Winnemucca District
Proposed Resource Management Plan and Final Environmental Impact Statement

DOI-BLM-NV-W000-2010-0001-EIS

Volume 1: Chapters ES, 1, 2

August 2013

BLM

Winnemucca District, Nevada

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MISSION STATEMENT

To sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

BLM/NV/WN/ES/13-11+1793

Volume 1 of 4

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
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In Reply Refer to:
(NV020.11) (1610)

Dear Reader:

Enclosed is the Winnemucca District's Proposed Resource Management Plan (PRMP)/Final Environmental Impact Statement (FEIS). The Bureau of Land Management (BLM) prepared the PRMP/FEIS in consultation with cooperating agencies, a Resource Advisory Council Subgroup, Tribes and taking into account comments from publics and BLM staff/management received from issuance of the Draft RMP/EIS.

The RMP will provide a framework for the future management direction and appropriate uses on approximately 8.4 million acres of public lands located within the jurisdiction of the Winnemucca District (WD). The WD is located in Northern Nevada and encompasses all of Humboldt and Pershing Counties, and parts of Washoe, Lyon and Churchill Counties. The PRMP/FEIS has been developed in accordance with the National Environmental Policy Act of 1969, as amended, and the Federal Land Policy and Management Act of 1976, as amended.

The PRMP is largely based on Alternative D, the Preferred Alternative (staff proposed) specified in the Draft RMP/EIS, which was released on June 25, 2010. The Draft RMP/EIS was available to the public for review and comment through October 25, 2010. The PRMP/FEIS describes four alternatives including the proposed plan and contains an analysis of the impacts related to implementing each of the alternatives. The PRMP/FEIS also contains, a summary of changes made from the Draft RMP/EIS, a summary of the written and verbal comments received during the public review period for the Draft RMP/EIS, and responses to the comments.

The printed version of the PRMP/FEIS contains four volumes which includes all chapters and figures. Appendices C through P of the PRMP/FEIS can be found on the CD-ROM located inside the back cover of Volume I. The entire document is also available for viewing on the project Web site: *http://www.blm.gov/nv/st/en/fo/wfo/blm_information/rmp.html*.

Pursuant to BLM's planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process for this PRMP and has an interest, which is or may be adversely affected by the planning decisions, may protest approval of the planning decisions within 30 days from the date the Environmental Protection Agency (EPA) publishes the Notice of Availability in the Federal Register. For further information on filing a protest, please see the accompanying protest regulations in the pages

that follow (labeled as Attachment # 1). The regulations specify the required elements of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents or available planning records (e.g., meeting minutes or summaries, correspondence, etc.).

Emailed protests will not be accepted as valid protests unless the protesting party also provides the original, signed protest letter by either regular or overnight mail postmarked by the close of the protest period. Under these conditions, the BLM will consider the emailed protest as an advance copy and will afford it full consideration. If you wish to provide the BLM with such advance notification, please direct emails to: Brenda_Hudgens-Williams@blm.gov.

All protests, including the follow-up letter to emails, must be in writing and mailed to one of the following addresses:

Regular Mail:
Director (210)
Attn: Brenda Hudgens-Williams
PO Box 71383
Washington, DC 20024-1383

Overnight Mail:
Director (210)
Attn: Brenda Hudgens-Williams
20 M Street SE, Room 2134LM
Washington, DC 20003

Before including your address, phone number, email address, or other personal identifying information in your protest, please be advised that your entire protest – including your personal identifying information – may be made publicly available at any time. While you can ask us in your protest to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

All protests must be written and must be postmarked on or before the 30th day following publication by EPA of the Notice of Availability in the Federal Register (See Attachment 1 below). Protests must contain the following information:

- The name, mailing address, telephone number, and interest of the person filing the protest;
- A statement of the issue or issues being protested;
- A statement of the part or parts of the document being protested;
- A copy of all documents addressing the issue or issues previously submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record; and
- A concise statement explaining precisely why the decision presented in the PRMP/FEIS is believed to be wrong.

The BLM Director will make every attempt to promptly render a decision on each protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the BLM Director shall be the final decision of the Department of the Interior. Responses to protest issues will be compiled and formalized in a Director's Protest Decision Report made available following issuance of the decisions.

Upon resolution of all land use plan protests, the BLM will issue an Approved RMP and Record of Decision (ROD). The Approved RMP and ROD will be mailed or made available electronically to all who

participated in the planning process and will be available to all parties through the "Planning" page of the BLM national website (http://www.blm.gov/planning), or by mail upon request.

Unlike land use planning decisions, implementation decisions included in this PRMP/FEIS are not subject to protest under the BLM planning regulations, but are subject to an administrative review process, through appeals to the Office of Hearings and Appeals (OHA), Interior Board of Land Appeals (IBLA) pursuant to 43 CFR, Part 4 Subpart E. Implementation decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed. Where implementation decisions are made as part of the land use planning process, they are still subject to the appeals process or other administrative review as prescribed by specific resource program regulations once the BLM resolves the protests to land use planning decisions and issues an Approved RMP and ROD. The Approved RMP and ROD will therefore identify the implementation decisions made in the plan that may be appealed to the Office of Hearing and Appeals.

Sincerely,

Gene Seidlitz
District Manager
Winnemucca District

Attachment 1

Protest Regulations
[CITE: 43CFR1610.5-2]

TITLE 43--PUBLIC LANDS: INTERIOR
CHAPTER II--BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR
PART 1600--PLANNING, PROGRAMMING, BUDGETING--Table of Contents
Subpart 1610--Resource Management Planning
Sec. 1610.5-2 Protest procedures.

(a) Any person who participated in the planning process and has an interest which is or may be adversely affected by the approval or amendment of a resource management plan may protest such approval or amendment. A protest may raise only those issues which were submitted for the record during the planning process.

(1) The protest shall be in writing and shall be filed with the Director. The protest shall be filed within 30 days of the date the Environmental Protection Agency published the notice of receipt of the final environmental impact statement containing the plan or amendment in the Federal Register. For an amendment not requiring the preparation of an environmental impact statement, the protest shall be filed within 30 days of the publication of the notice of its effective date.

(2) The protest shall contain:

(i) The name, mailing address, telephone number and interest of the person filing the protest;
(ii) A statement of the issue or issues being protested;
(iii) A statement of the part or parts of the plan or amendment being protested;
(iv) A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the record; and
(v) A concise statement explaining why the State Director's decision is believed to be wrong.

(3) The Director shall promptly render a decision on the protest.

(b) The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the protesting party by certified mail, return receipt requested. The decision of the Director shall be the final decision of the Department of the Interior.

Winnemucca District
Proposed Resource Management Plan and
Final Environmental Impact Statement (August 2013)

[ ] Draft Environmental Impact Statement [**X**] Final Environmental Impact Statement

Department of Interior, Bureau of Land Management

Type of Action: **[X]** Administrative **[ ]** Legislative

ABSTRACT:

This Proposed Resource Management Plan (RMP) / Final Environmental Impact Statement (EIS) analyzes the impacts of four alternatives for managing the public lands administered by the US Bureau of Land Management (BLM), Winnemucca District in northwestern Nevada. The four alternatives are: Alternative A (no action alternative – continuation of existing management), Alternative B (use intensive alternative), Alternative C (conservation emphasis alternative including a no grazing option), and Alternative D (Proposed RMP). The alternatives provide management direction to guide the multiple use management of resources and resource uses. The Proposed RMP would replace two existing land use plans (1982 Paradise-Denio and Sonoma-Gerlach Management Framework Plans).

Planning issues address focus on transportation and recreation use, land tenure adjustments, management of natural resource values including improving terrestrial and aquatic habitats, management of commercial uses, special designations to protect unique resources, management of wild horse and burros, and protection of cultural resources.

Alternatives C and D include designation of four Areas of Critical Environmental Concern to protect resource values. Alternatives B, C, and D address protection of important resource values with emphasis on special status species habitat management through delineation of priority wildlife habitat and priority watershed areas. Delineation of rights-of-way exclusion and avoidance areas would also protect these resource values.

ADDITIONAL INFORMATION:

This Proposed RMP/Final EIS is open for a 30-day protest period beginning with the date the US Environmental Protection Agency publishes the Notice of Availability of the Final EIS in the Federal Register. A protest may be raised on only those issues that were submitted for the record during the planning process (see Code of Federal Regulations 1610.5-2). Protests must be filed with the Director of the BLM as described in the Dear Reader Letter.

CONTACT FOR FURTHER INFORMATION:

Gene Seidlitz, District Manager
5100 East Winnemucca Boulevard
Winnemucca, Nevada 89445
(775) 623-1500

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LIST OF ACRONYMS

Acronym or Abbreviation	Full Phrase
ACEC	area of critical environmental concern
AFY	acre-feet per year
AML	appropriate management level
AMP	allotment management plan
AMSL	above mean sea level
APHIS	Animal and Plant Health Inspection Service
APHIS-WS	Animal and Plant Health Inspection Service-Wildlife Services
AQ	air quality
ASPCA	American Society for the Prevention of Cruelty to Animals
ATV	all-terrain vehicle
AUM	animal unit month
BA	Biological Assessment
BCB	Backcountry Byways
BEA	Bureau of Economic Analysis
BIA	US Department of the Interior, Bureau of Indian Affairs
BLM	US Department of the Interior, Bureau of Land Management
BMPs	best management practices
BO	Biological Opinion
BPS	budget planning system
BRDHRCET	Black Rock Desert High Rock Canyon Emigrant Trails
CA	common to all alternatives
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	methane
CHP	cultural/historic/paleontological
CK	cave and karst resources
CNHT	California National Historic Trail
CNIDC	Central Nevada Interagency Dispatch Center
CO	carbon monoxide
CO_2	carbon dioxide
CO_{2e}	carbon dioxide equivalents
CSP	concentrated solar power
CR	cultural resources
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
CWMA	Cooperative Weed Management Area
DFC	desired future condition
DM	Departmental Manual
DOE	Department of Energy
DOI	Department of Interior
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EPA	US Environmental Protection Agency
ERMA	extensive recreation management area
ES	Executive Summary
ESA	Endangered Species Act of 1973

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
ES&R	emergency stabilization and rehabilitation
FERC	Federal Energy Regulatory Commission
FIP	Federal Implementation Plan
FLPMA	Federal Land Policy and Management Act
FLTFA	Federal Land Transaction Facilitation Act
FMU	Fire Management Unit
FMUD	final multiple use decision
FOFEM	First Order Fire Effects Model
FONSI	Finding of No Significant Impact
FPA	fire program analysis
FR	Federal Register
FRCC	fire regime condition class
FW	fish and wildlife
G	geology
GAWS	general aquatic wildlife survey
GHG	greenhouse gas
GIS	geographical information system
GWP	global warming potential as carbon dioxide equivalents
HA	herd area
HAP	hazardous air pollution
HMA	herd management area
HMAP	herd management area plan
HMP	habitat management plan
HUA	herd use area
HVH	high value habitat
IBLA	Interior Board of Land Appeals
IDT	interdisciplinary team
IMP	interim management policy or plan
IOP	interagency operation plan
IPC	integrated pest control
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
ISA	instant study area
ITAs	Indian Trust Assets
KGRA	known geothermal resource area
LCT	Lahontan cutthroat trout
LG	livestock grazing
LR	lands and realty
LUP	land use plan
LWC	lands with Wilderness characteristics
MACT	maximum available control technology
MBTA	Migratory Bird Treaty Act
MFP	management framework plan
MIST	minimum impact suppression tactics

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
MOU	memorandum of understanding
MR	mineral resources: leasable, locatable, salable
NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NASA	National Aeronautics and Space Administration
NCA	National Conservation Area
NDEP	Nevada Division of Environmental Protection
NDOA	Nevada Department of Agriculture
NDOM	Nevada Division of Minerals
NDOT	Nevada Department of Transportation
NDOW	Nevada Department of Wildlife
NDVI	Normalized Difference Vegetation Index
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Policy Act of 1969
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NGO	non-government organizations
NHPA	National Historic Preservation Act
NHT	National Historic Trail
NOA	Notice of Availability
NOI	Notice of Intent
N_2O	Nitrous oxide
NO_x	Nitrogen oxides
NPS	National Park System
NRCS	US Department of Agriculture, Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	new source review
NSO	no surface occupancy
Sierra Front/NW RAC	Sierra Front Northwestern Great Basin Resource Advisory Council
NWSRS	National Wild and Scenic River Systems
NV	Nevada
OCTA	Oregon-California Trail Association
OHV	off-highway vehicle
ORV	Outstanding Remarkable Value
PAH	polycyclic aromatic hydrocarbon
PCPI	per capita personal income
PD	Paradise-Denio
PE	chemical and biological control
PFC	proper functioning condition
pH	the symbol for the logarithm of the reciprocal of hudrogen ion concentration in gram atoms per liter, measuring the acidity or alkalinity of a solution
PL	public law
$PM_{2.5}$	particulate matter smaller than 2.5 microns in diameter
PM_{10}	particulate matter smaller than 10 microns in diameter
PMU	population management unit
ppm	part per million

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
PR	paleontological resources
PRMP	Proposed Resource Management Plan
PS	public health and safety
PSD	prevention of significant deterioration
PV	photovoltaics
PVA	prospectively valuable area
PWR	Public Water Reserve
PYFC	Potential Fossil Yield Classification
R	recreation
R&PP	Recreation and Public Purposes Act
RAC	resource advisory council
RAS	Range Administration System
RAMS	risk assessment and mitigation strategy
RE	renewable energy
RFD	reasonably foreseeable development
RFDS	Reasonably Foreseeable Development Scenario
RFFA	reasonably foreseeable future action
RIP	range improvement project
RMIS	Recreation Management Information System
RMP	resource management plan
RMZ	recreation management zone
RNA	Research Natural Area
ROD	record of decision
ROG	reactive organic compounds
ROI	region of influence
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
S	soils
SG	Sonoma-Gerlach SASEM Simple Approach Smoke Estimation Model
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMA	Special Management Area
SNPLMA	Southern Nevada Public Land Management Act
SOG	standard operating guideline
SOP	standard operating procedure
SO_x	sulphur oxides
SRH	standards for rangeland health
SRMA	special recreation management area
SRP	special recreation permit
SSS	special status species
T&E	threatened and endangered
TA	transportation and access
TC	tribal consultation
TCP	traditional cultural property
TDS	total dissolved solids
TIP	Tribal Implementation Plan
TM	transportation and travel management

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
TMDL	total maximum daily load
TNEB	thriving natural ecological balance
TNR	temporary nonrenewable
TSP	total suspended particles
TSS	total suspended solids
US	United States
USC	United States Code
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Department of Agriculture, Forest Service
USFWS	US Department of the Interior, Fish and Wildlife Service
USGS	US Geological Survey
VF	vegetation forest and woodland products
VOC	volatile organic compounds
VR	vegetation rangelands
VRI	visual resource inventory
VRM	visual resource management
VRW	vegetation riparian and wetlands
VW	vegetation weeds
WA	wilderness area
WAFWA	Western Association of Fish and Wildlife Agencies
WAPT	Wildlife Action Plan Team
WD	Winnemucca District
WDM	wildlife damage management
WDO	Winnemucca District Office
WFDSS	Wildland Fire Decision Support System
WFM	wildland fire ecology management
WFRHBA	Wild Free Roaming Horses and Burros Act
WFSA	wildland fire situation analysis
WHB	wild horses and burros
WR	water resources
WSA	wilderness study area
WSR	wild and scenic river
WUG	Western Utility Group
WUI	wildland urban interface
WWV	watchable wildlife viewing site

EXECUTIVE SUMMARY

INTRODUCTION

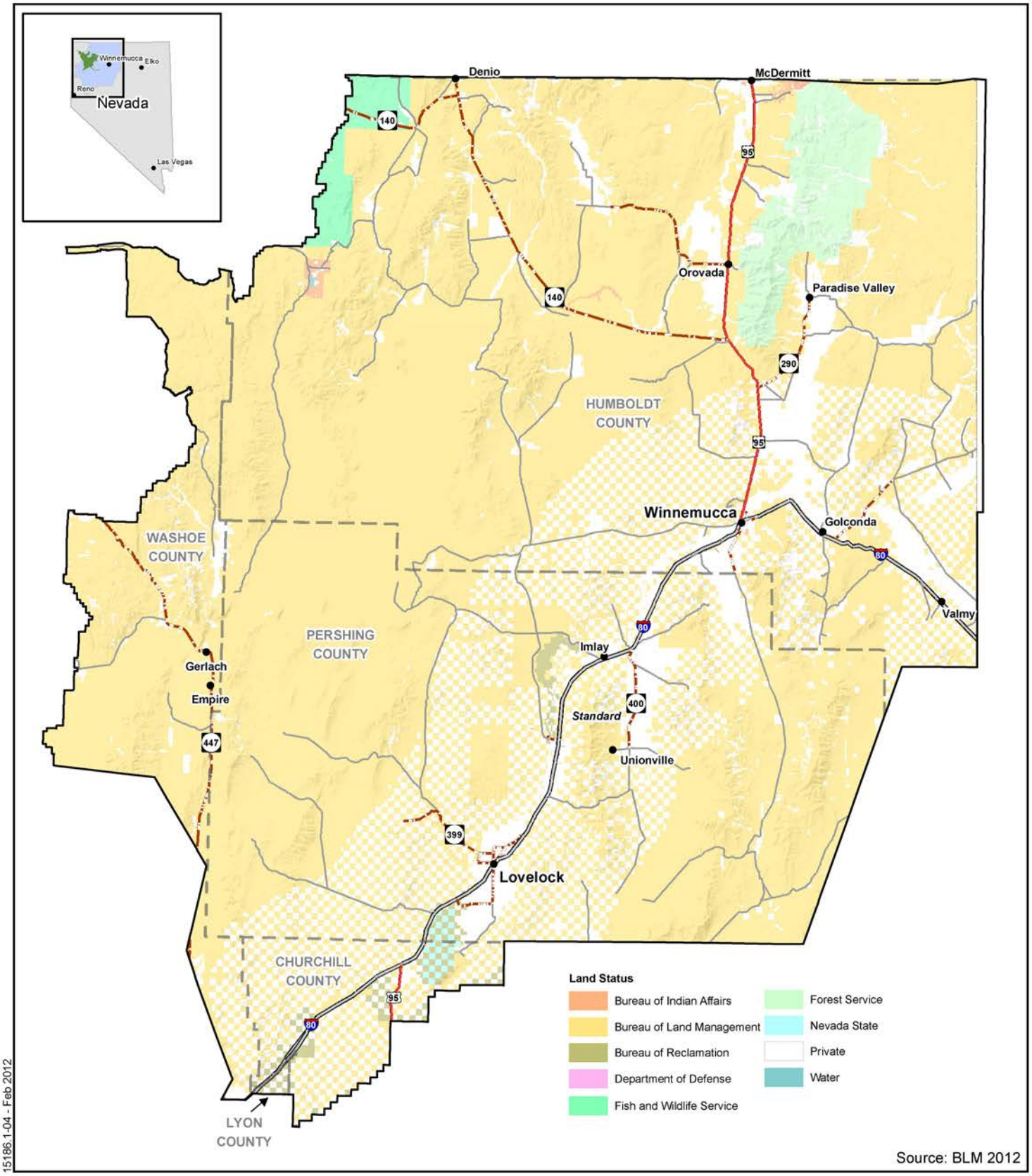
The US Department of the Interior (USDI), Bureau of Land Management (BLM), has prepared this proposed Resource Management Plan (RMP) and Final Environmental Impact Statement (EIS) for managing public lands administered by the Winnemucca District (WD) located in northern Nevada. The management actions proposed in this RMP provide direction for managing public lands, and the EIS analyzes the environmental effects that could result from implementing the alternatives defined in this RMP.

The WD administrative boundary encompasses about 11.3 million acres and includes all of Humboldt and Pershing Counties and parts of Washoe, Lyon and Churchill Counties. This area includes all lands within the WD administrative boundary regardless of ownership and includes public lands within the Black Rock Desert High Rock Canyon Emigrant Trails National Conservation Area (NCA) (Figure ES-1; Table ES-1). The BLM manages about 75 percent, or about 8.4 million acres, of public lands within this administrative boundary. The WD RMP planning area (Figure ES-2) considered in this RMP encompasses about 7.2 million acres of public lands and does not include private lands, federal lands not administered by the BLM, tribal lands, or state lands. Public lands within the NCA are also not included in the planning area as they are managed under the Black Rock Desert High Rock Canyon Emigrant Trails NCA RMP. Where program administrative boundaries overlap (e.g., grazing allotments, priority wildlife areas, herd management areas [HMAs]), public lands would be managed in full conformance with the NCA RMP and the WD RMP. The WD Decision area (Figure ES-3) includes about 7.4 million acres of public lands within the planning area, excluding the NCA, plus certain lands administered outside of the planning area, managed in accordance with memorandums of agreement between adjoining BLM Districts. These include the Little Owyhee and Bullhead Allotments located within the administrative boundary of the BLM Elko District. The BLM manages the surface and subsurface of federal lands under its jurisdiction and, in some cases, has administrative duties for mineral activities on lands managed by other federal agencies or on private split-estate lands.

Table ES-1
Land Status within the WD Administrative Area

Land Status	Acres	Percentage of Administrative Area
BLM	8,427,078*	74.70
Private	2,349,873	20.83
Bureau of Reclamation	82,444	0.73
US Forest Service	275,278	2.44
US Fish and Wildlife Service	107,460	0.95
Bureau of Indian Affairs	21,473	0.19
State of Nevada	16,426	0.15
Water Features	840	<0.01
Department of Defense	17	<0.01
Total	11,280,888****	100

*Includes NCA (1,222,838 acres), which is inside of the WD administrative boundary but outside of the planning area and decision area.
**Does not reflect land administered by WD outside of administrative boundary.
Source: BLM 2011



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N W E S

0 10 20 Miles

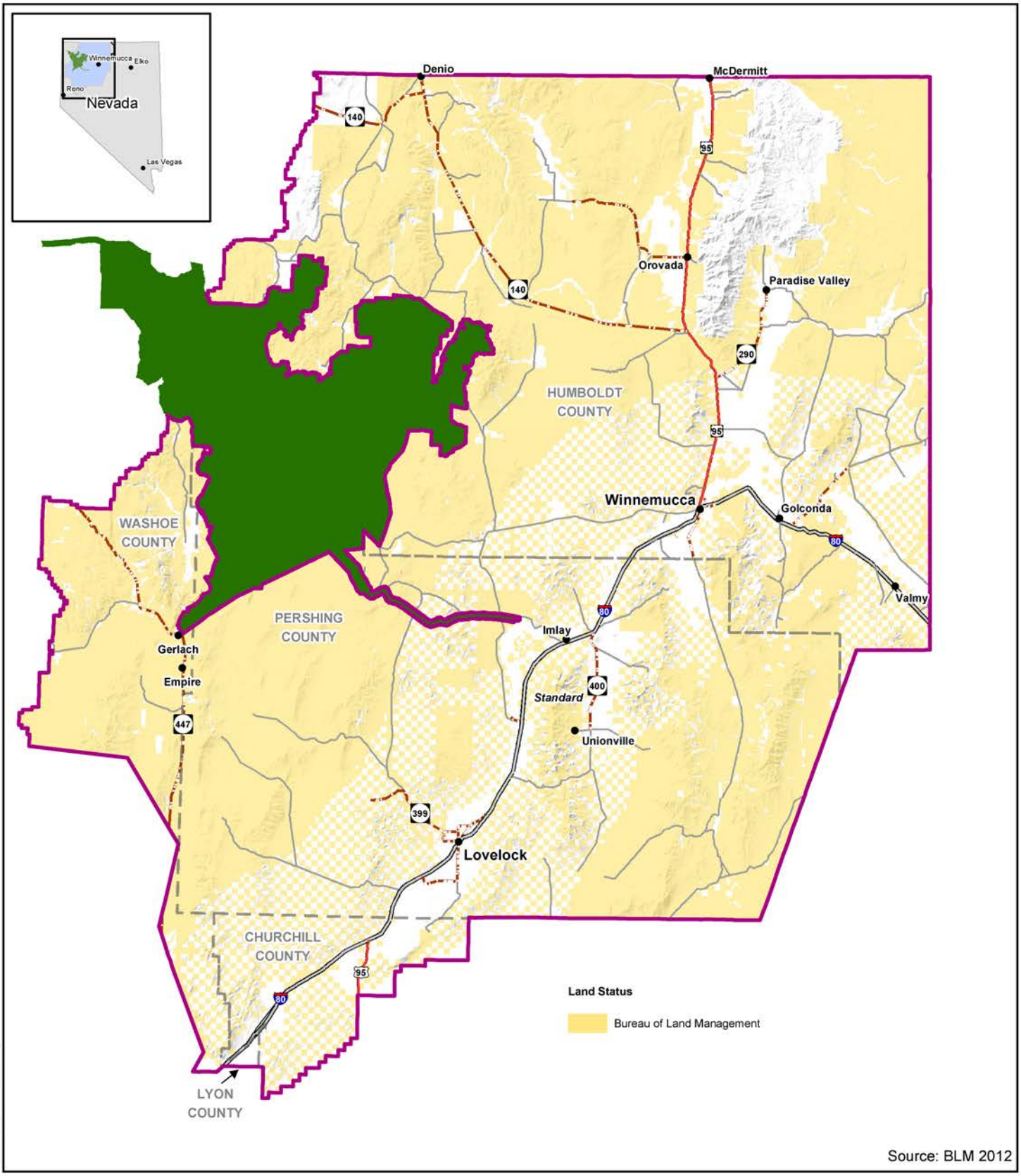
Legend

- BLM Winnemucca District Administrative Boundary
- County Boundaries
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP/EIS Administrative Area

Northwest Nevada

Figure ES-1



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N
W
E
S

0 10 20 Miles

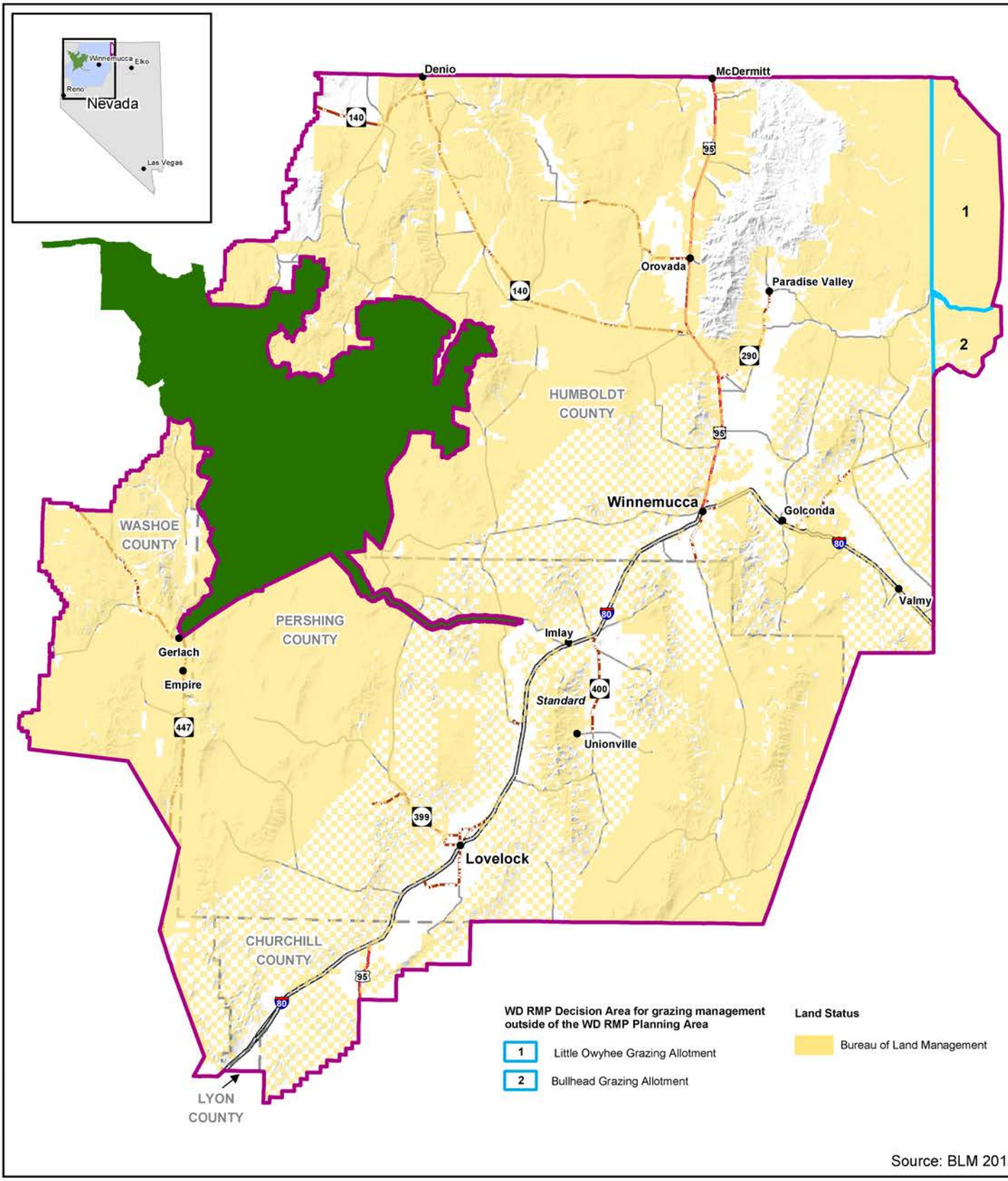
Legend

- BLM Winnemucca RMP Planning Area
- Black Rock/High Rock NCA RMP Area
- County Boundaries
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP/EIS Planning Area

Northwest Nevada

Figure ES-2



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N
W E
S

0 10 20 Miles

Legend

- BLM Winnemucca RMP Decision Area
- Black Rock/High Rock NCA RMP Area
- County Boundaries
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP/EIS Decision Area

Northwest Nevada

Figure ES-3

The RMP is being prepared using the BLM's planning regulations and guidance issued under the authority of the Federal Land Policy and Management Act (FLPMA) of 1976. An EIS is incorporated into this document to meet the requirements of the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations 1500-1508), and requirements of the BLM's NEPA Handbook, H-1790-1.

PURPOSE OF AND NEED FOR THE RESOURCE MANAGEMENT PLAN

The resource management planning process is a key tool used by the BLM, in collaboration with interested public parties, to ensure a coordinated and consistent approach to managing public lands. The RMP is being prepared to provide the BLM WD with a comprehensive framework for managing lands in the planning area under its jurisdiction. The purpose of the RMP is to provide a single, comprehensive land use plan that will guide management of the public lands and uses administered by the WD consistent with laws, regulations, policies, and guidance. The RMP incorporates new information and data, addresses land use issues and conflicts, and specifies where and under what circumstances particular resources, activities and uses will be managed on BLM-administered public lands. Public lands addressed in the RMP would be managed on the basis of multiple use and sustained yield, while preventing unnecessary or undue degradation of the lands, including the protection of natural and cultural resources, in accordance with FLPMA. The RMP generally does not include a description of how particular programs or projects would be implemented or prioritized; those decisions are deferred to implementation-level planning.

The Winnemucca RMP is needed because regulatory and resource conditions have changed, as well as public demands and uses, which warrant revisiting decisions in the 1982 Management Framework Plan (MFP) and 1999 Lands Amendments. Many new laws, regulations, and policies have created additional public land management considerations; as a result, some of the decisions in the MFP and amendments are no longer valid or have been superseded by requirements that did not exist when they were prepared. Likewise, user demands and uses have evolved, causing new impacts, requiring new management direction.

MANAGEMENT ALTERNATIVES

The basic goal of developing alternatives is to prepare different combinations of resource uses to address issues and to resolve conflicts among uses. Alternatives must meet the purpose and need, must be reasonable, must provide a mix of resource protection, management use, and development, must be responsive to the issues (each issue must be addressed in at least one alternative), must meet the established planning criteria (Chapter 1), and must meet federal laws, regulations, policies, and standards, including the multiple use mandates of FLPMA.

Four alternatives were developed and carried forward for detailed analysis. Alternative A, continuation of current management, was developed using available inventory data, existing planning and management documents and policies, and established land use allocations. The action alternatives (B, C [Options 1 and 2], and D) were developed with input from public scoping, the Sierra Front-Northwestern Great Basin Resource Advisory Council (RAC)-Winnemucca RMP Subgroup, and the BLM interdisciplinary team. Alternative C has two options: one including livestock grazing and the other without livestock grazing.

Under all alternatives, the BLM would manage the public lands in accordance with all applicable laws, regulations, and BLM policies and guidance. All public lands would be managed in accordance with the Sierra Front-Northwestern Great Basin RAC Standards and Guidelines for Rangeland Health (Appendix E).

Alternative A (No Action Alternative)

Alternative A, referred to as the No Action Alternative, provides the baseline against which to compare the other alternatives. This alternative would continue present management practices based on existing land use plans and plan amendments incorporated into the existing plans. Decisions contained in the 1982 Sonoma-Gerlach MFP, the 1982 Paradise-Denio MFP, and the 1999 Lands Amendment would continue to be implemented. Direction contained in existing laws, regulations, policies, and standards would also continue to be implemented, sometimes superseding provisions of the 1980 MFPs and the 1999 Lands Amendment. The current levels, methods, and mix of multiple use management of public lands in the WD area would continue, and resource values would generally receive attention at present levels. Key components of Alternative A are as follows:

- Allow the full spectrum of wildland fire management responses and to achieve multiple objectives;
- Continue to manage the Pine Forest Special Recreation Management Area (SRMA) (37,259 acres);
- On greater than 93 percent of BLM-administered lands in the WD, continue cross-country ("open" designation) travel with motorized vehicles. On six percent of BLM-administered lands, limit motorized vehicle to designated routes within wilderness study areas (WSA) ("limited" designation). On less than one percent of BLM-administered lands, prohibit motorized vehicle travel by the public yearlong ("closed" designation);
- Continue to manage special management areas, which include one 60-acre area of critical environmental concern (ACEC) at the Osgood Mountains;
- Maintain 3,207,789 acres of BLM-administered lands as available for disposal, based on established criteria identified in the 1999 Paradise-Denio and Sonoma-Gerlach MFP Lands Amendment;
- Make available 399,073 animal unit months (AUM) for livestock forage; and
- Continue to manage river segments found to be eligible for inclusion into the NWSRS according to interim protective management without determination of suitability, in conformance with BLM Manual 8351.33 (C).

Alternative B

Alternative B emphasizes resource use (e.g., livestock grazing, energy, and mineral development, and recreation) in the planning area. This alternative would have the fewest protected areas and restrictions to development and use. Potential impacts on sensitive resources (e.g., soils and sensitive plant habitat) would be mitigated on a case-by-case basis. Sustainable development concepts are included to maintain economic productivity, especially related to post-use of mining sites. For example, restoration actions that would enhance resource use or commodity production would be

used. Sustainable principles promote the disposal of public lands that have been developed if it would foster post-operation reuse. Key components of Alternative B include the following:

- Manage 110,167 acres to allow the full spectrum of wildland fire management responses and to achieve multiple objectives, including to achieve resource benefits;
- Manage three new SRMAs: the Nightingale SRMA (925,593 acres), the Winnemucca SRMA (151,824 acres) and the Granite Range SRMA (95,972 acres), and expand the area for the Pine Forest SRMA (98,874 acres);
- Continue cross-country ("open" designation) travel with motorized vehicles on 21 percent of BLM-administered lands in the WD. On greater than 78 percent of BLM-administered lands, limit motorized vehicles to designated routes ("limited" designation). On less than one percent of BLM-administered lands, prohibit motorized vehicle travel by the public yearlong ("closed" designation);
- Continue to manage existing special management areas, which include one 60-acre ACEC at the Osgood Mountains;
- Identify 2,131,367 acres of BLM-administered lands as available for disposal;
- Make available 399,073 AUMs for livestock forage; and
- According to a determination of non-suitability, provide no management action specific to the protection of the free flowing condition or outstandingly remarkable values (ORVs) identified along river segments found to be eligible for inclusion into the NWSRS. This alternative conforms to BLM Manual 8351.22 (C).

Alternative C, Option 1

Alternative C, Option 1 would develop management strategies to preserve and protect ecosystem health across the planning area, while providing multiple uses. Resource development would be more constrained than under Alternatives B or D, and in some cases and some areas, uses would be excluded to protect sensitive resources. This alternative includes the most special designations, with specific measures to protect or enhance resource values within these areas. This alternative emphasizes active and specific measures to protect and enhance vegetation and habitat for special status species, fish, and wildlife. Likewise, this alternative would reflect a reduction in resource production goals for forage, harvestable woodland products, and minerals. Production of products would generally be secondary to restoring and protecting important habitats, such as sagebrush and riparian areas. Sustainable development principles focus on preserving ecological functions and environmental values. Key components of Alternative C, Option 1 are as follows:

- Manage two new SRMAs, the Winnemucca SRMA (151,824 acres) and the Granite Range SRMA (95,972 acres), and expand the area for the Pine Forest SRMA (98,874 acres);
- On BLM-administered lands in the WD, motorized vehicle use would be prohibited on less than 1 percent. On greater than 99 percent of BLM-administered lands, limit motorized vehicle to designated routes ("limited" designation);
- Create new special management areas where special values warrant such designation. Management would create or expand four ACECs for a total of 97,816 acres.

- According to a determination of suitability, five river segments (43.4 miles total) would be recommended for inclusion into the NWSRS. River segments recommended for inclusion would be managed as though Congressional designation was given at the tentative classification identified by BLM. This conforms to BLM Manual 8351.33 (C);
- Identify 1,217,926 acres of BLM-administered lands as available for disposal;
- Bring forward segments of the North Fork of the Little Humboldt River, Washburn Creek, and Crowley Creek as suitable for wild and scenic river status;
- No surface occupancy or disturbance within known sage-grouse nesting, summer, or winter habitats. Known habitats are those areas identified as nesting, summer, and winter habitats within Population Management Units (PMU);
- Make available 399,073 AUMs for livestock forage; and
- Manage about 716,528 acres as rights-of-way avoidance areas that require special stipulations to mitigate impacts on resources.

Alternative C, Option 2

To fully explore the impacts from livestock grazing, Alternative C, Option 2 evaluates a no grazing option. Key components and management strategies of Alternative C, Option 2 would be the same as Alternative C, Option 1 with the addition of designating zero acres open to livestock grazing.

Alternative D (Proposed RMP)

Alternative D, the Preferred Alternative, from the Draft RMP/EIS (May 2010), as modified, is the Proposed RMP. The Proposed RMP was developed in response to public comments received on the Draft RMP/EIS, input from cooperating agencies, and changes and updates in BLM regulations, policy, and guidance, and includes from management and the interdisciplinary team (IDT). The Proposed RMP represents a mix and variety of objectives and management actions that best resolve the issues identified from the assessment of need for changing management, concerns raised during public scoping, and future management considerations. This alternative would reflect the goals and objectives for all values and programs. Changes particularly relating to sage-grouse habitat management were incorporated into the Proposed RMP.

The Proposed RMP emphasizes an intermediate level of protection, restoration, enhancement, and use of resources and services to meet ongoing programs and land uses. The management strategy would be accomplished by using an array of proactive and prescriptive measures that would protect vegetation and habitat and would promote the continuation of multiple resource management. Vegetation and special status species habitat would be maintained, improved, protected, rehabilitated and enhanced to provide for the continued presence of an ecologically healthy ecosystem using a suite of proactive and specific prescriptive management tools and implementation measures. Commodity and development-based resources such as livestock grazing and minerals production would be maintained on public lands through specific actions to meet resource goals and protect ecosystem health. Management strategies would continue to provide for recreational opportunities and access to and on public lands and would take into consideration the result of management actions on the economies of communities within the region.

Similar to Alternatives B and C, the Proposed RMP provides sustainable development criteria for determining the suitability of reusing developed sites. The Proposed RMP represents the mix and variety of actions that the BLM believes best resolves the issues and management concerns in consideration of all values and programs. Key components of Alternative D are described below.

Key Management Actions under Alternative D (Proposed RMP)

Water Resources

The BLM would manage priority watersheds containing threatened and endangered species habitat and recovery habitat as no surface disturbance and no surface occupancy to protect threatened and endangered species habitat. The BLM would also manage priority watersheds containing municipal water supplies as avoidance areas to protect municipal water supplies outside of wellhead protection zones which are managed as no surface disturbance and no surface occupancy.

Wildlife and Special Status Species

The BLM is required to designate priority habitats in accordance with the Program/Resource-Specific Decision Guidance in Appendix C of the Land Use Planning Handbook (H-1601-I). Under this alternative, the BLM would designate and manage five priority wildlife habitat areas (Figure 2-5, Appendix A) to achieve desired population and habitat conditions for wildlife, including a number of sensitive and threatened species, by applying use restrictions or mitigation measures. Several factors went into the determination of priority wildlife habitat areas.

As a starting point, and through cooperation with Nevada Department of Wildlife (NDOW), the areas that are designated are population management units for the candidate species greater sage-grouse. These areas contain some of the most important habitat remaining for sage-grouse and other at-risk wildlife. Many of these areas are also within the Healthy Land Initiative (HLI) boundary. The HLI is a cooperative conservation effort to restore important wildlife habitat on a landscape scale. In particular, the priority wildlife areas fall within the HLI Oregon–Idaho–Nevada shrub steppe landscape project area. These areas are also inhabited by Lahontan cutthroat trout (LCT), a threatened species. Priority wildlife habitat areas are considered to be the most crucial for protecting these and other at-risk wildlife species. The following population management unit boundaries correspond to priority habitat areas: Massacre (north – adjacent to Black Rock Population Management Unit), Black Rock, Pine Forest, Lone Willow, and Santa Rosa.

Wild Horse and Burro

The BLM would adjust herd management area (HMA) boundaries (Figure 2-10, Appendix A) to existing fences or topological barriers where these features act as a physical boundary. These boundaries would not expand beyond original herd area (HA) (Figure 2-6, Appendix A) boundaries and would be located where little loss of HMA area would occur, including HMAs within the NCA. These fences and barriers include:

- Black Rock East (north) – fence;
- Black Rock West and Warm Springs Canyon – fence;
- Buffalo Hills – topological barriers;

- Calico Mountains and Warm Springs Canyon – topological barriers;
- Fox and Lake Range – fence;
- Jackson Mountain – fence (Desert Valley Allotment);
- Kamma Mountains – fence;
- Lava Beds – fence;
- McGee Mountain – fence;
- Nightingale– fence; and
- Seven Troughs – fence.

Wildland Fire Ecology

The BLM would manage 110,167 acres as conditional suppression areas where fire may be used to improve or provide habitat or other resource benefits (Figure 2-11, Appendix A).

Visual Resource Management

The BLM would manage visual resources on BLM lands under the following visual resource management (VRM) class designations (Figure 2-15, Appendix A):

- Class I - 417,605 acres;
- Class II - 2,780,416 acres;
- Class III - 3,073,906 acres; and
- Class IV - 961,504 acres.

Livestock Grazing

The BLM would make 398,860 animal unit months (AUMs) of livestock forage (at current permitted levels) available for grazing. Any adjustments increasing or decreasing AUMs would be made using a combination of monitoring data, field observations, ecological site inventory or other data in order to make progress towards or achieve resource objectives and standards for rangeland health.

The BLM would designate 8,016,754 acres as available to livestock grazing (including 823,483 acres managed within the NCA) (Figure 2-18, Appendix A) and designate 319,328 acres closed to livestock grazing (including 192,612 acres managed within the NCA) (Figure 2-21, Appendix A). The following areas would be closed to livestock grazing: Old Gunnery Range, Smoke Creek Desert, Rose Creek, Dolly Hayden (north of Ballard-Sweeney Fence), Thomas Creek (west of Westmoreland Fence), Mahogany Creek Exclosure, Water Canyon Exclosure, Oreana, Reymundo Parcel (closed until Pole Creek meets proper functioning condition [PFC], and then the Reymundo Parcel would be incorporated into the Crowley Creek and Pole Creek Allotments), Green Saddle Estates, and on BLM parcels along I-80 between the right-of-way (ROW) fence and the railroad fence.

Minerals

The BLM would manage areas for saleable minerals as either open with standard stipulations, open with standard and special stipulations, open to government entities only, or closed. Areas for fluid and solid mineral leasing would be managed as open with standard stipulations, open with special stipulations, open with no surface occupancy, or closed. Areas for locatable mineral claims would be managed as open with proposed operations subject to standard conditions, open with proposed operations subject to special mitigations, or closed.

Recreation

The BLM would manage four SRMAs in the WD – Nightingale, Winnemucca, Pine Forest, and Granite Range SRMAs. The BLM would designate 28,354 acres as closed, 6,862,682 limited, and 288,105 open to off-highway vehicle (OHV) travel (Figure 2-53, Appendix A).

Lands and Realty

The BLM would:

- Make available about 1,350,263 acres of public lands as suitable for sale or exchange.
- Manage 1,773,199 acres as avoidance areas (Figure 2-60, Appendix A) to protect resources. The granting of ROWs in avoidance areas would require special stipulations to mitigate any adverse impacts on resources.
- Manage 1,199,539 acres as exclusion areas (Figure 2-62, Appendix A) to protect priority wildlife habitat and wildlife populations.

Areas of Critical Environmental Concern

Designate the following four ACECs (Figure 2-69, Appendix A):

- Pine Forest;
- Stillwater;
- Raised Bog; and
- Osgood Mountains (existing).

Wild and Scenic Rivers

According to a determination of non-suitability, provide no management specific to the protection of free flowing condition or outstandingly remarkable values identified along river segments to be eligible for inclusion into the NWSRS.

ENVIRONMENTAL CONSEQUENCES

Alternative A (No Action Alternative) would be a continuation of current management. Alternative B offers the greatest economic potential but would have the greatest potential impact on the physical and biological environment. Conversely, Alternative C, Option 1, would have a lesser impact on physical and biological resources but the potential for a greater impact on the local

economies and businesses that depend on the public lands in the planning area for tourism, recreation, and resource extraction.

Alternative C, Option 2, would exclude livestock grazing on public lands. It would have the least potential impact on physical and biological resources but the greatest impact on the local economies and businesses that depend on the public lands in the planning area for revenue from livestock grazing operations.

Alternative D would allow for many uses to continue but could constrain certain activities in order to maintain or improve land health conditions. Impacts under Alternative D tend to be within the range of Alternatives B and C (Option 1). Taking no action would prohibit the BLM from implementing management measures needed to both protect resources and to address concerns related to recreation pressure. Detailed descriptions of impacts of the four alternatives are provided in Chapter 4, along with a discussion of the cumulative impacts, irretrievable and irreversible commitments of resources, and unavoidable adverse impacts of the alternatives.

DEVELOPMENT OF THE PROPOSED RMP

The Draft RMP/EIS was issued for a 60-day public review and comment in June 2010. The public comment period was extended an additional 30 days, ending in October 2010. The WD assessed and considered public comments, received both individually and collectively, during the public review period of the Draft RMP/EIS.

The BLM has crafted the Proposed Alternative (Proposed RMP), largely based on the Preferred Alternative (Alternative D), which was identified in the 2010 Draft RMP/EIS, with modifications based on review of public comments received on the Draft RMP/EIS. Elements from the other alternatives were also included. In addition, special expertise input and comments received from cooperating agencies helped shape the Proposed Alternative. Changes in BLM regulations, policy, and guidance were another factor taken into consideration in its development. Key policy and guidance changes center on sage-grouse habitat management.

BLM responded to all substantive comments received on the DRMP/DEIS (Appendix M). In preparing responses to comments, the BLM referenced responses based on similar comments. The BLM also included a "Comment Noted" applicable to some comments. This response is intended to inform the commenter that the comment was taken into consideration in the development of the proposed RMP.

COMPARISON AND SUMMARY OF ALTERNATIVES AND ENVIRONMENTAL CONSEQUENCES

Resources

Air Quality

The major sources of air pollution emissions within the WD area include wildland fires, agricultural burns, vehicle traffic on unpaved roads, OHV use of unpaved roads, OHV use itself, wind erosion in dry lakebeds and other poorly vegetated areas following wildfires, mining and mineral developments, and energy resource developments. Wildland fires generally are the emission source with the greatest and most widespread impact on air quality in the WD. Depending on wind

conditions, wildland fires and prescribed burns elsewhere can have an impact on air quality conditions in the WD. Other emission sources tend to have more localized effects on air quality.

Air quality management objectives for all of the RMP alternatives include maintaining compliance with federal and state air quality standards and air quality management programs and carrying out FLPMA's instruction to protect air and atmospheric values while managing the public lands according to principles of "multiple use" and "sustained yield." Owners and operators of mineral and energy resource development projects would continue to be subject to state and federal air quality management programs, including air permit programs and fugitive dust control programs. Both existing and future gold and silver mining operations would be subject to Nevada mercury emission regulations. The WD area has been designated as being in attainment of federal ambient air quality standards for all federally-regulated pollutants. It should be noted that air quality impacts associated with natural events generally are excluded from consideration when determining whether or not an area complies with federal ambient air quality standards. Existing programs and procedures would continue to ensure that if prescribed burns do occur, they would not result in excessive smoke impacts on smoke-sensitive areas.

Alternatives A and C would not allow the use of conditional fire suppression management for a benefit while Alternatives B and D would. Allowing wildfires to burn in situations where the fire provides resource benefits would result in some increase in emissions for Alternatives B and D compared to Alternatives A and C. However, conditional fire suppression management for a benefit would likely be only a minor contributor to total annual emissions from wildfires.

Future mining activities, oil and gas developments, geothermal developments, and renewable resource developments are expected to be similar under all RMP alternatives. Because mineral development is largely driven by forces external to BLM, these activities would be nearly the same under all alternatives. Most areas proposed to be closed to mineral development in any alternative have only speculative value for most mineral resources. When mineral development occurs there would be mitigations in place under all alternatives.

RMP alternatives, with respect to recreation, would affect air quality based on OHV travel management. More areas designated as OHV-closed, or limited, would potentially reduce emissions from exhaust or air born fugitive dust. Fuels management alternatives would limit fire spread and associated fire emissions through construction of fuel treatment projects and fuel breaks. Two aspects distinguish Alternative C from the other alternatives in terms of air quality implications. Alternative C is expected to have the lowest level of OHV use among the alternatives since OHV use generally would be limited to established roads and trails and, Alternative C may indirectly increase the recurrence interval for wildland fires since it would likely have less effective programs for fuel treatments than the other alternatives. Because wildland fires are a more significant source of air pollution than OHV use, the overall effect is that Alternative C may result in higher overall air pollutant emissions than the other alternatives.

Geology

Impacts on geologic resources occur from large-scale surface disturbance, such as mining, erosion, off-road vehicles, excavation, and vandalism. Damage and vandalism are usually concentrated near roads and trails.

There would be no likely impacts on unique geologic resources resulting from the management, objectives, or actions under any of the alternatives for most of the other resources. With respect to effects on unique geologic resources, all of the alternatives are essentially equivalent.

Under Alternative A, mitigations measures would be employed to protect unique geologic resources on a case-by-case basis. There would be no restrictions on OHV travel management and areas near unique geologic resources would remain open for OHV travel. Areas containing unique geologic resources would remain open to multiples uses including minerals.

Under Alternative B, areas with unique geologic resources would remain open to multiple uses including all methods of mineral disposal, subject to implementing mitigation measures sufficient to protect the values at risk.

Under Alternative C, exclusion zones would be developed which would exclude uses relating to ROWs and minerals to protect unique geologic resources. Alternative C would also close OHV travel in and around these areas. Alternative D would have impacts similar to Alternative A. However, some areas containing unique geologic resource may restrict OHV travel as limited to existing roads and trails should unique geologic resources be located within delineated "limited" travel management zones. Use restrictions may apply under Alternative D should areas containing unique geologic resources be located within priority wildlife habitat areas and within priority watershed areas.

Soil Resources

Soil resources would be managed to maintain the natural habitat of the area and to minimize the potential for accelerated (human-caused) wind and water erosion. In order to maintain soil processes, a healthy, productive, and diverse plant community is necessary. Improved ecological condition would increase productivity, litter, soil biological crusts, soil fertility, infiltration, and nutrient cycling.

With respect to effects on soil resources, all of the alternatives are essentially equivalent. Impacts on soil resources from management actions related to land use include, grazing, fire management, recreation use, OHV travel, and other resources would vary the amount of land available for surface-disturbing activities and those that could impact the soil resources.

Under Alternatives A and B, soil erosion would be reduced by maintaining and improving the vegetative cover in areas designated as having high erosion susceptibility. Under Alternatives C and D, improvements would be pursued generally instead of just in erosion areas, and soil mitigation measures would be applied to all activities. Surface disturbances to vulnerable biological soil crusts would be minimized on a case-by-case basis under Alternative A, including some seasonal restrictions; they would be allowed with adverse effects mitigated under Alternative B, they would be eliminated or fully mitigated under Alternative C, including seasonal eliminations and use restrictions, surface disturbances would be minimized in areas with inadequate vegetative cover under Alternative D, including case-by-case seasonal use restriction.

Under Alternative A, surface disturbance activity operators would be encouraged to minimize disturbance. The BLM would pursue land reclamation in disturbed areas with conditions and methods determined on a case-by-case basis. Vegetation cover would be improved using a diversity

of native and introduced vegetation with native seed. Vegetation grown from native seeds would be preferred over introduced seed. Under Alternative B, surface disturbance activity operators would be encouraged to minimize disturbance, and the BLM would pursue land reclamation in disturbed areas. Land reclamation to original conditions would be required with best available material for growth media. Soil amendments would not be required. Vegetation cover would be improved primarily using introduced seed.

Under Alternative C, surface disturbance activities would be required to maintain, protect, or reduce adverse impacts on soil resources, and all land where the surface has been disturbed would be required to be reclaimed. Reclamation to original or better conditions would be required for all surface-disturbing activities, with salvaged or imported growth media. Only natural or organic soils amendments would be allowed. Only native vegetation would be used, which could result in areas being untreated and dominated by invasive plants when native seed supplies are exhausted.

Under Alternative D, surface-disturbing activities would be managed to ensure reclamation, where it is appropriate, with best available salvaged growth medium. Activities would be encouraged to maintain, protect, or reduce adverse impacts on soil resources, and, where appropriate, the BLM would manage surface-disturbing activities to ensure reclamation. Soil amendments would be allowed, where appropriate. Vegetation cover would be improved using a diversity of native and introduced vegetation with native seed. Vegetation grown from native seeds would be preferred over introduced seed.

Water Resources

Each alternative has a different emphasis, which is expected to result in different priorities for resource development. These priorities are expected to result in lower probabilities for adverse impacts on water resources under some of the alternatives.

Alternative A contains fewer, and generally less specific, management actions than the other alternatives. Use restrictions within watersheds would occur based on site specific analysis. Multiple uses would be allowed subject to development of site specific mitigation measures necessary to protect water resources. Alternative B would include use restrictions to manage well head protection zones. ROW avoidance areas that overlap with priority watersheds would also limit ROW or mitigate impacts from development within priority watersheds further protecting water resources. Alternative C would restrict uses that would not benefit resources within priority watersheds. Alternative D would restrict saleable, fluid and solid minerals and ROWs. Compared to Alternative C fewer uses may be restricted.

Alternative C would be the most protective of water resources because it would involve the least new development, excludes potentially impactful uses, and prioritize protection and restoration of resources when conflicts among uses occur. As one measure of the difference between Alternatives B and C on water quality, Alternative C would reduce road use, resulting in less potential for associated erosion impacts. However, some management actions under Alternative C may also enhance impacts on water resources. For example, less aggressive fire management and greater reliance on natural processes could lead to greater potential for large fires in the short term and associated short-term adverse impact on water resources.

Alternative D would be less didactic (instructive) in its overall approach, alternatively emphasizing development priorities or preservation priorities according to resource realm. Alternative D therefore represents a balance between alternatives, and its impacts on water resources would generally be intermediate between Alternatives B and C. Overall, it would tend to encourage economic development, but would recognize sensitive environmental concerns on a greater amount of land area, which would result in more acres excluded or restricted from conflicting uses than Alternative B.

Vegetation—Forest/Woodland Products

Forested vegetation would be affected most by fire management and forest vegetation management. Restrictions on management activities for the protection of other resources, primarily cultural, and special status species, would affect the level, location, and effectiveness of forest management actions to improve forest health. Effects from other resources could be limited and localized, considering the extent of forests and woodlands within the WD.

Restrictions would include location and size of fuel treatments to construct fuel breaks to protect stands from wildfire. Alternative B would include use of prescribed fire and allow 110,167 acres available for conditional fire suppression for a benefit to enhance stand health. Alternative B would also emphasize uses by allowing commercial harvesting of woodland products. Alternative C would restrict use of chemical and prescribed fire as tools to provide for stand health. Fewer tools would be available to ensure stand health under this alternative and changes to stand health would occur slowly over time. Alternative D would balance actions, allowing for prescribed fire and conditional fire suppression areas for a benefit. Commercial operations to harvest woodland products would not be allowed. Additional protections applicable to stand health would be realized from management actions to protect other resource which include use restrictions. No surface disturbance or no surface occupancy management to protect important priority wildlife habitat or within priority watersheds would protect stand health by restricting uses in forested areas.

From the standpoint of managing forest stands to maintain or improve wildlife habitat, Alternative C would provide the greatest benefit, followed by Alternatives D, A, and then B. All alternatives would allow for managing forest stands for stand health and vigor. Multiple uses would be emphasized the most in Alternative B, followed by Alternatives D, A, and C.

Vegetation—Invasive and Noxious Species

Weed potential would be affected most by fire and OHV management. The factors that would most differentiate one alternative from another in terms of their potential for weed infestation are the degree to which areas are open to OHV use, the type of treatments that would be allowed within the WD, the amount of acreage available for grazing and ground-disturbing activities. Alternative C would promote short term weed establishment and spread as chemicals would not be used to control weeds. The no grazing option under this alternative may limit weed spread as livestock would not graze public lands. Alternative D would provide the greatest flexibility in treating infestations offering an integrated weed management approach. Alternatives A and B would allow for more surface-disturbing activities and subsequently increase the potential for weed establishment and spread.

Vegetation—Rangelands

All alternatives would include management of rangeland vegetation to ensure standards for rangeland health are met. Wildland fire and livestock, wild horse and burro (WHB), and wildlife grazing have the greatest potential for impacting rangeland vegetation due to large areas of vegetation that is grazed or burned. Surface disturbing actions would also remove vegetation and effect rangeland depending on the size of disturbance. Management of grazing, implementation of emergency stabilization and rehabilitation (ES&R) treatments following fire, and ensuring requirements to reclaimed disturbed areas would reduce impacts on rangeland vegetation in the long term. Alternative C, Option 2 would have positive impacts on rangelands in the short-term as livestock grazing would be prohibited. Plant communities would thrive in areas from lack of grazing. On the other hand fuels would build up making rangelands vulnerable to wildfire. Alternatives A and B would be the least prohibitive towards use of rangelands, while Alternative C would restore rangelands through natural recovery. Alternative D would provide flexible opportunities to restore or improve rangeland through implementation of land treatments including chemical treatments. Rangeland would also be protected from certain uses through use restrictions for rangeland located within priority wildlife and priority watersheds.

Surface-disturbing activities on public land would cause short-term disturbance to vegetation by removal or trampling, which would allow weeds to become established. Such activities would include monitoring; small construction, implementation, and maintenance activities; fence building; road maintenance; wild horse and burro gathers; livestock impoundments; trap sites; recreational activities, such as camping, hiking, and backpacking; vegetation mowing; seed collection; and soil pit and cultural and paleontology site excavations for data recovery. Impacts would be limited and localized, due to the small area covered by these activities.

Alternative C, Option 2 would have the greatest impact on rangelands, as grazing would be prohibited. Alternatives A and B would be the least prohibitive toward use of rangelands, while Alternative C, Option 1, and Alternative D allow for the most resource protection.

Vegetation—Riparian Habitat and Wetlands

The greatest impacts on riparian or wetland habitat within the WD would be from wildland fire and livestock, WHB, and wildlife grazing. To a lesser degree, uses that disturb riparian areas would also remove riparian/wetland habitat. Impacts would vary based on the size and location of disturbance. Under all alternatives, riparian areas would be managed to achieve land health standards. All alternatives would manage riparian areas improving PFC. The percent of improvement in PFC varies by alternative. Alternative A would rely on mitigating impacts on riparian areas from location of roads and uses. Alternative B would be similar to Alternative A. Alternative B includes establishment of avoidance areas, which would limit ROWs through avoidance or development of mitigation measures. Riparian areas located within these avoidance areas would realize a greater degree of protection to improve riparian/wetland resources. Alternative C would include use restrictions that would apply to riparian areas should those areas be located within priority wildlife, priority watersheds or population management unit areas. Such use restrictions would result in fewer impacts and enhance riparian areas. Alternative C would also limit prescribed fire and use of herbicides in order to reduce fuels. Some riparian areas may be more vulnerable to wildland fire due to such limitations. Alternative D would allow for herbicide use and prescribed fire. Use restrictions

would occur in areas that overlap with priority watersheds or priority wildlife habitat areas. This alternative differs from Alternative C as fewer areas are identified with restrictions.

Fish and Wildlife

Impacts on fish and wildlife resources in the WD from other management programs include loss or alteration of native habitats, decreased food and water availability and quality, increased habitat fragmentation, changes in habitat and species composition, interruption of travel corridors, and disruption of species behavior, leading to reduced reproductive fitness or increased susceptibility to predation, and direct mortality. Surface-disturbing actions that alter habitat characteristics (e.g., structure, composition, and production) can affect habitat suitability for fish and wildlife, particularly where the disturbance removes or reduces cover and food resources. Even minor changes to vegetation communities can affect resident wildlife populations.

All alternatives would include applying land health standards, SOPs (standard operating procedure), best management practices (BMP), and mitigation measures to maintain and improve wildlife habitat. Alternative A would protect wildlife habitat based on implementation of site specific mitigation measures to improve and maintain wildlife habitat. Alternative B includes use restrictions for wildlife habitat located within ROW avoidance areas. ROW disturbance would either be avoided or mitigation measures would be developed to reduce impacts on wildlife habitat. Alternative C would include use restrictions for priority habitat areas and for population management units that include no surface use, no surface occupancy for certain uses. Habitat in these areas would improve as use restrictions would limit the potential for habitat disturbance. Alternative D would balance uses and would include some restrictions as described in Alternative C but fewer areas would be delineated with restrictions.

Special Status Species

All special status species management actions would implement appropriate mitigation and monitoring measures to ensure sensitive species are not affected in a manner that could lead to future listings. Impacts on special status fish, wildlife, and plant resources in the WD include loss or alteration of native habitats, increased habitat fragmentation, changes in habitat and species composition, disruption of species behavior leading to reduced reproductive fitness, and direct mortality. Surface-disturbing actions that alter vegetation characteristics (e.g., structure, composition, or production) have the potential to affect habitat suitability for special status fish, wildlife, and plants, particularly where the disturbance removes or reduces cover or food resources. Even minor changes to vegetation communities have the potential to affect resident special status populations.

The direct and indirect impacts of management actions on fish, wildlife, and plant resources may vary widely, depending on a variety of factors such as the dynamics of the habitat (e.g., community type, size, shape, complexity, seral state, and condition); season, intensity, duration, frequency, and extent of the disturbance; rate and composition of vegetation recovery; change in vegetation structure; type of soils; topography and microsites; animal species present; and the mobility of fish or wildlife species (i.e., the ability to leave a site or recolonize a site after a disturbance).

Alternative A would maintain and improve special status species habitat based on a site specific analysis and development of associated mitigation measures. Alternative B would be similar to Alternative A. However, Alternative B would include establishment of avoidance areas, which would

avoid or mitigate impacts from ROWs within special status species habitat located within avoidance areas. Special status species habitat within these areas would realize a greater degree of protection from ROW development and associated disturbance. Alternative C would include use restrictions that would apply to sensitive species habitat located within priority habitat, priority watersheds and population management units. Such restrictions would result in protecting sensitive species habitat. Alternative C would also limit prescribed fire and use of herbicides in order to reduce fuels. Some riparian areas may be more vulnerable to wildland fire due to such limitations. Alternative D would allow for herbicide use and prescribed fire. Use restrictions would occur in areas that overlap with priority watersheds or priority wildlife habitat areas. This alternative differs from Alternative C as fewer areas are identified with use restrictions.

Wild Horses and Burros

Each alternative has a different emphasis, which is expected to result in different priorities for resource development. These priorities are expected to result in higher probabilities for adverse impacts on wild horse and burro (WHB) populations and habitat resources under the alternatives.

Wild horses in Augusta Mountains Herd Management Area

All alternatives would manage WHB with the objective of achieving land health standards and maintaining a thriving ecological balance. Alternative A would represent current management under guidance of the 1982 Sonoma-Gerlach and Paradise-Denio MFPs and the amendments of 1999. Alternative A contains fewer, and generally less specific, management actions than the other alternatives. It represents the status quo.

Alternative B would generally prioritize development of resources for economic return while relying on mitigation to reduce, rather than prevent, adverse impacts. Alternative B would likely have greater impacts on WHB, as it emphasizes development, than would Alternatives C and D. However, B is the only alternative that does not allow for the occupancy of elk to occur on BLM lands, which lessens overall habitat competition impacts on WHB. Alternative B would also include ROW avoidance and mitigation measures that would be applied to portions of HMAs located within these areas. HMAs within these avoidance areas would have fewer impacts from ROW development. Alternative C would include use restrictions that would apply to HMAs and WHB habitat located within priority habitat and priority watershed areas. Such use restrictions would result in fewer impacts from development protecting WHB rangeland. Alternative C, Option 2 would benefit WHB as livestock grazing would not be allowed, reducing competition for forage between

McGee Mountain Burro Family

WHB and livestock. Alternative B would be similar to Alternative D with fewer areas identified with use restrictions.

Alternative C would be the most protective of natural resources because it would involve the least new development, excludes potentially impactful uses, and prioritizes protection and restoration of resources when conflicts among uses occur. Option 1 would emphasize protection of wildlife habitat over WHB and allows for minimal development of WHB habitat.

Alternative D represents a balance between preservation and development. It would attempt to balance appropriate multiple uses and manages for a healthy environment. It would allow the greatest flexibility of potential management tools. Therefore, Alternative D impacts on WHB would be generally intermediate between Alternative B and Alternative C, Option 1.

Wildland Fire Management

Protecting priority wildlife habitats, priority watersheds, cultural resources, commercial, mineral development, and recreation infrastructure would affect fire suppression priorities by increasing demands for fire suppression resources and fuel treatments. Conflicts could result as available firefighting resources become overextended. This could increase the costs of firefighting, if additional resources are needed. Overextended firefighting resources could also affect availability of firefighting resources locally, regionally, or nationally if they were diverted from other suppression efforts to the WD. A similar trend is occurring nationwide. Because Alternative C generally has the most areas with priorities for protection, it has the greatest potential to increase demands and costs for fire suppression resources and fuel treatments.

Alternative A allows for most areas of public land open to OHV use. The potential for human caused fire would be increased. This alternative has the fewest suppression priority areas, simplifying management of fires with multiple objectives. This alternative would have the fewest fire suppression priority areas. Mineral and energy development would likely increase the number of facilities needing fire suppression.

Alternative B would have the greatest potential to increase the Wildland Urban Interface areas (WUI) as more public acres would be available for land disposal. The risk of human-caused fire would be lower due to fewer acres designated open to OHV travel compared with Alternative A. Alternative B would have more open acres than Alternatives C and D. Alternative B would have the most potential for increased commercial and mineral development infrastructure that would require fire suppression protection. Alternative B would also allow management of fire for multiple objectives and resource benefit within 110,167 acres of conditional suppression areas.

Alternative C would close or restrict the most areas to OHV travel, which would result in lowering the potential for human caused fires and reduce a major source of weed spread. Option 2, would eliminate grazing and both options would eliminate chemical and prescribed fire treatments for weeds and to reduce fuels. Potential for fine fuel buildup would occur which could result in increased size and intensity of fires. This alternative has the largest number of priority protection areas which would increase fire suppression complexity to prioritize fires.

Alternative D would have fewer acres designated open for OHV travel compared to Alternative A. Additional priority protection areas would increase priorities for fire suppression, causing

prioritization conflicts. ES&R actions to restore vegetation conditions, and prevent or eliminate the spread of noxious weeds, invasive plants, and to rehabilitate burned areas would all reduce condition classes in the long run. These actions would also support the return of natural fire regimes, along with reducing the risks from wildland fire to the public and other resources. Alternative D also offers areas subject to managing fire for multiple objectives and for resource benefit.

Under all alternatives, large wildland fire suppression costs are expected to increase due to increasing operating costs (fuel, personnel, equipment, and supplies), additional development would also increase fire priorities and costs.

Cultural Resources

Proposed management actions that could impact or increase the risk of impacts on known and unknown cultural resources include those that require ground disturbance and wildfire. Ground disturbance can directly damage cultural resources and affect the setting of some cultural resources, traditional cultural properties, sacred sites and National Historic Trails.

A stone cabin in Black Canyon, Humboldt Mountains
Mining activity began in Black Canyon in the 1850s

All alternatives for management of cultural resources are subject to Section 106 of the National Historic Preservation Act process. The Section 106 process and tribal consultation process is completed to address anticipated cultural resource impacts. Most of the WD has not been inventoried for cultural resources, and thousands of undiscovered or unrecorded resources are believed to be there. A Section 106 process and tribal consultation would be completed to address anticipated impacts resulting from authorized and planned activities; however, unauthorized or unplanned activities, wildland fire, dispersed recreation, natural processes and unauthorized collection, excavation, and vandalism could lead to impacts that may be more difficult to monitor and mitigate. Management actions include stipulations designed to avoid or reduce impacts. Impacts on TCPs, sacred sites, historic trails, and some other cultural resource sites which are significant for reasons other than data potential may be difficult or impossible to mitigate.

Alternative A would emphasize protecting cultural resources based on site specific NEPA analysis and development of mitigation measures. Alternative B emphasizes uses which would have a higher potential to destroy cultural resources. However, cultural resources within ROW avoidance areas would be further protected due to avoidance and mitigation requirements. Alternative C would include use restrictions for saleable, fluid minerals, solid mineral leasing, and ROWs. These areas would be managed as no surface disturbance, no surface occupancy. Cultural resources located within the boundaries of these areas would be protected. Similar to Alternative C, Alternative D also

would provide use restrictions but fewer acres would be delineated with use restrictions compared to Alternative C.

Paleontological Resources

Impacts on paleontological resources are due to erosion, OHVs, excavation, theft, vandalism, and surface-disturbing activities, such as trampling by animals and humans. Experience has shown that damage, theft, and vandalism are usually concentrated near roads and trails. Impacts on paleontological resources may increase because of additional visitation to the areas containing these resources.

Implementing objectives and actions associated to protect other resources would also serve to protect paleontological resources. Impacts on paleontological resources includes surface disturbance from minerals, recreation use, and OHV travel. Impacts from OHV travel would vary by alternative and would be dependent on the number of acres open to unrestricted OHV use. Management actions for the other resources would vary the amount of land available for surface-disturbing activities and those that could impact the paleontological resources. Paleontological resources or impacts are not managed as unique geologic resources. Even though they are managed separately, any unknown paleontological resources within the boundaries of areas protected as unique geologic features would also be protected.

While physical conservation measures, such as signing, fencing, controlling erosion, and observing administrative conservation, would be implemented under all of the alternatives, under Alternative C, these measures would not be implemented if they could result in increased visitation. Other actions, including withdrawing land, closing public access, and prohibiting OHV use, would be used to protect vulnerable paleontological deposits and to reduce the potential for impacts. Under Alternative D, other actions, including withdrawing land, closing public access, and prohibiting OHV use, would be used as appropriate to protect vulnerable paleontological deposits.

If present, paleontological resources could be impacted by the extent and depths of ground disturbance associated with saleable and locatable mineral development. However, the potential for paleontological resources would be assessed before these activities were authorized, and avoidance or mitigations would be required. Alternative C would have the greatest restrictions to mining, Alternative D would be less restrictive, and Alternative B would be the least restrictive. Under Alternative A, restrictions would be implemented on a case-by-case basis where they may be more restrictive than under Alternative B.

Visual Resources

In general, all alternatives would involve actions that maintain or improve the quality of visual resources. In addition to relying on the visual resource contrast rating system to preserve the overall scenic quality of BLM-administered land, specific actions also maintain or improve visual resources involving air, water, flora, fauna, wildland fire, cultural resources, minerals, and recreation.

Alternative A would continue to rely on dated MFPs to manage visual resources. The MFPs are silent on certain issues related to geology, wildland fire, cultural resources, and cave and karst resources, all of which involve visual resources. This threatens visual resources associated with these resources. Also, incorrect or inconsistent visual resource management classifications would continue

to make managing visual resources difficult and would threaten the quality of visual resources. Furthermore, the demand for recreational use is expected to continue to increase, increasing the value of open spaces and undeveloped landscapes and the need for management actions to protect sensitive visual resource values.

Alternative C would provide the greatest protection to visual resources after Alternative B. Because Alternative C designates the most priority 1 wildlife habitat acres and the greatest total priority 1 and 2 wildlife habitat acres, it would have the greatest impact on protecting visual resources. Alternative C would assign more VRM class designations that are equal to or more protective than the VRI class designations. Also, Alternative C would close the most acres to OHV use and would have no open areas.

Cave and Karst

Karst features can occur in carbonate rock formations, but no significant karst features have been identified in the WD. The planning area has not been systematically surveyed for caves. Impacts on caves occur by excavation, theft, vandalism, and large-scale surface-disturbing activities, such as mining. Experience has shown that damage, theft, and vandalism are usually concentrated near roads and trails. Impacts on caves may increase because of additional visitation to areas within the planning area.

There would be no likely impacts on cave and karst resources resulting from the management, objectives, or actions under most of the other resources as all include specific measures to protect caves and karsts. With respect to their effects on cave and karst resources, all of the alternatives are essentially equivalent. The Lovelock Cave Byway is managed not as a cave resource but in accordance with cultural resource and byway management objectives and actions. Overall, objectives and actions associated with other resources that result in closure to surface disturbance activities would have beneficial impacts (less chance of disturbance) on caves and bat habitat and would increase protection of these resources. The education and public awareness provisions under the alternatives would increase visitation to those areas with caves and karst features, resulting in a greater risk of impacts from vandalism as access is improved and locations become known. While some individuals and small groups consider exploring caves as recreational, there are no caves that are recognized as recreation sites.

All alternatives include measures to mitigate adverse impact to caves and karsts. All alternatives require an inventory for bats and habitat use before allowing any surface occupancy or disturbance within at least 200 yards of caves that may be occupied. Alternatives B, C, and D provide varying degrees of protection of cave and karsts resources due to management actions proposed to protect other resources and protect wildlife habitat. Alternative B includes ROW avoidance areas which would indirectly protect caves and karsts. Alternative C includes ROW exclusion and avoidance areas that include use restriction in order to protect priority wildlife habitat, watersheds, and population management units. Caves and karsts located within these defined areas would be further protected from certain uses. Alternative D would also provide a layer of protection to include use restrictions within priority wildlife habitat areas and priority watersheds. Again, caves and karsts would be protected should caves and karsts be located within those priority areas.

Resource Uses

Livestock Grazing

Grazing management objectives for all alternatives includes achieving land health standards. Impacts on grazing include loss of forage from wildfire, wild horse and burro management, surface disturbance from minerals and energy development. Emergency stabilization and rehabilitation actions following fire would affect livestock grazing under all alternatives. Impacts would include closure of areas to grazing while seeded and/or natural recovery areas become established. Alternative A relies on site specific analysis and implementation of site specific mitigation measures to reduce impacts on livestock grazing. Under Alternative A more areas would be available for minerals development which may impact grazing in the short term by removing or limiting access to forage during construction. Alternative B emphasizes uses but also includes ROW avoidance areas which would help protect rangeland by mitigating ROW impacts located within avoidance areas. Alternative C would provide the largest areas with use restrictions applicable to certain mineral activities and ROWs. These restrictions include no surface disturbance and/or no surface occupancy which would help protect forage within rangelands located within these areas. Alternative D would be similar to Alternative C; however fewer areas would be delineated having use restrictions.

Minerals—Leasable, Locatable, and Saleable

Mineral resources include fluid and solid minerals leased for development under the Mineral Leasing Act of 1920 and amendments, as well as the Geothermal Steam Act of 1970, locatable minerals that may be claimed and patented under the 1872 Mining Law, and common variety materials that may be purchased under the Mineral Materials Sales Act of 1947.

The Ormat geothermal project near Jersey Hot Springs with the snow covered Tobin Range in the background

Development of the various alternatives involved the identification of BLM-administered land that is open or closed to saleable, leasable, and locatable mineral activities. On BLM land open to leasing or mineral development, certain areas may be subject to surface use stipulations in addition to those required by regulation or policy or identified on the standard lease or permit form. These additional restrictions could include no surface occupancy and restrictions based on season or other location-specific environmental factors. In many instances, more than one stipulation may apply on the same parcel of land. Table ES-2 indicates the difference among the alternatives in terms of the level of mineral resource availability and surface use restrictions on subsequent operations.

Table ES-2
Summary of Effects on Minerals—Alternatives A, B, C, and D

Mineral Materials (Saleables)	Alternative A	Alternative B	Alternative C	Alternative D
Acres closed to mineral material sale or permit	**418,938**	**418,938**	**837,049**	**694,991**
Total Acres open to mineral material sale of some type	**6,786,059**	**6,786,059**	**6,367,789**	**6,539,184**
Acres open to sale/permit[1]	0	4,473,691	2,746,668	2,871,026
Acres open to sale/permit[1] with known seasonal or other restrictions	6,786,059	1,445,244	0	2,390,415
Acres open to permitted government agencies only	0	867,124	3,621,121	1,277,700
Leasable Minerals (Fluid)	**Alternative A**	**Alternative B**	**Alternative C**	**Alternative D**
Acres closed to leasing	**446,887**	**1,132,594**	**4,455,028**	**1,740,928**
Acres open to leasing of any type	**6,745,878**	**6,068,969**	**2,749,810**	**5,492,707**
Acres open to leasing[2]	0	4,472,814	2,749,810	2,851,895
Acres open to leasing[2] plus known seasonal or other restrictions	6,716,296	1,374,731	0	2,435,327
Acres open to leasing[2] with No Surface Occupancy	29,582	221,724	0	205,485
Leasable Minerals (Solid)	**Alternative A**	**Alternative B**	**Alternative C**	**Alternative D**
Acres closed to leasing	**416,652**	**1,124,266**	**4,455,645**	**1,740,930**
Acres open to leasing of any type	**6,776,198**	**6,068,498**	**2,749,195**	**5,492,706**
Acres open to leasing[2]	0	4,472,950	2,749,195	2,851,895
Acres open to leasing[2] plus known seasonal or other restriction	6,776,198	1,373,904	0	2,435,326
Acres open to leasing[2] with No Surface Occupancy	0	221,644	0	205,485
Locatable Minerals	**Alternative A**	**Alternative B**	**Alternative C**	**Alternative D**
Acres closed to claim location	**6,543**	**6,543**	**281,892**	**7,296**
Acres open to claim location	**7,198,294**	**7,198,294**	**6,922,945**	**7,249,045**
Acres open to operations[1]	2,898,405	2,898,405	3,415,323	2,692,419
Acres open to operations but having known conflicts[3]	4,299,889	4,299,889	3,507,622	4,556,626

[1]Open with standard operation terms and stipulations.
[2]Open with standard lease terms and stipulations.
[3]Operations may be authorized, but one or more known conflicts may require special conditions or mitigating measures.
Notes: GIS data are presented for landscape level planning purposes to illustrate broad differences among the alternatives. The data presented in the Draft EIS (May 2010) were based on land status designations and mapping current at the time of publication. The data for Alternative D in this Final EIS include the BLM's most current land status designations and mapping, in order to provide up to date impact analysis of the Proposed RMP. The changes in the GIS land status layer that occurred over time were corrections to the layer arising from evolving GIS technologies and increased data available in GIS. The data presented here for Alternatives A through C, are substantially the same as presented in the Draft EIS, with minor corrections and changes in assumptions due to public comments. The accuracy of the GIS data is limited to the accuracy of the data available at the time of analysis. This data should not be interpreted to represent legal land survey. Because land status designations change over time, the accuracy of these data is expected to decrease over time. Parties interested in the land status of specific parcels of land should contact the appropriate local BLM Field Office.

Almost all of the management decisions and actions under each alternative are aimed at protecting other resources. In general, these decisions and actions result in varying amounts of land available for each of type of mineral resource category detailed below. They also result in varying types and levels of mitigation required for protection of sensitive environmental resources. The costs associated with reclamation and other mitigations could affect whether individuals or organizations continue mineral exploration and development activities. Other goals and actions involve frequency and types of audits and inspection of activities related to mineral development to ensure permit compliance and fair compensation for the minerals extracted.

Recreation and Facilities

Effects on recreation management from the proposed alternatives would result in a range of possible outcomes. Surface-disturbing activities, such as wildland fire management and mineral development, would have short-term and long-term effects on recreation users. This would be the case if areas and activities were restricted or excluded until surface-disturbing activities had concluded, or if such activities were to change the landscape character or the available recreation opportunities.

Little Onion Reservoir in the Pine Forest Ranges, spring 2010

Special designations, including Wilderness Areas (WA), WSAs, and ACECs recommended as suitable for designation, affect recreation management. Typically, these designations protect important historical, cultural, and scenic values, which encourage nonmotorized and more primitive backcountry experiences. Opportunities for this type of recreation user would increase as the percentage of the designated acreage increases. Recreation users who prefer motorized travel as an activity or who require motorized travel to access an area could be affected if previously accessible areas were to become inaccessible to motorized travel.

Maintaining and possibly increasing SRMA designations would protect recreation resources and would encourage appropriate recreation in these areas. The focus in these designations would include the most popular activities within the WD, such as camping, OHV use, pleasure driving, photography, and picnicking.

Alternatives B and D would designate the greatest number of SRMAs and the largest amount of acreage with SRMA designations. Those two alternatives would also designate the greatest number of Recreation Management Zones (RMZ). Alternative A would designate no additional SRMAs but would maintain the current Pine Forest SRMA designation, while Alternative D would add one designation. Alternative A would have the fewest number of acres designated in SRMAs, and Alternative C would have the second fewest acres. Under Alternative C, effects from general

recreation use and designation of new SRMAs would be similar to those described under Alternative B, with some exceptions. One SRMA containing a total of five RMZs and 151,824 acres would be designated under Alternative C and the array of recreational opportunities managed for would be more limited and provide more close-to-town activities than under Alternative B.

OHV use, which is a very popular activity within the WD, would be open on the greatest number of acres under Alternative A, followed by Alternative B. Alternative D would severely restrict open OHV use, and Alternative C would completely preclude it. Limited OHV use would occur on roughly similar acreage under all the alternatives except Alternative A, which would have the least acres with limited OHV use. Alternative C would close OHV use on the most acres, followed by Alternative D. Approximately the same number of acres would be closed to OHV use under Alternatives A and B.

Renewable Energy

All four alternatives contain actions that would affect the availability of lands for energy development. In general, the alternatives with ROW exclusion and avoidance areas contain the least acreage favorable to renewable energy development. The amount of land available for disposal out of public ownership would be different for each of the four alternatives and could affect renewable energy development. Although lands that would be disposed of could be used for renewable energy, there is no legal mandate for this use under private or other types of ownership; therefore, renewable energy development could be affected where the land available for disposal also contains renewable energy resources. Disposal probably would result in a lesser effect than ROW exclusion.

Alternative B would have the greatest potential for renewable energy development, since there would be no ROW exclusion areas. Although Alternative B would not have the lowest acreage available for disposal, it is lower than current conditions (Alternative A). Actions under Alternative C would present the least favorable conditions for renewable energy development; Alternative C would have more use restrictions. The potential for renewable energy development under Alternative D would be intermediate between Alternatives B and C. Alternative D would still afford use restrictions but with fewer acres delineated with restrictions.

Transportation and Access

The primary cause of effects on or changes to the transportation network is resource protection. Measures that are implemented to protect natural resources, such as wildlife, water, and soil, and to protect cultural resources could result in seasonal or permanent route restrictions or closures. Permitted activities on BLM-administered lands, such as those related to forestry and minerals, could expand the route network.

Under Alternative B, effects from commercial harvesting of firewood, posts, and Christmas trees could include an increase in forestry-related traffic in the WD. Long-term effects would include an increase in the number of routes accessible on public lands by establishing new roads during harvesting activities. This would affect opportunities for both motorized and nonmotorized users overall by increasing road density in the WD. Under Alternative C, certain transportation-related construction and maintenance could be restricted in designated old growth forests if impacts could not be minimized by implementing best management practices or if they could not be offset by mitigation measures. Under Alternative D, effects could be similar to those described under

Alternative B, but they are expected to be less because commercial harvesting would be authorized only on a case-by case basis to achieve resource objectives. In addition, effects from designating old growth forests would be the same as those described under Alternative C.

Increased visitation due to new recreational facilities would increase the use of roads and trails and would increase the demand for new travel routes under Alternative B. Managing new SRMAs could constrain or restrict public access in certain RMZs within the SRMAs or could enhance or encourage greater public access in other RMZs. Impacts would be local. Also, under Alternative B, 1,460,200 acres would be open to OHV use, 5,445,218 acres would be limited to OHV use, and 24,832 acres would be closed to OHV use; this alternative would allow the most OHV travel of the RMP alternatives. Under Alternative C, effects from general recreation use and designation of new SRMAs would be the same as those described under Alternative B. OHV travel would be the most restricted under Alternative C, with 61,427 acres closed, 7,143,177 acres limited, and no acres open to OHV use. Under Alternative D, effects from general recreation use and designation of new SRMAs would be the same as those described under Alternative B. Under Alternative D, 288,105 acres would be open to OHV use, 6,862,682 acres would be limited, and 28,354 acres would be closed to OHV use.

Under Alternative B, constructing roads while avoiding fragmentation may affect the location of routes, limiting access in some areas. Also, installing directional signs would enhance travel within the WD, particularly for recreational use, by indicating proper direction to destinations. In addition to minimizing the potential for visitors to become lost, signage would help direct traffic to main travel routes and would reduce the accidental use of roads that may not be suitable for all types of travel. Under Alternatives C and D, decommissioning, removing, or rerouting roads or trails that are adversely affecting the environment may limit access to some areas of the WD. Constructing roads while avoiding fragmentation may affect the location of routes, limiting access in some areas. Effects from implementing a signage plan would be the same as those described under Alternative B.

Under Alternative B, designating 716,528 acres as avoidance areas to protect resources could affect future route planning in and through these areas, although the impact on route planning would be limited. This is because resource impacts from the granting of ROWs would not be completely prohibited but would require mitigation. Under Alternative C, designating 869,645 acres as avoidance areas for granting ROWs would have the same effects as those described under Alternative B. In addition 1,201,000 acres would be designated as exclusion areas for granting ROWs in order to protect priority wildlife areas; this would limit route planning and could restrict access to some areas for certain uses. Under Alternative D, designating 1,783,000 acres as avoidance areas for granting ROWs would have the same effects as those described under Alternative B. Designating 1,201,000 acres as exclusion areas for granting ROWs would have similar effects as those described under Alternative C.

Lands and Realty

Alternative A would continue to rely on dated MFPs and the 1999 Lands Amendment to Paradise-Denio and Sonoma-Gerlach MFP to manage land use and land designations. These plans are silent on current issues (such as the scattered land ownership pattern, renewable energy development, and ROWs) affecting the management of BLM-administered land, diminishing the ability of the BLM to effectively manage the land.

In absolute terms, Alternatives C and D would have similar impacts on land use and land designations. Alternative B would provide slightly fewer opportunities for changing land uses and designations.

In relative terms, Alternatives B, C, and D differ in their degree of impact on land use and land designations. A noteworthy aspect of resource management actions that affect land use and land designations has to do with compatibility. For example, the allowance of one type of use can involve the restriction of a different type of use. Conversely, the restriction of one type of use can involve the allowance of a different type of use. Consequently, changes in land use typically involve both an increase and a decrease in the types of activities that can occur due to compatibility issues.

Special Designations

Areas of Critical Environmental Concern

In general, effects common to all alternatives involve actions that maintain or improve the qualities of ACECs. Administrative designations include that of ACECs. Potential ACEC designated areas were identified in the ACEC Relevance and Importance Evaluations (2006), Appendix F.

Under Alternative A, the BLM would continue to rely on dated MFPs, along with current policy and guidance for the Osgood Mountains ACEC. These plans are silent on areas recently proposed for ACECs and wild and scenic rivers.

Alternative B would be similar to Alternative A but includes additional protection for the Osgood Mountains ACEC. For example, the ACEC would be closed to fluid mineral leasing, and there would be no surface occupancy. This would protect the special qualities of the ACEC from fluid mineral activities. There would be no surface occupancy for solid mineral development in the Osgood Mountains ACEC because the ACEC would be within a two-mile radius of known sensitive plants. This would protect the special qualities of the ACEC from solid mineral development. Also, the BLM would manage the ACEC and associated landscapes as VRM Class II.

Alternatives C and D would increase the number of ACECs and, therefore, would increase the protection of special resources in the WD. However, Alternative C would provide greater protection than Alternative D to those special resources by, for example, limiting land-disturbing activities and conserving resources in the ACECs.

Wild and Scenic Rivers

Analysis in this section considers the effects of resource management on all river segments found to be eligible for NWSRS designation regardless of the determination of their suitability or potential designation status. NWSRS eligible river segments were identified in the WSR Report (BLM 2006), Appendix G. Under Alternative A, the determination of suitability would not be made on NWSRS eligible river segments and interim protective management would continue. Under Alternatives B and D, no eligible segments would be considered suitable and would receive no management specific to the maintenance of free flowing conditions or ORVs under the Wild and Scenic River Act (1968).

Under Alternative C, the BLM would determine eligible river segments to be suitable and would be managed as though they were designated at the tentative classification identified in the WSR Report

(BLM 2006). This would protect the outstanding remarkable values of eligible river segments identified in the WSR report (BLM 2006).

Back Country Byways

In general, the effects common to all alternatives involve actions that maintain or improve the qualities of backcountry byways (BCB). Specific actions to achieve this are associated with the management of rangeland vegetation, wild horses and burros, wildland fire, cultural resources, visual resources, livestock grazing, minerals, recreation and visitor outreach and services, renewable energy, transportation and access, lands and realty, and backcountry byways. In general, any actions that would change the visual or aesthetic character of the landscape surrounding the BCB would have impacts on the quality of the BCB.

Under Alternative A, the BLM would continue to rely on dated management framework plans to manage the Lovelock Cave BCB. Designation of new BCBs would be considered. An increasing population and increasing demand for recreation opportunities threaten the landscape surrounding the Lovelock Cave BCB and other potential BCBs because the MFPs lack management actions for these areas.

In absolute terms, Alternatives C and D would have similar impacts on BCBs, with some exceptions. Alternative C would provide additional protection to the landscape surrounding existing and potential BCBs because it would protect the areas from livestock damage, such as trampled vegetation. Compared to Alternatives C and D, Alternative B would provide less than half of the opportunities for protecting the special resources associated with BCBs.

In relative terms, Alternatives B, C, and D would differ in their degree of impact on existing and potential BCBs.

Wilderness Study Areas and Lands with Wilderness Characteristics

In general, effects that are common to all alternatives involve actions that maintain or improve the qualities of WSAs or lands with wilderness characteristics. Specific actions to achieve this are associated with most resources.

Under Alternative A, the BLM would continue to rely on dated MFPs to manage WSAs or lands with wilderness characteristics. These plans are silent on lands with wilderness characteristics. In addition, an increasing population and increasing demand for recreation opportunities further threaten lands with wilderness characteristics because these public resources lack management actions in the MFPs.

In absolute terms, Alternatives C and D would have similar impacts on WSAs or lands with wilderness characteristics, with some exceptions. Alternative C, Option 2 would provide additional protection to WSAs or lands with wilderness characteristics because it would protect the areas from damage by livestock, WHB, and wildlife grazing, such as trampled vegetation. Alternatives B, C, and D identify six wilderness characteristics areas for management. Under Alternative B, BLM would manage these areas to achieve multiple use and sustained yield objectives, while Alternative C would close these areas to mineral leasing and saleable mineral disposal and would be designated as ROW exclusion zones and priority 1 habitat. Alternative D would implement unspecified restrictions to

provide a flexible and location-specific approach to management of lands with wilderness characteristics. Compared to Alternatives C and D, Alternative B would provide fewer opportunities for protecting the special resources associated with these areas.

In relative terms, Alternatives B, C, and D would differ in their degree of impact on WSAs or lands with wilderness characteristics.

Watchable Wildlife Viewing Sites

The BLM would maintain the following existing Watchable Wildlife Viewing sites (as published in the *Nevada Wildlife Viewing Guide* [Clark 1993]), and evaluate potential watchable wildlife areas in collaboration with local, state, tribal, federal agencies and interested publics:

- High Rock Canyon,
- Mahogany Creek,
- Pine Forest Mountains,
- McGill Canyon,
- Santa Rosa Mountains, and
- Sonoma Creek.

New site-specific watchable wildlife viewing sites have not been identified in any of the proposed alternatives. However, the BLM plans on coordinating with NDOW to establish location-specific watchable wildlife viewing sites. The suitability and value of any proposed watchable wildlife viewing site depends on the presence of healthy undisturbed habitat composed of native vegetation and on maintaining healthy, viable wildlife populations. Therefore, actions to improve either of these characteristics would indirectly benefit potential watchable wildlife viewing sites. Detailed analyses of impacts on habitats and wildlife from the varying degrees of alternative objectives and actions are discussed under Vegetation—Forest/Woodland Products, Vegetation—Weeds, Vegetation—Rangelands, Vegetation—Riparian Habitat and Wetlands, Fish and Wildlife, and Special Status Species.

Social and Economic

Tribal Interests

Effects of each of the management action alternatives on tribal economic interests on reservation lands are likely similar to those of other residents in rural low-income parts of the planning area, as described under Social and Economic Conditions and Environmental Justice. However, under Alternatives C and D, on congressional approval, lands would be transferred to the Bureau of Indian Affairs for the expansion of the Fort McDermitt Indian Reservation. Expansion of the reservation land base may permit additional economic development of and income to the reservation. In terms of Native American Religious Concerns, Alternative A reflects the status quo, while Alternative B has the potential to increase impacts on areas that are held sacred by Native Americans. Alternatives C and D have the potential to have the least impact on areas held sacred by Native Americans.

Public Health and Safety

Nearly all management activities on the WD lands could affect public safety to some extent. The main goal for public safety as a resource is to protect people from natural or human-caused hazards encountered on public lands. Essentially, any management activity that improves access to BLM-administered lands or encourages the use of BLM-managed lands increases the likelihood that the public and BLM employees could come into contact with abandoned mine lands, modern mine pits, high walls and pit lakes, hot springs, and hazardous material sites, including solid waste, illegal dump sites, and unexploded ordinance or explosives. However, improving access in the resource area could reduce the number of accidents that result from poor travel conditions.

Under the Abandoned Mine Lands Program, management works to remove or remediate dangerous situations and materials when they are discovered. Remediation of abandoned mine hazards are prioritized by the potential for public exposure through access and proximity to populated areas and recreational uses. Increased public exposure to abandoned mine hazards would increase the priority to remediate those hazards in a timely manner. All alternatives would continue this work and would add procedures and safeguards for hazardous sites, including removing hazards, protecting significant sites, and stabilizing or limiting accessibility of abandoned mine lands and other hazardous sites when removal of hazards is not practical. Alternative C would have some added restrictions associated with recreation, visitor outreach and services management, geology management, and chemical and biological control of vegetation management, on abandoned mine lands and hazardous sites. These restrictions exceed those under Alternatives A and B and would be nearly the same as those under Alternative D. Long-term management of completed projects would include periodic maintenance and monitoring to determine success and stability of these measures.

Social and Economic Conditions and Environmental Justice

Alternative A would maintain current management practices; therefore, it would not induce any changes to the socioeconomic indicators. The actions proposed under Alternative B would be more use oriented and call for the fewest surface occupancy restrictions, special stipulations, and exclusion areas to protect water resources, wildlife and wildlife habitat, and geological, paleontological, and cultural resources. As such, Alternative B would provide the highest level of opportunity for economic development based on market goods, such as extractive industries, while potentially reducing non-market values, such as aesthetics and opportunities for solitude. Alternative C would be more environmentally oriented, with the greatest acreage of restrictions; therefore, Alternative C would have the greatest potential for limiting market-based economic activities but possibly enhancing non-market values, including bequest values for undisturbed lands. The acreage restrictions under Alternative D would fall between Alternatives B and C. Actions designed to protect sensitive resources under all alternatives could result in increased expenditures as a result of the management of some resources, such as water.

Each of the action alternatives would have the potential to affect local expenditures for equipment, supplies, and services by generating income in the local economy and fostering growth, by minimizing the potential for changes in economic growth, or by reducing income in the local economy and limiting growth, depending on the resource being considered. In general, Alternative B would have the greatest potential for generating or minimizing effects on economic growth. Alternative C would have the most actions that would limit resource uses, thereby limiting the

contribution of these uses to the local economy. In particular, Option 2 would eliminate grazing, which would impact individual ranchers, reduce local economies, and affect the social values of the local area. Alternative D would tend to have an economic effect that is intermediate between Alternatives B and C due to management actions relating to grazing, minerals, and recreation.

None of the alternatives would result in direct changes in population or changes in the demand for housing, schools, and public facilities and services. Alternative B could result in an indirect stimulus to population growth by encouraging greater resource use. No low-income or minority populations would be displaced or separated from community facilities, nor would minority businesses be disrupted by the proposed alternatives. Alternative C, Option 2, would eliminate a source of income for a specific group. To the extent that livestock grazing is the dominant or sole source of income for this group and that these ranchers' incomes would be considered low income, Alternative C, Option 2, could have a disproportionate effect on an environmental justice population.

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