent of impacts to recreational opportunities allowed in BENM. Although creating cairns is a common activity on the landscape, it can create a safety issue due to visitors getting lost. Additionally, the agencies have documented impacts to cultural resources from rock stacking across the landscape.

No recreational use would be allowed in MSO PAC areas from March 1 to August 31, which would have far greater seasonal restrictions on activities than under Alternative A and contribute to higher visitation use at open areas of the Monument when MSO PACs are closed. This management would impact several popular routes during a season of popular use as described under Alternative C.

There would be no developed recreation features in Remote Zones. Any major developments would be on the periphery of the Monument or in nearby communities, allowing for ease of access for recreationists before they enter BENM. Managing infrastructure and services in this way would permit visitors to better understand the BENM cultural landscape without degrading the objects that such infrastructure was intended to protect (see Appendix L). The intent of such management would be to benefit visitors of all cultural backgrounds by preserving the natural condition of the landscape while providing services and educational materials at accessible locations; however, this would limit the agencies’ ability to respond to issues that may arise due to limited ability to provide infrastructure in the interior of BENM, such as developed camping infrastructure to respond to growing demand.

Alternative E would not allow dispersed camping within 0.25 mile of any developed campground. Dispersed camping sites and areas would be inventoried and monitored by the agencies and would be removed and reclaimed, as necessary, to protect BENM objects. This would limit dispersed camping opportunities more than Alternative A and would potentially lead to overcrowding in designated campgrounds if demand in the Monument increases. Camping would also not be allowed within 0.25 mile of surface waters except in existing campsites or camping areas. Notably, as in many desert environments, most designated backpacking trails on BLM-administered lands are within water courses. Camping restrictions could limit camping opportunities along these popular backpacking trails; however, new camping sites and areas could be designated by the agencies through implementation-level decisions to address these limited opportunities.

Swimming or bathing in in-canyon stream and pool habitat would be prohibited in BENM except where such prohibition would be inconsistent with the Religious Freedom Restoration Act or other applicable laws. This would limit aquatic recreational opportunities in such areas. Solid human waste may be required to be carried out if monitoring efforts identify that solid human waste is impacting BENM objects. The requirement to carry out solid human waste would impact recreationists in certain areas of the Monument, if deemed necessary, and would add difficulty to backpacking trips. This management would preserve these areas of BENM for future visitors, especially if visitation continues to increase.

New climbing routes that require the placement of bolts, anchors, or fixed gear would require approval from the agencies, in collaboration with the BEC, to determine if the route is appropriate to protect BENM objects, including cultural resources and wildlife. This may limit the climbing development potential of BENM for some users because of the additional review required for developing new climbing routes. Site-specific impacts may also lead to climbing route closures or rerouting of access trails, which would protect BENM objects while reducing opportunities available to climbers and commercial guides. Climbing on cultural sites would be prohibited, which would serve to protect these features for visitors to enjoy in the future.

Alternative E would designate slightly more OHV closed acres and slightly fewer OHV limited acres than under Alternative A (see Table 2-1). These closed acres would impact OHV users’ ability to

recreate in certain areas of the Monument; however, such management would preserve naturalness and improve the experience of non-motorized users by reducing impacts associated with OHV use such as noise pollution and dust. Parking for day and overnight use on Cedar Mesa would be limited to designated parking areas at trailheads and OHV access to the rims of canyons would be restricted. This would limit recreational opportunities by limiting the ability to park at areas not designated through an implementation-level travel plan, and also would limit enjoyment of some scenic overlooks in the Cedar Mesa area.

Recreational shooting activities would be prohibited in all areas of BENM. This would eliminate the potential for conflicts with other users in BENM. Eliminating recreational shooting access would preclude this activity in the Planning Area and adversely impact those who engage in recreational shooting, requiring them to find other areas of public land in the vicinity on which to recreationally shoot; however, there is currently minimal recreational shooting activity on the BLM-administered portion of BENM, and there are no designated recreational shooting areas such as ranges on the Monument. There is currently some recreational shooting on NFS lands, mainly associated with dispersed camping activity. As a result, impacts to shooters would likely be minimal, although impacts may be felt more strongly on NFS lands. Additionally, lead from ammunition can be directly ingested by wildlife, and may also leach into soils and waterways, leading to potential for wildlife lead exposure and poisoning (EPA 2005, Fisher et al. 2006, Bellinger et al. 2013). Such recreational shooting management would therefore provide environmental benefits by preventing noise pollution and lead fragments from bullets leaching into soils and waterways, protecting wildlife from lead poisoning and retaining the natural character of BENM for visitors seeking a more remote experience. This prohibition would not apply to the use of firearms in the lawful pursuit of game.

Instead of using SRMAs/ERMAs and RMZs, the agencies would use a zoned approach to manage recreation (the exceptions would be the Moon House RMZ and the Doll House RMZ, which would be managed as under Alternative B). This would mean that no areas would be designated specifically to have recreation-focused management, potentially limiting the BLM's ability to allocate resources, funding, and attention to address recreation-focused needs or issues when compared to Alternative A. Recreation zone management under Alternative E would be focused on managing visitation and recreation in a manner that protects BENM objects (see Appendix L). These landscape-level Management Zones would be used to manage visitation and recreation uses.

The Front Country Zone would be the focal point for visitation at high-visitation sites and near communities or paved routes and would provide most visitation infrastructure. This would serve recreationists looking for a more developed experience with more interpretation and amenities. The Front Country and Passage Zones would contain all on-site interpretive materials. The Passage Zone would provide a less developed visitation experience than the Front Country Zone, but basic facilities would be provided as consistent with the protection of BENM objects. The Passage Zone would likely provide a less crowded and developed setting for recreationists to enjoy along secondary travel routes, with less evidence of use. Existing and new campgrounds or facilities would be permitted, and new trails could be developed under the Front Country and Passage Zones. This would benefit visitors by addressing increasing visitation demands and expanding access to Monument areas within these zones.

The Outback Zone, substantially larger than either the Front Country Zone and the Passage Zone, would contain a natural and undeveloped recreation setting, providing only trailheads, minimal informational infrastructure, existing developed campgrounds, and dispersed camping opportunities. The Outback Zone, like the Remote Zone, would rely on off-site interpretive materials unless needed to protect BENM objects. This setting would benefit users looking for more remote recreation experiences but may deter those seeking informational materials and facilities from

visiting these areas. No new recreational sites or facilities would be developed in this zone. Minor facilities such as trails, trailhead markers, and informational kiosks would only be allowed in existing recreation sites and only when necessary to protect BENM objects. Although such management would maintain the natural setting of this zone, this may prevent the agencies from responding to growing recreational demands and may result in issues such as unanticipated levels of dispersed camping and hiking activity due to a lack of developed campgrounds and trailheads.

The Remote Zone, by far the largest recreation zone, would provide a natural, undeveloped, and self-directed experience for visitors while limiting motorized or mechanized access, benefiting visitors who seek a more remote experience by preserving the natural characteristics of a large area of BENM. No new facilities, sites, or trails would be allowed in Remote Zones, which could be to the detriment of visitors seeking a more developed experience; however, existing trails could be designated if consistent with the protection of BENMs objects, which could benefit users by providing more recreational opportunities. This zone would also be intended to have limited motorized or mechanized access, making this zone less accessible to those user groups.

The San Juan River would be managed the same as under Alternative A with the exception that campsites would be designated as needed to protect Monument objects or to reduce user conflicts, which would generally be to the benefit of recreationists and would preserve the natural character of the San Juan River.

3.5.7.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternatives B, C, D, and E with the following exceptions. The Proposed Plan would not allow dispersed camping within 0.5 mile of any developed campground, providing fewer acres available to this use compared to Alternative E. The agencies would coordinate with the BEC to identify areas that would be available to dispersed camping and other areas where dispersed camping would be limited to designated sites, with management impacts similar to Alternative E. This could reduce dispersed camping opportunities more than Alternatives A, B, and C and could concentrate overnight use in designated campgrounds or areas where dispersed camping is allowed.

The agencies would not require permits for private day and overnight use in all canyons, reducing the potential for restrictions on canyon-based recreation on BENM compared to Alternative E.

Recreation management in MSO PAC areas would be similar to that under Alternative B, with the addition of camping closures if needed in sensitive areas. Such management could reduce the overall impact of seasonal restrictions to activities when compared to Alternatives D and E, which would not allow recreational use in MSO PAC areas from March 1 to August 31. Camping restrictions in areas that may overlap with PACs could limit camping opportunities during the PAC restriction season, with impacts similar to those under Alternative B. This management would impact any commercial use of several routes during a popular season for use.

Any filming causing an appreciable disturbance to BENM resources would be prohibited, and there would be criteria in place to prevent impacts to BENM objects and resources, including those from the use of aircraft during filming. Such decisions would mitigate impacts to remote recreational experiences and natural settings, although to a lesser extent than Alternatives D and E.

Restrictions on fossil collection and casting would impact the opportunities of recreational collectors but would benefit other visitors by leaving and maintaining such resources intact for future recreationists to experience.

Under the Proposed Plan, management of new climbing routes requiring fixed bolts, anchors, or other fixed gear would be managed as under Alternative E. In addition to climbing management in Alternative E, new climbing routes would be assessed on a case-by-case basis until a process for approving new routes is established, which may improve the potential to continue developing new routes during the implementation phase of this planning process.

The Proposed Plan would designate more acres as OHV closed and fewer acres as OHV limited compared to Alternative A (see Table 3-137). OHV closed acres would impact OHV users' ability to recreate in certain areas of the Monument; however, such management would preserve naturalness and may reduce impacts associated with OHV use such as noise pollution and dust. Designating more acres as OHV closed could also lead to crowding and increased user conflicts in those areas designated as OHV limited. Arch Canyon Sub-Area would be managed as OHV limited. Such management would benefit OHV recreationists more than under Alternatives D and E, under which Arch Canyon would be closed to motorized use. Permits would be required for all motorized use in Arch Canyon, which could be used to limit factors such as vehicle type, seasons, or days of use, and could provide managers with tools to limit conflicts.

The agencies would use a zoned approach to manage recreation similar to Alternative E, combined with Management Areas and Sub-Areas to provide additional potential to manage for recreation, similar to Alternative D. The exception to this schema would be the Doll House, which would have its own specific management guidelines similar to those under Alternative B with the additional inclusion of Traditional Indigenous Knowledge (similar to Alternative E). Management Areas are similar to ERMAs, making recreation management commensurate with the management of other resources. The inclusion of Management Areas and Sub-Areas under the Proposed Plan would allow the BLM to manage to achieve recreation objectives as listed in Appendix E. Management Areas and Sub-Areas would be focused on providing recreation management in areas of recreational importance and high recreational use, with Sub-Areas generally designated for more specific recreational opportunities within Management Areas. (Targeted recreation activities for each Management Area and Sub-Area can be found in Table 3-138.) This would mean that while the Monument would be managed holistically via the use of zones, certain areas would be designated specifically to have recreation-focused management, expanding the BLM's ability to allocate resources, funding, and attention to address recreation-focused needs or issues when compared to Alternative E, although not to the extent of the alternatives that would use RMAs and RMZs.

Of the 1,364,316 zone acres, 21,407 would be managed as Front Country; 25,959 would be managed as Passage; 542,361 would be managed as Outback; and 774,589 would be managed as Remote. The acreages of these zones are adjusted from those under Alternative E to expand the area of Front Country, Passage, and Outback Zones and reduce the area of the Remote Zone. Facilities such as developed campgrounds and visitor contact stations could be developed throughout the Front Country Zone and, to a lesser degree, the Passage Zone. The Outback Zone would allow for limited facilities such as backcountry trailheads and educational signage to support current and expected recreational use. As a result, the agencies' ability to provide infrastructure in the interior areas of the Monument to mitigate recreation impacts or provide visitor services as needed would be greatly improved in comparison to Alternative E. The Remote Zone under the Proposed Plan would be primarily inclusive of areas like WSAs and protected LWC, and would provide a natural and undeveloped experience for non-motorized and non-mechanized recreation, reducing the impact of noise and dust from OHV use to those users looking for a natural and undeveloped experience. The Proposed Plan therefore allows for specific management of recreation as an important use of the Monument without potentially elevating the management of recreation above that of other resources.

The BLM would manage six Management Areas (595,415 acres) and seven Sub-Areas (72,253 acres) within those Management Areas. The BLM and the BEC would collaborate to develop management plans (RAMPs) for all Management Areas and Sub-Areas under the Proposed Plan. Such collaboration would ensure that recreation is managed to benefit visitors of all cultural backgrounds while prioritizing the protection of Monument objects. More Management Areas and Sub-Areas could be designated in the future through an RMP amendment process to address intense use and/or the protection of BENM objects.

Management of many of the Management Areas and Sub-Areas would involve designating camping areas or sites. In Indian Creek Management Area, in the Front Country Zone, camping would be restricted to designated areas and existing campgrounds. In Comb Ridge Sub-Area, dispersed camping would be limited to designated sites in the Passage Zone. Dispersed camping would be delineated in the Outback Zone in Cedar Mesa Management Area and Indian Creek Management Area. In Arch Canyon Sub-Area and Valley of the Gods Management Area, camping areas would be designated and, once designated, camping would be limited to those areas. In Dark Canyon Management Area and Cedar Mesa Backpacking Sub-Area, visitors would be encouraged to use designated campsites. Similarly, in the San Juan River Management Area, developed facilities, designated campsites, existing and designated trails, and public use cultural sites would be prioritized for invasive vegetation treatment projects in the river corridor. Although such campsite designation management could alter the recreational experience and setting to be slightly less natural-appearing, site designation would also simplify the experience of finding a campsite in these areas and would largely restrict recreational impacts to those designated camping areas. Site designation could also help ensure that an area does not get adversely impacted by visitation, which could benefit those who want to recreate in that area.

In the Cedar Mesa Management Area, new campgrounds would be developed in the Front Country Zone. This management of camping would align with the management outlined in the zone management objectives in the Proposed Plan and would also provide additional developed camping opportunities for visitors. In Natural Bridges Overflow Sub-Area, located within the White Canyon Management Area, the BLM would focus on mitigating the impacts of dispersed camping, either through designating dispersed campsites in the Outback Zone or developing a campground in the Front Country Zone.

In Cedar Mesa Backpacking Sub-Area, Moon House Sub-Area, White Canyon Canyoneering Sub-Area, and Dark Canyon Management Area, no campfires or private wood collection would be allowed in the canyons. Impacts to recreationists would be similar to those described under Alternative C for campfire restrictions. In Cedar Mesa Backpacking Sub-Area, Comb Ridge Sub-Area, Moon House Sub-Area, San Juan River Management Area, and Valley of the Gods Management Area, human waste would be required to be packed out. The impacts of such management to recreationists would be similar to those described for similar human waste removal requirements in certain areas under Alternatives B and C.

In Indian Creek Management Area, bolts, anchors, and fixed gear would be painted to limit visual contrast. Although potentially creating slight extra work for climbing route developers, this management action would preserve the naturalness of the Indian Creek Management Area setting for all recreational visitors to this Management Area. White Canyon Management Area would allow only minimal infrastructure to protect the viewshed of the scenic byway. This would include signs for trailheads and for motorized and non-motorized use. Although potentially limiting new information and facilities for visitors, this management would preserve the characteristics of the byway and surrounding scenery, which is a primary recreational draw in scenic areas such as this.

Dark Canyon Management Area, the Cedar Mesa Backpacking Sub-Area (outside of Mule Canyon WSA), and Arch Canyon Sub-Area would be unavailable to grazing. San Juan River Management Area would only allow grazing from October 1 to May 31, as consistent with PFC. Such grazing limitations would preserve recreational settings for recreationists in these areas. In the San Juan River Management Area, this management would reduce recreationist encounters with livestock during the most popular months for river recreation.

In Arch Canyon Sub-Area, motorized commercial and organized group events would be prohibited, and an ISRP would be required for any motorized travel (use may be allocated if necessary). This would prevent recreationists from organizing events in this Sub-Area and potentially limit the number of OHV users allowed to recreate in this canyon; however, this management would likely reduce user conflict and preserve the recreation settings more than unregulated OHV use, benefiting all user groups who wish to experience this area of BENM. Similarly, in Comb Ridge Sub-Area, day hiking would require an ISRP and, in the future, management could impose limits on day use permits in the Cedar Mesa Backpacking Sub-Area if needed to protect BENM objects (day use permits are currently required but unlimited). Visitation to Moon House Sub-Area, would also be by ISRP only. Although potentially limiting the number of visitors allowed to experience these areas at any given time, this management may improve the recreational experience of visitors seeking a more remote recreational opportunity by reducing the number of individuals present in these areas of BENM. Arch Canyon Sub-Area would be managed as OHV limited, which could provide more opportunities for OHV users compared to Alternatives D and E. Requiring permits for all motorized use in Arch Canyon should provide managers with tools to address potential conflicts between motorized and non-motorized recreationists to Arch Canyon.

Under Moon House Sub-Area management, visitors would not be allowed to enter the interior corridor of Moon House. This would impact the ability of visitors to experience certain aspects of this cultural site; however, this management would serve to preserve this cultural site for future generations of visitors.

3.5.7.2.8. Cumulative Impacts

The cumulative impacts analysis area for recreation is the Planning Area and adjacent or nearby federal lands. The cumulative impacts of past and present actions to recreation use and visitor service in the Planning Area are captured in the description of the affected environment. Activities in nearby communities, nearby federal lands, and resource-use activities may contribute to cumulative impacts. Impacts from activities originating outside the BENM boundary—noise and dust from OHV use, impacts from potential development, including changes to the visual quality of the area and noise, and the spread of invasive species or wildfire—could impact resources on the Monument and impact the quality of recreational opportunities.

Past, present, or reasonably foreseeable future recreation projects within the recreation analysis area could also contribute to cumulative impacts. Further details of projects discussed below are listed in Appendix J. These projects would generally contribute in a positive manner to cumulative impacts by improving or expanding recreational facilities. Alternative B would likely contribute in a similar manner, because under this alternative, new recreation facilities would be developed to enhance visitor experience. Past, present, or RFFAs related to fire and fuels treatments; the Daneros Mine expansion; the Summit Operating, LLC, pipeline ROW; and various range improvements could have adverse impacts to recreation, although impacts could be short term. Similarly, campground improvements at Hamburger Rock and Goosenecks Campgrounds would have short-term impacts to recreation during construction but would eventually provide the benefit of improved campground resources to visitors. Additionally, a plausible RFFA could be a designated

recreational shooting range outside of BENM, which would reduce the potential for illicit recreational shooting activity on BENM.

If, as predicted, recreation demands continue to increase across the state of Utah and in recreation areas near BENM—Glen Canyon NRA, Goosenecks State Park, Canyonlands National Park, and NABR in particular—visitors seeking out a more remote, small-group recreation experience may opt to recreate in BENM instead. Alternatives B and C include SRMAs, ERMAs, and RMZs that identify areas in which the BLM would prioritize funding and resources for recreation management, although the acres designated as RMAs and RMZs would vary by alternative. Alternative D would designate Management Areas and Management Zones to manage recreation, and management under Alternative D, similar to the management under the Proposed Plan, would be far less recreation-prioritized than Alternative A due to this distinction. Alternative E would provide remote, small-group recreation potential through zones, although the majority of the Monument under this alternative may be less accessible to visitors seeking recreational amenities. The recreation management under Alternatives B, C, D, E, and the Proposed Plan, would contribute incrementally to these cumulative impacts by similarly managing for recreational experiences within the Monument.

3.5.8. Travel, Transportation, and Access Management

3.5.8.1. AFFECTED ENVIRONMENT

The transportation system includes approximately 141 miles of federal and state highways; 1,364 miles of BLM motorized routes; 476 miles of NFS motorized routes; 26 miles of BLM ATV, utility task vehicle (UTV), and motorcycle trails; 198 miles of BLM non-motorized and equestrian routes; 3 miles of BLM mechanized routes; and 612 miles of NFS non-motorized routes. The current travel system is shown in Appendix A, Figure 3-40. Over the past two decades, recreational use has impacted the USDA Forest Service transportation system, and the USDA Forest Service's ability to perform road maintenance has been impacted by decreased funding, resulting in a maintenance backlog (USDA Forest Service 2018).

The BLM manages motorized access under three area designations, which are determined at the Land Use Planning level: 1) "open," which allows for unlimited OHV travel, including cross-country travel, 2) "limited," which restricts OHV use to meet specific resource management objectives, and 3) "closed" to OHV use, where no OHV use can occur. The USDA Forest Service manages motorized use with the 2005 Travel Rule (see Appendix N for details).

OHV use has increased due to the growing popularity of ATVs and UTVs, changes in demographics, increased commercial availability (purchase and rental opportunities), and marketing of multi-passenger OHVs. This increased use has resulted in impacts to resources such as soundscapes, soils, cultural resources (e.g., Arch Canyon), and vegetation. The designation of Arch Canyon Road for motorized or non-motorized use has been disputed on several occasions over the past decades, and is considered as part of the area designation process.

The popularity of UASs, also known as drones, has increased in recent years. The BLM manages launching and landing of UASs as OHVs per BLM Handbook H-8342. The USDA Forest Service considers all UASs to be aircraft, which are managed per the Aviation Management Handbook (Forest Service Handbook [FSH] 5709.16) and 36 CFR 261.58 with the definition of a UAS as an aircraft in 14 CFR 1.1. UASs are a potential source of unnatural sound that may affect the natural soundscape valued by the public, including Indigenous peoples.

See Appendix N for additional context concerning the affected environment for travel, transportation, and access management.

3.5.8.2. ENVIRONMENTAL CONSEQUENCES

3.5.8.2.1. Impacts Common to All Alternatives

Under all alternatives, public use of BENM for landings and takeoffs of motorized aircraft would be allowed at Bluff Airport and Fry Canyon Airstrips, providing access for motorized aircraft users. All alternatives would limit mechanized travel to routes where OHV use is allowed and to trails specifically designated for mechanized use.

All alternatives would manage the non-motorized and non-mechanized trails identified in the 2008 Monticello RMP, 2008 Moab RMP, and 1986 Manti-La Sal LRMP until the implementation-level travel plan is complete. Therefore, level and type of access would continue consistent with what is currently available, providing non-motorized and non-mechanized recreation opportunities, until implementation-level travel planning. There are no areas designated as OHV open in BENM. Constraining motorized or mechanized recreational use to designated roads and trails could impact the public's ability to access certain portions of the Monument. OHV limited areas are provided under all alternatives, although in different quantities of acres and distributions across the BENM landscape. Managing with some OHV limited and OHV closed areas across all alternatives should provide recreational opportunities and access to other opportunities for a diversity of recreational uses. Subsequent implementation-level travel planning and management analysis and decisions will further address and refine travel management under all alternatives. See Section 3.5.7 for additional analysis of recreation management impacts.

Areas managed as OHV closed would not be available for public OHV use, reducing the available OHV recreational options in those areas. The impacts to available OHV recreational options would be greater than in OHV limited areas, where OHV use is allowed on designated routes, which could result in impacts such as soil erosion, increased noise, and habitat fragmentation (Ouren et al. 2007).

See Section 3.5.5 for a discussion of the impacts of the travel area designations to the local economy.

3.5.8.2.2. Impacts under Alternative A

Table 3-142 lists the acres of proposed OHV travel management designations for Alternative A, as well as the action alternatives for analysis purposes. Area designations would not affect authorized administrative uses or valid existing rights. Table 3-143 lists the miles of currently designated motorized routes within OHV closed and OHV limited areas that would be impacted under each alternative.

Table 3-142. Proposed Off-Highway Vehicle Travel Management Designations by Alternative - Acres

Proposed OHV Travel Management Designations	A	B	C	D	E	Proposed Plan (acres)
BLM OHV closed	389,645	389,645	487,048	808,630	392,989	591,185
BLM OHV limited	685,403	685,403	588,000	266,429	682,059	483,917
BLM OHV open	0	0	0	0	0	0
USDA Forest Service closed to OHV travel	46,430	176,982	176,982	176,982	176,982	46,430

Proposed OHV Travel Management Designations	A	B	C	D	E	Proposed Plan (acres)
USDA Forest Service limited to OHV travel	242,677	112,122	112,122	112,122	112,122	242,677
Total	1,364,155	1,364,152	1,364,152	1,364,153	1,364,152	1,364,209

Source: BLM and USDA Forest Service GIS (2022).

Table 3-143. Proposed Off-Highway Vehicle Travel Management Designations by Alternative - Miles

Proposed OHV Travel Management Designations	A	B	C	D	E	Proposed Plan
BLM OHV closed	3.6	3.6	3.6	190.2	11.0	32.6
BLM OHV limited	1,351.8	1,351.8	1,351.6	1,164.9	1,344.4	1,322.5
BLM OHV open	0	0	0	0	0	0
USDA Forest Service closed to OHV travel	0	0	0	0	0	0
USDA Forest Service limited to OHV travel	339.3	339.2	339.2	339.2	339.2	339.3
Total	1,694.6	1,694.6	1,694.5	1,694.3	1,694.6	1,694.3

Source: BLM and USDA Forest Service GIS (2022).

Alternative A would close the fewest acres to OHV use and, therefore, would provide the most OHV limited acreage. This would provide the greatest number of OHV recreation opportunities compared to other alternatives. Additionally, Alternative A would provide the agencies with the greatest latitude to allow for OHV use through future implementation-level planning.

Public use of BENM for landings and takeoffs of motorized aircraft would be allowed as described in Section 3.5.8.2.1 and on routes designated for such use in implementation-level planning, limiting the opportunities for landings and take off. Landings and takeoffs of UASs on NFS lands would be the same as for motorized aircraft.

3.5.8.2.3. Impacts under Alternative B

Under Alternative B, areas designated as OHV limited and OHV closed on BLM-administered lands would be the same as Alternative A. On NFS lands, OHV use would be limited to designated routes across 112,122 acres and closed on 176,982 acres (see Table 3-142). This would impose more limitations on the USDA Forest Service's ability to develop new motorized trails or roads on NFS lands than under Alternative A; however, the Proclamations already restrict new motorized routes to those required to manage BENM objects or public safety, so the practical effect of this additional limitation may be minimal. Approximately 3.6 miles of currently designated routes would be impacted, resulting in a loss of opportunities for motorized users to access those routes (see Table 3-143). On NFS lands, all currently designated roads and trails would remain open, and all motorized use would be limited to the designated routes until future travel planning effort decisions are made. Additionally, agencies would coordinate with local government, the BEC, and Tribal Nations on implementation-level planning, which could provide benefits for OHV users.

Alternative B includes management direction to maintain designated trails for non-motorized and non-mechanized use and improve signage on travel corridors. This would provide improved non-motorized and non-mechanized trail opportunities, reduce safety concerns for users and user conflicts, and may protect BENM objects by reducing lost users inadvertently traveling off trail.

Public use of BENM for landings and takeoffs of motorized aircraft, with the exception of UASs, would be the same as Alternative A. Management of landings and takeoffs of UASs would reduce the opportunity of this use compared to Alternative A.

3.5.8.2.4. Impacts under Alternative C

Overall, the nature of the impacts to travel, transportation, and access resulting from OHV area designations would be similar to those described under Alternative B, but the extent of those impacts would be greater due to the larger portion of BLM-administered lands managed as closed to OHV use (see Table 3-142). The miles of designated routes impacted by OHV area designations would be the same as Alternative B (see Table 3-143). Public use of BENM for landings and takeoffs of motorized aircraft would be similar to Alternative B, with the exception that new airstrips would not be designated, which would eliminate most public access of BENM for motorized aircraft. Management of non-motorized and non-mechanized trails would be the same as under Alternative B, resulting in the same impacts.

3.5.8.2.5. Impacts under Alternative D

Overall, the nature of the impacts to travel, transportation, and access resulting from OHV area designations would be greater in degree than those described under Alternatives B and C due to the larger portion of BLM-administered lands that would be managed as closed to OHV use (see Table 3-142). Unlike Alternatives B and C, the Arch Canyon Management Zone and a greater number of protected LWC acres would be closed, which would curtail motorized access to Arch Canyon and some NPS trails and permitted opportunities, as well as several Utah Trust Lands parcels. Approximately 190 miles of designated routes would be impacted by OHV area designations, resulting in a loss of opportunities for motorized users to access these popular locations (see Table 3-143). Public use of BENM for landings and takeoffs of motorized aircraft would be the same as Alternative C.

3.5.8.2.6. Impacts under Alternative E

Overall, the nature of the impacts to travel, transportation, and access resulting from OHV area designations would be similar to Alternative B, due to the similar travel allocations (see Table 3-142), with the exception that the Arch Canyon Area would be closed to motorized travel. Impacts to access for motorized aircraft would be greater than those described under Alternative C because the agencies would consider seasonality of use for formal authorizations in collaboration with the BEC.

3.5.8.2.7. Impacts under the Proposed Plan

Overall, the nature of the impacts to travel, transportation, and access resulting from OHV area designations would be greater in degree than those described under Alternatives B, C, and E, but less than D, due to the 591,185 acres of BLM-administered lands that would be managed as closed to OHV use. Compared to Alternative D, there would be fewer impacts to access due to a greater amount of acreage being designated as OHV limited, including Arch Canyon Sub-Area, routes accessing NPS trails and permitted opportunities, and certain routes accessing Utah Trust Lands sections. Approximately 32 miles of designated routes would be impacted by OHV area designations, potentially resulting in use being concentrated in areas designated as OHV limited, which could lead to greater numbers of motorized users in those areas and increased user conflicts. Compared to Alternative E, all currently designated maintained roads would be located outside of VRM I areas and the Remote Zone, which would allow for continued use and

maintenance of these routes, which would maintain access to recreational opportunities and access for various other uses, including traditional uses.

On NFS lands, OHV closed and limited acres would be the same as Alternative A. This change in number of acres of closed and limited compared to Alternatives B through E would not impact current motorized access. The Proclamations restrict new motorized routes to those required to manage BENM objects or public safety, so for OHV limited acres, future additional motorized routes would be constrained by the Proclamation language, limiting likely development of additional routes.

Public use of BENM for landings and takeoffs of motorized aircraft would be the same as Alternative B.

3.5.8.2.8. Cumulative Impacts

The cumulative impacts analysis area for travel, transportation, and access management is the Planning Area and lands adjacent to BENM. The cumulative impacts of past and present actions to travel, transportation, and access management in the Planning Area are captured in the description of the affected environment (with additional context provided in Appendix N). As described in Appendix J, RFFAs, including improvements to the House on Fire Trailhead, construction of the Bluff River Trail, Cottonwood Wash bridge replacement, Mancos Mesa ROW access, reconstruction of the Utah Back Country Pilot Association Dark Canyon Airstrip, Hamburger Rock Campground improvements and expansion, Goosenecks Campgrounds and Trails expansion, improvements to Recapture Reservoir Boat Ramp, management of the Dark Canyon Wilderness/Peavine Corridor, and ongoing road maintenance could all have cumulative impacts to travel and transportation, such as temporary or long-term impacts to access in these areas during and after construction. Improvements to the transportation system, however, would result in long-term improvements to access and mobility. Potential increases in visitation under all alternatives, in combination with traffic from past, present, and future projects, could result in cumulative impacts to travel, transportation, and access within the analysis area, such as limitations to access in areas due to congestion and deteriorating trail and road conditions due to overuse.

3.5.9. Livestock Grazing

3.5.9.1. AFFECTED ENVIRONMENT

There are 32 allotments that fall within or overlap with the boundaries of the Monument: 23 are administered by the BLM and nine by the USDA Forest Service. Within these allotments, there are 62,035 AUMs active on the BLM allotments and 14,651 HMs permitted on USDA Forest Service allotments. These allotments cover approximately 1,356,769 acres of which 71% are within BENM; the remaining acres of these allotments lie adjacent to the BENM boundary because some allotments overlap the boundary (see Appendix N, Tables 3-144 and Table 3-145; Appendix A, Figure 3-43). Approximately 91% of the Monument is currently available/suitable for grazing.

The BLM's allotment categories—improve (I), maintain (M), or custodial (C)—allow the BLM to direct attention to those areas in greatest need to improve a resource or to resolve serious resource-use conflicts. Within BLM allotments that overlap with BENM, there are 22 allotments in Category I, one allotment in Category M, and zero allotments in Category C (see Table 3-144 in Appendix N). The USDA Forest Service does not use these categories. There are many existing range improvements within BENM, including but not limited to fences, cattle guards, corrals and enclosures (Tables 3-146 and 3-147 in Appendix N).

Recreation use in the Monument has increased significantly in the past 20 years, creating conflicts between livestock and recreators.

Drought conditions lead to less water availability for livestock use and potentially increase the need for permittees to supplement water for their livestock. Drought conditions also cause a decrease in plant growth, which both decreases the amount of forage available for livestock and increases the amount of bare ground, thereby increasing erosion potential from trampling.

See Appendix N for additional context concerning the affected environment related to livestock grazing.

3.5.9.2. ENVIRONMENTAL CONSEQUENCES

3.5.9.2.1. Impacts Common to All Alternatives

Livestock would be managed as authorized under existing permits and subject to appropriate terms and conditions in accordance with existing laws and regulations, consistent with the care and management of BENM objects. Such management actions would remain during times of drought. The potential for allotment closure could impact the permittee or operator by causing a decrease in AUMs or HMs allowed in their operation. The closure of allotments could also lead to a buildup of fine fuels, thus increasing the potential for a wildfire that could decrease productivity and increase the potential for nonnative and invasive annual grasses (Davies et al. 2010); however, under all alternatives, there is a potential for voluntary relinquishment of grazing permits, which would retire from livestock grazing the lands covered by such permits, therefore reducing the total acreage available/suitable for livestock grazing. Voluntary relinquishment could reduce the number of authorized AUMs/HMs under all alternatives.

The agencies would monitor rangeland conditions and adapt grazing practices as needed to maintain or make progress toward rangeland health standards and desired conditions. If monitoring indicated that domestic livestock grazing was impacting the protection of BENM objects, appropriate changes to livestock grazing management would be implemented to mitigate those impacts in a manner that ensures protection of BENM objects. See Section 2.4.22.2, as well as Alternative A (Section 3.5.9.2.2). Federal regulations at 43 CFR 4120 (BLM) and 36 CFR 222.9 (USDA Forest Service) describe the applicable responsibilities for the installation, use, maintenance, modification, and/or removal of range improvements. Monitoring would allow the agencies to make informed decisions about allotments and pastures and help them determine whether range improvements and water developments are protecting BENM objects. Monitoring would also be used to collect utilization data under all alternatives; utilization is the portion of forage consumed by livestock, wildlife, and insects during a specified period or the pattern of such use (43 CFR 4100.0-5).

The BLM would work with permittees and the BEC to develop and implement grazing management plans for all allotments within BENM during the scheduled permit renewal process. The USDA Forest Service would develop AMPs for all allotments during its allotment decision-making process as outlined in FSH 2209.13 and FSH 1909.15, as necessary, in collaboration with permittees and the BEC. Development and implementation of AMPs would include analysis of the allotment, including evaluating range improvements, as needed, and ensure consistency with protection of BENM objects. If there were an existing AMP, the agencies would consider whether the AMP needed to be renewed or adjusted in collaboration with the BEC. Creating grazing management plans should help the permittees and the agencies manage grazing public lands in a way that provides for the care and management of Monument objects and could maintain or improve range conditions.

Any surface-disturbing activities within ROWs can remove or lower the quality of available forage for livestock. On a site-specific level, grazing operations could be enhanced by ROW authorizations because these could facilitate increased access to pastures and allotments for operators or available forage, such as seeded pipelines. Although the nature of impacts would be similar across alternatives, they would differ in magnitude (Table 3-148).

Table 3-148. Acres of Rights-of-Way within Grazing Allotments by Alternative

ROW	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
Open	733,349	5,477	–	–	–	5,477
Avoidance	180,208	661,950	568,565	296,517	16,332	471,546
Exclusion	449,336	453,498	552,362	804,956	1,104,496	597,565
Special Use Avoidance Area	–	241,967	241,966	242,066	242,074	241,929
Special Use Exclusion Area	–	–	–	46,353	–	46,374
Total	1,362,892	1,362,892	1,362,892	1,362,892	1,362,902	1,362,892

Source: BLM and USDA Forest Service GIS (2022).

Generally, if more land is open to ROWs, there would be more potential for authorized ground-disturbing activities and, therefore, greater potential impacts to livestock grazing activities and forage. Activities that result in vegetation removal or natural surface feature disturbance could impact forage quality and availability, resulting in a potential loss of available AUMs/HMs. Areas that are managed as ROW exclusion would be subject to fewer potential ground-disturbing activities and therefore could have the least impact to livestock grazing operations. Areas that are managed as ROW avoidance areas may have more potential for impacts to livestock grazing than ROW exclusion areas. The greatest impacts to livestock grazing would result from ground disturbance in areas that are open to ROW authorization.

Grazing would be excluded from developed campgrounds, developed trailheads, and cultural sites that are Public Use (Developed). User-livestock conflicts, including those associated with damage or vandalism from users of BENM, new roads created by unauthorized off-road OHV travel, or dispersed camping occurring repeatedly in the same areas, could impact livestock grazing operations (e.g., by removing forage for livestock). Other conflicts include use of the same water sources and disruption of livestock operations and movements by overlapping use of the same areas. Permanent or seasonal road closures may impact livestock operations for grazing permittees, although the use of roads in association with livestock grazing is generally considered an authorized use and may be exempt from road closures. Although primitive and non-motorized recreation such as hiking, mountain biking, recreational shooting, and dispersed camping generally have fewer impacts than motorized recreation, shared use of rangelands can result in vegetation trampling, fragmentation, and increased weed invasion, thereby lowering forage quality. Recent and future recreational use increases across the Planning Area are likely to intensify conflicts among recreationists and livestock.

Vegetation management could create short-term disturbances to the ground and forage, creating short-term impacts to livestock operations. In the long term, however, the vegetation treatments could improve the landscape and forage quality.

Manual vegetation treatments would create less ground disturbance in the short term than mechanical treatments, but both would remove forage and reduce the forage available to livestock. Both manual and mechanical treatments would improve the landscape over time and promote the

growth of native and more desirable plants, which in turn would create higher quality of forage for livestock (see Section 3.4.4).

3.5.9.2.2. Impacts under Alternative A

Management actions for livestock grazing and management would continue to be implemented. New and existing land treatments would continue, and grazing management plans would be modified and implemented.

Acres made unavailable for livestock grazing under Alternative A would remain the same as existing conditions (Table 3-149; Appendix A, Figures 2-53 through 2-56).

Table 3-149. Livestock Grazing Availability, Animal Unit Month, and Head Month Allocation by Alternative

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Proposed Plan
USDA Forest Service* acres not suitable for livestock grazing	43,309	49,345	49,345	71,579	49,345	43,309
BLM acres unavailable for livestock grazing	91,700	113,689	113,689	287,622	113,689	118,908
Trailing Only (acres)	3,952	5,218	5,218	49,889	5,218	12,194
Trailing Only/Emergency Grazing (acres)	1,277	1,277	1,277	1,277	1,277	1,277
AUM allocation for BLM allotments	62,035	62,035	62,035	56,347	62,035	62,035
HM allocation for cattle on USDA Forest Service allotments	10,520	10,520	10,520	7,908	10,520	10,520
HM allocation for horses on USDA Forest Service allotments	139	139	139	104	139	139

Source: BLM and USDA Forest Service GIS (2022).

* Including USDA Forest Service wilderness areas.

The agencies would continue to develop off-site water sources and range improvements. Any new range improvements would avoid construction on cultural sites and would avoid creating concentrations of livestock on cultural sites and in riparian areas. Livestock grazing and associated range improvement projects would not be allowed on the five mesa tops. The development of off-site water sources and range improvements would move livestock distribution away from sensitive riparian areas, springs, and seeps. There would be a potential for ground disturbance around the range improvements and water developments in the uplands, but the impacts would be less severe than in the riparian areas.

Measures would continue to be taken to reduce trailing livestock along the length of riparian areas, and existing livestock trailing corridors where damage is occurring in riparian areas would be rehabilitated with the use of BMPs if monitoring shows that livestock caused that damage (see Table 3-149). Overall, 320 acres would be limited to trailing in what was formerly the Indian Creek Unit (Appendix A, Figure 2-53). The avoidance and restoration of riparian livestock trailing corridors would move livestock distribution away from sensitive riparian areas, springs, and seeps. This could improve riparian health and aquatic habitat and reduce trampling and soil compaction in those sensitive areas (see Sections 3.4.2, 3.4.3, and 3.4.4).

Utilization levels and ROWs would remain the same as existing conditions (see Table 2-1).

On BLM-administered lands and NFS lands within the Shash Jáa unit, camping would be prohibited within 200 feet of isolated water sources to allow livestock access to water. Dispersed camping could occur elsewhere within BENM until implementation-level planning occurs and sites are designated. There would be no restrictions for recreational shooting on BENM that may result in damage to range improvements and loss of forage in areas commonly used for recreational shooting.

Alternative A would use natural topographic features to the extent possible to keep livestock out of sensitive areas. Using these natural features, augmented by fences, could reduce the economic impact to permittees by reducing the number of range improvements or the lengths of fences needed to protect sensitive areas and BENM objects.

3.5.9.2.3. Impacts under Alternative B

Impacts under Alternative B would be similar to Alternative A with the following exceptions. More acres would be made unavailable/not suitable for livestock grazing and designated to livestock trailing only compared to Alternative A (see Table 3-149; Appendix A, Figure 2-54). The impacts from making more acres unavailable/not suitable for livestock grazing and designated to livestock trailing only should reduce potential future impacts from livestock grazing by reducing the potential future acres where grazing might occur, but this would not have an immediate change in livestock grazing management impacts, because all of these additional unavailable/not suitable acres are currently ungrazed. Those acres remaining available/suitable for grazing would continue to experience the same intensity and duration of grazing as described in Alternative A, because the acres that would be changed to unavailable/unsuitable are currently ungrazed, and, there would be no change in AUMs or HMs compared to Alternative A. Therefore, the impacts to grazing permit holders should be similar to Alternative A.

In addition to working with permittees and the BEC to develop and implement grazing management plans for all allotments within BENM during the scheduled renewal process, as described under Alternative A, the BLM would use Traditional Ecological Knowledge where applicable and consistent with protecting BENM objects to inform these plans. This addition of Traditional Indigenous Knowledge compared to Alternative A should incorporate more Tribal values and knowledge into grazing management plans.

Alternative B would allow for new water developments if consistent with the protection of BENM objects. The difference between this management action direction and that of Alternative A is the specificity in consistency with the protection of BENM objects. Similarly, existing water developments would also be maintained consistent with protecting BENM objects under Alternative B, which is not specified in Alternative A. These additions should provide more consistency between water developments as they relate to BENM objects.

The agencies would strive to mitigate drought impacts while promoting land health and protecting BENM objects. The annual three-phase approach, and the responsive management associated with it, could limit the effects of drought on forage. This would lessen the loss of forage and its effects on livestock; however, drought could also mean adjusting grazing practices as a response to drought, so AUMs or HMs could be reduced, season of use could be altered, and water could have to be hauled in from elsewhere. These actions would all have economic impacts to the permittee (see Section 3.5.5).

The agencies would take measures to educate the public about avoiding conflicts with livestock. The agencies would also manage livestock grazing to avoid conflicts with recreationists to the extent possible. This could lead to less livestock harassment and recreationist conflict, as well as

fewer livestock that could escape through gates left open by the public and trespass on other lands. Reducing loss would cause a positive economic impact to the permittee.

Impacts to grazing within ROWs would be fewer than under Alternative A because of the significant decrease in ROW open acres (see Table 2-1). This should reduce the impacts to grazing from future potential development of ROWs compared to Alternative A.

Dispersed camping would not be permitted within 200 feet of springs and water improvements, unless in designated areas, instead of only being prohibited within 200 feet of isolated water sources as under Alternative A. Therefore, livestock access to water sources should be greater with the broader application of the 200-foot buffer to all springs and water improvements, except in designated areas. Dispersed camping could also be seasonally closed or as impacts/the environment may warrant. This could reduce impacts to vegetation conditions and availability of forage from repetitive camping in the same areas. Recreational shooting is prohibited in areas where damage to Monument objects and possible injury to other users may occur, unless in the pursuit of game. This may reduce damage to range infrastructure from recreational shooting.

3.5.9.2.4. Impacts under Alternative C

Impacts under Alternative C would be similar to Alternative B with the following exceptions. Alternative C would limit water developments and range improvements, unless a primary purpose of the water development or range improvement is to protect BENM objects compared to Alternative A and B. By maintaining existing range improvements that protect BENM objects, operators would still be able to use those improvements and water developments; however, with new improvements being restricted, there would be more pressure on natural water sources. There may be greater impact to the operators under Alternative C due to more constraints on water developments and range improvements, which may also reduce potential tools and solutions for land managers and grazing permit holders to use range improvements to improve livestock distribution, enhance forage use patterns, and gain greater livestock control.

Utilization levels under Alternative C would be identified on an allotment-specific basis, allowing for more specialized and adaptive management in response to rangeland conditions.

There would be the potential to prohibit vegetation treatments and non-structural range improvements to improve forage for livestock. The impacts of this management directive would allow for stands of invasive brush and weeds to remain within the Planning Area, reducing forage availability for livestock; this could negatively affect achievement of land health standards within the Planning Area.

There would be fewer impacts than under Alternative B from OHV use and non-motorized recreation, because both would have more restrictions under Alternative C.

3.5.9.2.5. Impacts under Alternative D

Impacts under Alternative D would be similar to Alternatives B and C with the following exceptions. Alternative D would apply lotic and terrestrial AIM data to aid in the determination of whether to make areas unavailable for grazing; this change in criteria led to the most acres allocated as unavailable/not suitable for livestock grazing of any alternative (see Table 3-149; Appendix A, Figure 2-55). The least amount of AUMs and HMs would be available for grazing (see Table 3-149) under this alternative as well. Reducing AUMs and HMs could cause a socioeconomic impact to the operators and surrounding communities (see Section 3.5.5). The impacts of making more acres unavailable/not suitable for livestock grazing and designated to livestock trailing only should

reduce potential future impacts from livestock grazing by reducing the potential future acres where grazing might occur. Alternative D makes numerous pastures unavailable/unsuitable for grazing on the Indian Creek, Slickhorn, White Canyon, and Comb Wash Allotments that would jeopardize or may completely eliminate the long-term validity, functionality, and operational ability of connected ranches and associated grazing permits. This is because making these pastures unavailable/unsuitable for livestock grazing limits the potential scope of adaptive grazing management, limits pasture rotations (particularly during the critical plant growth periods), reduces available forage and range infrastructure available to the operator, and removes large sections needed for sustained economic viability on these working ranches. Making Butler Wash unavailable to grazing on the Perkins North, Tank Bench-Brushy Basin, White Mesa, and Cottonwood Allotments would have similar impacts to those described above, yet would likely still allow for continued operation of connected ranches but at reduced capacity that would limit the economic viability of these working ranches. Similarly, making John's Canyon unavailable to grazing on the Perkins South Allotment would likely still allow for continuous operation of connected ranches but at a reduced capacity that would limit the ranches' economic viability.

This alternative would also limit grazing use to trailing only on more acres compared to Alternative A (see Table 2-1). This would impact the Lake Canyon and Indian Creek Allotments.

No new water developments and range improvements would be permitted under Alternative D, so future opportunities for adaptive management using range improvements to distribute livestock, enhance forage use patterns, and gain greater livestock control would be more limited than under Alternatives A, B, and C.

Livestock trailing along the length of riparian areas would be prohibited, and existing livestock trailing corridors where damage has occurred would be rehabilitated. This prohibition may require the construction of a large amount of fencing to prevent trailing along riparian areas or may make some areas difficult to access for grazing animals, because trailing along riparian corridors may be the only way to move through a pasture to an adjacent pasture.

Where utilization levels are not established, a 30% utilization level would be used until monitoring data are available to identify an appropriate, site-specific level. This utilization level could lead to a reduction in AUMs/HMs permitted on some allotments where utilization levels are currently higher. This would have economic impacts to grazing permit holders and, by extension, local communities as a whole, and could affect some permittees to the point where it would no longer be economically feasible to continue ranching.

Alternative D would lessen the impacts from livestock conflicts associated with recreational activities through more restrictive permits and reduced OHV use. Camping near water sources would be restricted to 0.25 mile from any spring or water development, except for designated areas. This should reduce impacts of camping activities impeding livestock access to water compared to Alternatives A, B, and C. Under Alternative D, there would be no explicit management approach to potentially implement seasonal closures or closures when impacts/the environment warrant it for dispersed camping sites. Although closures could still occur to sites through site-specific projects or closure orders under this alternative, as with Alternative A, both Alternatives A and D do not include explicitly stated management direction to apply this potential tool. This could reduce the likely application of this tool for agencies and could allow more repetitive camping in the same locations, increasing impacts and disturbances to certain locations and the forage needs of livestock in those locations. Shooting would be prohibited in WSAs and protected LWCs. This should reduce possible damage to range improvements from recreational shooting to a greater extent than under Alternatives A, B, and C.

All BLM-administered lands in BENM that have been inventoried as having wilderness characteristics (421,965 acres) would be managed to conserve their wilderness characteristics while allowing for compatible uses. Alternative D would have more parameters for range infrastructure because over half of the Planning Area would be designated as VRM Class I and managed to conserve wilderness characteristics, an increase of over 400% compared to Alternative C. Permittees would be limited to what kind and where structural and non-structural range improvements could be constructed to a greater extent than under Alternatives A, B, and C.

3.5.9.2.6. Impacts under Alternative E

Impacts under Alternative E would be similar to Alternatives B, C, and D with the following exceptions. Prioritizing review and processing of grazing permits and leases; identifying subareas of allotments necessary for closure; reassessing stocking levels and season of use; and identifying resource thresholds, monitoring, and automatic responses related to land health and/or impacts to cultural and sacred resources could impact the permittees economically (see Section 3.5.5).

The addition of exclosures or other physical barriers would prevent livestock from directly accessing or impairing springs, seeps, and other sensitive riparian areas, thereby reducing trampling, compaction, and sedimentation and protecting soil and rangeland resources. Additionally, designations of VRM Class I and SIO Very High across the entire Monument may constrain the visual appearance of future maintenance and construction of range improvements because the scenic character of the landscape would have to be preserved, and any management-driven deviations would be required to be fully unnoticeable. This level of visual quality across the entire Monument may increase financial, time, and effort impacts to undertake range infrastructure improvements projects compared to the other alternatives.

Management actions under Alternative E would include additional standards for wilderness characteristics on BLM-administered lands, which would be developed with the BEC to ensure standards meet Traditional Indigenous Knowledge and Tribal expertise. Impacts to livestock grazing under Alternative E would be similar to Alternatives B and D.

Agencies would develop a formal drought management plan that is based on the best available Western scientific information and Traditional Ecological Knowledge specific to the region. Managers would be required to use both Western science and Traditional Ecological Knowledge in management actions and documents. This would increase the tools available to the agencies and permittees in the case of drought and allow managers to tailor their actions to a site-specific situation.

Use levels of key forage species would be identified on an allotment-specific basis and would be managed to meet goals and objectives in this Proposed RMP/Final EIS. Because use levels would be established within 2 years after the release of this Proposed RMP/Final EIS, use levels may be adjusted in a timelier manner compared with Alternative A. This may result in less opportunity for permittees to graze livestock under their original permitted utilization levels; however, re-evaluating use levels within 2 years and using allotment-specific use levels would ensure timely decisions and allow for adaptive and flexible livestock management in response to localized rangeland conditions.

Under this alternative, the total acres that are unsuitable/unavailable for grazing would be the same as under Alternatives B and C, slightly more than under Alternative A, and less than under Alternative D. The impacts would be similar to those in Alternatives B and C as well. Additional closures of grazing lands could still occur based on impacts to special status species populations,

habitat, connectivity, forage, or prey under this alternative, which could further constrain unsuitable/unavailable acres in the future.

Alternative E would place additional restrictions on recreational uses and has the least potential for impacts to livestock grazing from such use. Dispersed camping would be inventoried and monitored so implementation-level planning could be used to designate and restrict areas for dispersed camping. Implementation-level planning would allow for reclamation of areas disturbed from repeated camping use, which would restore lost forage.

3.5.9.2.7. Impacts under the Proposed Plan

Impacts under the Proposed Plan would be similar to Alternatives B, C, D, and E with the following exceptions. More BLM-administered acres would be allocated as unsuitable for livestock grazing for BLM-administered lands than Alternative A (see Table 3-149; Appendix A, Figure 2-56) with the additional closures of John's Canyon of the Perkins South Allotment and the North Cottonwood pastures of the Indian Creek Allotment being limited to trailing only; however, no direct change to allocated AUMs would occur under the Proposed Plan. A reduction of billed AUMs for these allotments would be likely and therefore may have an impact to the economic viability of these ranching operations. This additional acreage made unavailable to grazing would be mostly in the Perkins South Allotment and would likely allow for continued operation of the connected ranch at a reduced capacity that may risk economic viability of this ranch. The other additional acres that would be limited to trailing only would likely still allow for continued operations of the connected ranch at reduced capacity that may risk the economic viability.

New water developments and range improvements and modifications to existing water developments and range improvements would be prohibited unless their primary purpose is to protect BENM objects. Existing water developments and range improvements not consistent with protecting BENM objects would be removed, modified, or abandoned. This would severely restrict potential new range improvements that may aid in the distribution and control of livestock for the orderly administration of the rangelands. In addition, existing water developments and range improvements may be eliminated for uses that are not consistent with protecting BENM objects yet may be critical for viable livestock operations. Therefore, livestock would have to rely on existing water developments and range improvements that protect BENM objects, and grazing use would be concentrated at these watering points and range improvements. This would limit adaptive livestock management in response to climatic variations, livestock operations, and grazing permittee needs unless its primary purpose is to protect BENM objects. Corresponding changes may be necessary to applicable livestock grazing permits.

The Proposed Plan would manage 216,371 acres to minimize impacts to wilderness characteristics (see Table 2-1) in addition to the 205,594 acres managed to protect wilderness characteristics under this alternative. This total would be similar to the total acres managed to protect wilderness characteristics in Alternatives D and E but would be greater than those in Alternatives A and C. The management prescription for these acres would include seeking to avoid impacts from discretionary uses and, where those impacts cannot be avoided, adopt design features and other conditions to minimize such impacts. If further wilderness character inventories are conducted, the BLM would collaborate with the BEC to incorporate Traditional Indigenous Knowledge and Tribal expertise. This may constrain the kind and location of structural and non-structural range improvements that would be constructed under this alternative.

3.5.9.2.8. Cumulative Impacts

The cumulative impacts analysis area for livestock grazing is the Planning Area and lands adjacent to BENM. The cumulative impacts of past and present actions to livestock grazing in the Planning Area are captured in the description of the affected environment. Past and present actions, such as range improvements, recreational infrastructure improvement or creation, water development, and ongoing maintenance and management from past management plans have created short-term ground disturbance and trampled forage around the construction or maintenance sites in and around each individual project area and grazing allotment where the past and present actions occur. The recreation infrastructure improvements and construction have increased recreation overall, potentially increasing human-livestock interactions within the cumulative impacts analysis area.

Past and present range improvements and water development have improved management on grazing allotments by making more resources available to the permittee. Water tanks provide water to livestock in times of drought and alleviate the pressure on riparian areas, thereby reducing ground disturbance from livestock.

Water developments provide reliable sources of water for wildlife especially in drought years when water from natural springs and creeks are scarce. Water developments can be affective at reducing competition between livestock and wildlife for water resources within the Planning Area. During periods of drought, competition can increase between livestock and wildlife due the lack of natural water sources for wildlife and livestock uses. Fencing improvements can be beneficial for controlling livestock movement. Fences can impede wildlife movement and access across the Planning Area, especially if an existing fence is not built to wildlife-friendly specifications. Fences in elk habitat within the Planning Area can be destroyed by elk trying pass through them, which costs grazing permittees time and money to repair and replace fences to be more wildlife friendly. Non-structural range improvements and vegetation treatments can improve forage availability for both wildlife and livestock. Vegetation treatments may reduce forage competition between wildlife and livestock in the long term as more forage becomes available.

RFFAs (see Appendix J) include range improvement, water development, recreation infrastructure construction and maintenance, and restoration projects, adding up to approximately 18,000 acres of disturbance, mostly from large-scale restoration projects in and around the Planning Area and grazing allotments. Although vegetation and restoration treatments could have a short-term effect on the landscape, rangeland conditions, including forage and water quality, would be improved in the long term.

These effects would continue under Alternative A but would be lessened under the action alternatives as areas would be made unavailable/not suitable for livestock grazing, and existing range improvements and water developments would be constrained to protect BENM objects.

3.5.10. Climate Change

3.5.10.1. AFFECTED ENVIRONMENT

The long-term potential for climate change within BENM ranges from very low to very high (Bryce et al. 2012). The northern and western portions of BENM have a lower long-term potential for climate change compared with the rest of BENM. As reported in the 2022 BEITC LMP, long-term drought and dying vegetation (including juniper [*Juniperus* sp.] trees) have been observed, resulting in increased erosion and desertification of the region. Climate change has also resulted in the changes in the range of invasive species, particularly tamarisk and other nonnative species such as

Russian olive and Chinese elm (*Ulmus parvifolia*) that consume more water than and choke out or outcompete native plant species. Seasonal temperatures across the subregions are projected to increase and may cross biologically meaningful thresholds in particular seasons (Halofsky et al. 2018).

See Appendix N for additional context concerning the affected environment related to climate change.

3.5.10.2. ENVIRONMENTAL CONSEQUENCES

3.5.10.2.1. Impacts Common to All Alternatives

Livestock grazing, specifically methane emissions from enteric fermentation and manure deposition (Kauffman et al. 2022), is the dominant source of GHGs in BENM due to the stronger radiative forcing of methane, as represented by its higher global warming potential. Under all alternatives, if permits and leases are voluntarily relinquished over time, livestock grazing AUMs/HMs and associated GHG emissions would decrease. Livestock grazing under all alternatives would likely not impact carbon sequestration potential of the land in the Planning Area. Increased recreation and travel would result in increased GHG emissions. Recreation and travel also can result in loss of vegetation and disturbance of soils (see Section 3.4.4) that release carbon into the atmosphere.

Vegetation treatments and prescribed fire used to reduce fuel loads and improve vegetation conditions would reduce carbon stocks in the short term by removing vegetation and potentially disturbing soils, depending on the type of treatment. Based on the historical annual treatment levels described in the 2022 AMS, the short-term reduction in carbon would be small relative to the overall carbon stored in BENM. In addition, these losses would be offset by an increase in the uptake of CO₂ through regeneration and regrowth following vegetation and prescribed fire treatments. Over the long term, vegetation treatments and prescribed fire can maintain or increase carbon storage and sequestration by reducing the severity or extent of wildfire disturbance, which reduces acres or amount of biomass burned and carbon released through wildfire combustion (see also Section 3.4.4). Forestry and woodlands management can contribute to GHG emissions, especially during mechanical treatment when heavy equipment is used to harvest wood products, particularly for commercial harvest. Emissions would also occur from the use of prescribed fire where harvest is impractical or demand does not exist. Wood products that are not burned immediately would continue to provide carbon storage for the life of their use, while biomass that is combusted would release its carbon directly to the atmosphere.

3.5.10.2.2. Impacts under Alternative A

Table 3-150 below shows the annual estimated emissions from quantifiable sources in the Planning Area.

Table 3-150. Annual Greenhouse Gas Emissions by Source (metric tonnes per year)

Source	CO ₂	Methane	Nitrous Oxide	AR6 100-Year CO ₂ e*	AR6 20-Year CO ₂ e†
Livestock grazing	<0.01	4,522.2	<0.01	134,761	373,079
Prescribed fires and vegetation treatments	1,197	0.8	1.52	1,636	1,680
Recreation and travel management	12,963	0.5	0.24	13,043	13,068

Source	CO ₂	Methane	Nitrous Oxide	AR6 100-Year CO _{2e} *	AR6 20-Year CO _{2e} †
Total	14,160	4,523.5	1.76	149,439	387,827

Source: Emissions inventory was prepared in coordination with BLM resource specialists and based on existing historical data indicative of existing management activities under current directions (Alternative A).

Note: AR6 = IPCC Sixth Assessment Report; CO_{2e} = CO₂ equivalent.

* 100-year time horizon global warming potentials applied are CO₂ = 1; methane = 29.8; nitrous oxide = 273 (IPCC 2021).

† 20-year time horizon global warming potentials applied are CO₂ = 1; methane = 82.5; nitrous oxide = 273 (IPCC 2021).

The average annual estimated CO₂ equivalent (CO_{2e}) from quantifiable emission-generating activities in the Planning Area comprises approximately 0.21% of Utah's total GHG emissions of 72 megatonnes of CO_{2e} in 2020 and 0.007% of United States emissions of 5,586 megatonnes of CO_{2e} in 2021 (EPA 2023). When applying the 20-year global warming potentials from the IPCC Sixth Assessment Report, emissions from quantifiable emission-generating activities in the Planning Area are anticipated to result in 0.4 megatonnes of CO_{2e} annually. The average annual GHGs comprise approximately 0.50% of Utah's total 84 megatonnes of CO_{2e} in 2020 and 0.005% of the United States' emissions of 7,634 megatonnes of CO_{2e} in 2021.

GHG emissions from livestock grazing would contribute approximately 90% of total estimated 100-year time horizon CO_{2e} and 96% of total estimated 20-year time horizon CO_{2e}.

Encouraging the location of recreational activities near population centers and highway corridors would concentrate surface disturbance and would continue to result in improved carbon sequestration potential elsewhere within the Planning Area. GHG emissions from travel management would continue to increase.

Under Alternative A, the trends in increasing risk of uncharacteristic wildfires would continue, with the potential to emit large quantities of GHGs while fires are burning and reduce carbon stocks through damage to soils and vegetation. Because landscape-wide restoration would not be implemented under this alternative, the carbon storage and sequestration potential may be reduced.

The estimates provided in Table 3-151 represent the present value of future market and nonmarket costs associated with CO₂, methane, and nitrous oxide emissions. Estimates are calculated based on U.S. Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) estimates of social cost of GHG (SC-GHG) per metric tonne of emissions for a given emissions year. The estimates assume a base year of 2022, with emissions under the Proposed RMP/Final EIS running from 2023 through 2045. Values have been rounded to the nearest \$1,000.

Table 3-151. Social Cost of Greenhouse Gases Associated with Estimated Emissions under Alternative A

Emission	Average, 5% (\$)	Average, 3% (\$)	Average, 2.5% (\$)	95th Percentile, 3% (\$)
CO ₂	3,942,000	15,114,000	22,929,000	45,912,000
CH ₄	62,069,000	157,534,000	212,184,000	419,687,000
N ₂ O	198,000	699,000	1,053,000	1,857,000
Total	66,209,000	173,347,000	236,166,000	467,456,000

Note: Calculated using SC-GHG per tonne from IWG (2021) and the BLM's estimates of emissions under each alternative.

3.5.10.2.3. Impacts under Alternative B

Impacts from grazing would be similar as under Alternative A. An increased focus on drought mitigation under Alternative B could reduce the potential for future vegetation loss and soil damage from livestock grazing activities, helping to maintain carbon storage and sequestration potential to a small degree when compared with Alternative A.

GHG emissions from travel management would likely be the same as under Alternative A. Closing areas to OHV use may allow for ecosystem restoration and increases in the carbon storage and sequestration potential of lands in those areas to the extent that areas are not used for non-motorized use.

Short-term emissions of GHGs from prescribed fire and fire managed to meet resource objectives could increase to the extent that such fires were conducted with more frequency. Using a landscape-wide approach for restoring natural fire return intervals and improving vegetation conditions would have indirect, long-term effects that would reduce GHG emissions and maintain or increase carbon storage and sequestration potential over the longer term more than under Alternative A.

Under Alternative B, the agencies would work in collaboration with the BEC, Tribal Nations, local and county government agencies, and surrounding communities to identify opportunities for climate change resilience using climate change research and Traditional Indigenous Knowledge. Under Alternative B, the SC-GHG would be the same as the under Alternative A.

3.5.10.2.4. Impacts under Alternative C

Impacts from livestock emissions and effects related to drought mitigation would be the same as described for Alternative B. GHG emissions from travel management would likely be the same as under Alternative A.

Under Alternative C, impacts to GHG emissions and carbon storage and sequestration from vegetation management, prescribed fire, wood product harvest and forestry activities, and from taking a collaborative, landscape-wide approach would be as described under Alternative B. Under Alternative C, the SC-GHG would be the same as the under Alternative A.

3.5.10.2.5. Impacts under Alternative D

Alternative D would result in 12% fewer emissions from enteric fermentation of livestock than Alternative A. Effects related to drought mitigation would be the same as described for Alternative B. Closing 72% of BENM to OHV use would likely reduce emissions based on visitation and vehicle miles traveled in BENM; however, OHV users may choose to recreate elsewhere, and total emissions (including from displaced users) may be the same as total emissions under Alternative A. Closing 72% of BENM to OHV use likely would allow for ecosystem restoration and increases in the carbon storage and sequestration potential of lands in at least some of the closed areas compared with Alternative A.

Impacts to GHG emissions and carbon storage and sequestration from vegetation management, prescribed fire, wood product harvest and forestry activities, and from taking a collaborative, landscape-wide approach would be as described under Alternative B.

Under Alternative D, the SC-GHG would be 8% less than Alternative A, where it would be \$61 million at 5% discount, \$158 million at 3% discount, and \$216 million at 2.5% discount. The changes in the SC-GHG relate to projected differences in AUMs and HMs under each alternative.

3.5.10.2.6. Impacts under Alternative E

The impact from emissions from enteric fermentation of livestock, and effects related to drought mitigation would be the same as described for Alternative B. Impacts to GHG emissions and carbon storage and sequestration from travel management would likely be the same as under Alternative A. Impacts from vegetation management, prescribed fire, and wood product harvest and forestry activities and from taking a collaborative, landscape-wide approach would be as described under Alternative B. This alternative would reduce GHG emissions and maintain or increase carbon storage and sequestration potential over the longer term more than under Alternative A. Under Alternative E, the SC-GHG would be the same as under Alternative A.

3.5.10.2.7. Impacts under the Proposed Plan

The Proposed Plan would result in the same amount of emissions from enteric fermentation of livestock, and effects related to drought mitigation would be the same as described for Alternative B. Emissions based on visitation and vehicle miles traveled in BENM may be the same as Alternative A. Impacts from vegetation management and prescribed fire would be the same as under Alternative D. Impacts from wood product harvest activities would be similar to under Alternative B, except localized impacts to carbon stored in soils and vegetation would be reduced in the additional acres closed to wood product harvest and wood product harvest activities. On the other hand, cross-country OHV travel, as permitted on NFS land, would represent an increase in impacts to carbon sequestration compared with Alternatives B through E, due to potential impacts to vegetation and soils. Under the Proposed Plan, the SC-GHG would be the same as under Alternatives A, B, C, and E.

3.5.10.2.8. Cumulative Impacts

Because climate change is a global process, the cumulative impacts analysis area includes Utah, the Colorado Plateau ecoregion, the United States, and the world. Past and present actions that contribute to cumulative impacts to climate change include those that contribute to GHG emissions as well as those that remove carbon stocks and reduce carbon storage and sequestration potential. As described above, agency-authorized activities under this Proposed RMP/Final EIS would result in the emission of GHGs that contribute in some degree to global warming and the climate change trends discussed in Section 3.5.10.1. In the reasonably foreseeable future, several actions are expected to contribute to cumulative climate change impacts. These actions include the House on Fire Trailhead project, encompassing a disturbance area of 2.0 acres; Indian Creek Allotment Range Improvements projects, with a disturbance area of 2.5 acres (this initiative involves the construction of 13 earthen reservoirs and five rangeland fences within the Indian Creek Allotment); and the Goosenecks and Hamburger Rock Campground projects, covering 12 acres (these projects entail the expansion of the campground facilities and the development of hiking and biking trails). Additionally, there is an expected increasing trend in OHV use and travel to the area (see Appendix J). Among the alternatives, Alternative A would contribute the most GHG emissions from recreation and transportation, vegetation treatments and prescribed fire, and livestock grazing management activities. Alternatives D and E would decrease emissions within BENM due to the closure of roughly 70% and 60% of the Monument to OHV use, respectively; the cumulative impact would depend on the extent to which these activities were reduced rather than simply displaced in the Planning Area. The management actions under all alternatives would also contribute to cumulative impacts from surface-disturbing activities, which can impair carbon storage potential across the

Planning Area. Over the long term, the action alternatives would have countervailing effects through vegetation management and fire and fuels management, which would maintain or increase carbon storage and sequestration potential over the long term.

3.6. 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 occur as a result of implementing the Proposed RMP/Final EIS. Others are a result of public use of the public lands within the Planning Area. This section summarizes significant unavoidable impacts; discussions of the impacts of each management action (in the discussion of alternatives) provides greater information on specific unavoidable impacts.

Surface-disturbing activities that are consistent with the protection of Monument objects would result in unavoidable adverse impacts. Although these impacts would be mitigated to the extent possible, unavoidable damage would be inevitable. Long-term conversion of areas to other uses (such as range improvements) or land use authorizations (e.g., utility corridors) would increase erosion and change the relative abundance of species within plant communities, the relative distribution of plant communities, and the relative occurrence of seral stages of those communities. These activities would also introduce intrusions, which could affect the visual landscape.

Unavoidable damage to cultural and paleontological resources from permitted activities could occur if resources undetected during surveys were identified during ground-disturbing activities. In these instances, standard conflict avoidance agreements would require ceasing further activities upon discovery and the resource would be mitigated to minimize data loss. Unavoidable loss of cultural and paleontological resources due to non-recognition, lack of information and documentation, erosion, wildfire, casual collection, trespass, and inadvertent destruction or use would also occur. Unavoidable damage to buried cultural resources could occur, particularly in construction situations.

Wildlife and livestock grazing would contribute to soil erosion, compaction, and vegetation loss, which could be extensive during drought cycles and dormancy periods. Conversely, unavoidable losses or damage to forage from development of resources in the Planning Area would affect livestock and wildlife. Some level of competition for forage between these species, although mitigated to the extent possible, would be unavoidable. Instances of displacement, harassment, and injury could also occur.

Recreational activities and general use in BENM would introduce additional ignition sources into the Planning Area, which would increase the probability of wildland fire occurrence and the need for suppression activities. These activities, combined with an increase in fire risks as climate trends continue and become more pronounced, would increase the potential for high-intensity wildland fires in the Planning Area. These activities could also introduce invasive and nonnative species that could alter native plant communities and wildlife habitat.

Numerous land use restrictions imposed throughout the Planning Area to protect sensitive resources and other important values, by their nature, affect the ability of individuals and groups who visit BENM. These restrictions could also require the closing of roads and trails or limiting certain modes or seasons of travel.

Although attempts would be made to minimize these impacts by limiting them to the level of protection necessary to accomplish management objectives and providing alternative use areas for affected activities, unavoidable adverse impacts would occur under all alternatives.

3.7. Irreversible and Irretrievable Commitment of Resources

Irreversible commitments include effects that are permanent, such as species extinction, loss of cultural or paleontological sites, or permanent alteration of a waterway. Irretrievable commitments involve short-term loss that could be regained over time. Restrictions, mitigation, or permits could reduce the intensity or duration of effects. The exact nature and extent of any irreversible and irretrievable commitment of resources cannot be defined due to uncertainties of location, scale, timing, and rate of implementation; the relationship to other actions; and the effectiveness of mitigation measures throughout the life of this plan.

Implementing the Proposed RMP/Final EIS management actions would result in surface-disturbing activities, including permitted recreation activities, range improvements, and ROW development, which would result in a commitment to the loss of irreversible or irretrievable resources. Surface disturbances from recreation developments, range improvements, or ROWs for roads used for recreation and public or personal access, are generally a permanent encumbrance of the land. Irretrievable effects on air or water quality, soil, vegetation, fisheries, or wildlife could result from surface disturbance from recreational use, OHV use, or wildland fires and prescribed burning. Soil erosion or the loss of productivity and soil structure might also be considered irreversible commitments of resources. Surface-disturbing activities would remove vegetation and accelerate erosion that would contribute to irreversible soil loss; however, management actions are intended to reduce the magnitude of these effects and restore some of the soil and vegetation lost. High-intensity wildfire, construction of range improvements, ROW developments, communication sites or other transportation infrastructure improvements, can also create an irretrievable loss of wildlife habitat. Laws protecting cultural and paleontological resources would provide for mitigation of irreversible and irretrievable effects on cultural resources from permitted activities.

3.8. Relationship between Local Short-Term Uses and Long-Term Productivity

This section discusses the short-term effects of the Proposed RMP/Final EIS alternatives versus the maintenance and enhancement of potential long-term productivity of the Planning Area's environmental resources. Short-term impacts are those that would revert to pre-project conditions within a few years. Long-term impacts would take longer to revert or would be permanent. Because the alternatives are management actions, most effects would be long term and could have beneficial or adverse effects on productivity, compared with current conditions.

Regardless of which alternative is selected, management activities would result in various short-term adverse effects, such as increased localized soil erosion, localized smoke that could affect air quality, or damage to wildlife habitat. Other short-term effects could improve long-term productivity and provide beneficial effects. Management actions would minimize the effect of short-term uses and reverse the change during the long term; however, BLM-administered and NFS lands are managed for various uses, and some long-term productivity effects might occur regardless of management approach.

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CHAPTER 4. CONSULTATION AND COORDINATION

The Council on Environmental Quality's regulations (40 CFR 1501.9) provide guidance for ensuring public involvement in land use planning, and Title II, Section 202 of FLPMA directs the BLM to coordinate its land use planning with that of Tribes, other federal agencies, and state and local governments, to the extent that those external plans are consistent with the laws governing the BLM-administered surface lands. Presidential Proclamation 10285 also directs the BLM to undertake monument planning with maximum public involvement, including, but not limited to consultation with federally recognized Tribal Nations and state and local governments.

Detailed information regarding public outreach, consultation, and coordination efforts conducted during the development of this Proposed RMP/Final EIS can be found in Appendix O.

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