

ANALYSIS OF THE MANAGEMENT SITUATION

CARSON CITY DISTRICT RESOURCE MANAGEMENT PLAN REVISION AND ENVIRONMENTAL IMPACT STATEMENT



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B	BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Nevada
C	Carson City District Allotment Status
D	Facility Asset Management System Road List

ACRONYMS AND ABBREVIATIONS

Full Phrase

ACEC	area of critical environmental concern
AML	Appropriate Management Level
AMP	Allotment Management Plan
AMS	Analysis of the Management Situation
AUM	animal unit month
BACT	Best Available Control Technologies
BCR	Bird Conservation Regions
BLM	US Department of the Interior, Bureau of Land Management
BMP	best management practice
BOR	US Department of the Interior, Bureau of Reclamation
CAA	Clean Air Act
CCD	US Department of the Interior, Bureau of Land Management, Carson City District
CCDPA	Carson City District Resource Management Plan Planning Area
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CRMP	consolidated resource management plan
DOI	US Department of the Interior
EA	environmental assessment
EE	Environmental Education
EIS	environmental impact statement
EPA	US Environmental Protection Agency
ERMA	Extensive Recreation Management Area
ESD	Ecological Site Description
ES	Ecological Systems
ESR	emergency stabilization and rehabilitation
°F	degrees Fahrenheit
FLPMA	Federal Land Policy and Management Act
FMP	Fire Management Plan
FWFMP	Federal Wildland Fire Management Policy
GIS	Geographic Information System
HMA	Herd Management Area
I	Interpretation
IM	Instruction Memorandum
IPM	Integrated Weed Management
LCT	Lahonton cutthroat trout
MLRA	Major Land Resource Area
MOU	Memorandum of Understanding

ACRONYMS AND ABBREVIATIONS *(continued)*

Full Phrase

NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NDEP	Nevada Department of Environmental Protection
NDOW	Nevada Department of Wildlife
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NNHP	Nevada Natural Heritage Program
NO ₂	nitrogen dioxide
NPS	US Department of the Interior, National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRS	Nevada Revised Statute
NV IBA	Nevada Important Bird Areas
NWIS	National Water Information System
NWSRS	National Wild and Scenic Rivers System
O ₃	ozone
OHV	off-highway vehicle
Pb	lead
PFC	Proper Functioning Condition
PJ	Pinion Juniper
PSD	Prevention of Significant Deterioration
RAC	Resource Advisory Council
REA	Rapid Ecological Assessment
RHA	Rangeland Health Assessments
RMP	resource management plan
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit
S & G	Standards and Guidelines
Standards and Guidelines	Nevada Standards for Public Land Health and Guidelines for Livestock Grazing Management
SWAMP	Surface Water Ambient Monitoring Program
TA	Target Areas
TMDL	Total Daily Maximum Load
US	United States
USC	United States Code
USDA	US Department of Agriculture
USFS	US Department of Agriculture, National Forest Service

ACRONYMS AND ABBREVIATIONS *(continued)*

Full Phrase

USFWS
USGSUS Fish and Wildlife Service
US Geological Survey

VRM

Visual Resource Management

WSA
WUIWilderness Study Area
Wildland-Urban Interface

CHAPTER I

INTRODUCTION

The United States (US) Department of the Interior (DOI), Bureau of Land Management (BLM), Carson City District (CCD) (**Figure I-1**, Carson City District) is preparing a resource management plan (RMP) and associated environmental impact statement (EIS) to guide management of BLM-administered land within the district and its two field offices, the Stillwater Field Office and the Sierra Front Field Office (**Figure I-2**, Stillwater Field Office, and **Figure I-3**, Sierra Front Field Office). The RMP/EIS will be prepared as a dynamic and flexible plan to allow management to reflect the changing needs of the Carson City District. The final RMP/EIS will revise and supersede the existing 2001 Carson City Field Office Consolidated Resource Management Plan (CRMP) and subsequent amendments.

The subject of this document is the management of public lands and federal mineral estate within the CCD boundaries hereafter defined as the Carson City District Resource Management Plan Planning Area (CCDPA).

The CCD boundary encompasses public land administered by the CCD, private lands, state lands, Indian reservations, and federal lands not administered by BLM. The CCDPA encompasses only the BLM-administered lands and federal mineral estate on public and private land. In addition to public land, the BLM administers fluid mineral interests on other federal lands, including lands managed by the US Forest Service and US Bureau of Reclamation (BOR) as well as Department of Defense military withdrawn lands. The BLM also administers federal mineral estate beneath private or state surface estates. (**Table I-1**, BLM-Administered Surface Acres by County).

I-1 Carson City District

I-2 Stillwater Field Office

I-3 Sierra Front Field Office

**Table I-1
BLM-Administered Surface Acres by County**

State	County	BLM-Administered Surface Acres
CA	Alpine	18,230
NV	Carson City	41,270
NV	Churchill	1,811,450
NV	Douglas	162,460
CA	Lassen	26,520
NV	Lyon	569,450
NV	Mineral	1,581,050
NV	Nye	189,080
CA	Plumas	710
NV	Storey	15,170
NV	Washoe	390,470

I.1 PURPOSE AND NEED OF THE RMP REVISION

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that the BLM “develop, maintain, and, when appropriate, revise land use plans” (43 United States Code [USC] 1712 (a)). BLM has deemed it necessary to revise the existing RMP for the CCD based on a number of new issues that have arisen since the consolidation of the RMP in 2001. An RMP is a set of comprehensive long-range decisions concerning the use and management of resources administered by BLM. In general, an RMP accomplishes two objectives:

1. Provides an overview of goals, objectives, and needs associated with public lands management; and
2. Resolves multiple-use conflicts or issues associated with the use of public land.

The BLM resource management planning process, explained in Title 43 of the Code of Federal Regulations (CFR), Part 1600 (43 CFR 1600), BLM 1601 Manual, and BLM Land Use Planning Handbook (H-1601-1) (BLM 2005), falls within the framework of the National Environmental Policy Act of 1969 (NEPA) environmental analysis and the decision-making process described in the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the DOI NEPA Manual (516 DM 1-7), and the BLM NEPA Handbook H-1790-1.

This Analysis of the Management Situation (AMS) is a planning precursor to the development of potential alternatives that is required by NEPA regulations.

Major issues to be addressed in the RMP revision include the following:

- Management of public lands to maintain and/or achieve healthy plant communities that support diverse and sustainable fish and wildlife populations.

- Management of energy and mineral resources, including identifying areas and conditions in which mineral development can occur.
- Increased visitation by way of off-highway vehicle (OHV) use and non-motorized uses (e.g., mountain biking and hiking) have led to increased concerns regarding resource protection and conflicting uses.
- Conducting Wild and Scenic River Eligibility and Suitability studies on river segments within the CCDPA.
- The need to consider opportunities for land tenure adjustment to improve manageability of public lands.
- Community expansion and urban interface.
- Right-of-way (ROW) exclusion areas and corridors.
- The needs of local government and citizens to be heard on an array of issues regarding both traditional and emerging uses of public land and their potential social and economic effects on local communities and values.

I.2 PURPOSE OF THE AMS

The AMS is the first step in the RMP process and conforms to the BLM planning regulations, 43 CFR II § 1600 et seq. (i.e., § 1610.4-4), to provide for the study and assessment of resources covered within the CCDPA. The AMS is a summary document that describes the physical and biological characteristics and conditions of the resources within the CCDPA and how these resources are currently being managed. An analysis of the resource conditions and their capabilities provide a reference for developing RMPs. This document represents an early component of the resource management planning process. The AMS is not a comprehensive, detail-oriented document, nor does it represent a full analysis of the various resources. Rather, it is intended to provide a summary analysis of existing management practices, including direction from existing plans and agency policy and discussion of local resource, social, and economic conditions.

The AMS will also serve as the basis for formulating reasonable alternatives, including the types of resources for development or protection. The alternatives and analysis of environmental consequences (43 CFR II §§ 1610.4-5, 4-6) will be documented in the draft and final EIS. In addition, BLM will use the AMS to develop an information base that addresses the following: current resource conditions and trends; current management direction; management opportunities; consistency and coordination with other federal, state, and local plans, mandates and authorities; and results from public scoping.

I.3 THE BLM PLANNING PROCESS

The process for the development, approval, maintenance, and amendment or revision of RMPs was initiated under the authority of Section 202(f) of FLPMA

and Section 202(c) of NEPA. The process is guided by BLM planning regulations in 43 CFR 1600 and Council on Environmental Quality regulations in 40 CFR 1500 and has two tiers: 1) the land use planning tier, and 2) the implementation tier. In the land use planning tier, the BLM develops the RMP. The RMP prescribes the allocation of and general future management direction for the resource and land uses of the BLM-administered public lands in the CCDPA. The RMP then guides the implementation tier, which includes the more site-specific activity or implementation planning and daily operations. Activity or implementation planning converts the resource and land use decisions of the RMP into site-specific management decisions for smaller geographic units of public lands within the CCDPA. Activity planning includes such elements as allotment management plans (AMPs), habitat management plans, and interdisciplinary or coordinated activity plans that issue various land and resource use authorizations. Activity planning may also include identification of specific mitigation needs and development and implementation of other similar plans and actions.

All management direction and/or actions developed as part of the BLM planning process are subject to valid existing rights and must meet the objectives of BLM's multiple-use management mandate and responsibilities (FLPMA Section 202(c) and (e)). Valid existing rights include all valid lease, permit, patent, ROWs, or other land use rights or authorizations in effect on the date of approval of FLPMA and those land use rights and authorizations approved under FLPMA.

I.4 PLANNING PROCESS OVERVIEW

The BLM Land Use Planning manual and handbook (BLM, 2005) provides guidance for the required steps of the Carson City District RMP planning process. The major steps, and supporting tasks, are shown in the following list:

Conduct Public Scoping

- Publish Notice of Intent to Prepare an RMP and EIS.
- Develop planning criteria and identify planning opportunities.
- Invite public to participate and collect public comment.
- Identify issues raised by the public.
- Refine issue descriptions and prepare scoping report.

Prepare AMS

- Characterize the current management situation with an AMS.

Prepare Draft EIS and RMP

- Refine issues, alternatives, and impact analysis input.
- Provide 90-day public comment period.

Prepare Final EIS and Proposed RMP

- Develop an implementation and monitoring plan on the preferred alternative.
- Provide 30-day protest period and 60-day Governor's review.

Prepare Record of Decision and Approved RMP

- Identify selected alternative and respond to public comments and protests.
- Implement, monitor, and evaluate.

The CCD RMP interdisciplinary team has completed the public scoping phase, which is discussed in the Scoping Summary Report, from December 2012. The interdisciplinary team has completed the AMS phase with the publication and public availability of this document, the *Carson City District Analysis of the Management Situation*.

I.5 GENERAL DESCRIPTION OF PLANNING AREA, GEOGRAPHIC SCOPE, AND RESOURCES/PROGRAMS

The CCDPA encompasses approximately 4.8 million surface acres of public lands in western Nevada and northeastern California. The CCDPA is in the physiographic area known as the Central Basin and Range (97%) and Sierra Nevada (3%) ecoregions. The Central Basin and Range encompasses large areas of Nevada and Utah and extends into California and Idaho. It lies to the immediate east of the Sierra Nevada, to the north of the Mojave Basin and Range, to the west of the Wasatch/Uinta Mountains, and south of the Northern Basin and Range ecoregions. The ecoregion has a total area of 120,000 square miles and includes all or portions of 16 BLM field offices.

The Central Basin and Range ecoregion is internally drained and is characterized by a mosaic of dry basins, scattered low and high mountains, and salt flats. It has a hotter and drier climate, more shrubland, and more mountain ranges than the Northern Basin and Range ecoregion to the north. Between the Sierra Nevada to the west and Wasatch ranges to the east, more than three hundred long, narrow, roughly parallel mountain ranges are separated by broad elongated valleys. Basins are generally covered by Great Basin sagebrush or saltbush-greasewood vegetation. Cool season grasses are less common than in the Snake River Plain and Northern Basin and Range Ecoregions. The region is not as hot as the Mojave Basin and Range ecoregion to the south and it has a greater percent of land that is grazed.

The extremes of climate, elevation, and soil type combine to produce environments that strongly influence the plant species. Salt-tolerant shrubs and playas prevail in the lower valleys. Expanses of sagebrush and other shrub communities cover most of the higher elevations. Pinyon and juniper woodlands occupy large portions of lower elevation mountain slopes and ranges, with conifer and hardwood forests occurring in widely dispersed patches. Small areas

of wetland habitats including perennial streams, wet meadows, springs, and seeps are scattered throughout the CCDPA. Noxious weeds and invasive non-native species have invaded many areas, and much more acreage is at risk from such invasion.

Resources discussed in this AMS include air, geology, soil, water, vegetation, special status species, fish and wildlife, wild horse and burros wildland fire management, cultural resources, paleontology, visual resources, , wilderness characteristics, and cave and karst resources.. Resource uses discussed in this AMS include forestry, livestock grazing, recreation and visitor services, comprehensive trails and travel management, lands and realty, and energy and minerals. Special designations, support facilities, and social and economic conditions are also discussed.

I.6 KEY FINDINGS

The 2001 CRMP, along with subsequent amendments, has been successful in providing direction for management of BLM-administered lands in the CCDPA. Key issues needing resolution generally result from the following four changes:

1. Revised BLM policy (e.g., establishment of major ROW corridors, cultural resource management, visual resource management [VRM]);
2. Changing resource conditions or demands (e.g., increases in public use, existence of federally listed threatened and endangered or other sensitive species);
3. New national policy direction (e.g., focus on energy development, including geothermal resources); and
4. Addressing emerging issues (e.g., Wild and Scenic Rivers, designation of areas of critical environmental concern [ACEC], and protection of lands with wilderness characteristics).

A list of key issues to be addressed in the RMP has been compiled based on internal scoping (local knowledge of BLM staff and managers) and external scoping (through BLM's involvement with local communities). **Table I-2**, Planning Issue Categories and Statements, identifies the key issues and the planning issue statements.

**Table I-2
Planning Issue Categories and Statements**

Issue	Planning Issue Category	Planning Issue Statement
1.	Ecological Health	What measures should be implemented to protect native vegetation, riparian areas, and prevent the spread of noxious weeds, and control wildland fires? What areas should be prioritized for restoration activities?
2.	Air and Atmospheric Values	What measures and monitoring should the BLM implement to maintain air quality standards? How will the BLM incorporate the analysis of the impacts of a changing climate on natural resources in the CCDPA?
3.	Water	What measures will be implemented to protect, maintain or enhance water resources and source water protection areas from the effects of other uses while rehabilitating areas with soils degradation?
4.	Cultural Resources/Native American Concerns and Paleontology	How can the BLM protect and conserve cultural and paleontological resources, while allowing for other land and resource uses and where should BLM manage heritage resources and areas? What measures will BLM take to ensure tribal access to natural and traditional resources?
5.	Visual Resource Management	How should visual resource management classes be established? What are current and potential conflicts with managing visual resource values and how can conflicts be mitigated?
6.	Special Status Species	What actions or restrictions should be undertaken to protect special status species and critical habitat in the CCD? What areas should be identified as important habitat for special status species?
7.	Fish and Wildlife	How will land uses be managed to maintain and improve terrestrial and aquatic habitats? How will the BLM manage the public lands to provide for the needs of sensitive wildlife and plant species? How will the development of priority sage grouse habitat be addressed within the CCD?
8.	Wild Horse and Burros	How will Herd Management Area (HMA) boundaries be adjusted to manage habitat and population suitability and viability? What methods should be considered to achieve and maintain appropriate management levels?
9.	Fire Management	What is the appropriate protection response for all public lands and adjacent areas of the District? Should areas be identified for managing natural-cause fire to meet resource objectives?
10.	Livestock Grazing	How will the BLM manage livestock grazing on public lands, while protecting, managing, and restoring the land?
11.	Recreation and Visitor Services	How will recreation be managed to provide for a variety of recreational activities, while protecting natural and cultural resources, minimizing user conflicts, and providing socioeconomic benefits to local communities?

**Table I-2
Planning Issue Categories and Statements**

Issue	Planning Issue Category	Planning Issue Statement
12.	Lands and Realty	Are there areas that should be considered for land tenure changes? Should the BLM designate areas to accommodate major utility corridors across the CCDPA and are there areas that should be avoided or excluded from ROWs?
13.	Mineral Resources	Which areas should be open to mineral resources including oil and gas leasing, and what restrictions should be employed to protect natural and cultural resources and minimize user conflicts?
14.	Hazardous Materials	How will BLM manage public lands within the Carson River Mercury Comprehensive Environmental Response, Compensation and Liability Act site?
15.	Special Designations	Where and what types of special designations should be enacted to protect and enhance unique resources and educational and research opportunities, and how can the BLM manage them to maximize recreational opportunities and socioeconomic benefits? How can the BLM protect and manage Wilderness Study Areas (WSA) and areas with wilderness characteristics?
16.	Renewable Energy (Biomass, Solar, Wind and Geothermal)	How can BLM accommodate development of renewable energy resources? Should suitability criteria be developed?
17.	Socio-Economics	How can the BLM promote or maintain activities that provide social and economic benefits to local communities?
18.	Environmental Justice	What opportunities can be provided to promote involvement of minority populations, low-income communities and Tribes that would affect their lives, livelihoods and health?
19.	Sustainable Development	How can BLM ensure coordination, consultation, and cooperation processes are in place and working effectively with partnerships and stakeholders? Are the RMP decisions economically viable and is the community and regional economy adequately considered?
20.	Travel and Transportation Management	How will motorized, non-motorized, and mechanized travel be managed to provide commodity, amenity, and recreation opportunities, reduce user conflicts, enforce route designations and closures, reduce fragmentation and habitat degradation, and protect natural and cultural resources?
21.	Cave and Karst Resources	What cave and karst resources are being utilized within the District?
22.	Urban Growth	What opportunities exist to make adjustments to public land ownership that would increase the benefit to the public, local communities, and natural resources, while working towards BLM management goals? What measures should be undertaken to promote a healthy environment for local communities

Table I-2
Planning Issue Categories and Statements

Issue	Planning Issue Category	Planning Issue Statement
23.	Forest/Woodland Products	What management tools and practices should be used to maintain healthy forest and woodlands? How will the BLM address commercial, non-commercial and tribal utilization of forest and woodland resources?

CHAPTER 2

AFFECTED ENVIRONMENT AND AREA PROFILE

2.1 REGIONAL CONTEXT FOR THE STATE OF NEVADA

Nevada is the 7th largest state in the United States and has an area of approximately 110,000 square miles. Nevada, in shape, consists of a broad rectangular area in the north, based on the line of latitude 42° north, and angles down and eastward from the 39° between the 120° to 114° longitude to a point at about the 35° latitude. Nevada's boundaries were enlarged after it was granted statehood to include part of the Utah and New Mexico Territories.

Nevada has over 200 mountain ranges within its borders. Boundary Peak in Esmeralda County has the highest elevation at 13,140 feet with the Colorado River in Clark County having the lowest at 470 feet. The BLM administers nearly 48 million acres of public land in Nevada which equates to approximately 67 percent of Nevada's land base. Overall about 86 percent of Nevada total land area is owned by the US government.

2.1.1 Physiographic Provinces

Ecoregions defined by the Environmental Protection Agency (EPA) are derived from the seminal work; Ecoregions of the Conterminous United States by J.M. Omernik in 1987 (Omernik, 1987). The framework is designed to serve as a spatial framework for research, assessment, management, and monitoring of environmental resources. Ecoregions denote areas within which ecosystems (and the type, quality, and quantity of environmental resources) are generally similar.

Nevada BLM anticipates adoption of Rapid Ecoregional Assessment (REA) data (accessed August 16, 2012: http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas/assessmentsqa.html). REAs are a synthesis and analysis of the best available information about natural resource conditions and trends within an ecoregion. They highlight and map areas of high ecological value, including important wildlife habitats and corridors, and gauge their potential risks from

four key environmental “change agents”: climate change, wildfires, invasive species, and development. REAs also map areas that have high energy development potential, and relatively low ecological value, which could be best-suited for siting future energy development. In addition, REAs establish landscape-scale baseline ecological data to gauge the effect and effectiveness of future management actions.

The BLM recognizes that the public lands are facing increasingly complex and widespread environmental challenges that transcend traditional management boundaries. These challenges include managing wildfire; controlling weeds and insect outbreaks; providing for energy development and urban growth; and addressing pervasive impacts from the effects of climate change. The REAs are being prepared to help land managers and stakeholders better understand these challenges, and to provide science-based information to support balanced stewardship of the diverse natural resources of the public lands.

REAs do not make management decisions or allocate resource uses. They provide science-based information and tools for land managers and stakeholders to consider in subsequent resource planning and decision-making processes.

The BLM will use the REAs to inform resource management at the local and ecoregional levels. At the local level, the REAs will enhance the quality of land use planning and environmental analysis conducted by BLM field offices. The information, maps, and tools provided by the REAs will strengthen analyses of the potential and cumulative effects of climate change and other environmental disturbances on important ecological values.

At the ecoregional level, the BLM will use the REAs, along with input from partner agencies, stakeholders, and American Indian Tribes, to develop broad-level management strategies, called “ecoregional direction”, for an ecoregion’s BLM-managed lands. Ecoregional direction will be prepared after a REA is completed.

2.2 RESOURCES

2.2.1 Air and Climate Change

Air

Air emission sources within the CCDPA can affect air quality both within and outside the CCDPA, and activities on BLM-administered lands must be managed in accordance with the Clean Air Act (CAA), as amended and be in compliance with all other applicable federal, state, and local air regulations.

The CAA, enacted in 1970 and subsequently amended in 1990, contains numerous provisions related to air quality. The most relevant provisions for federal land managers pertains to the establishment of the National Ambient Air Quality Standards (NAAQS), whereby areas can be determined as

nonattainment for the standard, and the subsequent development of State Implementation Plans (SIPs). **Table 2-1**, National Standards for Air Quality, presents the National Standards for Air Quality.

Table 2-1
National Standards for Air Quality

Pollutant [final rule cite]	Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide [76 FR 54294, Aug 31, 2011]	primary	8-hour	9 ppm	Not to be exceeded more than once per year
		1-hour	35 ppm	
Lead [73 FR 66964, Nov 12, 2008]	primary and secondary	Rolling 3 month average	0.15 µg/m ³ (1)	Not to be exceeded
Nitrogen Dioxide [75 FR 6474, Feb 9, 2010] [61 FR 52852, Oct 8, 1996]	primary	1-hour	100 ppb	98th percentile, averaged over 3 years
	primary and secondary	Annual	53 ppb (2)	Annual Mean
Ozone [73 FR 16436, Mar 27, 2008]	primary and secondary	8-hour	0.075 ppm (3)	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particle Pollution [71 FR 61144, Oct 17, 2006]	PM _{2.5}	Annual	15 µg/m ³	annual mean, averaged over 3 years
		24-hour	35 µg/m ³	98th percentile, averaged over 3 years
	PM ₁₀	24-hour	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide [75 FR 35520, Jun 22, 2010] [38 FR 25678, Sept 14, 1973]	primary	1-hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

Accessed August 06, 2012: <http://www.epa.gov/air/criteria.html>

Under the General Conformity Regulations of the CAA, federal agencies may not take actions in nonattainment or maintenance areas which do not conform to SIPs. In addition to the NAAQS, the Prevention of Significant Deterioration (PSD) sets forth a permit process which applies to new major sources or major modifications of existing sources for pollutants where the source area is located inside an attainment or unclassifiable area as defined by the NAAQS. Furthermore, PSD requires the use of Best Available Control Technologies (BACT), and provides for an air quality impact analysis as well as public involvement. The purpose of the PSD is to protect the public health and welfare, preserve, protect, and enhance the air quality of national parks and

wilderness areas, as well national monuments, seashores and other areas of national recreation, scenic, or areas of historic value.

Nevada is one of the few states without their own clean air act. Areas that are classified as non-attainment by the EPA are required to prepare and implement a SIP that identifies and quantifies sources of emissions and presents a comprehensive strategy to control and reduce locally generated emissions. The EPA has summarized Nevada's emission sources in a map based on 1996 principle pollutant data. The map (EPAemissionmap) (<http://www.epa.gov/ttn/naaqs/ozone/areas/maps/nvsourc.gif>) highlights volatile organic compounds (VOC) and nitrogen oxides (NO_x) sources.

Washoe County is non-attainment for Carbon Monoxide (CO). In 2008, the EPA approved Nevada's SIP intended to provide for attainment and maintenance of the carbon monoxide NAAQS and approved Nevada's request to re-designate the Truckee Meadows carbon monoxide non-attainment area to attainment.

Air quality within the region can be analyzed based on pollutant levels in the air; visibility across Nevada's expansive vistas; and pollutant deposition that affects soils, streams, and lakes. The CAA places restrictions on impacts on air quality and visibility within Class I and II areas. Class I areas consist of many national wildlife refuges and most national parks and designated wilderness that existed when legislation was enacted in 1977. Class II areas include most other western public lands. Little degradation of air quality is allowed in Class I areas; less stringent requirements apply to Class II areas. There are no Class I areas in the CCDPA; the nearest Class I areas are the north/south spine of the Sierra Nevada mountain range, west of Reno. The CCDPA receives minimal air pollution from California, except for wildfire smoke that can be intense for short periods of time. The jet stream or air flow patterns generally come from the south and west across the CCDPA and continue up and out into the Great Basin. It is common for Carson City and Reno to experience low visibility days from wildfires in Northern California, Yosemite National Park, El Dorado National Forest, or Tahoe National Forest. CCD has no Class I areas nearby for potential impacts on strict ambient air quality standards. Air quality is managed on BLM lands based on best management practices.

Indicators

Quantitative indicators assessed in a BLM environmental review at the project level are case by case. CCD considers short term and long term effects from proposed projects approved by BLM in NEPA documents. Long term effects are analyzed through emissions modeling; example cases include construction or geothermal development. The BLM cannot approve an activity that would move a county from attainment to non-attainment status.

Current Conditions

In 2010, ambient air in Washoe County was reported as non-attainment for PM₁₀ (large particulate matter), attainment for PM_{2.5} (smaller particulate matter) and CO (Carbon monoxide), and unclassifiable for O₃ (ozone), NO₂ (nitrogen dioxide), and Pb (lead). Sulfur dioxides (SO₂) were better than national standards (Washoe County, 2011). The non-attainment classification of Washoe County's air quality is a consequence of the dense population center, urban sprawl, and industrial activities in the southern portion of the county in and around the Truckee Meadows. This southern portion of the county includes the cities of Reno, Sparks, and Spanish Springs as well as surrounding bed-room communities. All other counties in the planning area are within attainment levels. Currently, visibility for prescribed burn days, based on county protocols is the only air quality limitation used on the CCD.

Trends

The ten-year trend published by Washoe County for ambient air data collected between 2001 and 2010 revealed that air quality in the non-attainment area southern portions of Washoe County in the Truckee Meadows is unhealthy for sensitive groups approximately 40 percent of the days annually.

Forecast

The forecast for air quality is coarse since the condition of the resource based on current management is not tracked over the planning area. The dense population center of southern Washoe County will continue to struggle with particulate matter.

Climate

The CCDPA climate is typical of middle latitude, semi-arid lands where evaporation potential exceeds precipitation throughout the year. Climatic conditions of the eastern Sierra Nevada and western Great Basin are influenced by the rain shadow effect. The rain shadow effect results in relatively little precipitation due to the topography of the Sierra Nevada mountain range causing the prevailing winds to lose their moisture before reaching the Sierra Front. This topography influenced weather pattern is repeatedly seen on the leeward side of other mountain ranges within the district boundaries. The CCD has a wide range of minimum and maximum monthly temperatures with 15 to 50°F (degrees Fahrenheit) in the winter months and 40 to the mid-90s°F in the summer months. Wide daily ranges in temperature are a result of strong surface heating during the day and rapid nighttime cooling because of the dry air. Annual average total precipitation ranges from 5 to 10 inches, about 70 percent of the annual total typically falls between November and April. Occasional summer thunderstorms can cause flash flooding and debris flows. Within the CCDPA, the average elevation is between 3,800 and 5,000 feet, the lower limit being in Carson Sink. General elevation gain between the basin and range is typically 5,000 to 7,000 feet. Wind conditions reflect the elevation change and temperature gradient between basin and range. Predominately westerly winds

disperse air pollution; i.e. wildland and prescribed fires from California and poor air quality from the Truckee Meadows population center, over the Great Basin.

The Western Regional Climate Center has thirty-four long-term climate (or weather station) sites within or adjacent to the CCD. Records of weather patterns illustrate variations or fluctuations in precipitation and temperature in the CCDPA. Climate oscillations that affect the CCDPA include El Niño, the Interdecadal Pacific Oscillation, El Niña, and the Pacific Decadal Oscillation. Environmental impacts from these variations in climate include lake levels, snow cover, soil erosion, sedimentation, slope and dune movement, and effects on fire frequency.

Climate by itself is important because it is a fundamental control on geomorphic processes. Changes in climate are significant because they lead to responses in geomorphic systems that are used to interpret past geomorphic events and predict future environmental scenarios. When disruptive events occur, thresholds are crossed and systems cannot recover to pre-event conditions. Ecosystems then develop a new equilibrium condition adjusted to new normal parameters.

Climate Change

Some predicted effects of climate change include increased duration and frequency of droughts and an increase in extreme precipitation events. This combination can result in an increase in surface soil erosion and gulying beyond current levels. Continental scale shifts in precipitation may lead to areas where there are increases and decreases in soil moisture. Prolonged drought would also affect soil respiration, resulting in a decreased soil carbon pool (IPCC, 2007). Consideration of effects of climate change calls for a determination of which climate change impacts warrant consideration in EAs and EISs. Sensitivity, location, and time frame of a proposed action will determine the degree which consideration is warranted. Council of Environmental Quality (CEQ) notes that climate change can affect the environment in a variety of ways. For example, climate change can affect the integrity of a development or structure by exposing it to a greater risk of floods, storm surges, or higher temperatures. Climate change can increase the vulnerability of a resource, ecosystem, or human community, causing a proposed action to result in consequences that are more damaging than prior experience with environmental impacts analysis might indicate. For example, an industrial process may draw cumulatively significant amounts of water from a river that is dwindling from decreased snowpack in the mountains or add significant heat to a water body that is already exposed to increasing atmospheric temperature (Spensley, 2011)

As with any field of scientific study, there are uncertainties associated with the science of climate change. This does not imply that scientists do not have confidence in many aspects of climate change science. Some aspects of the science are known with virtual certainty, because they are based on well-known

physical laws and documented trends (EPA, 2008). The United States Environmental Protection Agency (EPA) is presently building a regulatory framework for measuring and controlling greenhouse gas (GHG) emissions. Many chemical compounds found in the earth's atmosphere act as GHG. These gases allow sunlight to enter the atmosphere but limit the amount of infrared radiation (heat) that bounces back into space after striking the Earth's surface. This infrared radiation is absorbed by greenhouse gases, trapping heat in the atmosphere. GHG properties come from both natural and human sources. Water vapor, carbon dioxide, methane, and nitrous oxide are examples of GHG that have both natural and anthropogenic sources, while other gases such as those used for aerosols are exclusively human made. Computer-based modeling used to predict climate change shows that rising GHG concentrations generally produce an increase in the average temperature of the earth, which may produce changes in weather, sea levels, and land use patterns. Collectively, these effects are referred to as climate change (EPA, 2012).

Global meta-analyses of 334 multi-species studies documented significant range shifts averaging 6.1 kilometers per decade towards the poles (or meters per decade upward), and significant mean advancement of spring events by 2.3 days per decade (Parmesan C. &, 2003). Review of the long-term studies (> 20 years) showing phenological and distributional changes of wild species (from woody plants to mammals) and concluded that results indicate 74-91% of range boundary shifts or timing (i.e. breeding, flowering, migration) shifts significantly correlate with climate change predictions. Overall, land-use change has probably been a stronger driver of twentieth century changes in wild plants and animals than has climate change, however persistent forces impacting natural systems on a global scale are inherently important in that they can alter species interactions, de-stabilize communities, and drive major biome shifts (Parmesan C. &, 2003).

There are existing and anticipated effects from climate change on the following resources in the planning area:

- Soil resources;
- Water resources;
- Vegetation;
- Fish and wildlife;
- Threatened and endangered species;
- Wild horses and burros (through changes in vegetation and soil);
- Livestock grazing (through changes in vegetation and soil); and
- Tribal interests (through changes in vegetation and soil and their effects on availability of traditionally used plants).

Current Conditions

Nevada and eastern California are home to some of the driest and warmest climates, most mountainous regions, and fastest growing metropolitan areas of the United States. Throughout Nevada and eastern California snow-dominated watersheds provide most of the water supply for both human and environmental demands. Increasing demands on finite water supplies have resulted in the need to better monitor drought and its associated hydrologic and agricultural impacts (McEvoy, Huntington, Abatzoglou, & Edwards, in press). The sequence of climate conditions presents variability amongst water years, and thus the current climate conditions will depend on the continued annual variability in precipitation as it relates to groundwater recharge and soil stabilization due to the duration of snow cover and the vegetation's response (Germino, M.J., 2012); (Wilcox, et al., 2012).

A report from the United States Department of Agriculture (USDA) provides water supply outlook for the Western United States, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs should be monitored and utilized as a tool for projected forecasts of the CCD and Great Basin. Most of the usable water in the western states originates as mountain snowfall and it accumulates during winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Fall precipitation influences the soil moisture conditions prior to formation of the snowpack and explains, in part, the effectiveness of the snowpack in producing runoff. The forecasts of natural runoff in this outlook are based principally on measurements of precipitation, snow water equivalent, and antecedent runoff. Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average affect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates (USDA, 2012).

2012 was the warmest year on record, proceeding an extremely wet and cool water year of 2011. The drought of 2012 has generally used up all the buffers produced in 2010-2011. Dry conditions are predicted for the coming winter, (Redmond, 2012). In context of the climate projections being a function of sequences of events, monitoring of precipitation and landscape response will be imperative for planning of fire, erosion prevention and restoration (Germino, M.J., 2012).

Trends

Average annual temperatures have increased between 0.6 to 1.1°F across the Great Basin over the 20th century (Rocky Mountain / Great Basin Regional Assessment Team, 2003); (Chambers, 2008) Average night time temperatures are showing a warming trend across the Great Basin, which results in vegetation

consequences. Average annual precipitation has increased along with interannual variability of precipitation, reflected in increases in streamflow across most of the Great Basin (Baldwin, Wagner, & Lall, 2003). A decline in snowpack has been observed since 1950 (Mote, Hamlet, Clark, & Lettenmaier, 2005). Additionally, earlier arrival of spring affects streamflow and plant phenology (Cayan, Kammerdiener, Dettinger, Caprio, & Peterson, 2001) (Baldwin, Wagner, & Lall, 2003) (Stewart, Cayan, & Dettinger, 2007).

Forecast

Model projections for the Great Basin region indicate a warming trend, with drier conditions in the south trending towards wetter conditions in the northern parts of the Great Basin (Redmond, 2010). Minimum air temperatures are expected to increase more rapidly than maximum temperatures (Kharin, Zwiers, Zhang, & Hegerl, 2007) leading to a decrease in frequency of freezing days and warmer winters. Warming temperatures and changing precipitation regimes will have consequences for vegetation.

2.2.2 Soil Resources

The USDA Natural Resources Conservation Service (NRCS) previously conducted soil surveys and classified soils into map units, including one or more dominant soil map unit components and inclusions within Major Land Resource Areas. Soil map unit components may be designated based on the soil series, slope, aspect, and texture modifier. Soil series are soils grouped together with similar pedogenesis (soil formation), soil chemistry, and physical properties. Over 1000 different map units have been identified in the planning area consisting of associations of different major soil series. Soils series consist of soils that have profiles of similar associations and are mapping units made up of two or more geographically associated soils or miscellaneous areas. Miscellaneous areas have little or no soil material and thus support scant or no vegetation (e.g. rock outcrops). The composition of soil series within each association is variable and is based on the overall map unit.

Ecological Site Descriptions (ESDs) (NRCS, 2012) were subsequently developed for the soils within each Major Land Resource Area (MLRA) (NRCS, 2012). ESDs are a description of the original or natural plant community that can be supported at a given site based on multiple environmental factors such as soils, topography, climate, and fire. State and transition models have been developed for some areas and are currently being developed in others. State and transition models describe the variability of a particular site and can help determine if an ecological threshold has been crossed. This type of knowledge can be invaluable for habitat restoration, livestock grazing, wildhorse management etc.

It is widely recognized that soils and climate are components of an ecological site and that the interaction between the soils, climate, and vegetation are reflected in the ecological site. As state-and-transition models become better defined within ecological sites, dynamic soil properties are expected to help

identify or typify various states, and may provide clues to the thresholds at which irreversible changes occur. Different responses to timing and amount of precipitation and temperature may mean a shift in biological soil crust species composition. Biological soil crusts form a matrix that stabilizes and protects soil surfaces from erosive forces (BLM, 2001). Since the CCDPA is currently in a winter-precipitation dominated regime with a predicted increase in summer rain, effects of climate change may be reflected in different soil crust composition.

Indicators

The CCD uses ESDs and reference sheets to evaluate what management is appropriate for a site when conducting Rangeland Health Assessments (RHA). One aspect to RHA addresses expected soil moisture and soil type as indicators used to decipher deviations from the norm. The deviations to soil resources affect vegetative type and density. RHA and the accompanying standards stem from 1990's range reform that focused on livestock impacts. Impacts to soil resources include hoof action from livestock, as well as mineral development, rights of ways (ROW) for utilities, OHV use, and hoof action from wild horses. These last four impacts do not fit under the RHA scheme, however they are reasons to look at areas of soil erosion susceptibility, Threatened & Endangered species (T&E) habitat, and surface water bodies.

Standards for Rangeland Health include standard 1: Soils

Soil processes will be appropriate to soil types, climate and land form. As indicated by:

1. Surface litter is appropriate to the potential of the site;
2. Soil crusting formations in shrub interspaces, and soil compaction are minimal or not in evidence, allowing for appropriate infiltration of water;
3. Hydrologic cycle, nutrient cycle and energy flow are adequate for the vegetation communities;
4. Plant communities are diverse and vigorous, and there is evidence of recruitment, or;
5. Basal and canopy cover (vegetative) is appropriate for site potential.

In NEPA documents, the NRCS Soil Survey mapping units are used as indicators for quantifying erodibility, flood prone areas, and potential sediment problems.

Current Conditions

In general, the certain types of soils within the planning area are erosive since BLM mainly manages the uplands. Mountain ranges, tend to have high drainage density, high relief, and high ruggedness; coupled with the climate patterns experienced in the planning area of an intense rainfall regime, leads to high sediment loads. The supply of the sediment load dictates macro-turbulent flow

along with shifting and erodible factors controlling geomorphic responses. Changing channel geometry and patterns are important for management practices including top soil sustainability and vegetation growth/use. Development of top soil is a slow process in semi-arid environments, and can be washed away in a large storm event. Loss of top soil results in denuded soils. Denuded soils are susceptible to erosion and headcutting. Headcutting in stream or spring/seep systems results in draining source water. These related and cumulative stages of soil degradation are a large concern for the CCD.

Alterations in watershed conditions result from physical changes to a stream channel. Within the CCDPA, an example of post-wildfire hill slope response resulted in changes in sediment transport and water quality near Carson City. The mid-reach of Clear Creek experienced severe erosion which has incised the stream channel and deposited sediment into lower portions of the creek. Another example following wildfire occurred along US Highway 50 in 2003, and left slopes susceptible to increased sediment runoff. Heavy rains in December 1997 resulted in a large flood event which washed out portions of old US Highway 50 in areas where the road closely parallels the stream. Currently, CCD does not identify potential problem areas of post-fire sediment yield and water quality in drainages near populated areas.

Areas of concentrated use by OHV user groups result in observed negative impacts on soil resiliency. Disturbance can directly or indirectly affect many aspects of the structure and function of the soil, including vegetative cover and erosion susceptibility, through flood and sediment problems. These areas include urban interface locations on or in, Peterson Mountains, Warm Springs and Hungry Valley, Sun Valley, Peavine Mountain, Jumbo/Geiger Grade, portions of Prison Hill, C Hill and Mullen Pass.

Methods of assessing impacts and/or recovery from disturbances are not standardized (i.e. no standard for measuring) and seldom quantified. Locations of fragile biological soil crusts on CCD are unknown, but are also not perceived as a driver. Managing practices for the whole landscape (i.e. denuded soils) should cover the soil crust component in the planning area.

Many sensitive soil areas around water sources are negatively affected by hoof action. Unmanaged wildhorses that have either left their designated HMA or exceeded recommended numbers, because trampling and denudation of sensitive soil areas around water sources in the CCDPA. Whereas cattle numbers and length of use are managed by permittees, with the recommendations of rangeland specialists aimed in part to meet soil health standards. However, fences once erected to protect the soil and water resources (i.e. spring enclosures) are often found down and ineffective toward the prevention of hoof action impacts.

Trends

Increases in the degradation of soil resources are in part driven by population growth and popularity of OHV use. With increased OHV use within the CCDPA, disturbance effects on soils need to be recognized. Vehicles exert compressional and shear forces, these forces are significant for vehicles. Vehicles often compact soils causing scour and sedimentation of drainages.

Another driver for increased degradation of soil resources results from hoof action by poor dispersion of livestock as well as too many wild horses both inside and out of HMA areas, as a result of water scarcity. Horse hooves exert compressional and shear forces on soils, causing compaction of the resource. Other activities including, ROW, mineral development have also increased and are contributing to sediment yields and erosion susceptibility.

Forecast

Soil resources are currently evaluated case by case in NEPA documents. This may or may not adequately provide for future protection of the resource. The degree of degradation to soils is expected to be high under current management.

Key Features

Key landscape characteristics in the planning area include dunes, playas, deflation basins, cavernous weathering, angular slopes (with and without coarse debris), arroyos, pediments, fans, and badlands. Badlands were formed by geomorphic processes predominately found in arid and semiarid systems (NDOW, 2012). Processes include desiccation, wind action, running water, mechanical weathering, and rapid mass movements. Locations within the CCDPA where erosion is of concern include, Petersen Mountains, Warm Springs and Hungry Valley, Sun Valley, Peavine Mountain, Jumbo/Geiger Grade, portions of Prison Hill, C Hill, Eldorado Canyon, and Mullen Pass.

2.2.3 Water Resources

Water resources include water of sufficient quality and both physically and legally available for use. Within the planning area water supply is limited by natural processes. Due to population growth and development, demand for water has increased throughout the district over the past few decades. The amount, distribution, intensity and type of precipitation has significant impacts on both surface and groundwater resources. Water resources on the CCD mainly consist of upland spring and seep sources, a few small creeks and streams, and shallow bodies of intermittent surface water.

Surface Waters

The interstate surface waters of the Truckee, Carson, and Walker Rivers are within the CCDPA. The Truckee River begins at the outlet of Lake Tahoe, flows through the Sierra Nevada Mountains and into Nevada, through Reno and along the northern end of the Carson Range. It then turns north, flowing along the east side of the Pah Rah Range and empties into Pyramid Lake. The lower

reach, east of Reno is fish habitat for the Cui Ui and Lahontan Cutthroat Trout. The Truckee River Basin is approximately 3,120 square miles, with less than 20% managed by the BLM in the CCDPA. To the south, the Carson River rises in two forks in the Sierra Nevada, the East Fork begins in Alpine County southeast of Markleeville, and the West Fork begins near Carson Pass. Both forks join in Nevada, the Carson River flows northeast until it is impounded by the Lahontan Dam, from there water continues out into the Carson Sink. The Carson River Basin is approximately 3,990 square miles, with approximately 35% managed by the BLM in the CCDPA. Further south is the Walker River. The Walker River forms in Lyon County, south of Yerington by the confluence of the East Walker and West Walker rivers. It initially runs north but then turns southeast along the east side of the Wassuk Range. Most of the flow is used for irrigation, leaving very little to enter Walker Lake. The Walker River Basin is approximately 3,130 square miles, with approximately 40% managed by the BLM by the CCDPA. The amount of BLM land within each of these river basins is significant even though CCD does not always manage land adjacent to the river. On average, the Truckee River yields 804 cubic feet per second (cfs), Carson River yields 389 cfs, and the Walker River yields 164 cfs annually (USGS, 2012). Consideration given to flow rates highlight the significant of the affects from public land management on vegetative cover, moisture on-site, and erosion.

Water Supply

Surface water in the CCDPA is water collected on the ground or in a stream, river, lake, or riparian/wetland. Surface water is naturally replenished by precipitation and naturally lost through evaporation and sub-surface seepage into the ground. Rivers, streams, or creeks may be perennial, with continuous flow year round during years of normal rainfall; intermittent, cessation of flow for weeks or months each year; or ephemeral, flows observed for hours or days following precipitation. The three terminal lakes within the CCDPA are at-risk natural desert terminal lakes with unique ecosystems. The Truckee River Operating Agreement is in place to help Pyramid Lake receive the water it needs, actions for Walker Lake include the purchase of water rights and ceasing irrigation on agriculture lands to help deliver more water. The CCD is involved in these restorative or sustainable actions indirectly, with the purchase and implemented work on the Mustang and 102 Ranches along the Truckee River's banks for restoration of river sinuosity and overall health. Another unique case of managing surface water supply within the CCDPA is Winters Ranch in Washoe Valley. The three creeks crossing Winters Ranch contribute an average annual 8260 acre-feet of water to Washoe Lake and eventually the Truckee River, and approximately two-thirds of the average annual water yield of these creeks are owned and managed by CCD.

Activates on CCD do not generally impact groundwater availability, however groundwater availability is looked at case by case. Impacts to groundwater are monitored as necessary to uphold the multiple use mandates and/or support

implementation of restorative or exploratory projects on public land. Examples include hydrologic studies of groundwater movement and supply for management decisions on Winters Ranch, and monitoring for fuels treatments in Porter and Dalton Canyons in the Desatoya Mountains.

Water Quality

Surface Water

Based on the authority of the Federal Clean Water Act, the State of Nevada has established surface water quality standards as presented in the Nevada Administrative Code (NAC) Chapter NAC-445A. Narrative standards that address the general physical, chemical, and biological characteristics of all surface waters in the state are listed in NAC 445A.121. In addition to the standards applying to all surface waters, specific beneficial uses and standards have been established for waters categorized as Class A, B, C, or D waters. The uses and standards for class waters are presented in **Appendix A**, Nevada Class Waters Description; Beneficial Uses; Quality Standards (NRS 445A.425, 445A.520) covered by CCD Planning Area. For example, Class B standards expand on the narrative standards, and establish numeric standards for pH, dissolved oxygen, temperature, fecal coliforms, total phosphorous, and total dissolved solids.

Based on NAC 445A, a waterbody not meeting the standards may be listed as impaired on the 303(d) list, published by the Nevada Division of Environmental Protection (NDEP) in a biennial report. The State of Nevada also prepares a 305(b) report summarizing water quality assessment information. The Tributary Rule is applicable to the BLM, since it provides protection for those surface waters that are not specifically defined as a class or designated water. Additionally, the Clean Water Act's antidegradation policy is addressed in the 303(d) list to ensure maintenance of high quality waters. Standards for toxic materials (NAC 445A.123 to 445A.127) apply to designated waters and waters such as the Truckee, Carson, and Walker Rivers (NAC 445A.145 to 445A.225). For California, the combined 305(b) and 303(d) report is called the California 303(d)/305(b) Integrated Report. Measurements to evaluate protection and restoration efforts are carried out by the Surface Water Ambient Monitoring Program (SWAMP). SWAMP implements the Lahontan Basin Plan, covering lands within the CCDPA, and the California Toxics Rule established under the California Water Code (Article 3 174-188.5). SWAMP determines compliance with chemical and physical water quality objectives, and develops indices of biological integrity. The Lahontan Region, which is the second largest Water Board region in California, spans eastern California from the Oregon border to the Mojave Desert. Total daily maximum loads (TMDLs) incorporated into Lahontan Water Board's Basin Plan include Revised Sodium-Related Standards for the Carson and Walker River Watersheds and Truckee River Sediment TMDL (Agency, 2008). California's 2008-2010 lists of water quality limited segments still requiring a TMDL report includes the East Fork of the Carson River for Total Dissolved Solids.

Both States focus efforts on their most important water bodies, such as municipal water supplies and critical wildlife habitats. They do not have the capability to designate uses and establish specific standards for every water body, especially in the uplands. For example, many of the water bodies that concern the BLM during rangeland health evaluations are small, remote springs, seeps, and creeks that do not have designated uses or specific standards. The isolated springs and seeps within the CCDPA draw from general narrative standards, of visual and olfactory senses within the Standards and Guidelines for Rangeland Health Assessment (RHA). RHAs point toward NAC 445A relative to the area being assessed. With consideration to what is present on the landscape, narratives mostly apply within the CCDPA.

Standard 3 in the Standards for Rangeland Health is designed to analyze achieved or maintained water quality criteria set forth by Nevada or California state law indicated by

- Chemical constituents do not exceed the water quality standards;
- Physical constituents do not exceed the water quality standards;
- Biological constituents do not exceed the water quality standards; and
- The water quality of all water bodies, including ground water located on or influenced by BLM lands will meet or exceed the applicable Nevada or California water quality Standards. Water quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and antidegradation requirements set forth under State law, and as found in Section 303(c) of the Clean Water Act.

Unique factors that affect water quality in the CCDPA include:

- locally high concentrations of pollutants; i.e. boron, arsenic, lead, mercury, and other heavy metals
 - Historic milling sites
- evaporative concentration in desert environments,
- volcanic and geothermal sources.

Within the CCDPA uplands, nonpoint source impacts potentially result from transportation corridors (railways and roads), urban runoff and construction related impacts from rapid land development, recreation developments (official and unofficial), livestock grazing, use of herbicides for weed control, numerous abandoned mines, septic systems, and wildland fires. Sedimentation resulting from hydro modification activities, such as reservoir management or irrigation, is also a concern, as are impacts on wetlands and riparian areas from fill or channelization.

Water Rights

The State Engineer oversees water rights within Nevada; the BLM has no authority over water rights. The BLM is authorized to apply to the Nevada State Engineer to appropriate water for beneficial use for BLM programs and projects. Beneficial uses recognized by the State of Nevada, in 2005, include: wildlife (including wild horses and burros), the establishment and maintenance of wetlands, fisheries and other wildlife habitats, recreation, quasi-municipal, irrigation, domestic, environmental, and storage. See Nevada Revised Statutes (NRS) Sections: 533.023 533.030, 533.035, 533.040, 533.055, 533.070, 533.075, 533.367, 533.437, 533.490 for limitations and exceptions as well as various State Engineer and Court Decisions. NRS 533.040 states that the water right acquired for watering livestock by a person who has proprietary interest in the livestock being watered. This put an end to historical livestock water rights held in cooperative agreements with grazing permittees by the BLM. The BLM has authority to approve or not approve development of the point of diversion and place of beneficial use on public lands; for example, a water right permit may be issued by the State of Nevada but in order to develop the water, the BLM must assess the full spectrum of potential impacts of the development on the public land.

Federal reserved water rights are a judicial creation; they are derived from federal, not state, law. A federally reserved water right includes water rights on public lands reserved for a particular governmental purpose. On reserved or withdrawn lands reserved water rights allow the federal government to remove water from availability for appropriation under state law, and to establish and exercise water rights in accordance with federal law. Reservation of water is inferred if water is necessary to accomplish the purposes for which the land reservation was created. Unreserved BLM lands (most BLM land) do not have federally reserved water rights.

In Nevada, the State Engineer issues and regulates water rights and the courts resolve disputes over them. Water right decrees may address the amount of water to which each party is entitled, the source of the water, the area to which it may be applied, and the priority date for each use. Such decrees govern the Truckee, Carson, Walker, and Humboldt Rivers, as well as most of the streams that run off the east slope of the Sierra Nevada.

California uses a hybrid system for water right allocations originally recognizing riparian rights, but later converted to a system of appropriation while preserving existing riparian rights. The hybrid system, called the California Doctrine, gives landowners bordering a waterway certain appurtenant rights for “reasonable use” of the water on land adjacent to the waterway. If there is insufficient water to satisfy the reasonable needs of all riparian areas all must reduce usage of water in proportion to their rights. Riparian rights do not need to be put to beneficial use in order to remain active, meaning that landowners may initiate

new uses at any time and others must adjust their usage in response (SWRCB, 2011).

Current water rights held by the CCD include permits and certificates for wildlife. The CCD handles water rights for wildlife case by case based on the professional judgment of whether or not a water source needs to be protected, developed, or maintained for wildlife use. In Herd Management Areas (HMAs), the BLM may hold water rights for wild horses; however the debate over wild horses and burros qualifying as wildlife pertaining to water rights has not been resolved in the courts. Previous cooperative agreements between grazing allotment permittees and CCD for holding stockwater rights were frozen by NRS 533.503. Therefore, BLM can no longer hold stockwater rights and the certificates are no longer valid. The State Engineer can still issue joint permits or certificates of appropriation so long as one of the joint holders satisfies NRS 533.503.

Indicators

Water Quality

There are six designates for class waters within the CCDPA (**Table 2-2**, Public Lands Potentially Affecting Class Waters). Winters Ranch has the potential to affect water quality in Ophir Creek (Class B). Sedimentation, caused by urban development, grazing, and OHV use, has the potential to travel down Jumbo Creek that could affect Washoe Lake (Class C). Steamboat Creek (Class C) and Lagomarsino Creek (Class D) on the northern end of the Jumbo Allotment drain into Big Ditch in Steamboat Valley, which then flows into Steamboat Creek. The most likely water quality impact would be sedimentation resulting from excess soil loss due to overutilization of forage or post wildfire erosion impacts.

**Table 2-2
Public Lands Potentially Affecting Class Waters**

Water Body	Class	Public Lands Potentially Affecting Class Waters		
		Legal Description	BLM Acreage	Allotment/Management Area
Corey Creek	A	Portions sec 12-13, T7N, R28E Portions sec 4, 7, 9, 16-20, T7N, R29E	2,000	Lucky Boy Allotment
Ophir Creek	B	Portion S½ sec 35, T17N, R19E	80	Winters Ranch
Washoe Lake	C	Portions sec 23-26, 35, T17N, R19E	1,000	Winters Ranch
Mason Valley WMA	C	Portions sec 27-28, 33-34, T15N, R26E	470	Parker Butte Allotment
Steamboat Creek	C	All or Portions sec 8-10, 16-18, 20-21 T17N, R20E	2,700	Jumbo Allotment

**Table 2-2
Public Lands Potentially Affecting Class Waters**

Water Body	Class	Public Lands Potentially Affecting Class Waters		
		Legal Description	BLM Acreage	Allotment/Management Area
Lagomarsino Creek	D	Portion sec 17, T17N, R21E	90	Jumbo Allotment

The BLM assesses water quality during rangeland health evaluations. Indicators of water quality within the CCDPA come from narrative accounts included in signed Standard and Guide (S&G) determinations documented in grazing allotment files. Based on 29 signed S&G determinations that had enough surface water to observe water quality, 80% are meeting water quality standards. The documents noted that there were no visual signs, odors, or other indications that water quality was being impaired. The remaining 20% were not meeting water quality standards for various reasons. No class or designated waters were located within these grazing allotments. Water quality data collected during rangeland health evaluations are limited.

Surface Water Supply

Indicators for surface water supply generally come from US Geological Survey (USGS) stream gages. Stream gages maintained by the USGS collect information on stream levels, streamflow, reservoir and lake levels, water quality and rainfall. USGS water data are stored in the National Water Information System (NWIS). There are approximately 30 currently maintained stream gages within the CCD boundary.

Groundwater

Nevada Division of Water Resources (NDWR) designates groundwater basins that are over allocated with water rights. Population areas along the Sierra Front, such as the Truckee and Carson River basins have permitted groundwater rights that approach or exceed the estimated average annual recharge and the water resources are being depleted. The CCD reviews water right application reports generated by the NDWR on a monthly basis to ensure that knowledge of interest in groundwater development stays current. This is important because interest in groundwater development may impact BLMs water rights or potentially impact water supply on public lands.

Recently the issuance of permits for groundwater development has generally been granted for geothermal exploration and development.

Water Rights

Active consumptive water rights held by the CCD include water from surface and ground sources for irrigation, municipal, quasi-municipal, recreation, and wildlife uses. The following table lists the amount of water, type of use, and

county where the CCD holds water rights (see **Table 2-3**, Total Water Rights held by CCD). Only the area of each county covered by the district boundary was considered in the table. The total duty, in units of acre-feet annually (afa), for the CCD is 8,970 afa. An afa is a unit of volume where one acre of surface area is covered by water to a depth of one foot.

**Table 2-3
Total Water Rights held by CCD**

County	Type of Use	Duty (acre-feet annually)
Washoe	Irrigation	8479
	Municipal	253
	Quasi-Municipal	2
	Recreation	197
	Wildlife	6
	Total	8936
Lyon	Wildlife	5
	Total	5
Churchill	Wildlife	17
	Total	17
Douglas	Wildlife	2
	Total	2
Mineral	Recreation	3
	Wildlife	7
	Total	10
District Total (acre-feet annually)		8970

Note: Alpine, Carson City, Nye, and Storey counties contain no active BLM water rights.

Current Conditions

Water Quality

The State of Nevada's 305(b) report suggested water quality improved in the 2004 reporting cycle and has maintained this improvement more recently. This was due to removal of point sources and implementation of more stringent standards on the pre-existing point sources. Most exceedances were seasonal and were of a natural condition. The 305(b) report was inconclusive of nonpoint source loads, as in the case of Perry Canyon, a known location of historical mine issues including acid mine drainage on public and private land within the planning area. Similarly, California's SWAMP findings indicate sampled waters

were generally of high quality, with approximately 90 percent of the results in compliance with the Lahontan Basin Plan's numeric standards.

Surface Water Supply

Currently, CCD has incomplete un-digitized spring inventory data. Inventory data from 1979-1981 include location, flow rates, water quality, and accessibility. Color coded 7.5 minute maps have been used to create a historic spring layer in GIS for the Stillwater Field Office. Spring inventory forms and 7.5 minute maps have not been digitized for the Sierra Front Field Office.

Groundwater

The current condition of groundwater within the CCDPA is housed at the Nevada Division of Water Resources.

Water Rights

Since 2005, water rights held by the CCD have been limited by NRS 533.040 to exclude livestock watering. The BLM authorizes ingress and egress to springs with livestock water rights on public lands. Currently, CCD applies for wildlife water rights on public lands.

Trends

- Narrative standards for water quality cited above have no accessible data to compare to, therefore a trend is unknown.
- Surface water availability in the CCDPA is highly related to seasonal flows and climate, with cycles of normal, below, and above years.
- Trends for groundwater are related to use, especially in populated areas, where increased pumping of water over time decreases the water table level.
- The majority of riparian / wetland areas that were functioning at risk were trending downward from the previous assessment.
- There is no apparent trend relating to water rights on CCD.

Forecasts

Given current management, overall water resources will continue on a flat trajectory or decrease due to the increase and/or concentrated use. Demand will outrun supply, if unfettered development continues.

2.2.4 Vegetation

Vegetation provides an enormous variety of functions in an ecosystem, and also provides for a variety of human and animal uses. Vegetation stabilizes soils, prevents erosion, uses carbon dioxide, releases oxygen, increases species diversity, and provides habitat and food for animals and resources for human use (Prevey, Germino, Huntly, & Inouye, 2010) (Connelly, Knick, Schroeder, & Stiver, 2004). A vegetative community is the basic unit of vegetation that allows

for the representation of an assemblage of vegetative species that are ecologically interrelated. (Daubenmire, 1968)

Ecosystems reflect complex sets of interactions between plants, animals, soil, water, air, temperature, topography, fire and humans. Influences exerted on one component affects other components in the system. Vegetation provides many functions within ecosystems. Many of the BLM's land management policies are directed toward managing for healthy vegetative communities which support resistant and resilient ecological systems.

The BLM has decided to adopt an ecoregional approach to landscape assessment and management. "The fundamental concept is that ecological regions can be identified through the analysis of the patterns and that physical and biological phenomena (i.e., physiography, geology, vegetation, climate, soils, and hydrology) either affect or reflect differences in ecosystem quality or quantity." (BLM, 2012) The CCDPA is primarily located in the Central Basin and Range ecoregion, which encompasses a total of 120,000 square miles (BLM, 2012). The CCDPA occupies a portion of northwestern Nevada and a small portion of California. The Basin and Range ecoregion is internally drained and is characterized by north-south trending mountain ranges which are separated by broad xeric basins, valleys and salt flats. Elevations range from 3,350 feet to more than 13,120 feet. There is a significant rain shadow effect from the Sierra Nevada Mountains to the east and the Rocky Mountains to the west that create an arid climate throughout the ecoregion.

Indicators

The BLM uses both qualitative and quantitative assessments to provide the information used for land management decisions. Vegetation is measured in many ways to provide information on the health of a community. For the indicators listed below, some are qualitative, and many are measured qualitatively using the Assessment, Inventory, and Monitoring (AIMS) protocol. This includes Line Point Intercept, Gap Intercept, Soil Stability Test, and other methodologies (Herrick, Van Zee, Havstad, Burkett, & Whitford, 2005). For riparian systems, Proper Functioning Condition Assessments (PFC) are conducted (Prichard, 1999). The compilation of all the data relating to any one area allows BLM to complete a 'Standards Determination', in which the applicable standards are rated as either being met or not being met. If they are not being met, then the causes are examined, and management is changed to address those causes.

Standards and Guidelines for Rangeland Health

The Standards and Guidelines for Rangeland Health on BLM lands are written to accomplish the four fundamentals of rangeland health. The following indicators for evaluating the health of vegetation communities were identified in the 2007 Resource Advisory Council (RAC) Standards & Guidelines for Rangeland Health for the Sierra Front-Northwestern Great Basin Area. (For a full description of

the Standards, see **Appendix B**, BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Nevada):

- Surface litter is appropriate to the potential of the site
- Hydrologic cycle, nutrient cycle and energy flow are adequate for the vegetation communities
- Plant communities are diverse and vigorous, and there is evidence of recruitment
- Basal and canopy cover (vegetative) is appropriate for site potential.
- Good representation of life forms and numbers of species
- Good diversity of height, size, and distribution of plants
- Number of wood stalks, seed stalks, and seed production adequate for stand maintenance
- Vegetative mosaic, vegetation corridors for wildlife, and minimal habitat fragmentation

The following indicators relate to riparian and wetland vegetation:

- Riparian vegetation is adequate to dissipate high flow energy and protect banks from excessive erosion
- Plant species diversity is appropriate to riparian-wetland systems

Standards. The goal to be achieved. There are five standards in the 2007 RAC Standards & Guidelines. Below are listed the standards that have vegetative components (1 Soils, 2 Riparian/Wetland, and 4 Plant and Animal Habitat). Standard 3 Water Quality and 5 Special Status Species Habitat are listed in their applicable chapters.

STANDARD 1. SOILS: The goal to be achieved in this standard is soil stability and function applicable to the potential of the soil being evaluated. Soil processes will be appropriate to soil types, climate and land form.

As indicated by:

- Surface litter is appropriate to the potential of the site;
- Soil crusting formations in shrub interspaces, and soil compaction are minimal or not in evidence, allowing for appropriate infiltration of water;
- Hydrologic cycle, nutrient cycle and energy flow are adequate for the vegetation communities;

- Plant communities are diverse and vigorous, and there is evidence of recruitment; and
- Basal and canopy cover (vegetative) is appropriate for site potential.

STANDARD 2. RIPARIAN/WETLANDS: The goal to be achieved in this standard is riparian and wetland systems that are in properly functioning condition. This means they have properly functioning hydrologic, vegetational, and erosional/depositional (soils) attributes and processes appropriate to their potential. As indicated by:

- Sinuosity, width/depth ratio and gradient are adequate to dissipate streamflow without excessive erosion or deposition;
- Riparian vegetation is adequate to dissipate high flow energy and protect banks from excessive erosion; and
- Plant species diversity is appropriate to riparian-wetland systems.

STANDARD 4. PLANT AND ANIMAL HABITAT: The goal is to have populations and communities of native plant species and habitats for native animal species that are healthy, productive and diverse.

As indicated by:

- Good representation of life forms and numbers of species;
- Good diversity of height, size, and distribution of plants;
- Number of wood stalks, seed stalks, and seed production adequate for stand maintenance; and
- Vegetative mosaic, vegetation corridors for wildlife, and minimal habitat fragmentation.

Forest and Woodland Indicators (not part of the 2007 RAC standards)

- Density – how close together and thick trees are, measured by basal area, stems/acre;
- Reproduction – representation of various age classes, even-age vs. uneven age of stand;
- Susceptibility/tolerance to fire loss -- measured by fuel loading, fire interval, last fire history;
- Forest health factors – occurrence of or vulnerability to insects and disease.

Noxious Weeds

Although there are also multiple species of other non-native and undesirable plant species occurring throughout the CCD, this document will focus on the

'noxious weeds'. Noxious weeds are unwanted plants specified by Federal or State laws as being especially undesirable, troublesome or difficult to control. It grows and spreads in places where it interferes with the growth and production of desired species. Indicators of nonnative, invasive vegetation condition include acres affected by grazing, wildland fire, and infestation of noxious weeds and other invasive nonnative plant species. Indicators of noxious weed conditions include the extent and density of occurrence. The diversity of noxious weed species may indicate the effectiveness of current management efforts or may reflect new pressures on the land. Indicators of potential infestation areas include significant site disturbance, such as wildfire, road construction, and overgrazing, as many noxious weeds are aggressive early successional species that colonize recently disturbed sites. Human caused disturbances are generally responsible for most weed infestations. These indicators are derived from the following sources of information on vegetation resource management: field observations, allotment evaluations, vegetation monitoring, stream surveys, noxious weed surveys, wild horse and burro herd management area documents, fire rehabilitation plans, and associated data provided by commercial project proponents.

Current Conditions

As part of implementing the 2007 RAC Standards & Guidelines for Rangeland Health for the Sierra Front-Northwestern Great Basin Area, BLM employees have conducted RHA in 38 allotments across the CCD between 2003 and 2012, in which they assessed the current condition of the vegetation and overall land health (See **Appendix B**, BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Nevada, for full description).

Between 2003 and 2012, approximately 2,113,771 acres were assessed for the 5 Rangeland Health Standards.

The planning area was assessed for adherence to Land Health Standard 1 Soils:

- 96% (2,025,248 acres) was rated as fully meeting the standard
- 4% (88,523 acres) had problems of enough significance to not meet the standard

The planning area was assessed for adherence to Land Health Standard 2 Riparian and Wetlands:

- 13% (267,345 acres) did not require this standard
- 18% (388,002 acres) was rated as fully meeting the standard
- 69% (1,458,424 acres) had problems of enough significance to not meet the standard

The planning area was assessed for adherence to Land Health Standard 3 Water Quality:

- 12% (245,180 acres) did not require this standard
- 63% (1,335,373 acres) was rated as fully meeting the standard
- 25% (533,218 acres) had problems of enough significance to not meet the standard

The planning area was assessed for adherence to Land Health Standard 4 Plant and Animal Habitat:

- 42% (884,578 acres) was rated as fully meeting the standard
- 58% (1,229,193 acres) had problems of enough significance to not meet the standard

The planning area was assessed for adherence to Land Health Standard 5 Special Status Species:

- 1% (28,786 acres) did not require this standard
- 53% (1,105,187 acres) was rated as fully meeting the standard
- 46% (979,798 acres) had problems of enough significance to not meet the standard

Of the 38 Allotments that Standards Assessments were completed on between 2003 and 2012 within CCDPA, 8 of the 38 did not have water sources on public land and were not included in any PFC assessments. Riparian functional assessment ratings are listed in **Table 2-7**, Carson City District Riparian Functional Assessment Ratings (Lentic and Lotic). Of the 184 springs, seeps, and streams that were analyzed, 29% were found in proper functioning condition on the day of the field visit.

Vegetative Communities

The ecological systems discussed below are those that provide the most important land cover across the CCDPA. Vegetation can be generally characterized by plant community types (associations). A terrestrial ecological system is defined as a group of plant community types (associations) that tend to co-occur within landscapes with similar ecological processes, substrates, and/or environmental gradients.

Based on SynthMap GIS data (Peterson E. B., 2008), which uses the Southwest Regional Gap Analysis Project land cover descriptions, the CCDPA can be grouped into vegetation communities. These vegetation communities represent different vegetation and habitat types and potentials. **Table 2-4**, Vegetation Communities, depicts the estimated acreage within the CCDPA for each

**Table 2-4
Vegetation Communities**

Vegetation Community*	Percent of District	Percent of BLM Land	Acres in District	Acres (of BLM land)
Sagebrush	28	33	2,519,440	1,548,692
Intermountain Cold Desert Scrub Forests/Woodlands	41	48	3,644,955	2,288,921
Annual Grassland/Invasives	15	14	1,392,186	694,115
Riparian Systems	1	1	101,633	58,724
Special Assemblages	4	<1	322,881	15,617
Other	<1	<1	26,114	8,689
Total	10	4	934,271	186,913
	100	100	8,941,480	4,801,671

* Vegetation within the planning area has been characterized by using the SyntheMap raster data set developed by NatureServe for the Natural Heritage Program (Peterson 2008). The BLM has chosen to use the SyntheMap dataset over other datasets such as SWReGap, Gap, LANDFIRE, etc. for the following reasons:

- SyntheMap used data from SWReGap and LANDFIRE as the basis for refining the vegetation typing done by these projects.
- BLM specialists reviewed the data set and concurred that it characterized current vegetation more consistent with knowledge of actual field conditions.
- SyntheMap will improve overtime because it is continuously updated as field knowledge becomes available.

vegetation community. **Figure 2-1**, Vegetation, portrays the vegetation communities throughout the district.

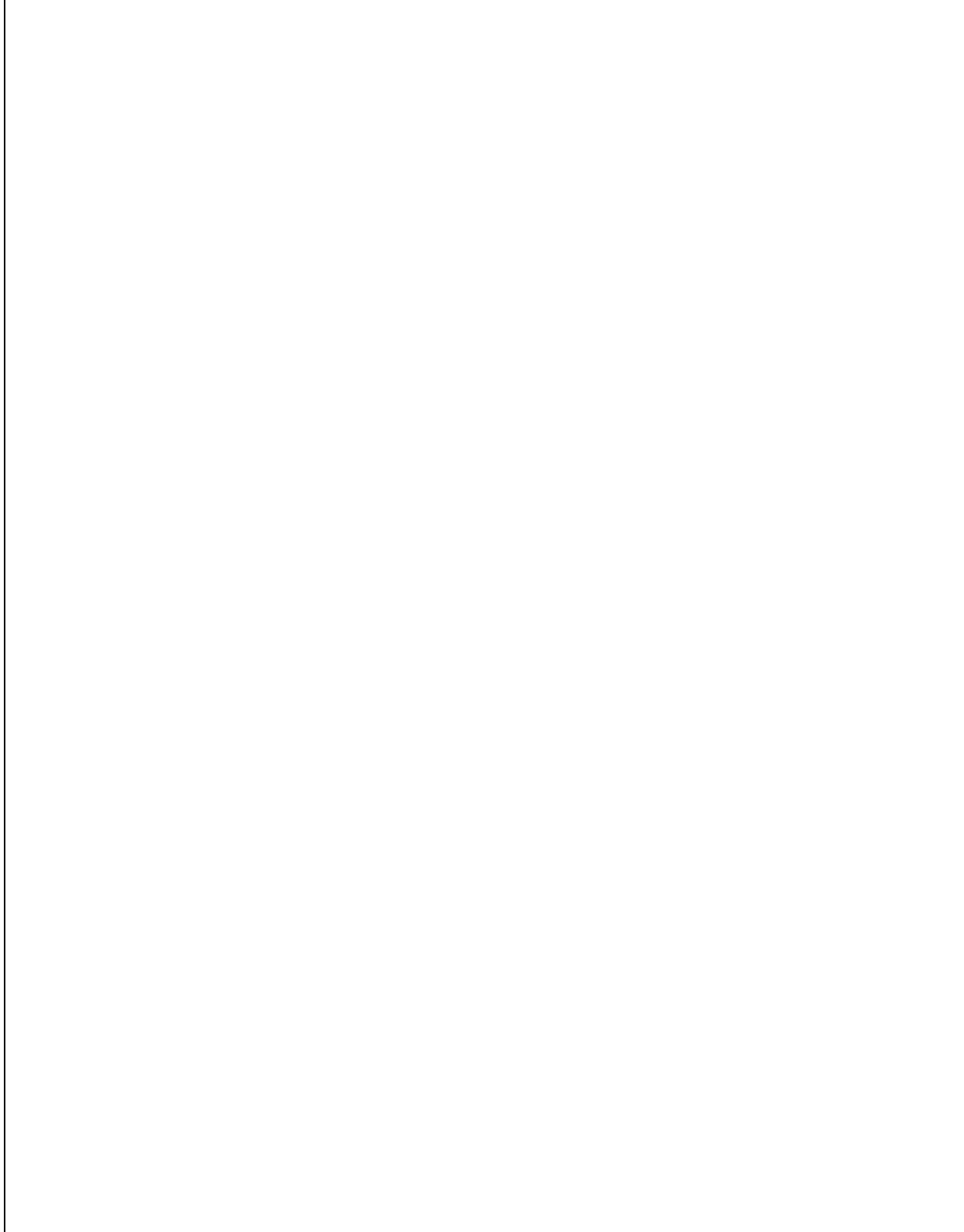
Sagebrush

There are several different types of sagebrush systems throughout the CCDPA. Elevation, amount of precipitation and the type of soil are all important factors on the species present. Although some other sites are present throughout this vegetative community, the predominant species assemblages are detailed below.

Great Basin Xeric Mixed Sagebrush Shrubland. This system occurs on dry flats and plains, alluvial fans, rolling hills, rocky hillslopes and saddles, usually at lower elevations between 3,200 and 8,500 feet in elevation. These sites are dry, with vegetation dominated by black sagebrush (*Artemisia nova*), low sagebrush (*Artemisia arbuscula*), and may also have rabbitbrush (*Chrysothamnus sp.*), shadscale (*Atriplex confertifolia*), Mormon tea (*Ephedra spp.*), spiny hopsage (*Grayia spinosa*), greasewood (*Sarcobatus vermiculatus*), and horsebrush (*Tetradymia spp.*) as shrub components. The grass and forb component is often sparse, and is composed of perennial bunchgrasses such as Indian ricegrass (*Achnatherum hymenoides*), Thurber's needlegrass (*Achnatherum thurberianum*), squirreltail (*Elymus elymoides*) and Sandberg's bluegrass (*Poa secunda*).

Inter-mountain Basins Big Sagebrush Steppe. This is widespread throughout the Great Basin. This system is found at slightly higher elevations, and the soils are typically deep and non-saline, sometimes with a microphytic crust. The shrub-steppe is dominated by perennial grasses and forbs, with basin big sagebrush (*Artemisia tridentata ssp tridentata*), big sagebrush (*Artemisia tridentata spp.*

2-1 Vegetation (Scoping Map 6.1)



xericensis), Wyoming big sagebrush (*Artemisia tridentata* spp. *wyomingensis*), and bitterbrush (*Purshia tridentata*) dominating or co-dominating the shrub component. Other shrub species often present include shadscale (*Atriplex confertifolia*), rabbitbrush (*Chrysothamnus* spp.), and horsebrush (*Tetradymia* spp.). The native perennial grasses associated with this system include: Indian ricegrass (*Achnatherum hymenoides*), Idaho fescue (*Festuca idahoensis*), Prairie junegrass (*Koeleria macrantha*), Sanderg's bluegrass (*Poa secunda*) and bluebunch wheatgrass (*Pseudoroegneria spicata*). The natural fire regime of this system likely maintained a patchy shrub component, but the shrubs increase with overgrazing or lack of fire.

Inter-Mountain Basins Big Sagebrush Shrubland. This system occurs in broad basins between mountain ranges, usually between 4,900 and 7,500 feet in elevation. The soils are typically deep and well-drained. These shrublands are co-dominated by Basin big sagebrush (*Artemisia tridentata* spp. *tridentata*) and Wyoming big sagebrush (*Artemisia tridentata* spp. *tridentata*). There is often a scattered juniper component (*Juniperus* spp.), as well as greasewood (*Sarcobatus vermiculatus*), Atriplex species (*Atriplex* spp.), rabbitbrush (*Chrysothamnus* spp.), and bitterbrush (*Purshia tridentata*). The grass component is usually about 25% of the vegetative cover, and species include: Indian ricegrass (*Achnatherum hymenoides*), needle and thread grass (*Hesperostipa comata*), Idaho fescue (*Festuca idahoensis*), Basin wildrye (*Leymus cineris*), Sanderg's bluegrass (*Poa secunda*) and bluebunch wheatgrass (*Pseudoroegneria spicata*).

Intermountain Cold Desert Scrub

Several different species assemblages are included in the Intermountain Cold Desert Scrub vegetative community; however the most common are detailed below:

Inter-Mountain Basins Semi-Desert Shrub-Steppe. This system occurs at lower elevation on alluvial fans and flats with moderate to deep soils. This system is dominated by grasses, with an open shrub layer. The most typical grasses include Indian ricegrass (*Achnatherum hymenoides*), needle and thread grass (*Hesperostipa comata*), and Sanderg's bluegrass (*Poa secunda*). Shrubs present include fourwing saltbush (*Atriplex canescens*), rabbitbrush (*Chrysothamnus* spp.), Mormon tea (*Ephedra* spp.), and winterfat (*Krascheninnikovia lanata*). Although big sagebrush may be present, it will not be a dominant component of this system. This system is open and spotty, with uneven distribution of vegetation.

Inter-Mountain Basins Mixed Salt Desert Scrub. This system is extensive, and is found in saline basins, alluvial slopes, and plains. This system has very low amounts of annual precipitation, and has very open canopies. Shrub species often present include an Atriplex component, such as shadscale (*Atriplex confertifolia*) or fourwing saltbush (*Atriplex canescens*). Other shrubs present include Wyoming big sagebrush (*Artemisia tridentata* spp. *wyomingensis*), rabbitbrush (*Chrysothamnus* spp.), Mormon tea (*Ephedra* spp.), spiny hopsage

(*Grayia spinosa*), and winterfat (*Krascheninnikovia lanata*). The herbaceous layer varies greatly, being quite sparse in some areas and fairly dense in other areas. Grasses commonly include: Indian ricegrass (*Achnatherum hymenoides*), thickspike wheatgrass (*Elymus lanceolatus ssp. lanceolatus*), western wheatgrass (*Pascopyrum smithii*), and Sandberg's bluegrass (*Poa secunda*).

Inter-Mountain Basins Greasewood Flat. This system occurs on stream terraces and flats or may form rings around more sparsely vegetated playas. The soils are typically saline, with a shallow water table and intermittent flooding. Although these sites dry out during the growing season, the water table remains high enough to maintain vegetation despite the salt accumulations. The shrub canopy is often open to moderately dense, with such shrubs as: greasewood (*Sarcobatus vermiculatus*), fourwing saltbush (*Atriplex canescens*), shadscale (*Atriplex confertifolia*), and winterfat (*Krascheninnikovia lanata*). The grass component includes alkali sacaton (*Sporobolus airoides*), saltgrass (*Distichlis spicata*) and some amount of basin wildrye (*Leymus cinereus*).

Forests and Woodlands

There are eight distinct forest and woodland types within the planning area. The pinyon-juniper (PJ) woodland community type is a mixture of singleleaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) with some pure stands of pinyon and juniper occurring in limited amounts. Recently, PJ woodlands are starting to be described in terms of relative stand development (Tausch, Miller, Roundy, & Chambers, 2009). There are three transitional phases of woodland development:

- Phase I. Trees are present but shrubs and grasses are the dominant vegetation that influence ecological processes (hydrologic, nutrient, and energy cycles) on the site;
- Phase II. Trees are co-dominant with shrubs and herbs, and all three vegetation layers influence ecological processes on the site;
- Phase III. Trees are the dominant vegetation and the primary plant layer influencing ecological processes on the site. Shrubs no longer dominate the understory.

Qualitative assessments have determined that phase I and II PJ woodlands are typically located on gentle terraces adjacent to sagebrush dominated shrublands. Occasionally, Phase I woodlands are located on steep, extremely rocky slopes that receive low precipitation. Phase II and III PJ woodlands are located on gentle, moderate and steep slopes and are typically in large contiguous blocks dominated by PJ, with the occasional high elevation meadow or shrubland interspersed.

Mountain mahogany stands are typically located on rocky, coarse textured soils and occur as either pure stands of curl-leaf mountain mahogany (*Cercocarpus ledifolius*) or transitional stands that are mixed with pine and juniper trees. Even

less is known on the current condition of mountain mahogany stands. The groves are seemingly quite old, evidenced by the fact that the trees are fairly large, and this is a slow growing species. Regeneration is limited and as such senescence is occurring in older groves, which diminishes the browse potential of these stands. Often the trees lack leaves to the level that browse species can reach.

Three needled pine type is dominated by a mixture of Jeffrey pine (*Pinus jeffreyi*) and ponderosa pine (*Pinus ponderosa*) or a combination of the two. This community type is found on xeric montane to subalpine regions of the Great Basin and Sierra Nevada. They tend to have a semi-open canopy leaving room for associates incense cedar (*Calocedrus decurrens*), western juniper (*Juniperus occidentalis ssp. Australis*), singleleaf pinyon, and white fir (*Abies concolor ssp. lowiana*), as well as common sage steppe shrubs and bunchgrasses.

The riparian deciduous community type is the most dispersed forest and woodland type with stands occurring in all the major mountain ranges within the planning area. These stands are generally found where there is surface water or a shallow water table. Dominant trees include quaking aspen (*Populus tremuloides*) and black poplar (*Populus balsamifera ssp. trichocarpa*) at higher elevations, and Fremont cottonwood (*Populus fremontii*) and pacific willow (*Salix lasiandra*) at lower elevations. There are quaking aspen stands that occupy non-riparian sites but the majority of these stands are found in areas that have more available water than upland forests. Riparian deciduous and aspen dominated stands are a mix of densities and age classes throughout the planning area. Many of these stands are experiencing impacts from wildlife and livestock browsing, insects, disease, and conifer encroachment. The older stands are also showing age related declines, such as diminished live crown ratios, higher susceptibility to insects and disease, and individual stem death.

The soft pine type is dominated by western white pine (*Pinus monticola*) and sugar pine (*Pinus lambertiana*) and grows in association with lodgepole pine (*Pinus contorta var. murrayana*) and Jeffrey pine. Both sugar pine and western white pine are highly susceptible to the introduced pathogen blister rust (*Cronartium ribicola*), which often results in rapid mortality once infected.

Dominant tree species in the mixed conifer type include Jeffrey pine, white fir, incense cedar, and to a lesser extent western juniper and singleleaf pinyon. The pure fir type is comprised of nearly pure stands of white fir with dense canopies and almost no understory. The limber pine type occupies rocky mountaintop sites exposed to windy conditions and is dominated by a sparse overstory of limber pine (*Pinus flexilis*) with a sparse understory of xeric shrubs or cushion plants. Poor growing conditions preclude other trees from inhabiting this zone.

Annual Grasslands

Approximately 101,633 acres of the CCDPA has been converted to annual grassland comprised of invasive nonnative species. As dominant native species

lose dominance in the ecosystem, nonnative invasives, such as cheatgrass (*Bromus tectorum*), are provided an avenue to gain dominance in the system (Prevey, Germino, Huntly, & Inouye, 2010). Cheatgrass then provides a fine fuel with great horizontal continuity that creates different fire behavior than native fuels would. Cheatgrass germinates early in the season, before the majority of native perennials have come out of dormancy. Cheatgrass often becomes established in the understory of a Sagebrush or Intermountain Cold Desert Scrub system and then gains dominance once a disturbance, such as fire, temporarily eliminates the native overstory competition.

Riparian Systems

Springs and Springbrooks. Nevada has the most known springs of any state in the US with over 4,000 mapped. The springs are quite diverse in amount of water produced, and perennial or seasonal amounts of water. Please see Water Resources **Section 2.2.3** for an in-depth discussion on the types of systems present throughout the CCDPA.

Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland. This system occurs in mountain ranges throughout the CCDPA mostly between 4000 and 7000 feet in elevation. There is a wide variety of plant associations, depending on the system's elevation, stream gradient, floodplain width and overall system dynamics. The dominant trees usually include species such as white fir (*Abies concolor*), water birch (*Betula occidentalis*), Fremont cottonwood (*Populus fremontii*), and douglas-fir (*Pseudotsuga menziesii*). The shrub component is ordinarily comprised of silver sagebrush (*Artemisia cana*), dogwood (*Cornus sericea*), narrowleaf willow (*Salix exigua*), and Lemmon's willow (*Salix lemmonii*). There is potential for a prolific and diverse herbaceous component. Rushes (*Juncus ssp.*) and sedges (*Carex ssp.*) are often dominant in the herbaceous layer, but perennial grasses and mesic forbs are also commonly found. Common perennial grasses and mesic forbs include tufted hairgrass (*Deschampsia caespitosa*), slender wheatgrass (*Elymus trachycaulus*), rocky mountain iris (*Iris missouriensis*), false lily of the valley (*Maianthemum stellatum*), or Fendler's meadow-rue (*Thalictrum fendleri*).

Overall, riparian systems are about 4% of the CCDPA, but provide a much greater percentage of the desirable resources for livestock, wild horses, wildlife, and recreationists. These systems often experience overuse or misuse, since there are so many user groups that concentrate on the riparian systems.

Special Assemblages

Island or Geographically Isolated Perennial Plant Communities. Within the area managed by the CCD there are several island or geographically isolated plant communities that exist within specialized habitats that are distinct from the larger vegetation matrix. Many of these isolated plant species are BLM special status species and are not mentioned in this section as they are treated in the BLM special status in AMS document. Examples of these non-sensitive types of

geographically isolated plant species include: limber pine (*Pinus flexilis*), western whitebark pine (*Pinus albicaulis*), white fir (*Abies concolor*) and other species on the Nevada Natural Heritage Program watch list.

Unique Habitats. Unique habitats are distinct from the surrounding vegetation matrix and require management that is different from the broader landscape. Examples of unique habitats are playa lakes, vernal pools, sand dunes, salt marshes, hot springs, cold springs, and vegetation communities dependent upon unique soils. Each of these unique habitats were created by some natural process in the past and rely upon the continuation of these natural processes for maintenance and replenishing of chemical and physical properties that support the vegetation and wildlife found at these unique sites. Many of these sites may harbor BLM special status species and may have management that is specific to these sites. Other sites may be managed as recreation areas, such as Sand Mountain.

Other

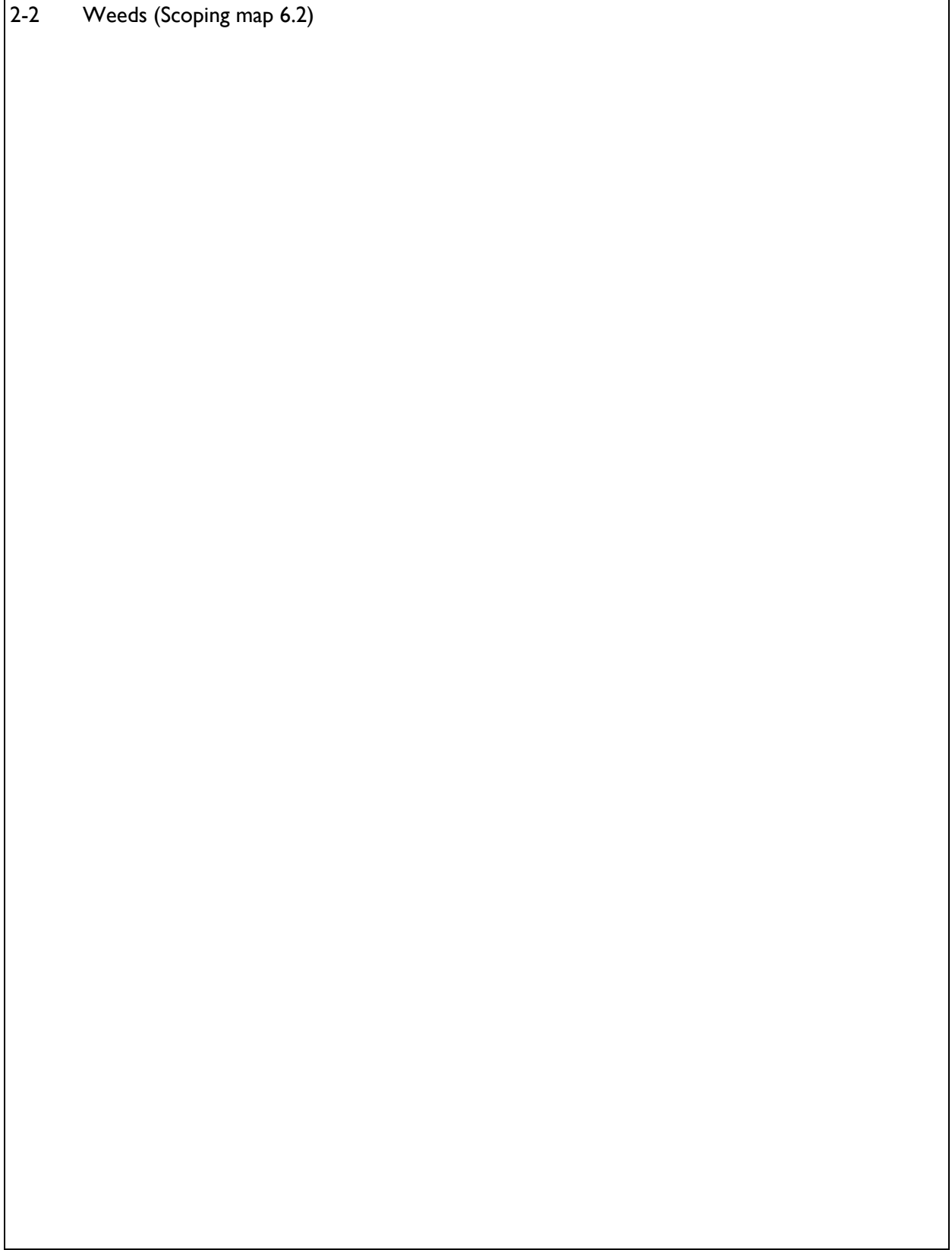
The 'Other' category captures all the components of the CCD that do not fit into one of the major vegetative communities. Included in this category are such things as agricultural land, developed land, barren land, and disturbed mining land.

Noxious Weeds

Within the CCD there are numerous areas infested with noxious weeds in patches of varying sizes and weed densities. Currently the aggregate acreage of all noxious weeds is approximately 300 acres. As not all noxious weeds are mapped the total acreage is undoubtedly larger. Current surveying and mapping of noxious weeds is ongoing within the CCD. **Table 2-5**, Noxious Weeds found within the CCD, outlines noxious weed found in the CCD. Noxious weeds are found in places where the native plant community has been degraded and where there is sufficient soil moisture (**Figure 2-2**, Weeds). Consequently noxious weeds are not found in widespread contiguous areas throughout the district but instead are typically found in numerous large and small patches, primarily in riparian areas, ephemeral drainages, playa lake margins, burned areas and along roadsides.

The current strategy for noxious weed management is to map and treat noxious weeds using conventional methods such as GPS units to map infested areas followed by mechanical, biological and chemical treatments. The CCD has traditionally surveyed and treated noxious weeds following guidance from the BLM national office. Current efforts are designed to move toward an integrated weed management (IPM) strategy which includes mapping, treating, evaluating and revegetation of weed infested areas. This effort will allow staff to prioritize and focus on treating areas having high priority such as sage grouse (**Figure 2-3**, Sage Grouse Habitat Categorization).

2-2 Weeds (Scoping map 6.2)



2-3 Sage Grouse Habitat Categorization (Scoping Map 5.1)

**Table 2-5
Noxious Weeds found within the CCD**

Common Name	Scientific Name
Russian knapweed	<i>Acroptilon repens</i>
Hoary cress	<i>Cardaria draba</i>
Musk thistle	<i>Carduus nutans</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Yellow starthistle	<i>Centaurea solstitialis</i>
Spotted knapweed	<i>Centaurea stoebe ssp. mincranthos</i>
Canada thistle	<i>Cirsium arvense</i>
Poison hemlock	<i>Conium maculatum</i>
Perennial pepperweed/ Tall whitetop	<i>Lepidium latifolium</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Scotch thistle	<i>Onopordum ancanthium</i>
African rue	<i>Peganum harmala</i>
Mediterranean sage	<i>Salvia aethiopsis</i>
Medusahead	<i>Taeniatherum caput-medusae</i>
Tamarisk	<i>Tamarix sp.</i>
Puncturevine	<i>Tribulus terrestris</i>

Trends

Major Vegetation Issues in the Planning Area

Many of the ecological systems within the CCDPA are out of balance and will require management changes and/or reclamation to restore resilient ecological systems. The three primary issues influencing vegetation are: 1) reduced resiliency to disturbance (i.e. skewed functional structural groups); 2) invasive and noxious species and 3) reduced fire return intervals (too many fires in too short a time period).

- 1) Reduced resiliency to disturbance (i.e. skewed functional structural groups).

Of the 2,113,771 acres of the CCDPA that had Rangeland Heath Standard Determinations done, 58% of those did not meet Standard 4. Standard 4, Animal and Plant Habitats, examines the vegetation as it relates to the ecological site potential for the site. Areas that have a dense shrub canopy and very little grass/forb component in the understory are classified as having a skewed functional structural group. The grass, forbs and shrubs all provide a different function to the ecological system, as well as providing different habitat values for associated wildlife. Having a skewed structural functional group makes it very hard for a vegetative community to have the resiliency to heal itself after a disturbance, such as fire.

Skewed structural functional groups can be caused by a variety of factors, such as historic or current overgrazing, decadent plant communities, drought, past disturbance such as fire, and a variety of other causes.

2) Invasive and noxious species.

Cheatgrass is the most ubiquitous invasive annual grass in the CCDPA. According to SynthMap data, and largely verified by BLM personnel, over 101,633 acres in the CCDPA, of which over 58,724 acres are on BLM managed lands. Mostly, these are lands that had cheatgrass as a component of the vegetation prior to disturbance, and post-disturbance the native species had minimal numbers, or were otherwise unable to compete post-disturbance, and the invasive annual grass is now the dominant vegetation on site. Total acres and BLM acres within the CCDPA that are dominated by invasive vegetation are depicted below (**Table 2-6**, Total Acres and BLM Acres within the CCDPA Dominated by Invasive Vegetation).

Noxious weed species are also present throughout the CCDPA, and continue to arrive and spread at rates that exceed our ability to treat and eradicate these species. Degraded or disturbed ecosystems are most easily invaded by these species.

- 3) Reduced fire return intervals (too many fires in too short a time period). For example, the fire return intervals in sagebrush dominated systems are estimated to be between 15-150 years naturally, depending on the species of sagebrush and the vegetative community (Suring, Rowland, Wisdom, Schueck, & Meinke, 2005). The reduced fire return interval has created alterations in ecological systems throughout the CCDPA. Cheatgrass was introduced to the United States in the 1800's, and by the 1990's it was already thought to have invaded over 6.8 million hectares of the sagebrush ecosystem (Pellant & Hall, 1994), and is known to replace native perennial grasses, forbs and shrubs (Suring, Rowland, Wisdom, Schueck, & Meinke, 2005). Over 126,121 acres of the CCDPA has burned in the last 10 years alone (2002-2011). Please refer to **Section 2.2.8** Wildland Fire Ecology and Management for maps depicting fires and fire history throughout the CCDPA.

Table 2-6
Total Acres and BLM Acres within the CCDPA Dominated by Invasive Vegetation

Type of Introduced Vegetation	CCDPA Acres	BLM Acres
Annual Grass / Forbs	16711	2787
Bromus tectorum Semi-natural Herbaceous Vegetation	0.5	0.3
Introduced Riparian Vegetation	4150	268
Introduced Upland Vegetation-Annual and Biennial Forbland	20298	12005
Introduced Upland Vegetation-Annual Grassland	59367	43061

Table 2-6
Total Acres and BLM Acres within the CCDPA Dominated by Invasive Vegetation

Type of Introduced Vegetation	CCDPA Acres	BLM Acres
Introduced Upland Vegetation-Perennial Grassland and Forbland	1031	603
Non-Native/Ornamental Grass	75	0
Salsola spp. Herbaceous Vegetation [Provisional]	0.2	0
Tamarix spp. Semi-natural Temporarily Flooded Shrubland Alliance	0.7	0

Sagebrush

There are large amounts of sagebrush habitat throughout the CCDPA that is experiencing active pinion and juniper expansion. This has many negative associated vegetative impacts that are detailed in the 'Forests and Woodlands' section of Current Conditions, listed above. In addition, there is cheatgrass present in sagebrush habitats district wide, creating a potential for habitat conversion post-disturbance. Over 67,000 acres of the CCDPA is presently annual grassland, having already experienced type conversion from the previous native vegetative community. Cheatgrass is a very aggressive specie, which is well suited to outcompete the native vegetation for resources such as water and soil nutrients, since it germinates and becomes active so much earlier in the season than native vegetation. Cheatgrass can get very dense in the understory, and provide horizontal continuity of fuel that native bunchgrasses would not provide. This large amount of standing cheatgrass leads to an increased fire frequency, shortening the return interval from 20-100 years in a native system to as frequent as 3-5 years in a cheatgrass dominated system (Young & Evans, 1978). This frequent fire cycle very quickly removes all native vegetation that is not fire tolerant from the system. Once these cheatgrass cycles have begun, they are extremely difficult to reverse.

Intermountain Cold Desert Scrub

This comprises the largest single vegetation type present in the CCDPA. There have been large amounts of this vegetation type that have converted to cheatgrass through an increased fire cycle. In some areas of this type of vegetative community, cheatgrass has slowly gained dominance without the disturbance driver (Svejcar & Tausch, 1991) Due to the low precipitation in this vegetation type, restoration efforts post disturbance are often not successful (Jessop & Anderson, 2007), especially if cheatgrass has already gained dominance in the understory.

Forest/Woodlands

All forest and woodland types in the planning area are experiencing the same issues as other forests and woodland types in the intermountain west. Fire exclusion, coupled with impacts from livestock grazing, and timber harvest has led to high tree densities, expansion/reforestation of pinyon-juniper, contraction of aspen and riparian deciduous stands, and drought/insect/disease related mortality.

The rapid pinyon-juniper woodland expansion observed during the late 1800s and early 1900s resulted from a combination of conditions: (1) heavy livestock grazing that removed the herbaceous vegetation, (2) fire suppression (Heyerdahl, Brubaker, & Agee, 2001) (Savage & Swetnam, 1990); (Swetnam & Betancourt, 1998), (3) timber harvest for mining operations, and (4) wet conditions that created an ideal situation for tree establishment (Antevs 1938). Expansion into sagebrush vegetation types (Phase I woodland) is continuing to occur, which diminishes the extent of this vegetation type on the landscape.

Fire exclusion in PJ woodlands has led to higher tree densities, accumulation of live and dead fuel loads, and subsequently higher intensity fire that kills the entire stand. In Phase III woodlands, stand replacing fire leads to invasion of non-native vegetation (e.g. cheatgrass and noxious weeds) because high tree densities have shaded out the native grass, forb, and shrub understory resulting in diminished seed banks for natural recovery after fire.

Aspen stands are becoming smaller in extent, and less age diversity is present. Many stands experience difficulties reproducing successfully, as the suckers are not able to grow past browse height prior to being decimated by browsers. As water tables have lowered, some aspen stands have decreased or died out as the trees become incapable of reaching the water. Conifer from adjacent areas are establishing within these stands with some cases of shading out the shade-intolerant aspens. This encroachment also increases live and dead fuel loading within the stands, making them more susceptible to stand replacing fire.

The last major drought that caused widespread mortality to forest and woodlands in the planning area was from 2001 to 2004 (Shaw, Steed, & DeBlander, 2005). This drought was similar in magnitude to severe droughts in the early 1900's and the 1950's (Cole, Gutzler, Meko, Wolter, & Lenart, 2004) (McPhee, Comrie, & Garfin, 2004). During this last drought, the majority of trees killed were pinyon pine and the juniper interspersed showed little mortality. Drought stressed trees were attacked by the following insects and diseases: pinyon ips (*Ips confusus* (LeConte)), twig beetles (*Pityophthorus spp.* and *Pityogenes spp.*), pitch moths (families *Pyralidae* (especially *Dioryctria spp.*) and *Sesiidae*), black stain root disease (*Leptographium wageneri* [Kendrick] Wingfield), and pinyon dwarf mistletoe (*Arceuthobium divaricatum* Engelm.). These are native pathogens and insects that control stand density during times of water stress (droughts). Old-growth stands of pinyon-juniper are assumed to have been affected by this drought as well, diminishing the amount of old trees on the landscape.

Riparian Systems

Proper functioning condition assessments show that the majority of riparian areas are not in proper functioning condition. **Table 2-7**, Carson City District Riparian Functional Assessment Ratings (Lentic and Lotic), depicts the amount

**Table 2-7
Carson City District Riparian Functional Assessment Ratings (Lentic and Lotic)**

Signed S&G Determinations from 2003-2011	Number of Water Sources Analyzed	Proper Functioning Condition (PFC)	Functional at Risk (FAR)	Non-functional (NF)
38	184	29%	54%	15%

of riparian areas in the CCDPA that have been rated and what the designated ratings were. Many of the assessments indicate downward trends due to ongoing disturbances, ordinarily anthropogenic. Almost 70% of the land assessed was rated as not meeting Standard 2 (Riparian/Wetland systems are in proper functioning condition), and 25% of the land assessed did not meet Standard 3 (Water quality criteria in Nevada or California State Law shall be achieved or maintained).

Riparian areas are heavily impacted due to over grazing by livestock, wildlife and wild horses resulting in compacted soils, loss of plant species diversity, introduction and spread of invasive species. Riparian areas are impacted by off-highway vehicles which crush the vegetation, compact the soils and can introduce and spread invasive species. Riparian areas are especially susceptible to invasive species invasion due to the favorable soil and moisture that is available. Over time the loss of vegetation can lead to invasive species establishment, which then forms a local source which can further spread to other areas. Disturbances can also lead to the development of headcuts which lead to channel entrenching, increased erosion and sedimentation along with a lowering of the water table; all of which can lead to invasions of more xeric species. Riparian areas are negatively impacted with lowering of the water table or groundwater flow alterations or disruptions due to the exporting of groundwater outside of the hydrologic basin.

Limited resources do not allow proper management or protection of riparian areas. Protection structures such as fencing are either not erected or once constructed are often not maintained or are vandalized to the point where the protection is no longer provided.

Due to the novelty of the resource in the desert, the springs and springbrooks receive a large amount of use by wildlife, livestock and wild horses. In addition to ongoing degradation, water tables throughout the CCDPA are lowering due to droughts and other factors.

Special Assemblages

Currently it is not possible to determine trends as very limited information exists on these island communities.

Limited data of the vegetation condition at many of these sites make trend determination difficult. Overall the trend seems to be static to downward trending as these habitats are often fragmented by unauthorized trails, invaded by native and nonnative species and exhibit loss of biodiversity.

Other

This category will continue to grow if areas are developed, disturbed or otherwise removed from their previous vegetative community.

Noxious Weeds

Under the current noxious weed management, noxious weeds continue to gain dominance in areas where weeds are established. These areas then become launching points from which new areas with suitable habitat and disturbance are infected.

Forecast

Overall, the intact habitats need to be retained as such, and habitats that are not yet past a transitional threshold need to be prioritized for management while they still contain the components required for site rehabilitation. If vegetative communities continue becoming further degraded, and more native vegetative communities passes the threshold to introduced specie dominance, restoration will become increasingly difficult. As native stable and resilient vegetative communities are lost and converted, all aspects of the environment suffer.

Sagebrush

Pinyon and juniper are expected to continue expanding into Sagebrush communities. The CCD can combat some of the deleterious ecological impacts of this expansion by proactively thinning juniper and pinyon before it creates a dense canopy that eliminates the sagebrush and native forbs and grasses from the area. Please refer to **Section 2.2.8** Wildland Fire Ecology and Management for a discussion of the phases of pinyon-juniper expansion. Intact sagebrush communities are expected to continue decreasing in size and occurrence. In addition, the intact communities are expected to have further proximity from each other, creating habitat fragmentation for sagebrush dependent species. It is also expected that the remaining sagebrush systems will burn at some point in the future. With the lack of resiliency that is present in the CCDPA, these sagebrush systems are not expected to have the native vegetation present required to naturally stabilize and restore the system. These systems are expected to become largely occupied as annual grasslands.

Intermountain Cold Desert Scrub

It is expected there will continue to be type conversions throughout this vegetation type. Wildfire remains a significant threat as invasive annual species have the potential to increase wildfire frequency and extent. This vegetative community receives the least attention for restoration, since such low success rates are associated with this vegetative community. It is not expected that

much effort will go into increasing the resiliency of this vegetative community type.

Forests/woodlands

In absence of active management of the forest and woodlands in the planning area, the aforementioned trends of higher tree densities, expansion/reforestation of pinyon-juniper, contraction of aspen and riparian deciduous stands, and drought/insect/disease related mortality are expected to continue. These will be accelerated during drought periods and will also be subject to increasing fire intensities during fire seasons that are particularly active. At this time, the effects of climate change on forest and woodlands within the planning area are largely unknown but management recommendations should focus on building resilience to disturbance and retaining stand and landscape diversity into the future.

Riparian Systems

Stream and river systems will continue providing a movement corridor for non-native seed sources.

Although springs and springbrooks will continue being a resource under high demand in the desert, the importance of these systems has also become better understood by land managers and land users, facilitating the use of alternatives such as troughs with overflows back into the original system or fenced systems.

The cumulative effects of over grazing and trampling, recreational use, and other surface-disturbing activities, degrade optimal soil properties and reduce species diversity and structure. The forecast for riparian areas is one of continued downward trends, inadequate protection, and an increase in invasive species number, density and extent. In areas with headcuts, entrenchment and lowering of groundwater levels will continue unabated with xeric native species and nonnative species dominating the sites.

Special Assemblages

There is no management plan in place for these unique species, so they do not receive any more concentrated management than the lands surrounding them. It is possible that, if species within these communities do experience significant declines, the unique/rare vegetation present on these sites could potentially be added to the BLM special status lists or they could be federally listed by the US Fish and Wildlife Service (USFWS).

Impacts due to climate change could alter the plant community dynamics and could result in species replacements with native or nonnative species. The greatest long term threat to the survival of these unique habitats would be the alteration or destruction of the natural process that created these unique habitats in the first place. Without these intact natural processes it is highly likely that the unique habitats would cease to exist and could lead to a listing of species as BLM sensitive or federal listings by the USFWS.

Other

There is potential, through reclamation, to return some of these lands to their previous vegetative community.

Noxious Weeds

Without an IPM approach damaged or degraded areas are not revegetated allowing noxious weeds to persist and increase on the landscape and overtime will allow the succession of other non-native invasive species to migrate to the area, establish and gain dominance. The increasing urbanization of western Nevada and eastern California will bring additional disturbances to native vegetation communities and will facilitate the spread of noxious weeds by means of increased human-caused fires, and damage of native plant communities and spread of weeds by motorized use.

Forecast Trends

Land acquired along the Truckee River corridor (see **Section 2.3.7** Lands and Realty) provides very unique opportunities for managing a river ecosystem for functionality, habitat, and the multitude of associated values such as recreation, education, etc. These acquired lands (Mustang and 102) are along the Truckee River Corridor approximately 7 miles to the east of Reno, and provide habitat for diverse riparian vegetation, such as cottonwoods (*Populus spp.*), willows (*Salix sp.*), silver sage (*Artemisia cana*), dogwood (*Cornus sericea*), rushes (*Juncus sp.*), and sedges (*Carex sp.*), as well as perennial grasses and a very diverse forb component. If not actively managed, tall whitetop (*Lepidium latifolium*) will likely overtake the site in time, as it is the dominant vegetation on other lands upstream and downstream as well as being present in both parcels.

Due to the importance of riparian deciduous and aspen stands for providing water and habitat to 80 percent of vertebrates (see **Section 2.2.6** Fish and Wildlife) these areas should be prioritized for restoration and protection. These areas also provide scenic values, landscape diversity, and contain higher within stand species diversity that isn't present in the adjacent uplands.

PJ expansion into sagebrush habitats is another important issue that needs to be addressed. There needs to be a strategic approach to locating existing sage-grouse occupied habitat, assessing vegetation conditions in these areas, minimizing threats to the habitat, and identifying areas of Phase I and II PJ stands that can be removed to expand current habitat for the sage-grouse (Wisdom & Chambers, 2009).

Phase III PJ woodlands that have lost their understory grass, forb, and shrub component should be assessed carefully prior to treatment. These stands are highly susceptible to stand replacing fire, and if left untreated post fire rehabilitation without a native seed bank often results in invasion by non-native species (e.g. cheatgrass, noxious weeds). This invasion is also possible if the trees are completely removed without restoration seeding of native species. Therefore, variable density thinning coupled with restoration seeding may be

the best option for protecting these stands from being lost to fire and non-native species. A strategic approach to thinning these stands should be developed by considering location, extent, vulnerability, health condition, and age. The thinning prescriptions should also retain old-growth trees as much as operationally possible, as well as taking into account the stand dynamic needs of migratory birds. Some bird species need Phase III stands for nesting success.

The fuel hazard reduction and forest health thinning that has occurred in Jeffrey pine stands in Alpine County should be maintained over time. These treatments also need to be expanded to adjacent stands that contain high tree densities and high fuel loads so that fire in these areas doesn't spread into treated areas. An integrated landscape approach needs to be developed for forests and woodlands in Alpine County due to the importance of these areas to recreational, scenic, and landscape diversity values.

Mountain mahogany and true fir stands are fairly static systems that need to be protected from fire from adjacent areas. There is also a limited need to treat surface and ladder fuels within these stands to prevent fire from getting into the canopy. The other special stand type that needs to be maintained on the landscape is the soft pine. These should be a high priority for assessment and restoration due to their limited extent within the planning area.

Areas of intact ecological systems need to be given a higher priority for protection and proactive management. Areas that are in close proximity to intact areas, or that would create/provide movement corridors between intact areas should be given priority for treatments over areas that would provide isolated benefits. Ignoring areas that are in relatively good shape will result in these areas becoming degraded in the future. Active management is required to ensure that the healthy areas remain as such.

Areas that have already undergone the type conversion from native vegetation to invasive annual grassland should be treated differently. Treatments may include fuel breaks on the perimeter that would halt a fire before it entered adjacent intact habitat. If money allows, progressive treatments on these annual grasslands may provide restoration of ecosystem functionality. These progressive treatments often include a succession of treatments including fine fuel removal, herbicide, and reseeding with native vegetation.

Systems that are not intact entirely, but have not undergone a transition to another vegetative state should be viewed as opportunities to pro-actively manage land before entire restoration is required.

2.2.5 Special Status Species

Special status species are those plant and animals species with populations that have suffered significant declines. These declines may result from habitat loss, habitat modification, and from changes in competition, predation, or disease. Habitat loss and modification from human activities are the primary causes of

declining populations, particularly of species that are highly adapted to specific ecological niches. Such species may or may not be legally protected by federal or state agencies. BLM land management practices are intended to sustain and promote species that are legally protected and prevent species that are not yet legally protected from needing such protection.

Indicators

Special status species indicators include population levels and density, breeding status, distribution and range, connectivity of populations and habitats, age class structure, and genetic diversity. Population and biological data for several special status species are tracked by the Nevada Department of Wildlife (NDOW) and Nevada Natural Heritage Program (NNHP). Other partners, including the BLM, assist with these studies.

Focus on Habitat

Both NDOW and NNHP focus primarily on population status and trends, while the BLM focuses its efforts on habitat management. The quantity and quality of preferred and suitable habitat, including prey habitat, and threats to species are evaluated. Indicators of habitat condition include plant species composition, cover, height, vigor, production, browse levels, and other indices such as wildlife sign (including scat, tracks, and nests). Rangeland Health Assessments and Proper Functioning Condition (PFC) are qualitative methods for assessing the condition of upland and riparian-wetland areas, respectively. Quantitative data is used when feasible to inform these assessments. The BLM also tracks conditions and restricts certain activities in critical breeding, foraging, and wintering areas and migration corridors. Current BLM core indicators and protocols for qualitative and quantitative rangeland health assessments are described in the BLM's Assessment, Inventory and Monitoring Strategy and current habitat inventories/assessment direction specific to sage-grouse uses indicators and protocols outlined in the Sage-Grouse Habitat Assessment Framework document.

Standards and Guidelines for Rangeland Health

While all the standards outlined in The Sierra Front-Northwestern Great Basin Area RAC Standards and Guidelines for Rangeland Health benefit special status plant and animal species, Standard 5 (Special Status Species Habitat) specifically addresses them and states:

Habitat conditions meet the life cycle requirements of special status species.

As indicated by:

- Habitat areas are large enough to support viable populations of special status species;

- Special status plant and animal numbers and ages appear to ensure stable populations;
- Good diversity of height, size, and distributions of plants;
- Number of wood stalks, seed stalks, and seed production adequate for stand maintenance; and
- Vegetative mosaic, vegetation corridors for wildlife, and minimal habitat fragmentation.

Other habitat quality indicators include all those in Standard 2-Riparian/Wetlands, which are addressed in **Section 2.2.4** Vegetation. They include water temperature, water quality, substrate embeddedness, sediment levels, pool frequency and quality, presence of refugia, stream width/depth ratio, stream bank condition, riparian vegetation condition, flood plain connectivity, road density, physical barriers, and disturbance history.

Current Condition

Threats to BLM special status species in the CCDPA include habitat loss or fragmentation stemming from fire, energy development, mining, overgrazing of upland and riparian areas (livestock and wild horses), unrestricted off-road vehicle use, invasive species, and drought. Predation and disease are also natural threats that can be intensified for species inhabiting degraded ecosystems. Based on the Southwest Regional GAP Analysis Project (USGS, 2005) the Nevada Department of Wildlife's Wildlife Action Plan (NDOW, 2006) characterized Nevada's vegetative land cover into 8 broad ecological system groups and linked those with Key Habitat types, which are further refined into Ecological Systems that are characterized by plant communities or associations (USGS, 2005). Key habitat types in the CCDPA that support special status species are summarized under Current Conditions in **Section 2.2.6** Fish and Wildlife and detailed under Current Conditions in **Section 2.2.4** Vegetation.

Federally Listed Species

Six federally listed species currently occur in the CCDPA, but there are no designated critical habitat (See **Table 2-8**, Federally Listed Animal and Plant Species in the Planning Area).

Table 2-8
Federally Listed Animal and Plant Species in the Planning Area

Taxa	Species	Federal Designation	Designated Critical Habitat in Planning Area
Invertebrate	Carson wandering skipper <i>Pseudocopaedes eunus obscurus</i>	Endangered	No
Fish	Cui-ui <i>Chasmistes cujus</i>	Endangered	No

**Table 2-8
Federally Listed Animal and Plant Species in the Planning Area**

Taxa	Species	Federal Designation	Designated Critical Habitat in Planning Area
Fish	Hiko White River Springfish <i>Crenichthys baileyi grandis</i>	Endangered	No
Fish	Lahontan cutthroat trout <i>Oncorhynchus clarki henshawi</i>	Threatened	No
Fish	Railroad Valley Springfish <i>Crenichthys nevadae</i>	Threatened	No. Only population in CCDPA is on private land.
Plant	Steamboat buckwheat <i>Eriogonum ovalifolium</i> var. <i>williamsiae</i>	Endangered	No, but 51.4 acres of occupied habitat has been identified in the CCDPA.

The Carson wandering skipper (*Pseudocopa eunus obscurus*) is a small butterfly in the subfamily *Hesperiinae* (grass skippers). The subspecies was federally listed as endangered on November 29, 2001. At the time of listing, only two extant populations were known, one in Washoe County, Nevada, and one in Lassen County, California (adjacent to CCDPA). A third known population of the subspecies, from Carson City, Nevada, is considered extirpated as of 1998. In 2004, one additional population was located south of Carson City in Douglas County, Nevada, along the Carson River. In 2005, a second population in Washoe County, Nevada, was confirmed. Currently, there are four extant populations of the Carson wandering skipper (USFWS, 2006). The Winnemucca Ranch Road site was designated as an Area of Critical Environmental Concern (ACEC) in 2001 and was subsequently fenced for habitat protection.

Carson wandering skipper habitat is characterized as lowland grassland habitats on alkaline substrates. Occupied areas are located in a small region east of the Sierra Nevada in northwestern Nevada and northeastern California, and are characterized by an elevation of less than 1,524 meters (5,000 feet), the presence of saltgrass (*Distichlis spicata*) and nectar sources in open areas near springs or water, and possible association with geothermal activity (USFWS 2006 and references therein).

Threats to the subspecies include habitat destruction, degradation, and fragmentation due to urban and residential development, wetland habitat modification, agricultural practices, oil & gas, and geothermal development, and nonnative plant invasion. Other threats include collecting, excessive livestock trampling/grazing, water exportation projects, road construction, recreation, pesticide drift, and inadequate regulatory mechanisms. This subspecies is also vulnerable to chance environmental or demographic events, to which small populations are particularly vulnerable. The combination of only four known populations (3 in the CCDPA), small range, and restricted habitat makes the subspecies highly susceptible to extinction or extirpation from a significant

portion of its range due to random events such as fire, drought, disease, or other occurrences (USFWS 2006 and references therein).

Cui-ui (*Chasmistes cujus*) is found in the CCDPA but the BLM does not have direct management responsibilities. Cui-ui is endemic to Pyramid Lake and spawning occurs in the Truckee River over gravel beds in relatively shallow water (21 to 140 centimeters) where flow is rapid. When runs are disturbed by low water levels, spawning may occur at the river mouth. Spawning is unlikely to occur in Pyramid Lake because of extreme alkalinity and elevated salinity that preclude successful reproduction. Diet includes mainly bottom-oriented zooplankton and macroinvertebrates such as ostracods, Cyclops, and chironomid larvae and pupae. Feeding occurs somewhat above the bottom in water 10-30 meters deep (Scoppettone, 1991) (Sigler, 1987).

Hiko White River Springfish (*Crenichthys baileyi grandis*) was introduced into Blue Link spring reservoir by the Nevada Department of Wildlife in 1984 to serve as a refuge population (USFWS, 1998). However, this is not their type locality or native range. The fish live in a very small warm water reservoir. Many years ago, a mining operation punched into a warm water layer tapping an underground water source that rose to the surface as a spring. Instead of capping the water, the small reservoir was built and the fish stocked. Filamentous algae is the most important food and habitat changes associated with cattle and wild horse presence may negatively impact populations by creating turbid water from increased sediment deposits.

Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*) (LCT) are a subspecies of cutthroat trout (*Oncorhynchus clarkii*) and historically occupied large freshwater and alkaline lakes, small mountain streams and lakes, small tributary streams, and major rivers of the Lahontan Basin of northern Nevada, eastern California, and southern Oregon, including the Truckee, Carson, Walker, Susan, Humboldt, Quinn, Summit Lake/Black Rock Desert, and Coyote Lake watersheds. In the CCDPA, the Truckee, Carson, and Walker River watersheds, as well as several streams in the Desatoya Mountains in Churchill County support LCT. They require relatively clear, cold waters to maintain viable populations. LCT reproduce in the spring and are obligatory stream spawners, sometimes migrating large distances to find adequate spawning areas. Unlike most freshwater fish species, LCT tolerate relatively high alkalinity and total dissolved solid levels found in some lake environments. LCT evolved in the absence of other trout and they are highly susceptible to hybridization and competition from introduced trout species (USFWS, 1994).

Railroad Valley Springfish (*Crenichthys nevadae*) was introduced outside of their historical range in private ponds at Sodaville and are thought to no longer exist. Habitat requirements are similar to the Hiko White River springfish.

Steamboat buckwheat, (*Eriogonum ovalifolium var. williamsiae*) (*Polygonaceae*), was listed as endangered in 1986 and is on the Nevada Natural Heritage Program

List of Critically Endangered Plants. Natural occurrence of this plant is limited to the area of Steamboat Hot Springs in Washoe County. It grows in young, shallow, poorly developed, light-colored soils. This plant is often found in association with shadscale saltbush, greasewood, and rubber rabbitbrush. It is dependent on wetland margin areas. The Steamboat buckwheat is located within an ACEC (See **Section 2.4.1**). The main threat is geothermal drilling, but other threats include highway construction and maintenance, private development, competition with tall whitetop and other invasive weeds, and alteration of spring flows via regional groundwater pumping and other water diversions.

BLM Sensitive Species (Plants and Animals)

In 2011 the Nevada list of BLM Sensitive Species was revised. **Table 2-9**, Current BLM Designated Sensitive Plant Species Known or Potentially Found in the CCDPA, lists all of the BLM sensitive plant species within the CCDPA. There is one animal and two plant federal candidate species within the CCDPA; greater sage-grouse (*Centrocercus urophasianus*), Churchill Narrows buckwheat (*Eriogonum diatomaceum*) and Webber's ivesia, (*Ivesia webberi*) respectively. Candidate species are managed as BLM sensitive species.

Table 2-9
Current BLM Designated Sensitive Plant Species Known or Potentially Found in the CCDPA

Common Name	Scientific Name	Known Acres of Habitat ¹
Altered andesite buckwheat	<i>Eriogonum robustum</i>	813
Altered andesite popcornflower	<i>Plagiobothrys glomeratus</i>	unknown
Ames milkvetch	<i>Astragalus pulsiferae</i> var. <i>pulsiferae</i>	unknown
Beatley buckwheat	<i>Eriogonum rosense</i> var. <i>beatleyae</i>	2.8+
Bodie Hills rockcress	<i>Boechea bodiensis</i>	54.1
Bodie Hills draba	<i>Cusickiella quadricostata</i>	unknown
Churchill Narrows buckwheat	<i>Eriogonum diatomaceum</i>	17.9 (based on 2011 survey)
Eastwood milkweed	<i>Asclepias eastwoodiana</i>	unknown
Lahontan beardtongue	<i>Penstemon palmeri</i> var. <i>macranthus</i>	unknown
Lavin milkvetch	<i>Astragalus oophorus</i> var. <i>lavinii</i>	93.7
Margaret rushy milkvetch	<i>Astragalus convallarius</i> var. <i>margaretiae</i>	unknown
Masonic Mountain jewelflower	<i>Streptanthus oliganthus</i>	41.8
Mono County Phacelia	<i>Phacelia monoensis</i>	52.1
Nevada dune beardtongue	<i>Penstemon arenarius</i>	554+
Oryctes	<i>Oryctes nevadensis</i>	146+
Pine Nut Mountains mousetails	<i>Ivesia pityocharis</i>	104
Playa phacelia	<i>Phacelia inundata</i>	unknown
Sagebrush pygmyleaf	<i>Loeflingia squarrosa</i> ssp. <i>Artemisiarum</i>	5+
Sand cholla	<i>Grusonia pulchella</i>	7.2+

**Table 2-9
Current BLM Designated Sensitive Plant Species Known or Potentially Found in the
CCDPA**

Common Name	Scientific Name	Known Acres of Habitat ¹
Shevock bristlegrass	<i>Orthotrichum shevockii</i>	unknown
Sierra Valley mousetails	<i>Ivesia aperta</i> var. <i>aperta</i>	11.1
Sodaville milkvetch	<i>Astragalus lentiginosus</i> var. <i>sesquimetalis</i>	10.1
Steamboat buckwheat	<i>Eriogonum ovalifolium</i> var. <i>williamsiae</i>	51.4
Tahoe yellowcress	<i>Rorripa subumbellata</i>	unknown
Tiehm blazingstar	<i>Mentzelia tiehmii</i>	unknown
Tiehm peppergrass	<i>Stroganowia tiehmii</i>	635
Tonopah milkvetch	<i>Astragalus pseudiodanthus</i>	unknown
Washoe pine	<i>Pinus ponderosa</i> ssp. <i>washoensis</i>	30.1+
Wassuk beardtongue	<i>Penstemon rubicundus</i>	unknown
Webber ivesia	<i>Ivesia webberi</i>	32.1
Williams Combleaf	<i>Polycytenium williamsiae</i>	457+
Windloving buckwheat	<i>Eriogonum anemophilum</i>	108+

¹ Acres calculated with on the ground surveys incorporated into GIS calculated acreages.

Many sensitive species, in particular plants, occupy unique and generally small habitat niches surrounded by a larger vegetation assemblage. All BLM sensitive plant species have a draft conservation plan completed, which are awaiting management review and approval. Threats are similar in most cases. Disturbances to natural processes that support quality or niche habitats are the greatest long term threat. Grazing by livestock, wildlife, and wild horses are a concern, as is off-highway vehicle impacts on sensitive plant species and on the habitat. Noxious and invasive plants species are known threats to all BLM sensitive species habitats.

Plants

The range of altered andesite buckwheat (*Eriogonum robustum*) (Polygonaceae) consists of the mountains and foothills surrounding Reno-Sparks and Virginia City in southern Washoe and western Storey counties. Nearly all known populations occur on dry, shallow, highly acidic gravelly clay soils. These areas support sparse vegetation, mostly consisting of stunted woodlands of ponderosa pine (*Pinus ponderosa*) and/or Jeffrey pine (*Pinus jeffreyi*). While native fauna seem to have nominal impacts, this plant is negatively affected by substrate disturbance from cattle and wild horses. Additionally, open soils or ridgelines and the close proximity to human populations make their habitat attractive for road development. Currently, roads and OHV use impact about half of the known sites.

Altered andesite popcornflower (*Plagiobothrys glomeratus*) (Boraginaceae) is an annual herb found in Washoe County, Storey County, and Carson City. Altered andesite popcornflower grows in dry, shallow, mostly acidic, gravelly, clay soils of smallcone series, derived from weathering of hydrothermal sulfide deposits formed in andesite, or sometimes in rhyolitic or granitoid rocks; mostly in barren yellowish to orange brown patches on ridges, knolls, and steep slopes. Threats to the popcornflower are urbanization impacts in the Reno area.

Ames milkvetch (*Astragalus pulsiferae* var. *pulsiferae*) (Fabaceae) is a perennial herb found in Washoe County, Nevada closer to the California-Nevada state border at an elevation between 4625 and 5200 feet. Ames milkvetch grows in granitic and sandy soil on small hillsides in sagebrush scrub plant communities. Threats include OHV activity and trampling by hikers and animals.

Beatley buckwheat (*Eriogonum beatleyae*) (Polygonaceae) is a low, matted perennial that is endemic to Nevada in Churchill, Esmeralda, Eureka, Mineral, and Nye counties. Beatley buckwheat may be found in low elevations around 5600 feet in Great Basin scrub habitats, and also at higher elevations around 8745 feet only in the Humboldt-Toiyabe Mountains. The soil that Beatley buckwheat can be found in is volcanic ash deposited with high concentrations of tuff. There are no recorded threats, but possible threats may still include trampling and grazing by animals plus possible mining exploration and development.

Bodie Hills rockcress (*Boechera bodiensis*) (Brassicaceae) is a perennial herb that is restricted to the Bodie Hills area of Mono County, California and the Wassuk Range in Mineral County, Nevada. Bodie Hills rockcress is typically found in dry, open, rocky soil, as well as exposed surfaces or crevices of granite or rhyolitic (volcanic) mountain summits at an elevation range of 6720-9970 feet. According to the State of Nevada, it is threatened by mining operations and/or road construction and maintenance.

Bodie Hills draba (*Cusickiella quadricostata*) (Brassicaceae) has been documented in Douglas, Lyon, and Mineral Counties, Nevada within the Humboldt-Toiyabe National Forest plus Mono County, California in the Bodie Hills area at elevations of 6200-8500 feet. The typical habitat is shrub steppe (low sagebrush habitats) or occasionally pinyon and juniper forests, but excessive tree cover can inhibit its growth. Bodie Hills draba grows in soils that are typically rocky (tertiary volcanic) or have moderate clay content.

Churchill Narrows buckwheat (*Eriogonum diatomaceum*) (Polyganaceae) has only been documented in Churchill Narrows portion of the Pine Nut Mountain Range within Lyon County, Nevada, specifically Clifton Flat, Fort Churchill and Adriance Valley. A possible population may be present at the Truckee River Canyon near the Celetom Mine in the Clark District, Storey County, Nevada, but this has yet to be verified. Churchill Narrows buckwheat grows in diatomaceous soil (soft and off-white soil created from fossilized remains of

diatoms), at an elevation of 4300-4600 feet, and the area also included neighboring plant species such as shadescale saltbrush (*Atriplex confertifolia*), ephedra (*Ephedra nevadensis*), spineless horsebrush (*Tetradymia glabrata*), burrobrush (*Hymenoclea salsola*), desert prince's plume (*Stanleya pinnata*), whitestem blazingstar (*Mentzelia albicaulis*), volcanic buckwheat (*Eriogonum lemmonii*), flatbrown buckwheat (*Eriogonum deflexum*), and squirreltail (*Elymus elymoides*). The Churchill Narrows buckwheat population is isolated but considered at risk due to mining and some presence of grazing livestock. It is listed as Critically Endangered by Nevada's Division of Forestry, and is protected by Nevada Revised Statutes 527.050, 527.260-527.300, and 472.043 as of 2005.

Eastwood milkweed (*Asclepias eastwoodiana*) (Asclepiadaceae) is a long-lived perennial that is endemic to Nevada in Esmeralda, Lander, and Nye counties. Eastwood milkweed grows at an elevation of 4680-7080 feet in barren, moisture-accumulating microsites with little competition from surrounding plants in many types of basic soils (pH>8) like calcareous clay hills, carbonate or basaltic gravels, sand, or shale outcrops. It is currently threatened by mining, road construction, trampling by cattle, and predation by animals and insects.

Lahontan beardtongue (*Penstemon palmeri* var. *macranthus*) (Scrophulariaceae) is a Nevada endemic found in 4 occurrences in Churchill, Lander, Nye, Humboldt, and Pershing counties. The Lahontan beardtongue grows in washes, roadsides, and canyon floors, particularly on carbonate containing substrates. It is generally found where subsurface moisture is available throughout most of summer and it may be restricted to calcareous substrates. The primary threat is a loss of this endemic variety through hybridization with the widely planted *P. palmeri* var. *palmeri*, a species found in seed mixes used in revegetation and erosion control. Other threats may include grazing since it is desirable forage for wildlife, but little cattle grazing occurs within this species' range.

Lavin's milkvetch (*Astragalus oophorus* var. *lavinii*) (Fabaceae) is a perennial herb that has been found in Douglas, Lyon, and Mineral counties, Nevada at elevations of 5,700 to 7,467 feet. Lavin's milkvetch grows in soil typically on northeast to southeast facing slopes, badlands, small hills, or slopes that are dry, open, and barren containing gravel with clay originating from volcanic ash or carbonate. Its populations are currently threatened by mining exploration and development, rangeland management/treatments of piñon-juniper and sagebrush ecosystems, plus road maintenance and construction.

Margaret rushy milkvetch (*Astragalus convallarius* var. *margaretiae*) (Fabaceae) is endemic to the Pine Nut and Virginia Mountain Ranges in Carson City, Douglas, Lyon, and Storey counties, Nevada. It typically grows at an elevation of 4,700 to 7,800 feet in rocky soils on slopes and flats in mixed piñon-juniper and sagebrush landscapes. Margaret rushy milkvetch has no documented threats, but

the plant populations are located primarily on BLM land, which may involve OHV, hiking, and animal activities that may cause a threat of trampling.

Masonic Mountain jewelflower (*Streptanthus oliganthus*) (Brassicaceae) can be found in both California and Nevada in Mineral, Lyon, Esmeralda, and Mono counties, including the Sweetwater Mountains, Masonic Hills, Aurora Canyon, White Mountains, Inyo Mountains, and Sierra Nevada East bioregion. It grows in volcanic or granitic rocky slopes or adensite soil in Pinyon-Juniper woodland, high elevation sagebrush-grass zones, and Jeffrey pine-white fir forests and in elevations of 6,500 – 8,500 feet with 1,508+ estimated individuals in 9 mapped occurrences. Major threats to Masonic Mountain jewelflower include mining, grazing (although occurrences in Aurora Canyon appear to maintain stable populations despite grazing), woodcutting, and off highway vehicles.

Mono County Phacelia (*Phacelia monoensis*) (Hydrophyllaceae) is a small annual plant found in Esmeralda, Lyon, and Mineral counties in Nevada as well as locations in California. It grows in alkaline, barren or sparsely vegetated grayish, brownish, or reddish shrink-swell clays of mostly andesitic origin in pinyon-juniper and mountain sagebrush zones. Mono County Phacelia grows in low intensity artificial or natural disturbances including road berms that cross its soil type and, less frequently, naturally eroding badlands or apparently undisturbed soil. Although it grows in low intensity disturbances including road cuts, due to its rarity, it is threatened by intense disturbances to these areas that could cause permanent impacts. These threats include activity by road construction/maintenance and mineral exploration or development.

Nevada dune beardtongue (*Penstemon arenarius*) (Scrophulariaceae) grows in the sandy soils of valley bottoms, sometimes on road banks and other recovering disturbances. It is often found in association with Indian ricegrass, fourwing saltbush, greasewood, and rubber rabbitbrush. This species is dependent on sand dunes or deep sand. Threats to the Nevada dune breadtongue are grazing and trampling by cattle, as well as geothermal development. While it has a wide distribution, it is not abundant at any one site.

Oryctes (*Oryctes nevadensis*) (Solanaceae) is a small annual found only in deep loose sand of stabilized dunes, washes, and valley flats between 3900 and 5960 feet in elevation in western Nevada. This species appears only in years with optimal rainfall and temperature. The primary threats include grazing, trampling, and vehicle use in its sandy habitat.

Pine Nut Mountains mousetails (*Ivesia pityocharis*) (Rosaceae) is listed as endemic on the Nevada National Heritage's Douglas County Rare Species List. A known population exists on the upper north and east slopes of Mount Siegel in the Pine Nut Mountains at elevations between 6990 and 8550 feet, most often on northwest to northeast facing slopes between 0 and 5 degrees. It is wetland-dependent, restricted to periodically wet areas or where the water table and/or bedrock are close to the surface in decomposed granite or sod of meadow

margins. This species is associated with features such as springs, riparian corridors, and ephemeral ponds. Accompanying vegetation includes dry rush/forb meadow, adjacent surrounding sagebrush scrub, and occasionally surrounding pinyon/juniper/mountain mahogany woodlands. The most significant threats to the mousetails are lowering or redistribution of the water table, disturbance of meadow margins due to livestock, invasion of exotic weeds, and extensive ground disturbance due to mineral extraction.

Playa phacelia (*Phacelia inundata*) (Hydrophyllaceae/Boraginaceae) is found in parts of California, Oregon, and Nevada. In Nevada, it is only found in Washoe and Humboldt counties. Playa phacelia grows in alkali playas and seasonally inundated areas with clay soils. In Nevada, *P. inundata* is dependent upon wetlands for habitat. Threats are destruction from cattle grazing and trampling (particularly because of its proximity to standing water), OHV use, and any other activities that disrupts alkaline flats.

Sagebrush pygmyleaf (*Loeflingia squarrosa* ssp. *artemisiarum*) (Caryophyllaceae) is a diminutive annual herb, branched at the base with green flowers. This species grows in sandy soils and gravel of exposed areas on dunes, flats, and disturbed areas, in sagebrush scrub and Mojave Desert scrub 2300 to 7000 feet in elevation. In Nevada it is present in Washoe County though not well documented; this subspecies is less understood than ssp. *squarrosa* (California loeflingia). Major threats to this species include grazing, vehicles, and residential development.

Sand cholla (*Grusonia pulchella*) (Cactaceae) is a stem-succulent, spiny shrub with magenta flowers. It grows in sand on dunes, well-drained slopes, flats, and borders of dry lakes and washes in desert or sagebrush scrub from 3950 to 6300 feet in elevation in western and central Nevada. It's harvest is regulated by the State of Nevada. Threats include grazing, off-road vehicles and recreation, and further drying of the habitat.

Shevock bristlemoss (*Orthotrichum shevockii*) (Orthotrichaceae) is a rare moss with small, dark green to blackish tufts to 1.5cm high. Shevock bristlemoss grows in the driest habitats of North America on dry granitic boulders or ceilings of recesses in boulder piles in very dry areas. This species is found between 2460 and 6890 feet in pinyon-juniper woodland mostly in California and in Nevada near Lake Tahoe and in Voltaire Canyon near Carson City. Fire is a threat to this species, especially if fuel reduction efforts result in piling or burning brush next to granite boulders, and as with many bryophytes, this species is sensitive to air and water pollutants.

Sierra Valley mousetails (*Ivesia aperta* var. *aperta*) (Rosaceae) is found in the Sierra Valley in California and the Carson and Virginia ranges in Nevada on flats and benches between 4870 and 7300 feet in elevation. It is restricted to shallow, rocky to sandy soils derived from volcanic rock or alluvium. These soils have shallow clayey sub-soils that result in slow drainage and/or vernal saturation;

thus, the depth of the local perched water table and spring dry-down rate may be crucial to the distribution of this species. This species is dependent upon Nevada wetland margins in the yellowpine, mountain sagebrush, and mountain mahogany zones. Changes to natural hydrology and drainage of wetlands are threats to this species. Most of the populations occur near dirt roads; as a result, further road development, off-road vehicle use, and fire suppression activities on flats represent significant threats to this species. Additionally, the wet habitat preferred by the Sierra Valley mousetails indicates that the highly invasive tall white top (*Lepidium latifolium*) may pose a threat in the future.

Sodaville milkvetch (*Astragalus lentiginosus* var. *sesquimetralis*) (Fabaceae) is fully protected by the State of Nevada and may be found in moist, alkaline, aquatic/wetland areas like drainages near cool springs co-existing with saltgrass (*Distichlis spicata*), greasewood (*Sarcobatus vermiculatus*), and alkali sacaton (*Sporobolus airoides*). The Sodaville milkvetch has been reported in Mineral and Nye counties, Nevada at low elevations of 4150-4705 feet and is threatened by animal grazing and trampling, OHV use, private or commercial habitat development, dredging, competition from invasive plants, and impacts on pollinator populations.

Tahoe yellowcress (*Rorripa subumbellata*) (Brassicaceae) is a small, rhizomatous, perennial herb found in Washoe County, Douglas County, and Carson City with four documented occurrences. This species grows in coarse sand and sandy soils of active beaches along stream inlets, beach dunes, and backshore depressions, generally within a few feet of the local water table. It is an aquatic or wetland dependent plant in Nevada. Since it is endemic to the shore zone of Lake Tahoe, threats to its populations include shifting sands, heavy recreational use of beaches, beach maintenance, shore zone development, and artificially prolonged high-water levels in Lake Tahoe.

Tiehm blazingstar (*Mentzelia tiehmi*) (Loasaceae) is a subshrub with only seven known populations in Nye and Lincoln counties. It grows in areas of sparse vegetation, co-occurring with *Frasera gypsicola* on gypsum spring mounds, the tops of hills of white soil, and rock outcrops in the white river valley. Threats to this species include road development, livestock trampling, and off-highway vehicles.

Tiehm peppergrass (*Stroganowia tiehmi*) (Brassicaceae) occurs in the foothill and low mountain regions of the Virginia and Pine Nut ranges including Table Mountain in Lyon County, Nevada. Populations occur in both high and low elevation in basaltic or sedimentary rocks and at the fringes of rocky scree or talus piles, clay soil, and the base of rock outcrops. It grows in association with shadscale, bitterbrush, sagebrush, and rarely, Utah Juniper. Threats and potential impacts include loss of habitat from activities such as widening of main roads and relay towers at Talapoosa peak due to mining activity and potential impact of

grazing by livestock and feral horses, mule deer, and rodents, although there are implications that *S. tihmii* may be unpalatable by certain vertebrate grazers.

Tonopah milkvetch (*Astragalus pseudiodanthus*) (Fabaceae) is a perennial herb from a buried root crown restricted to Churchill, Esmeralda, Lyon, Mineral, and Nye counties, Nevada at elevations 4,535 to 6,000 feet.. It is often misidentified as *Astragalus iodanthus*, but the Tonopah milkvetch has longer hairs encompassing the plant. Tonopah Milkvetch grows in sand dunes, old beaches, valley floors, or drainages with deep loose sandy soil often with *Sarcobatus vermiculatus* (greasewood). Current threats are early season grazing from surrounding animals.

Washoe pine (*Pinus ponderosa* var. *washoensis*) (Pinaceae) is listed as a harvest regulated species by the state of Nevada. This long-lived seral species is important to wildlife, houses birds unique to the area, and is found in small stands on the eastern slope of Mt. Rose in Washoe County. It is found in white fir communities growing in dry montane forest areas and volcanic ridges at elevations of 5,500 – 8,500 feet (1,650 – 2,550 meters). Because of its low seed output and reproductive potential, logging is one of the major threats to *P. washoensis*. In addition to logging, the Washoe pine is negatively affected by buildup of fuel and grazing activities that change the community structure leading to increases in white firs (and consequently, a decrease in Washoe pine) as well as changes to the understory species.

Wassuk beardtongue (*Penstemon rubicundus*) (Scrophulariaceae) is a robust perennial herb with twelve reported occurrences in Douglas, Mineral and Esmeralda counties. It generally grows in areas with mild disturbance including steep decomposed granite slopes, rocky drainage bottoms, roadsides or other recovery disturbances with enhanced runoff in open, rocky to gravelly soils on perched tufa shores. The Wassuk beardtongue is locally abundant on recent burns in the pinyon-juniper, sagebrush, and upper mixed-shrub shadscale zones. The major threats are concerns about hybridization with *P. palmeri* var. *palmeri*, a species used regularly in revegetation seed mixes, and the potential for damage by trampling and grazing.

Webber ivesia (*Ivesia webberi*) (Rosaceae) is listed as critically endangered by the state of Nevada. The four occurrences of this species in Nevada are in the Peavine and Carson Range on mid-elevation terraces, on the west slope of the Pine Nut Mountains in Douglas County, and in Humboldt-Toiyabe National Forest. There are two known occurrences on BLM land. One occurrence is north of Reno and the other occurrence is in Douglas County. All other occurrences overlap with active grazing allotments and Native American allotment land. It has very specific soil requirements including a shallow shrink-swell clay soil with a gravel surface layer over volcanic, generally andesitic bedrock, on mid-elevation benches and flats. Threats include grazing by high concentrations of livestock, competition with aggressive non-native grasses and

noxious weeds, high-use disturbances created by OHV, dozer lines used in fire suppression, urban development, and widening of adjacent roads.

Webber's ivesia is found on clay soils within the pinyon juniper forest. At present the species occupies 32.1 acres on BLM land. Much of the habitat is on private land and is under consideration for future development. The USFWS has listed this species as a candidate species with a priority of 5. Given that most of the habitat is on private lands that USFWS has stated that occurrences of Webber's ivesia on public lands are crucial for the survival of this species. Little is known of the condition of this species on BLM land. Limited monitoring and surveying of this species has been accomplished.

Williams Combleaf (*Polycytenium williamsiae*) (Brassicaceae) is a small perennial aquatic or aquatic dependent herb in Washoe, Lyon, Douglas, Mineral and Nye counties as well as California and Oregon. It grows in relatively barren sandy to clay or mud margins and at bottoms of non-alkaline seasonal lakes perched over volcanic bedrock in sagebrush, pinyon-juniper, and mountain sagebrush zones. Williams Combleaf is fully protected by the state of Nevada. Threats include trampling by livestock and feral horses, water diversions and development, and off-highway vehicles.

Windloving buckwheat (*Eriogonum anemophilum*) (Polyganaceae) has been documented in Churchill, Washoe, Pershing, Humboldt, and Lander counties, Nevada. It has an elevation range of 4750-9836 feet, and can become established in a variety of soil types. Most common habitat types documented are high elevation mountain ridges and slopes in gravel or volcanic outcrops co-occurring with low sagebrush (*Artemisia arbuscula*), green rabbitbrush (*Ericameria viscidiflora*), sandberg bluegrass (*Poa secunda*), squirreltail (*Elymus elymoides*), and King's Sandwort (*Arenaria kingii*), as well as, low elevation populations in dry, barren, undisturbed hillsides with light-colored clay soils co-occurring with spineless horsebrush (*Tetradymia canescens*), rubber rabbitbrush (*Ericameria nauseosa*), green rabbitbrush (*Chrysothamnus viscidiflora*), shadscale (*Atriplex confertifolia*), bottlebrush squirreltail (*Elymus elymoides*), basin wildrye (*Elymus cinereus*), and Torrey's milkvetch (*Astragalus calycosus*).

Animals

The primary Key Habitat types that support BLM sensitive animal species found in the CCDPA are Intermountain Cold Desert Scrub, Lower Montane Woodlands, Sagebrush, and Springs and Springbrooks. Other Key Habitats are sparsely distributed in small acreages throughout the CCDPA and include; Aspen Woodland, Barren Landscapes, Cliffs and Canyon, Desert Playas and Ephemeral Pools, Grasslands And Meadows, Intermountain Rivers and Streams, Lakes and Reservoirs, Sand Dunes And Badlands, Sierra Conifer Forests and Woodlands, and Wet Meadows. Details of Key Habitats, as well as unique and specialized habitats, are described under **Section 2.2.4** Vegetation.

Table 2-10, BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA, known or potentially occurring in the CCDPA. Species distribution, trend, and status is based on NatureServe Explorer website, the 2006 Revised Nevada Bat Conservation Plan, the 2006 Nevada Wildlife Action Plan, the 2007 Atlas of the Breeding Birds of Nevada, and the 2010 Nevada Comprehensive Bird Conservation Plan (NatureServe, 2011) (GBBO, 2010) (Floyd, 2007), (Bradley, 2006) (NDOW, 2006).

Table 2-10
BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA

Animal Species	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
Birds		
Bald Eagle <i>Haliaeetus leucocephalus</i>	Only 3 known breeding locations. Winters in low numbers. Trend is stable or increasing with recent winter increases in Carson Valley.	Intermountain Rivers and Streams, Lakes and Reservoirs, Sierra Conifer Forests and Woodlands
Brewer's Sparrow <i>Spizella breweri</i>	Breeds in CCDPA. Declining across the west.	Sagebrush and Cold Desert Scrub
Ferruginous Hawk <i>Buteo regalis</i>	Winters in the Lahontan Valley and scattered year round elsewhere. Trend is stable.	Intermountain Rivers and Streams, Sagebrush, Lower Montane Woodlands
Golden Eagle <i>Aquila chrysaetos</i>	Wide year round distribution. Trend is declining regionally and in Nevada.	Cliffs and Canyons, Sagebrush, and Lower Montane Woodland
Greater Sage-Grouse <i>Centrocercus urophasianus</i>	See Figure 2-3 , Sage Grouse Habitat Categorization, for distribution. Trend is declining.	Sagebrush, Springs and Springbrooks, & Wet Meadows
Lewis Woodpecker <i>Melanerpes lewis</i>	Known breeding in the Carson Range and migration in the Lahontan Valley and near Pyramid Lake. Trend is thought to be declining.	Aspen Woodland & Sierra Conifer Forests and Woodlands
Loggerhead Shrike <i>Lanius ludovicianus</i>	Year round distribution. Trend is declining.	Cold Desert Scrub & Sagebrush
Northern Goshawk <i>Accipiter gentilis</i>	Year round distribution. Have been documented in the Carson, Wassuk, Pine Nut, Clan Alpine, & Desatoya Mountain Ranges	Aspen Woodland
Peregrine Falcon <i>Falco peregrinus</i>	Migration and or wintering in the Lahontan Valley, Lake Tahoe Basin, & Walker River floodplain. Trend is increasing outside of the Great Basin; therefore recolonization of breeding territories in the CCDPA may occur in the near future.	Cliffs and Canyons & Marshes

Table 2-10
BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA

Animal Species	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
Pinyon Jay <i>Gymnorhinus cyanocephalus</i>	Year round distribution with trend in decline. Age profile and structural features of pinyon-juniper woodlands is thought to be a primary reason for declining trend.	Lower Montane Woodlands
Sage Thrasher <i>Oreoscoptes montanus</i>	Distribution is breeding only. Trend is thought to be stable or in slight decline	Sagebrush & Intermountain Cold Desert Scrub primarily where contiguous or interspersed with sagebrush
Snowy Plover <i>Charadrius alexandrinus</i>	Known to breed at the Stillwater National Wildlife Refuge and Carson Lake in the Lahontan Valley, Walker Lake, and Pyramid Lake. Trend is declining regionally but not well quantified in the Great Basin.	Desert Playa and Ephemeral Pools
Swainson's Hawk <i>Buteo swainsoni</i>	Breeding distribution primarily where agricultural lands exist in proximity to nesting trees and open shrublands. Trend is declining range wide but currently unknown for the CCDPA.	Agricultural Lands and Intermountain Rivers and Streams
Western burrowing owl <i>Athene cunicularia hypugaea</i>	Breeding distribution. Trend in the CCDPA is currently unknown.	Intermountain Cold Desert Scrub & Sagebrush
Mammals		
Big brown bat <i>Eptesicus fuscus</i>	Widespread year round distribution. Considered secure but listed as SSS because of high concern over the unknown potential of white-nose syndrome moving to the western states.	Hibernates in winter but locations unknown. Multiple habitats used. Caves, trees, buildings, mines, and bridges used as roost sites.
Desert bighorn sheep <i>Ovis canadensis nelsoni</i>	Year round distribution. Trend is increasing in CCDPA due to reintroductions and augmentations by NDOW.	Cliffs and Canyons
Brazilian free-tailed bat <i>Tadarida brasiliensis</i>	Summer resident. Considered vulnerable in Nevada.	Multiple habitats used. Roosts include cliff faces, mines, caves, buildings, bridges, and hollow trees. Colonies number from a few hundred to several thousand in Nevada.

Table 2-10
BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA

Animal Species	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
California Myotis <i>Myotis californicus</i>	Widespread year round distribution but mostly hibernates in winter. Considered secure in Nevada but listed as SSS because of high concern over the unknown potential of white-nose syndrome moving to the western states.	Multiple habitats used. Roosts include cliff faces, mines, caves, buildings, bridges, and hollow trees.
Dark kangaroo mouse <i>Microdipodops megacephalus</i>	Year round but hibernates in winter. Trend is in decline in Nevada but apparently secure globally.	Intermountain Cold Desert Scrub & Sagebrush
Fringed myotis <i>Myotis thysanodes</i>	Year round resident but mostly hibernates in winter. Considered imperiled in Nevada.	Multiple habitats used. Roosts include mines, caves, buildings, and trees.
Hoary bat <i>Lasiurus cinereus</i>	Summer resident but spatial distribution data is limited. Trend in Nevada unknown but listed as SSS because of high concern over the unknown potential of white-nose syndrome moving to the western states.	Tree roost sites are most important.
Little Brown Myotis <i>Myotis lucifugus</i>	Year round resident but mostly hibernates in winter. Considered vulnerable in Nevada.	Multiple habitats used. Roosts include mines, caves, buildings, and trees.
Long-eared myotis <i>Myotis evotis</i>	Year round resident but mostly hibernates in winter. Considered secure in Nevada but listed as SSS because of high concern over the unknown potential of white-nose syndrome moving to the western states.	Multiple habitats used. Roosts include crevices, mines, caves, buildings, bridges, and hollow trees.
Long-legged myotis <i>Myotis volans</i>	Year round resident but mostly hibernates in winter. Considered secure in Nevada but listed as SSS because of high concern over the unknown potential of white-nose syndrome moving to the western states.	Multiple habitats used. Roosts include crevices, mines, caves, buildings, bridges, and hollow trees.
Pale Kangaroo Mouse <i>Microdipodops pallidus</i>	Year round resident with some populations considered to be in decline. Considered to be imperiled in Nevada.	Cold Desert Scrub

Table 2-10
BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA

Animal Species	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
pallid bat <i>Antrozous pallidus</i>	Year round resident but mostly hibernates in winter. Considered vulnerable in Nevada.	Multiple habitats used. Roosts include rock outcrops, mines, caves, buildings, bridges, and hollow trees.
Pika <i>Ochotona princeps</i>	Only known locations are in the Carson and Desatoya mountain ranges. Populations may exist in the Pilot Table mountains. Trend for pikas in the Great Basin is declining.	Cliffs and Canyons & Grasslands and Meadows
Pygmy Rabbit <i>Brachylagus idahoensis</i>	Distribution poorly understood. Considered in decline in Nevada.	Sagebrush
Silver-haired bat <i>Lasionycteris noctivagans</i>	Distribution poorly understood. Considered vulnerable in Nevada.	Lower Montane woodland, Aspen Woodland & Sierra Conifer Forests and Woodlands
Spotted Bat <i>Euderma maculatum</i>	Year round resident but mostly hibernates in winter. Considered imperiled in Nevada. Information lacking for this species.	Rocky cliffs most important.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Year round resident but mostly hibernates in winter. Considered imperiled in Nevada. Information lacking for this species.	Multiple habitats used but caves and mines most important.
Western pipistrelle <i>Parastrellus hesperus</i>	Year round resident but mostly hibernates in winter. Considered secure in Nevada but listed as SSS because of high concern over the unknown potential of white-nose syndrome moving to the western states.	Cliffs and Canyons
Western Red Bat <i>Lasiurus blossevillii</i>	Distribution largely unknown but thought to just be a migrant. Very rare in Nevada.	Various wooded habitats.
Western small-footed myotis <i>Myotis ciliolabrum</i>	Year round resident but mostly hibernates in winter. Considered vulnerable in Nevada.	Multiple habitats used. Roosts include cliff faces, mines, caves, buildings, bridges, and hollow trees.
Yuma Myotis <i>Myotis yumanensis</i>	Year round resident but hibernates in winter. Considered vulnerable in Nevada.	Multiple habitats used. Roosts include crevices, mines, caves, buildings, bridges, and hollow trees.
Reptiles and Amphibians		
Dixie Valley Toad <i>Bufo boreas ssp.</i>	Only found in vicinity of Dixie Valley hot springs. Trend unknown.	Playas and Ephemeral Pools

Table 2-10
BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA

Animal Species	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
Northern Leopard Frog <i>Rana pipiens</i>	Permanent year-round resident with historic known records from Churchill, Douglas, Lyon, Storey, and Washoe counties within the Planning Area. Considered imperiled in Nevada with a global population trend down.	Springs and Springbrooks, & Wet Meadows
Shasta Alligator Lizard <i>Elgaria coerulea shastaensis</i>	Trend, distribution and status unknown in the Planning area.	Conifer Forests and Woodlands
Invertebrates		
Bee <i>Anthophora sp. nov. 1</i>	Unknown	Sand Dunes and Badlands
Bee <i>Hesperapis sp. nov. 2</i>	Unknown	Sand Dunes and Badlands
Bee <i>Perdita haigi</i>	Unknown	Sand Dunes and Badlands
Bee <i>Perdita sp. nov. 3</i>	Unknown	Sand Dunes and Badlands
Click Beetle <i>Cardiophorus ssp. nov.</i>	Unknown	Sand Dunes and Badlands
Carson Valley Silverspot <i>Speyeria nokomis carsonensis</i>	Current distribution unknown. Historic records from Alpine, Carson City, Douglas, Lyon, and Washoe counties. Considered critically imperiled in Nevada.	Grasslands and Meadows
Early Blue Or Dotted Blue <i>Euphilotes ooptes primavera</i>	Records only exist from Mineral County in the Wassuk Range. Trend unknown considered critically imperiled in Nevada.	Unknown
Great Basin Small Blue <i>Philotiella speciosa septentrionalis</i>	Distribution unknown but type locality is from Fort Churchill Road in Lyon County. Trend unknown considered critically imperiled in Nevada.	Unknown
Hardy's Aegialian Scarab <i>Aegialia hardyi</i>		Sand Dunes and Badlands
Sand Mountain Aphodius Scarab <i>Aphodius sp. 3</i>	Distribution restricted to Sand Mountain dune area	Sand Dunes and Badlands
Sand Mountain Blue <i>Euphilotes pallescens arenamontana</i>	Only found at Sand Mountain dune. Trend thought to be in decline	Sand Dunes and Badlands supporting Kearney buckwheat

Table 2-10
BLM Designated Sensitive Animal Species Know or Potentially Found in the CCDPA

Animal Species	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
Sand Mountain Pygmy Scarab Beetle <i>Coenonycha pygmaea</i>	Only found at Sand Mountain dune.	Sand Dunes and Badlands
Molluscs		
Ovate Cain Spring Pyrg <i>Pyrgulopsis pictilis</i>	Unknown distribution and trend	Springs and Springbrooks
Wongs Pyrg <i>Pyrgulopsis wongi</i>	Records for Douglas and Mineral Counties. Trend unknown.	Springs and Springbrooks

Trends

Special Status Plant Species

The future of most special status plant species within the CCDPA depends on the degree to which threats can be eliminated or ameliorated, and populations and their habitat can be restored and protected. With time and improved management practices, areas currently not meeting land health standards are expected to improve. However, some degraded areas, such as those dominated by cheatgrass or other weeds, may continue in their present condition, or possibly become worse. As demand for resource values increases, these trends are likely to continue into the future.

Noxious weeds within the area of Steamboat buckwheat will increase if major efforts are not undertaken to prevent its spread. Herbicides are the only known effective treatment against perennial pepperweed, but the proximity of an endangered plant makes herbicide application extremely difficult and potentially hazardous to the buckwheat unless great care is exercised in herbicide application. According to the Steamboat buckwheat Recovery Plan the alteration of the natural processes in the area will mean that the soil will not be replenished with sinter, an element present in the geothermal hot springs that was formerly brought to the surface by active geysers. The Steamboat buckwheat is dependent on sinter as a nutrient. The buckwheat will continue to survive on sinter already in the soil, however there is concern that the existing sinter, at some point in the future, will be depleted and the buckwheat will be unable to survive. Based on these projections, the species will never leave the endangered species list and will, at some point in the future, become extinct.

The limited monitoring of the Churchill Narrows buckwheat shows a downward trend. There are only 11 acres of occupied habitat known on a global scale. Using the NatureServe ranking system the species would be considered extremely endangered. The diatomaceous earth deposits are a nonrenewable resource and limited in size and extent. Continued mining in the region would

further diminish available habitat for the species. Rodent predation on the root system kills individual plants and grazing by wildlife, wild horses, and cattle are further threats. Currently there are limited impacts by off highway vehicles. Given the continued strong interest in mining of diatomaceous earth deposits in the area the forecast for the species is not good and it is likely that the USFWS will list the species as endangered.

Special Status Animal Species

By definition, the populations, and often habitats, of all special status wildlife and plant species have historically suffered downward trends. However, due to protection and recovery efforts, some populations (such as peregrine falcon and bald eagle) are stabilizing range-wide while others are in decline (such as golden eagle, pinyon jay). While management efforts by the USFWS, NDOW, BLM, and others have reversed the downward trend for some special status species populations, none are thought to be near their historic levels, and most remain biologically insecure, regardless of their legal status.

Current and future threats include habitat loss and fragmentation, poaching, predation, disease, invasive species, and others. Habitat fragmentation leading to degradation and loss are caused by, or exacerbated by, historic overgrazing, energy development, mining, water diversions, recreation, agriculture, residential development, and other human activities. Natural processes such as fire, drought, vegetation type conversions, especially pinyon/juniper encroachment and increased density, and climate change may also contribute to landscape changes over time. It is not known which species will be able to adapt to these changes and persist over time. Pinyon-juniper, riparian, sagebrush, and salt desert scrub have been determined to be at-risk habitats and harbor many of our special status and rare species.

Rangeland Health Observations

Healthy plant communities typically translate into healthy habitats for fish and wildlife. Therefore, most sites that meet Standard 4 (for Healthy Native Plant and Animal Communities) also meet Standard 5 (for Special Status Species). However, because special status species are typically restricted in their range and have narrower habitat requirements, achieving Standard 4 does not necessarily guarantee that Standard 5 will be met. Conversely, an area may have failed to meet Standard 4 but met Standard 5 simply because no special status species or habitat occurs in an area. Where a site failed to meet, or fell short, of land health standards, the problems entailed one or more of those identified for common fish and wildlife. (Refer to the Trends subsection of Fish and Wildlife in **Section 2.2.6** for a list of the most common land health problems observed across the CCDPA and a description of causal factors.)

Forecast

Special Status Plant Species

For Steamboat buckwheat, noxious weeds within the area are likely to increase and the species will never leave the endangered species list and will, at some point in the future, become extinct for reason described under the trends subheading.

The limited monitoring of the Churchill Narrows buckwheat shows a downward trend. There are only 11 acres of occupied habitat known on a global scale. Using the NatureServe ranking system the species would be considered extremely endangered. The diatomaceous earth deposits are a nonrenewable resource and limited in size and extent. Continued mining in the region would further diminish available habitat for the species. Rodent predation on the root system kills individual plants and grazing by wildlife, wild horses, and cattle are further threats. Currently there are limited impacts by off highway vehicles. Given the continued strong interest in mining of diatomaceous earth deposits in the area the forecast for the species is not good and it is likely that the USFWS will list the species as endangered.

In general, the forecast for BLM sensitive plants under current management may decline because of inadequate consistent protections from energy development, wild horses, grazing and unrestricted OHV use.

Special Status Animal Species

The future of most special status wildlife species within the CCDPA depends on the degree to which threats can be eliminated or ameliorated, and populations and their habitat can be restored and protected. With time and improved management practices, areas currently not meeting land health standards are expected to improve. However, some degraded areas, such as those dominated by cheatgrass or other weeds, may continue in their present condition, or possibly become worse. As demand for resource values increases, these trends are likely to continue into the future.

Renewable energy-related projects have the potential to adversely impact wildlife habitat and populations. Other uses such as livestock grazing, water use, realty actions, and recreation may also have negative impacts. Streams could potentially be affected by development activities, resulting in increased sedimentation and adverse changes in water quality and aquatic habitat. Springs and wet meadows are especially vulnerable from anthropogenic and natural factors and when negatively impacted have a far greater impact on special status wildlife species. This is because this key habitat makes up only about 5 percent of the acreage but 80 percent of all animal species depend on these systems. To a degree, some trends are a result of natural factors, such as drought and disease, and may be beyond management's control. In light of this, restoring and maintaining key habitats that can be resilient to natural disturbances such as

climate fluctuations, fire, disease etc. is very important. Conservation efforts can be improved by obtaining more complete information on the biology and distribution of special status wildlife species within the CCDPA, as well as by monitoring these populations.

Key Features (Plants and Animals)

The CCD will continue to focus management and protection efforts on special status species and their habitats (See **Tables 2-8 thru 2-10 and Section 2.2.4 Vegetation**). Key features and areas include core populations, historic habitats, occupied and suitable habitats (particularly those near known populations), and important landscape connectivity features such as movement corridors. In addition to Key habitats, other rare, unique, or diverse habitats are important. The CCD will continue to improve its knowledge base of the distribution and status of these species across the CCDPA and will develop and apply standardized protection measures to enhance the conservation and recovery of these species

2.2.6 Fish and Wildlife

Regional Context

The CCDPA encompasses two Level III ecoregions; 97 percent within the Central Basin and Range and 3 percent within the Sierra Nevada (EPA E. P., 2012). The Central Basin and Range ecoregion is internally drained and is characterized by a mosaic of dry basins, scattered low and high mountains, and salt flats that support a diverse array of species including native and non-native fish, birds, small mammals, big game, carnivores, and reptiles. Some species are specialists that use a narrow or restricted range of habitats, while others are generalists that can occur across a broad range of habitat types. Depending on species requirements, animals may be present seasonally or year-round; with some distributions being restricted by altitude, scarce water, and habitat islands within or between mountain ranges. The Sierra Nevada Ecoregion is a deeply dissected block fault that rises sharply from the arid basin and range ecoregions on the east and slopes gently toward the Central California Valley to the west. The eastern portion has been strongly glaciated. Much of the central and southern parts of the region are underlain by granite. The vegetation is mixed conifer and in Nevada is predominately white fir and lodgepole pine on the west side and Jeffrey pine and lodgepole pine on the east side.

Among all states, Nevada ranks eleventh in overall biological diversity but fifth in species extinctions (NDOW, 2006). Nevada is also the driest state in the nation with precipitation increasing with elevation. The sagebrush biome consists of approximately 120 million acres across 14 western states and three Canadian provinces. It is the largest semi-arid ecosystem in the West. Over 70 percent of this biome is publically managed. Over 350 different plant and animal species are dependent wholly or in part on sagebrush. It is estimated that only about 10 percent of this ecosystem is unaltered and potentially 20 percent of all species

dependent on this ecological system may be at risk of extinction (Center for Science, 2002). One of the most far reaching problems in the sagebrush ecosystem has been the substantial and continuing decline in habitats and populations of greater sage-grouse (Connelly J. a., 1997) (Schroeder, 1999). Despite the accelerating loss and degradation of sagebrush habitats across western North America, Nevada, Utah, and California encompass one of the largest areas of sagebrush cover types that remain today. An ecoregional assessment is currently in progress for the Central Basin and Range ecoregion, which contains much of this ecosystem.

The Partners in Flight North American Landbird Conservation Plan identified Stewardship Species that represent all major biogeographic regions in North America. Bird Conservation Regions (BCRs) were then identified and associated with Avifaunal Biomes. BCRs are essentially a workable geographic scale for bird conservation that has been adopted by the USFWS and Partners in Flight and endorsed by the North American Bird Conservation Initiative. The CCDPA is primarily within the Great Basin BCR that is part of the Intermountain West avifaunal biome (contains 3 BCRs). The CCDPA along the border with California is within BCR 15 that is within the eastern edge of the Pacific avifaunal biome (contains 3 BCRs). Seventy five percent of arid land species are in decline range-wide. Conservation concern is high for about 50 percent of all grassland breeding birds. Conservation issues stem from habitat loss in spring/summer breeding grounds as well as loss in wintering habitat that can be thousands of miles away from breeding habitat. Therefore effective conservation of migratory birds transcends national and international jurisdictions and involves many partnerships. Additionally it has been estimated that 2.5 million birds are inadvertently killed each year.

The Lahontan Audubon Society initiated the Nevada Important Bird Areas (NV IBA) Program beginning in June of 2001. Ten NV IBAs have been identified in the CCDPA. However, BLM-administered lands are only a small fraction of the acreage on three of them. BLM's management responsibility lies in protecting the habitat from indirect effects stemming from actions on BLM lands.

Finally, the Nevada Department of Wildlife and California Fish and Game manage big and small game hunting in their respective states. The BLM has a responsibility to manage habitat that will benefit populations of hunted species as well as local economies stemming from hunting. Hunt units cross federal and local jurisdictions. Issues with populations are not the same for all species. For instance, while desert bighorn sheep are rebounding in Nevada due to efforts by NDOW, mule deer have realized a 50 percent decline since the 1980s.

Indicators

Fish and wildlife indicators include direct measurement or indices of species composition, structure, diversity, and relative abundance of fish, wildlife, and habitats within the CCDPA, as well as distribution, pattern, and connectivity of

populations and habitats. Each of these measurements reflects ecosystem function and sustainability. General indicators for aquatic species habitat includes water temperature, water quality, substrate embeddedness, sediment levels, pool frequency and quality, presence of refugia, stream width/depth ratio, stream bank condition, riparian vegetation condition, flood plain connectivity, road density, physical barriers, and disturbance history.

Emphasis on Habitat

The BLM works closely with NDOW to achieve and maintain suitable habitat for fish and wildlife within the CCDPA. NDOW is directly responsible for managing population levels while the BLM is responsible for managing fish and wildlife habitat quantity and quality in a condition that will sustain desired levels of species. Population data are tracked by NDOW for game animals and, increasingly, for key nongame species. For some species, the BLM CCD may assist NDOW in the collection of this information.

While NDOW is interested primarily in population dynamics and demographics, the principal indicator used by the BLM is habitat condition based on plant community attributes and a site's capacity to sustain native wildlife species. Within this framework, the BLM focuses on key animal species and their habitats. Indicators of habitat condition include plant species composition, cover, vigor, production, browse levels, and animal indices such as wildlife sign (including scat, tracks, and nests) and animal health. Rangeland Health Assessments and PFC are qualitative methods for assessing the condition of upland and riparian-wetland areas, respectively. Quantitative data is used when feasible to inform these assessments. The BLM also tracks conditions and restricts certain activities in critical breeding, foraging, and wintering areas and migration corridors. Current BLM core indicators and protocols for qualitative and quantitative rangeland health assessments are described in the BLM's *Assessment, Inventory and Monitoring Strategy*.

Standards and Guidelines for Rangeland Health

While all the standards outlined in The Sierra Front-Northwestern Great Basin Area RAC Standards and Guidelines for Rangeland Health benefit fish and wildlife habitat, Standard 4 specifically addresses them and states:

“Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

As indicated by:

- Good representation of life forms and numbers of species;
- Good diversity of height, size, and distribution of plants;
- Number of wood stalks, seed stalks, and seed production adequate for stand maintenance; and

- Vegetative mosaic, vegetation corridors for wildlife, and minimal habitat fragmentation.”

Other habitat quality indicators include all those in Standard 2-Riparian/Wetlands, which are addressed in **Section 2.2.4** Vegetation.

Current Condition

Threats to fish and wildlife in the CCDPA include habitat loss or fragmentation stemming from fire, energy development, mining, overgrazing of upland and riparian areas (livestock and wild horses), unrestricted off-road vehicle use, invasive species, and drought. Predation and disease are also natural threats that can be intensified for species inhabiting degraded ecosystems.

Based on the Southwest Regional GAP Analysis Project, the Nevada Department of Wildlife’s Wildlife Action Plan (2006) characterized Nevada’s vegetative land cover into 8 broad ecological system groups and linked those with Key Habitat types, which are further refined into Ecological Systems characterized by plant communities or associations (USGS, 2005). The primary Key Habitat types found in the CCDPA are Intermountain Cold Desert Scrub, Lower Montane Woodlands, Sagebrush, Springs and Springbrooks. Other Key Habitats are sparsely distributed in small acreages throughout the CCDPA and include; Aspen Woodland, Barren Landscapes, Cliffs And Canyon, Desert Playas And Ephemeral Pools, Grasslands And Meadows, Intermountain Rivers And Streams, Sand Dunes And Badlands.

Vegetation communities vary based on precipitation, elevation, topography, slope, aspect, geology, soils, and other environmental variables. Habitat type is further distinguished by site-specific attributes such as vegetation cover, composition, and structure. Vegetation community composition and distribution across the CCDPA are described in detail in **Section 2.2.4** Vegetation.

Wildlife is generally not found in great densities within the Intermountain Cold Desert Scrub key habitat, which encompasses about 41 percent of the CCDPA. Lizards are the most diverse and abundant assemblage of species and serve as prey for various raptors and medium sized mammals. This key habitat supports pronghorn, winter range for mule deer and elk, and birds such as horned larks and Swainson’s hawks. Also, many species move between cold desert scrub and sagebrush habitats for various life requirements such as foraging and nesting. For instance, kit fox use the sandy soils for denning in cold desert scrub habitat but also forage for prey in sagebrush plant communities.

The Sagebrush key habitat encompasses approximately 28 percent of the CCDPA (33% of BLM lands) and provides important habitat for mule deer, sage grouse, and other sagebrush dependent species such as the sage sparrow and Brewer’s sparrow. Many sagebrush dependent species are also dependent upon the Lower Montane Woodlands key habitat for some life requisites, which supports bats, big game, small game, ravens, and a variety of songbirds. It also

provides thermal cover for ungulates during harsh winter storms. This key habitat makes up around 15 percent of the CCDPA (14% of BLM lands).

The Cliffs and Canyons key habitat supports nesting swallows, swifts, golden eagles, and prairie falcons, along with many other bird species. These areas also provide important cover for large mammals such as bighorn sheep, mountain lions, and bobcats, and for small mammals such as ground squirrels, rabbits, and marmots. Numerous bat species roost, hibernate, and reproduce in rock crevices, caves, and mines across the CCDPA.

Nevada has the most known springs of any state in the US with over 4,000 mapped within the Springs and Springbrooks key habitat. They vary greatly in temperature and flow and are extremely important in maintaining Nevada's wildlife diversity. Springbrooks are areas of flowing water linked to the spring source. Even small springs and/or flows can support important endemic gastropods and other aquatic invertebrates as well as a diverse plant community including various species of forbs, sedges, and rushes. While the actual amount of riparian/spring habitat is small in Nevada (<5 percent), about 80 percent of all vertebrate species require this habitat. Consequently, maintaining health and resiliency in this key habitat is especially critical for wildlife.

Stream aquatic habitats within the Intermountain Rivers and Streams key habitat are highly variable and are subdivided into montane and sub-montane aquatic habitats. Depending on the vegetation structure, various species of birds, fish, raptors, amphibians, and aquatic invertebrates can be supported. The actual miles of this habitat in the planning area is short. Nonetheless, healthy riparian corridors are crucial to many species in Nevada and are the hub of species diversity on the larger landscape. Several perennial creeks within the CCDPA are designated by NDOW as fishable streams and support non-native rainbow trout non-native brook trout and native brown trout.

Prominent Fish and Wildlife Species

Table 2-11, Prominent Fish and Wildlife Species Known or Potentially Found in the CCDPA, lists species of prominent status (excludes special status species) regarding BLM management efforts due to their economic value, regulatory status, high public interest, or other qualities. Special status species are discussed in **Section 2.2.5** Special Status Species.

Big Game

Big game species in the CCDPA include mule deer, pronghorn, Rocky Mountain elk (Part of Desatoya Mountains only), and 2 subspecies of bighorn sheep (BLM sensitive species) (**Table 2-12**, Big Game Species Distribution as Delineated by the Nevada Department of Wildlife GIS Data within the CCDPA). These animals are considered prominent species due to the public's interest for hunting and aesthetic enjoyment.

Table 2-11
Prominent Fish and Wildlife Species Known or Potentially Found in the CCDPA

Species or Group	Rationale for Key Designation
Birds	
Migratory birds	High interest and protected by law
Raptors	High interest, protected by law, top of food chain
Upland game birds	Economic and recreational value
Waterfowl and shorebirds (most habitat not on BLM-administered lands)	Economic and recreational value
Mammals	
Bats	High interest because of unique ecological role and susceptibility to disease
Mule deer	High economic and recreational value
Pronghorn	High economic and recreational value
Fish	
Rainbow, brown, and brook trout	High interest, economic, recreational value

Table 2-12
Big Game Species Distribution as Delineated by the Nevada Department of Wildlife GIS Data within the CCDPA

Species	Distribution in Planning Area (Acres)	Distribution on BLM Lands (Acres)	Primary Key Habitat (s)
Black Bear	2,896,868	983,955 (33.9% of CCDPA distribution on BLM administered lands)	Intermountain Rivers and Streams, Lakes and Reservoirs, Sierra Conifer Forests and Woodlands
Mule Deer	4,169,026 (46.6%)	1,773,410 (42.5% of CCDPA distribution on BLM administered lands)	Sagebrush & Lower Montane Woodland
Bighorn Sheep (California and Nelson subspecies)	1,176,030 (13.1%) (Another 1,283,134 acres of potential habitat has been delineated by NDOW on BLM administered lands)	1,034,063 (87.9% of CCDPA distribution on BLM administered lands)	Cliffs and Canyons
Pronghorn	4,570,659 (51%)	3,316,553 (72.5% of CCDPA distribution on BLM administered lands)	Sagebrush & Cold Desert Scrub
Rocky Mountain Elk (just winter range)	7,787 (0.08%)	7,200 (92.5% of CCDPA distribution on BLM administered lands)	Grasslands

Birds

Waterfowl. Streams, rivers, reservoirs, ponds, playas, canals, and associated riparian vegetation provide habitat for waterfowl and shorebirds. Most of this habitat is not administered by the BLM, but the CCD has cumulative responsibility to protect these habitats. Canada goose (*Branta canadensis*), northern shoveler (*Anas clypeata*), ruddy duck (*Oxyura jamaicensis*), redhead (*Aythya americana*), American coot (*Fulica americana*), green-winged teal (*Anas crecca*), northern pintail (*Anas acuta*), and gadwall (*Anas strepera*) are a few of the more common game waterfowl species found in the area. Great blue herons (*Ardea herodias*), egrets, white-faced ibis (*Plegadis chihi*), and other wading and shorebirds typically occur along major rivers, valleys, and irrigated fields, as well as some playas where permanent water sources exist or in years when water is maintained. When playas contain water for extended periods of time lush vegetation can grow in addition to producing many aquatic invertebrates that provide forage for shorebirds, waterfowl, and small water birds. For instance, Dixie Meadows hot spring and other cold springs provide the playa with a permanent water source. Therefore, numbers and abundance of species in any given year is less variable here than for playas without a permanent water source.

Upland Game Birds. The quality of upland game bird habitat depends on the availability of mixed shrubby and herbaceous vegetation for nesting, brood rearing, foraging, and thermal cover. Riparian habitat plays an important role as a source of food, water, and cover for most upland birds. Chukar partridges (*Alectoris chukar*) are the most broadly distributed across the CCDPA while California and mountain quail (*Callipepla californica* & *Oreortyx pictus*, respectively), wild turkey, and blue grouse (*Dendragapus obscurus*) have more limited distribution. Mourning doves (*Zenaida macroura*) also occupy a variety of habitats across the CCDPA.

Raptors. Raptors in the CCDPA include eagles, falcons, hawks, and owls. Golden eagles (*Aquila chrysaetos*), red-tailed (*Buteo jamaicensis*), ferruginous (*Buteo regalis*), Swainson's (*Buteo swainsoni*), and Cooper's hawks (*Buteo swainsoni*), peregrine (*Falco peregrinus*) and prairie falcons (*Falco mexicanus*), and American kestrel (*Falco sparverius*) are the most common diurnal species observed, while the nocturnal great horned owl (*Bubo virginianus*) occupies a variety of habitats in the CCDPA. Cliffs, rocky outcrops, and large trees provide suitable nesting habitat for many of these species. Because they are top (or apex) predators on the food chain, raptors are an important indicator of overall ecosystem health.

Migratory Birds

The Partners in Flight North American Landbird Conservation Plan identified Stewardship Species that represent all major biogeographic regions in North America. BCRs were then identified and associated with Avifaunal Biomes. BCRs are essentially a workable geographic scale for bird conservation that has

been adopted by the USFWS and Partners in Flight and endorsed by the North American Bird Conservation Initiative. The CCDPA is primarily within the Great Basin BCR that is part of the Intermountain West avifaunal biome (contains 3 BCRs). The CCDPA along the border with California is within BCR 15 that is within the eastern edge of the Pacific avifaunal biome (contains 3 BCRs).

The Lahontan Audubon Society initiated the NV IBA Program beginning in June of 2001. Ten NV IBAs have been identified in the CCDPA. However, BLM-administered lands are only a small fraction of the acreage on three of them. BLM's management responsibility lies in protecting the habitat from indirect effects stemming from actions on BLM lands.

Common migratory birds include common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), Virginia warbler (*Oreothlypis virginiae*), mountain bluebird (*Sialia currucoides*), green-tailed towhee (*Pipilo chlorurus*), sage sparrow (*Artemisospiza belli*), and Brewer's sparrow (*Spizella breweri*). A subset of known and potentially occurring birds in the CCDPA, including their habitat and status, are listed in

Table 2-13, Migratory Birds of Conservation Concern and Game Birds Below Desired Condition Known or Potentially Found in the CCDPA, is based on the USFWS Birds of Conservation Concern 2008 List for BCRs 9 and 15 (USFWS, 2008). Birds listed for these BCRs but not known to occur in the CCDPA are not displayed in the table (Note: several species of concern displayed in the table are also addressed under special status species in **Section 2.2.5**).

Table 2-13
Migratory Birds of Conservation Concern and Game Birds Below Desired Condition
Known or Potentially Found in the CCDPA

Species	USFWS Birds of Conservation Concern		GBBDC	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
	BCR 9 (Great Basin)	BCR 15 (Sierra Nevada)			
Bald Eagle (b) <i>Haliaeetus leucocephalus</i>	X	X		See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Band-tailed Pigeon <i>Patagioenas fasciata</i>			X	Year round in the Carson and Pine Nut ranges with migration stopovers or wintering in the Lahontan Valley.	Sierra Conifer Forests and Woodlands
Black Swift <i>Cypseloides niger</i>	X	X		Potentially breeds in Alpine County and forages in Douglas	Cliffs and Canyons

Table 2-13
Migratory Birds of Conservation Concern and Game Birds Below Desired Condition
Known or Potentially Found in the CCDPA

Species	USFWS Birds of Conservation Concern		GBBDC	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
	BCR 9 (Great Basin)	BCR 15 (Sierra Nevada)			
				County. Trends unknown.	
Brewer's Sparrow <i>Spizella breweri</i>	X			Breeds across the CCDPA. Declining across range.	Sagebrush (but other key habitats in proximity to sagebrush are also used)
Calliope Hummingbird <i>Selasphorus calliope</i>	X	X		Known to breed in the Carson Range and other suitable habitat in CCDPA. Poor data but trend may be stable.	Sierra Conifer Forests and Woodlands, Aspen Woodlands & Intermountain Rivers and Streams
Cassin's Finch <i>Haemorhous cassinii</i>		X		Widespread and abundant in suitable habitat across the CCDPA. Trends unknown in Nevada.	Sierra Conifer Forests and Woodlands & Lower Montane Woodland
Eared Grebe (nb) <i>Podiceps nigricollis</i>	X			Year round distribution with key conservation areas being the Lahanton Valley, Walker Lake, and Pyramid Lake. Stable or increasing trend.	Lakes and Reservoirs & Marshes
Ferruginous Hawk <i>Buteo regalis</i>	X			See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Flammulated Owl <i>Otus flammeolus</i>	X	X		Known breeding distribution in the Carson Range, unknown elsewhere. Trend is unknown.	Sierra Conifer Forests and Woodlands
Golden Eagle <i>Aquila chrysaetos</i>	X			See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Green-tailed Towhee <i>Pipilo chlorurus</i>	X			Breeding distribution in appropriate habitat. Trend is thought to be stable.	Sagebrush, Lower Montane Woodland, & Aspen Woodland.

Table 2-13
Migratory Birds of Conservation Concern and Game Birds Below Desired Condition
Known or Potentially Found in the CCDPA

Species	USFWS Birds of Conservation Concern		GBBDC	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
	BCR 9 (Great Basin)	BCR 15 (Sierra Nevada)			
Lewis's Woodpecker <i>Melanerpes lewis</i>	X	X		See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Lesser Scaup <i>Aythya affinis</i>			X	Known to breed at Washoe Lake, along Truckee River, and rarely in Lahontan Valley. Information is poor but the CCDPA is likely used during migration as well.	Lakes and Reservoirs & Marshes
Loggerhead Shrike <i>Lanius ludovicianus</i>	X			See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Long-billed Curlew <i>Numenius americanus</i>	X			Known breeding distribution in the Lahontan Valley, Walker River Basin, Washoe Lake, and Carson Valley and presumed to migrate through the CCDPA. Trend is stable or increasing.	Agricultural Lands & Wet Meadows
Marbled Godwit (nb) <i>Limosa fedoa</i>	X			A stopover migrant in the Lahontan Valley and Walker River basin. Probable declines in Nevada.	Marshes
Mourning dove <i>Zenaida macroura</i>			X	Year round distribution with trend in Nevada has been increasing but decreasing in the west.	Multiple open and semi-open habitats.
Northern Pintail <i>Anas acuta</i>			X	Year Round in appropriate habitat and trend is declining rangewide.	Lakes and Reservoirs & Marshes

Table 2-13
Migratory Birds of Conservation Concern and Game Birds Below Desired Condition
Known or Potentially Found in the CCDPA

Species	USFWS Birds of Conservation Concern		GBBDC	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
	BCR 9 (Great Basin)	BCR 15 (Sierra Nevada)			
Olive-sided Flycatcher <i>Contopus cooperi</i>		X		Confirmed breeder in the Carson Range with the Pine Nut Range considered a key conservation area. The Pine Nut Mountains, the western side of Pyramid Lake, and Lahontan Valley are important for migration.	Sierra Conifer Forests and Woodlands
Peregrine Falcon (b) <i>Falco peregrinus</i>	X	X		See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Pinyon Jay <i>Gymnorhinus cyanocephalus</i>	X			See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Redhead <i>Aythya americana</i>			X	Year round in Lahontan Valley and along Carson and Walker rivers. Recent trend is stable or increasing.	Lakes and Reservoirs & Marshes
Sage Sparrow <i>Amphispiza belli</i>	X			Known breeding distribution throughout the CCDPA. Historical declines but assumed stable.	Sagebrush & Cold Desert Scrub
Sage Thrasher <i>Oreoscoptes montanus</i>	X			See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Snowy Plover (c) <i>Charadrius nivosus</i>	X			See Table 2-10 , Sensitive Species	See Table 2-10 , Sensitive Species
Spotted Owl (c) <i>Strix occidentalis</i>		X		Year round distribution in the Carson Range but not on BLM-administered lands. Trend is in decline range wide.	Sierra Conifer Forests and Woodlands

Table 2-13
Migratory Birds of Conservation Concern and Game Birds Below Desired Condition
Known or Potentially Found in the CCDPA

Species	USFWS Birds of Conservation Concern		GBBDC	Seasonal Distribution & Trend in Planning Area	Dominant and/or Relevant Key Habitat Type (s)
	BCR 9 (Great Basin)	BCR 15 (Sierra Nevada)			
Tricolored Blackbird <i>Agelaius tricolor</i>	X			Only one population regularly breeds in the CCDPA in a private marsh in Douglas County with periodic reports in the Carson Valley, which is also an assumed migration route. Trend is uncertain in Nevada.	Marshes
Virginia's Warbler <i>Oreothlypis virginiae</i>	X			Sparse breeding distribution in the CCDPA. Limited data suggests stable trend rangewide but uncertain in Nevada.	Lower Montane Woodland (mountain mahogany appears very important)
White-headed Woodpecker <i>Picoides albolarvatus</i>	X			Year round distribution is restricted to the Carson Range. Trend is stable.	Sierra Conifer Forests and Woodlands
Williamson's Sapsucker <i>Sphyrapicus thyroideus</i>	X	X		Year round distribution in the Carson Range and migration stopovers or wintering in the Lahontan Valley. Historic declines occurred but current trends unclear.	Sierra Conifer Forests and Woodlands & Aspen Woodlands
Wood Duck <i>Aix sponsa</i>			X	Year round distribution along the Truckee, Carson, and potentially the Walkers rivers. Overall trend is increasing.	Intermountain Rivers and Streams with adjacent large trees with cavities for nesting

(a) ESA candidate, (b) ESA delisted, (c) non-listed subspecies or population of Threatened or Endangered species, (d) MBTA protection uncertain or lacking, (nb) non-breeding in this BCR.

Trends

Quantitative data to inform trends within the CCDPA is not consistent among taxa and is mostly lacking. Game species tend to have the most localized data. Migratory bird trends tend to be assessed at larger geographic scales such as BCRs. For instance, recent studies and monitoring suggest that some migratory species populations dependent on large intact expanses of sagebrush are declining, due in part to land use and management practices and habitat loss and degradation. Bighorn sheep are increasing from historic lows due to reintroductions and augmentations of existing herds. Mule deer are in decline and pronghorn are stable. **Table 2-13** shows known trends for some migratory birds.

Wildlife diversity and abundance typically reflects the diversity, quality, and quantity of habitat. In general, key habitats have degraded over time, in particular sagebrush, and springs and springbrooks. Possible causes include conversion of native vegetation to agricultural uses, historic overgrazing, noxious weed infestations, pinyon juniper encroachment, and increased recreational use of public lands. The effects of habitat decline vary for each species and degraded habitat is less able to be resilient to climate fluctuations, fire recovery, and subsequent vulnerability to invasive, non-native and noxious species.

Forecast

With improved management and time, areas currently not meeting standards are expected to improve. However, some degraded areas, such as those dominated by cheatgrass or other weeds, may continue in their present condition, or become worse. These vegetation changes will in turn affect the composition and size of wildlife communities. The effects of habitat degradation or elimination vary for each species. The population and habitat of more common wildlife and fish species are expected to remain relatively stable, while some generalist species may increase. Migratory birds have a multitude of factors beyond the scope of the CCDPA that can affect population abundance over time. Small or rare species and habitats are at higher risk for declines. As demand for resource values increases, these trends are likely to continue into the future.

Key Features

The CCD will continue to focus management and protection efforts on prominent wildlife and fish species, migratory birds, and their habitats (See in **Tables 2-8 through 2-13**). The NDOW has identified several crucial habitats for bighorn sheep, deer, and other big game species in the CCDPA, including production areas, movement corridors, and summer and crucial winter range. Changes to these habitats, such as loss or degradation, fragmentation, or disturbance during crucial seasons, could have a disproportionate effect on populations by reducing carrying capacity during critical periods. Data on raptor nest locations and status in the CCDPA are limited, although efforts are being

made to improve this knowledge base. Nests and crucial habitat for raptors will continue to be priority areas for conservation. Furthermore, migratory birds and, in particular, species of conservation concern will continue to be monitored across the CCDPA, and protection measures will be implemented as necessary for compliance with the Migratory Bird Treaty Act and BLM policies. Key habitats identified for restoration and protection will include sagebrush, lower montane woodland, cold desert scrub, springs and spring brooks, aspen woodlands, and cliff and cave features as well as other unique habitats.

2.2.7 Wild Horse and Burros

Wild horse and burrow management within BLM-administered lands of the CCD follows the Wild Free-Roaming Horse and Burro Act of 1971 (Public Law 92-195) and 43 CFR 4700 – Protection, Management and Control of Wild and Free-Roaming Horses and Burros. Wild horses within the range are managed to maintain or improve rangeland conditions and remain compliant with the Sierra Front-Northwestern Great Basin Standards and Guidelines for Rangeland Health.

Regional Context

The eighteen HMAs in the CCD supporting wild horses and burros have a combined total of 1,367,685 million acres. Horse Mountain (52,222 acres) does not support any wild horses or burros but is still an HMA (**Figure 2-4**, Wild Horse and Burro Herd Management Areas). The only burros found in the CCDPA are in the Marietta HMA with a current estimate of 172 burros. The total horse AML for the CCD is 2,508 with a current estimate of 2,571 horses.

The CCDPA has seven HMAs that extend beyond the District boundary. These HMAs have been assigned a lead District or Agency. The Carson City District is the lead District for the Desatoya and Pilot Mountain HMAs which we share with the Battle Mountain District. The Fort Sage HMA is shared with the Susanville District which has the lead. The North Stillwater and Augusta HMAs are shared with the Winnemucca District which has the lead. The New Pass HMA is shared with the Battle Mountain District which has the lead. The Montgomery Pass HMA is shared with the Humboldt-Toiyabe Forest Service which has the lead.

Within California and Nevada, the BLM and Forest Service manage approximately 130 HMAs and herd territories (herd territories are the Forest Service equivalent of an HMA). These HMAs and territories have a combined total of approximately 20 million acres. The Forest Service has not established AML's (it is estimated that an AML of approximately 2,000 horses and burros could be established on their herd territories). BLM has established a combined total AML for horses in California and Nevada of approximately 13,800 horses and 1,300 burros.

2-4 Wild Horse and Burro Herd Management Areas (Scoping Map 9.1)

Indicators

Proper management is indicated by achieving and maintaining a thriving natural ecological balance among wild horse and burro populations, domestic livestock, wildlife and vegetation. Evidence of this would be horses and burros maintaining healthy weight, having access to water, native plant communities grazed at sustainable levels and the presence of native wildlife species at densities expected for the different habitats within the HMAs. Rangeland health standards would be a key indicator as to whether vegetation goals are being met.

Current Conditions

Twenty-two Herd Areas (HAs) were originally identified within the CCD. Currently the Pah Rah and Horse Springs areas are not designated as HMAs; due to a checker board land pattern of public and private land, as is the southern portion of the Pine Nut HA. Checker board land patterns make management of wild horses unfeasible in these areas.

Estray horses occupy the Pah Rah Mountain range. All wild horses were removed from the Pah Rah Mountain range in 1984. Since 1984 horses have moved over from the Pyramid Lake Indian Reservation. Some tribal members have captured some of the horses or the progeny of the horses that moved from the Reservation. However, substantial areas of the Pah Rah's consist of steep terrain with limited road access, so capture attempts have not kept up with migration and reproduction. More detailed information on the following HMAs are listed below, in **Table 2-14**, CCD Wild Horse and Burro Management Areas.

Table 2-14
CCD Wild Horse and Burro Management Areas

HMA	AML	Current #	BLM Acres Carson City ³	Acres Entire HMA from GIS ⁴	MUD Date	HMAP Date	Lead District	Number/ Date of first count for Carson City
Augusta Mountains	42-71 ¹ 185- 308 ²		90,347	178,929	1997		Winnemucca	17-1975
Clan Alpine	612-979	503	313,122	304,763	1992	1993	Carson City ⁵	513-1975
Desatoya	73-98 ¹ 127-180 ²	174	23,110	162,962	1992 ⁶ 1999 ⁷	2003	Carson City	42-1975
Dogskin	10-15	29	6,871	6,605	1993	2005	Carson City ⁵	6-1972-1973
Flanigan	80-124	119	16,181	17,362	Set in HMAP	1990	Carson City ⁵	96-1972-1973
Fort Sage	36 ⁸	67	2,043	16,138 ⁹			Susanville	14-1972-1973
Garfield Flat	83-125	99	135,974	144,118	1996	2004	Carson City ⁵	
Granite Peak	11-18	18	3,862	4,052	1993	1993	Carson City ⁵	6-1972-1973
Horse Mountain	60-118	0	52,222	50,319	1992 1993	1991	Carson City ⁵	27-1975

**Table 2-14
CCD Wild Horse and Burro Management Areas**

HMA	AML	Current #	BLM Acres Carson City ³	Acres Entire HMA from GIS ⁴	MUD Date	HMAP Date	Lead District	Number/ Date of first count for Carson City
Horse Springs	HA status ¹⁰	0	28,676	25,691	n/a	n/a	Carson City ⁵	27-1975
Lahontan	7-10	36	10,446	9,686	1993	2004	Carson City ⁵	4-1975
Marietta	78-104	144	66,500	66,694	1998	1987	Carson City ⁵	
Montgomery Pass		286 ¹¹	38,615	207,921		FS	Forest Service has lead	
New Pass	69-90		24,699	287,948	1991	1993	Battle Mt.	121-1975
North Stillwater	49	58	45,773	180,444	1994 ¹²		Winnemucca	34-1975
Pah Rah	HA status ¹⁰	0	7,164	23,514	n/a	n/a	Carson City ⁵	101-1972-1973
Pilot Mt.	228-346 ¹ 249-415 ²	402	255,040	481,391	1993		Carson City	
Pine Nut Mountains	119-179	293	90,900 ¹⁴	105,594	1995		Carson City ⁵	
South Stillwater	16	9	9,940	9,864	1994	1995	Carson City ⁵	10-1975
Tule Ridge/ Mahogany Flat	HA status ¹⁰	0	4,009	4,401			Carson City ⁵	7-1972-1973
Wassuk	109-165	139	51,742	52,309	1997		Carson City ⁵	

1-AML for the Carson City portion of the HMA

2-AML for the entire HMA

3-Acres used in previous plans were based on original calculations using a compensating polar planimeter. The CRMP did not mention acres, however, HMAP's and Capture Plans did.

4-From GIS, private land is included in the total

5-Entire HMA within Carson City

6-Mud date for Carson City portion

7-Mud date for Battle Mt. Portion

8- Susanville has lead AML probably has not been set through and analysis of monitoring data

9- The BLM national office table shows only 1,940 acres for the entire HMA.

10-HA status means that the area is a Herd Area and not an HMA and that there are no horses

11-All but 35 head were in CA, most of the 35 head were on land administered by the FS

12-AML has not been set for Mississippi Canyon Allotment.

13-The HMA is 90,000 BLM acres the HA is 182,668 acres. The southern portion of this HMA was reverted back to HA status due to checker board land pattern.

Augusta Mountain HMA is located in the Augusta Mountains northeast of Fallon, Nevada. The HMA is situated within three districts with the BLM Winnemucca District having lead responsibilities. The CCD portion of the HMA is rolling

hills and mountainous terrain, with substantial portions covered with pinyon juniper.

Clan Alpine HMA is centered in the Clan Alpine Mountains northeast of Fallon, Nevada and south of the Augusta Mountains HMA. The AML is mostly mountainous terrain. Due to several large fires within the HMA, the majority of the population was removed to allow the vegetation community to become re-established. This population is increasing at a low rate possibly due to mountain lion predation. Substantial areas of this HMA that were not burned are covered with pinyon juniper.

Desatoya HMA is located east of the Clan Alpine HMA and centered in the Desatoya Mountains. The HMA lies within two BLM Districts; the Carson City District has the lead responsibilities. There is currently over use of the upland grasses. The Desatoya HMA is covered in pinyon juniper.

Dogskin Mountain HMA is located north of Reno, Nevada centered in the Dogskin Mountain range. This area receives substantial OHV use. During a recent gather the majority of the horses would not respond to helicopter herding techniques possibly due to harassment from motorcycle riders, making capture problematic.

Flanigan HMA is located north of Reno, Nevada and partially borders the Pyramid Lake Indian Reservation. The HMA is mostly mountainous terrain within the Virginia Mountains.

Fort Sage HMA is located in both Nevada and California. The BLM Northern California District has lead responsibilities for the HMA. The HMA is north of Reno, Nevada and west of the Flanigan HMA. The Carson City District portion of the HMA is 2,043 acres.

Garfield Flat HMA is located south of Hawthorne, Nevada. The HMA consists of flat to rolling terrain. Only two permanent water sources exist within this HMA both are located on private land.

Granite Peak HMA is located north of Reno, Nevada and west of the Dogskin HMA. The HMA consists of rolling terrain. There is no permanent water within the HMA. When livestock are present and their associated water troughs are supplied with water, wild horses will use the water troughs. When livestock are absent, the water is turned off at the troughs the wild horses use water sources outside of the HMA. This area receives substantial OHV use. During a recent gather the majority of the horses would not respond to helicopter herding techniques possibly due to harassment from motorcycle riders, making capture problematic.

The Granite Peak HMA is located relatively close to homes along Red Rock Road and the Rancho Haven area. The CCD receives complaints regarding wild

horses damaging landscaping or causing problems with domestic horses. Usually the conflicts with domestic horses involve fighting through fences or mating attempts. If a breach in a fence enclosing a mare or mares occurs, the mares are very difficult to recapture. CCD has received complaints of aggressive stallions approaching horseback riders and residents caring for their domestic horses. These encounters have the potential for serious injury.

Horse Mountain HMA is located south of Fallon, Nevada. The HMA consists of rolling to mountainous terrain. The AML currently has no wild horses. In the past, wild horses in this HMA relied on an irrigation return ditch as their sole source of water located on private land. In 2000, changing irrigation practices led to the abandonment of this ditch and all horses were removed to prevent death from dehydration.

Lahontan HMA is located between Carson City and Fallon, Nevada, south of the Lahontan Reservoir. The HMA consists of flat terrain. The sole source of water for this HMA is the Lahontan Reservoir within the Lahontan State Park.

Marietta HMA is a designated wild burro range. It is the only designated wild burro range and the only HMA with burros in the CCD. The HMA consists of 66,500 acres of flat to mountainous terrain south of Hawthorne Nevada. Over use of native bunch grass by wild burros is occurring. The portion of the range which is within a grazing allotment has not been grazed by domestic livestock for the past several years. The majority of the range is closed to domestic livestock grazing.

Montgomery Pass HMA is located within both Nevada and California southwest of Hawthorne, Nevada. The Forest Service has lead responsibilities for management of this HMA. The HMA consists of rolling to mountainous terrain.

New Pass HMA is located within the CCD and the Battle Mountain District which has lead management responsibilities. The HMA is located east of Fallon, Nevada and consists of flat to mountainous terrain. Substantial portions of the Carson City area of the HMA are covered in pinyon juniper.

North Stillwater HMA is located within the CCD and the Winnemucca District which has lead management responsibilities. The HMA is located northeast of Fallon, Nevada and consists of mountainous terrain. An AML has only been established for one of three grazing allotments on the CCD portion. An AML of 49 was established for the Copper Kettle Allotment which comprises approximately half of the Carson City District portion of the HMA. A range was not set, only the upper limit of 49 horses was set.

Pilot Mountain HMA is located within the CCD and Battle Mountain Districts. The CCD has lead responsibilities for this HMA. The HMA is located south of Hawthorne, Nevada and is comprised of flat to mountainous terrain.

Pine Nut Mountains HMA is located south of Carson City, Nevada. Only the northern portion is an HMA. The southern portion is not managed for wild horses, due to blocks of private lands which create access issues for the BLM.

The western edge of the Pine Nut Mountains HMA overlaps homes along and off of Deer Run Road. CCD receives complaints regarding wild horses damaging landscaping or causing problems with domestic horses. Usually the conflicts with domestic horses involve fighting through fences or mating attempts. To a lesser degree CCD receives complaints in the Dayton Nevada area from home owners north of the HMA. This portion of the HMA is fenced although there are many weak sections of this fence. Wild horses also migrate into the Fish Springs residential area causing similar problems.

South Stillwater HMA is located east of Fallon, Nevada and consists of mountainous terrain. Accessibility to this HMA is limited. There has never been a gather within this HMA.

Tule Ridge/Mahogany Flats is identified as a herd area, however wild horses have never been present. Previous inventories identified only domestic horses and it is assumed the owner removed them. During subsequent inventory flights of the area no wild horses have ever been observed.

Wassuk HMA is located south of Yerington, Nevada and consists of flat to mountainous terrain with substantial areas of pinyon juniper cover. Livestock have not been placed within this HMA for at least the past several years due to excessive vegetation use by wild horses.

Trends

Due to various constraints, wild horse and burro gathers are not always conducted as frequently as needed to maintain a thriving natural ecological balance among wild horse and burro populations, domestic livestock, wildlife and vegetation. This trend is expected to continue and has become exacerbated by the current drought. The drought impacted some HMAs more than others, which has resulted in the need to remove horses from the impacted HMAs. These drought emergency gathers have resulted in the reprioritizing of the planned gathers, which has resulted in a delay of some gathers. If the population of wild horses is not maintained near the AML over the long term, vegetation change would be one of the expected results. The more desirable forage plants become stressed and are often replaced by more competitive weedy or invasive species.

Forecast

As the wild horse and burro populations exceed the AMLs, a thriving natural ecological balance among wild horse and burro populations, domestic livestock, wildlife and vegetation will not be maintained. Initially, the wild horses and burros will show signs of deteriorating condition, which is followed by deteriorating conditions of the plant and wildlife communities. For the near

term it is expected that fewer wild horse and burros will be removed from HMA's due to budgetary constraints and there are few options to place excess animals via adoption. The current drought has forced the BLM to reprioritize gathers to address areas where the horses are experiencing severe stress.

2.2.8 Wildland Fire Ecology and Management

Wildland fire management activities within the CCDPA are guided by the decisions from the 2001 CRMP. Wildland fires can occur throughout the District, with fire season generally being from May until October (**Figure 2-5, Fire History**). The CRMP included desired outcomes, land use allocations, special designations, administrative actions, and standard operating procedures. Management Actions and Objectives in the 2001 CRMP have been amended by updated fire management policy and Fire Management Plans (FMPs).

Federal Wildland Fire Management Policy (FWFMP)

The intent of this framework is to solidify the full range of strategic and tactical options available and considered in response to every wildland fire. These options are to be used to achieve objectives as described in Land and Resource Management Plans and/or Fire Management Plans (FMPs), subject to clear processes defined to manage fires that cross jurisdictional boundaries. This guidance also calls for increased dialogue and collaboration between federal, tribal, local, and state agencies as plans are updated and implemented to manage wildfires in order to accomplish resource and protection objectives.

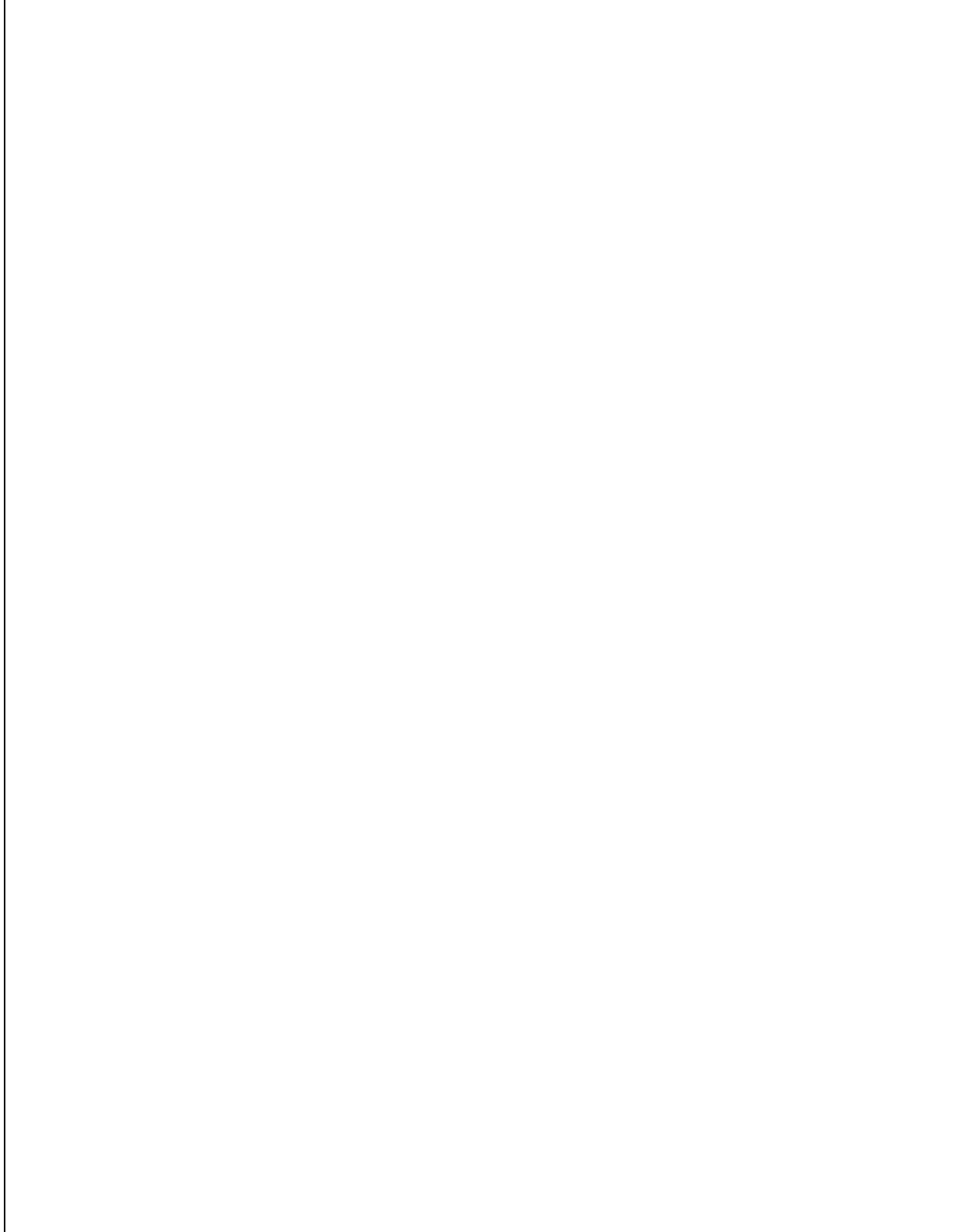
Under the FWFMP, federal land management agencies with vegetation capable of sustaining wildland fire are required to prepare FMPs. The FMP is a strategic plan that defines a program to manage wildland and prescriptive vegetation treatments. The foundation of the FMP is the agency's land use plan. FMPs are dynamic documents that are reviewed annually and updated whenever better information is available. The plan is supplemented by operational plans, such as preparedness plans, dispatch plans, prescribed fire plans, and prevention plans. Development of this collaborative FMP is an essential implementation task and performance measure for accomplishing the goals of the National Fire Plan and the 10-Year Comprehensive Strategy. The Carson City Field Office Fire Management Plan (BLM, 2004) addresses fire suppression, prescribed fire, non-fire fuel treatments, and community assistance and education on every acre of the Western Nevada Fire Planning Unit with burnable vegetation under BLM administrative jurisdiction.

Indicators

Fire Regime Condition Classes

National and State BLM fire policy requires current and desired resource conditions related to fire management be described in terms of three condition classes. The Fire Regime Condition Classification System measures the extent

2-5 Fire History (Scoping Map 7.1)



to which vegetation departs from reference conditions (or how the current vegetation differs from a particular reference condition). Departures from reference condition could be a result of changes to key ecosystem components such as vegetation characteristics, fuel composition, fire frequency, fire severity, and pattern, as well as other associated disturbances, such as insects and disease mortality. The classification system is used to categorize existing ecosystem conditions and to determine priority areas for treatment as mandated by national direction (**Figure 2-6**, Fire Condition).

Fire Regime Condition Class 1

Fire regimes in this condition class are within historical ranges. The risk of losing key ecosystem components from the occurrence of fire remains relatively low.

Fire Regime Condition Class 2

Fire regimes in this condition class have been moderately altered from their historical range by either increased or decreased fire frequency. A moderate risk of losing key ecosystem components has been identified for these lands. Fire frequencies have increased or decreased from historical frequencies by one or more return interval resulting in moderate changes to the size, frequency, intensity, or severity of fires.

Fire Regime Condition Class 3

Fire Regimes in this condition class have been significantly altered from their historical range. Because fire regimes have been extensively altered, risk of losing key ecosystem components from fire is high. Fire frequencies have departed from historical frequencies by multiple return intervals, resulting in dramatic changes to the size, frequency, intensity, or severity of fires.

Increased emphasis will be placed on natural resource objectives for each fire and fuels treatment. A monitoring and evaluation program will be established to determine the effectiveness of the management implemented. This will include the purposeful collection and analysis of data to determine the results of implementing management actions. It will require monitoring for both pre and post-fire environmental conditions. This information will be used to adjust management determinations. Adjustment in fire and fuels management practices will be based on sound scientific monitoring and analysis.

Current Conditions

Existing management direction in the CRMP, amendments, and various implementation plans allows fire to be restored as an integral part of ecosystems to meet resource management objectives. It also identifies activities to improve protection of human life and property through aggressive fire protection, reduction of hazardous fuels and restoration of fire-damaged ecosystems. The CCFO-FMP provides clear management direction for fire and resource personnel and helps implement decisions identified in the CRMP. This management direction may be modified as a result of on-going and future

2-6 Fire Condition

amendments of the CRMP, or other related planning documents. Based on fire occurrence data collected from 1980 to present (**Table 2-15**, BLM, Carson City District Fire Occurrence Summary, 1980-2011), on average, less than one percent of the District is affected by wildfire each year.

Table 2-15
BLM, Carson City District Fire Occurrence Summary, 1980-2011

Year	Number of Fires	BLM Acres	Control Acres*
1980	51	73	384
1981	51	3,677	12,436
1982	49	49	66
1983	117	28,135	46,522
1984	184	46,758	77,579
1985	158	52,398	105,567
1986	155	4,459	5,800
1987	171	305	371
1988	159	4,636	6,013
1989	29	103	103
1990	113	471	651
1991	74	60	82
1992	100	1,217	1,425
1993	42	612	624
1994	67	16,076	19,543
1995	56	376	826
1996	130	12,787	15,847
1997	89	1,045	1,321
1998	56	393	12,152
1999	123	139,485	170,213
2000	142	70,133	82,780
2001	101	19,534	31,683
2002	121	3,512	3,892
2003	72	1,749	2,293
2004	109	2,269	3,514
2005	72	2,176	2,864
2006	78	23,649	28,049
2007	150	18,446	37,591
2008	46	5,198	6,347
2009	82	22,707	25,177
2010	49	1,557	2,918
2011	117	6,953	13,476
Average	97	15,344	22,441
Min	29 (1989)	49 (1982)	66 (1982)
Max	184 (1984)	139,485 (1999)	170,213 (1999)

*Control Acres represents total acreage burned regardless of ownership
BLM WFMI, Type 1 & 2 Fires, BLM Action & BLM Natural Out, 01.20.12 (BLM, 2011)

CCD Prevention Program: The primary goal of the Carson City District Prevention program is to eliminate all human caused fires in the District. Short of that, the District fire prevention program is designed to educate the public and other users of public lands on wildland fire prevention in order to reasonably reduce the threat of human caused fires. Fire prevention and community education outreach is primarily promoted through activities at various community events and school programs.

CCD Fuels Program: The fuels program strategy is to utilize both non-fire treatments and prescribed fire to modify vegetation communities to create fire safe communities, protect private property, achieve resource management objectives, and restore ecosystem health (**Figure 2-7**, Emergency Stabilization Rehabilitation and Fuels Treatments).

CCD Emergency Stabilization and Rehabilitation Program: The purpose of emergency stabilization and rehabilitation program within the CCD is to mitigate the adverse effects resulting from wildfire. Some concerns taken into consideration when assessing stabilization needs are the proximity to urban areas, and potential for erosion. Elevation and precipitation play major roles in the success of a rehabilitation treatment. Rehabilitation efforts are decided on a case by case basis, depending on such things as the importance of the habitat, or severity of burn (**Figure 2-7**).

Trends

Wildland Urban Interface (WUI)

WUI areas have been increasing dramatically throughout the CCDPA over the past two decades. Development has slowed due to the current large-scale economic downturn, but this slowdown is expected to be temporary. Examples of additional WUI infrastructure includes: powerlines, pipelines, communication sites, recreation facilities, renewable energy, and military training. The CCD fuel management budget is being used to plan and implement fuels treatments within the WUI, with the objective of reducing risk to these values. Many of the more intensive and costly fire suppression actions occur within and adjacent to the expanding WUI.

Invasive Plants

Exotic species are a growing concern in fire management. Most fire management activities are either surface or vegetation disturbing and subsequently, the impacts from these activities include increased susceptibility to exotic species. The most significant, widespread and persistent threat is the invasion of cheatgrass (*Bromus tectorum*) in disturbed areas. The potential impacts of exotic species invasions, as well as mitigation measures that must be followed in order to reduce, or if possible, eliminate the risk, are carefully considered in planning for mechanical and prescribed burn treatments.

2-7 Emergency Stabilization Rehabilitation and Fuels Treatments (Scoping Map 7.2)

Rehabilitation of the impacts from large wildfires is primarily aimed at quickly reestablishing native or non-native vegetation that can compete with invasive species. Regular monitoring of treatments, as well as treating exotic species in and near treatments, is the key to maintaining healthy landscapes.

Conifer Expansion

Conifer expansion is the result of a lack of disturbance caused by resource management activities. In some areas of the sagebrush biome, pinyon pine (*Pinus monophylla*) and juniper (*Juniperus spp.*) once existed as open, savannah-like woodlands that were maintained by relatively frequent fires. Since the 1880's, the stand density and distribution of conifer woodlands have increased in many areas. As it expands into sagebrush communities, contiguous sagebrush stands are reduced in size and the diversity of grasses and forbs decreases. Fire suppression policies generally lengthen fire return intervals in conifer dominated habitats allowing for increased cover densities.

Forecast

As the WUI expands, exotic species increase and invade new areas, and the conifers expand, the complexity of managing wildland fire and fuels within the planning area will continue to increase.

Key Features

The Fire Management Plan for the Carson City District was updated in 2004. CRMP direction is based on the 1998 Fire Management Plan, when the Carson City Field Office was divided into four Fire Management Categories A, B, C and D. The District is currently divided into fifteen fire management units (FMU) (**Table 2-16**, Fire Management Units for the Carson City District). The FMUs are scaled to best define the fire management objectives, physical characteristics, resource values and fire planning attributes. Each of the FMUs are also somewhat unique, as evidenced by management strategies, objectives, values and fire planning attributes that set it apart from the management characteristics of an adjacent FMU. Each FMU is assigned a classification type to define its primary resource management strategy. The general FMU category types are listed below:

- Wildland Urban Interface (WUI)
- Special Management Areas (SMA)
- High Value Habitat (HVH)
- Cultural/Historic (CHP)
- Vegetation (VEG)
- Wilderness (WLD) and Wilderness Study Areas (WSA)

**Table 2-16
Fire Management Units for the Carson City District**

FMU Name	FMU Number	FMU Type	Planning Area Acreage
Fish Springs	FMU-NV-030-01	High Value Habitat	162,776
Reno/Sparks	FMU-NV-030-02	WUI	482,146
Mustang	FMU-NV-030-03	Vegetation	290,633
Carson River	FMU-NV-030-04	WUI	529,562
Alpine	FMU-NV-030-05	WUI	29,271
Slinkard	FMU-NV-030-06	Wilderness Study Area	11,038
Como	FMU-NV-030-07	Cultural, Historic	257,753
Lyon Basin	FMU-NV-030-08	Vegetation	466,821
Lahontan Basin	FMU-NV-030-09	Vegetation	1,019,955
Wassuk Range	FMU-NV-030-10	High Value Habitat	117,338
Churchill Ranges	FMU-NV-030-11	High Value Habitat	796,828
Churchill Basin	FMU-NV-030-12	Vegetation	688,195
Mineral Basin	FMU-NV-030-13	Vegetation	1,299,061
Gabbs Valley Range	FMU-NV-030-14	High Value Habitat	261,223
Excelsior Mountains	FMU-NV-030-15	High Value Habitat	92,924

2.2.9 Cultural Resources

The CCDPA contains archaeological evidence of habitation and use for at least the past 11,000 years. For most of this vast period of time, the ancestors of today's Native American Tribes occupied the area that is now the CCD. Only within the last 170 years have other cultures come to use this landscape, often in great numbers and for a variety of reasons. Whereas less than 10,000 people lived in the CCDPA in 1800, today's population totals more than 600,000. Throughout time, the range of human activities has been bound by the constraints of climate, weather, geology, hydrology, landform, and the plants and animals that adapt to the local conditions.

Prehistoric Period Cultural Resources

In very general terms, the Native Americans that lived in the CCD area prior to the mid-1800s focused upon the richest portions of the landscape to meet their economic and cultural needs. The margins of marshes, rivers, lakes, and springs served as the supermarket, providing much of the necessary plants and animals used for food, medicine, clothing, toys, and shelter. Uplands, away from water, were sparsely used for gathering toolstone and certain plants and animals. Anthropologists use the term "hunter/gatherer" to describe the subsistence practices of local people. Settlements were temporary in order to take advantage of changes during the seasons, and to avoid harsh winter snow and cold in the mountains, as well as the summer heat and lack of water in much of the lowlands. In anthropological terms, the native people of the region were nomadic.

Remains of prehistoric use of the CCDPA landscape, termed “archaeological sites,” vary widely in complexity, type, environmental setting, and location. In addition to the vast depth of time represented by these resources, a wide range of behaviors are also indicated, including hunting, gathering, tool manufacture, trade and exchange, and spirituality. Site types include rock shelters, residential sites (often with buried deposits), temporary camps, petroglyphs and pictographs, hunting blinds and fences, toolstone quarry sites, and scatters of stone tool-making debris. The CCD administers many important archaeological sites that have helped develop and continue to inform Great Basin archaeology.

Historic Period Cultural Resources

Historic period sites indicate a considerable amount of variation reflective of the activities and resources that attracted people to the region. Mining and mining related sites; transportation trails and roads; ranches and ranching-related facilities; and towns are all represented within the area managed by the CCD.

Mining

The earliest known prospecting by Euroamericans in the region was in 1849. Mormon settlers headed for California found placer gold at the mouth of Gold Canyon, in present-day Storey County. Gold was placer-mined in the Gold Canyon vicinity until the late 1850s when the blue-black clayey material clogging up the placer works was found to have a high silver content, far exceeding the value of the gold being sought. This discovery of silver ore in Virginia City ushered in the Comstock Era (1859 to 1899), a period characterized by much prospecting and even more speculating. Those lead to the rapid construction of many mines, mills, and mining towns and ongoing boom-and-bust cycles based on the value of precious metals. It was the “boom” of one of those metals—silver—that funded the Union efforts during the Civil War and lead to Nevada’s official statehood in 1864. A silver “bust” followed the passing of the 1873 Coinage Act, when America went to a gold standard.

Mining districts sprang up all over the region through World War II as prospectors sought gold, silver, copper, salt, borax, and other valuable minerals. These historic mining districts still contain remnants of past activities, including prospects, shafts, adits, mining equipment, small structures, and foundations.

Transportation

Transportation-related historic resources in the CCD include railroads, stage routes, the California Emigrant and Pony Express National Historic Trails, toll roads, and more formal roads such as the Lincoln Highway. The first routes of Euroamerican explorers often followed existing trails created and used by Native Americans. Early emigrants such as the Bidwell-Bartleson party in 1841, Joseph Walker’s party in 1842, and the Stevens party in 1844 merely passed through: California was the destination.

Eventually, the local resources required freight and ore transport by horse, ox, and mule-drawn wagons, often travelling on privately-owned toll roads of

varying design and construction. Active regional routes include the Esmeralda Toll Road, built in 1861 and running south from Carson City to Aurora; the Wadsworth-Columbus Freighting Route, established in 1863 and operating until rendered obsolete by the railroad in 1882; the 1878 Aurora-Manhattan Toll Road; and the 1881 Hawthorne and Bodie Toll Road.

Often backed by wealthy investors, railroads quickly out-competed freight wagons with cheaper shipping rates for ore and supplies, the Central Pacific Railroad arrived in Reno on May 9th, 1868. By February of the next year, construction began for the Virginia & Truckee Railroad (V&T) to service the booming Comstock mines. Construction of other railroads followed, such as the Nevada-California-Oregon Railroad that began in Reno in 1880, and was replaced by the Western Pacific Railroad in 1918.

With increasing automobile use came a need for better roads. The Lincoln Highway, the US' first transcontinental highway, was completed through Reno in 1927, signaling a national trend toward automobile use and the eventual creation of a national interstate system with passage of the Federal Aid Highway Act of 1956 during the Eisenhower presidency.

The CCD retains evidence of historic transportation corridors for the various California National Historic Trail segments as well as later routes in the visible form of trail berms, ruts, and swales; railroad grades, culverts, cuts, and retaining walls; paved and unpaved road segments; ruins of associated buildings; and debris left by work camps, emigrants, and travelers.

Communication

One of the challenges of the Euroamerican settlement of the West was the difficulty in communicating over long distances. Mail service from the eastern US took weeks or months and faster methods were sought. Beginning in March, 1860, a new high-speed "Pony Express" mail service ran from St. Joseph, Missouri through Salt Lake City, across Nevada, and on to Sacramento, California. The Pony Express mail service was discontinued in October, 1861, which coincided with completion of the transcontinental telegraph.

As telegraph and later telephone toll leads developed, mail transferred into a regular stage, railroad, or road service. One important World War II-era telephone line spans the CCD, and by 1942 it linked the large military and intelligence bases of Herlong, Stead, Hawthorne, and Las Vegas.

Remnants of the Pony Express National Historic Trail corridor in the CCD are limited the structures and artifact assemblages at stations, including those at Cold Springs and Sand Springs. Remains of telegraph and early telephone system buildings, poles, insulators, and wire lines, are found throughout the region.

Ranching/Homesteading/Agriculture/Logging

Although several Alpine County sawmills and settlement at Mormon Station (Genoa) and Eagle Station (Carson City) pre-date the early 1850s, permanent settlements, farms, logging camps, and ranches boomed when mining successes in the Comstock and other districts, created a growing market for meat, produce, mine timbers, and firewood. New settlers planted fields of grain and orchards in Eagle and Carson valleys. Loggers denuded the Carson, Virginia, and Pine Nut ranges. Enterprising ranchers from California brought in sheep and cattle to meet the growing demand. One of the largest ranching operations in the area was run by N.H.A. "Hoc" Mason under the direction of Henry Miller of the Miller and Lux cattle empire. In 1859, Mason settled in the Lyon County valley that bears his name, and soon the Miller and Lux cattle ranges included lands as far away as Oregon. Other early ranchers included J.J. Cushman and David Wightman, who settled on the south branch of the Carson River around 1860, near the future town of Fallon.

Homesteaders followed the development of these ranches and the decline of mining. Some tried to farm lowlands, and others were agents for large ranching operations. Their traces remain as wood and stone houses, dugouts, foundations, irrigation systems, and fences scattered throughout the CCDPA. Some of these are still in use by modern ranching operations.

Nineteenth century agriculture was generally on a small scale, with natural-flow water rights irrigating fields in the valleys of the Carson, Walker, and Truckee rivers. The scale of development changed with the National Reclamation Act of 1902 that authorized the recently established Bureau of Reclamation (BOR) to initiate large irrigation projects in 17 western states. The first was the Newlands Project, conceived as a development that transferred water from the Truckee River watershed to that of the Carson River. By the 1910s, the project included the Lahontan Dam, three diversion dams, two hydroelectric plants, and a dam at Lake Tahoe. The project also entailed construction of about 900 miles of canals, laterals and drains. This massive public works project altered the settlement pattern of both river basins, changing thousands of desert shrublands near Fallon into irrigated agriculture, and by 1962, turning the Winnemucca (Lake) National Wildlife Refuge dry.

Historic-Era Native Americans

Following the arrival of non-native settlers in the region, Native Americans continued to hunt game, to gather plants for food and medicine, and to participate in the activities of their cultural and spiritual lives. However, mining, logging, ranching, farming, and commercial hunting and fishing increased the water used, cleared pinyon trees from the mountain ranges, and reduced the availability of wild game. Reduction of these resources and the establishment of private land made traditional subsistence difficult as the resource base was depleted or destroyed, or access was denied.

Native Americans adapted to these changes in many ways, including participation in the settlers' economy and maintaining sovereign governments and socio-economic patterns on established reservations and colonies. The timing of the creation of tribal reservations and colonies varies throughout the region, with some reservations established by the federal government in the late 1800s for specific tribal groups. In most cases, the original area of reservations has been altered. The Reno-Sparks Indian Colony is unique in that it was established for a variety of urban American Indians in addition to local Tribes. For several Tribes, land ownership and acquisition of reservation or trust lands remain ongoing issues that are at least partially unresolved relative to current needs.

The CCDPA lies within the traditional territory of Northern Paiute, Washoe, and Western Shoshone peoples. Although tribal people have been assimilating into a generalized modern American culture for decades, they maintain many of the traditions that defined their culture prior to the twentieth century. The ten federally-recognized tribal governments that have traditional, spiritual, and economic interests within the CCDPA are detailed in **Section 2.6.1, Table 2-37**, Tribal Reservations within and near the CCD.

Indicators

This section seeks to identify the factors that are used to describe the condition for cultural resources on BLM administered land.

Cultural resources are identified through field observation such as cultural resource inventories, through archival review, and through consultation with Native Americans or other local informants. Once identified, a cultural resource is evaluated relative to its value to the American public or Native American Tribe and as established by the National Historic Preservation Act of 1966, as amended (NHPA). Section 106 of the NHPA, along with the National Programmatic Agreement between BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (SHPOs); the State Protocol Agreements between SHPOs in California and Nevada, and BLM Nevada (Protocol); and the CCD CRMP, specifically state that federal agencies such as BLM will be accountable for locating and inventorying all cultural resources under its jurisdiction and ensuring that proposed land uses, initiated or authorized by BLM, avoid adverse effects on significant cultural resources on both federal and non-federal lands. The Section 106 Process, defined in at 36 CFR Part 800.3-800.13, details the following:

- 1) the need for identifying a cultural resource;
- 2) the need for evaluating the resource's significance;
- 3) for resources that are significant, the need for assessing the effect that actions on federal lands or funded by federal monies may have on the resource; and

- 4) if the effect is considered adverse to the qualities of the resource that make it significant, the need to resolve the adverse effect.

For BLM Nevada, identification of cultural resources is conducted via the BLM Manual 8110 and Protocol Agreements. Further guidance on how to identify and evaluate archaeological resources, the most common type of cultural resource in the CCD, is in the *BLM Nevada Guidelines and Standards for Archaeological Inventory*.

As a definition “historic properties” are specifically those cultural resources (districts, sites, buildings, structures or objects) that are deemed significant at a local, regional, or national level, and therefore are listed on, or eligible to be included on, the National Register of Historic Places (NRHP). Regulations found in 36 CFR 60 list the criteria, integrity, levels of significance, age, and exceptions that are used to evaluate and nominate sites to the NRHP. In addition to the regulations at 36 CFR 800, those found in 36 CFR 63 outline the process for determining whether a site meets the appropriate criteria for being placed on the NRHP. A series of bulletins produced by the National Park Service (NPS) and documents produced by the Advisory Council on Historic Preservation provide guidance for this process and for a host of specific site types and districts, including National Historic Landmarks.

Architectural historic properties are less common in the CCD. The *Nevada Section 106 Architectural Survey and Inventory Guidelines* (Revised 2004) provide direction on their identification and evaluation.

A traditional cultural property (TCP) is a third category of historic property. These are identified and evaluated by the Tribe that assigns the cultural value. “Properties of traditional religious and cultural importance to an Indian Tribe or Native Hawaiian organization may be determined to be eligible for inclusion on the National Register” (NHPA Section 101(d)(6)(A)). The NPS National Register Bulletin 38 provides guidance on documenting TCPs.

Federal protection applies not only to those sites that are actually historic properties, but also to those cultural resources (archaeological, architectural, or traditional) that have been identified but remain unevaluated through the Section 106 process. Therefore, sites are no longer protected under the Section 106 process only when they have been officially determined “not eligible to the NRHP.” Federal land managers often do not manage for sites that have been determined ineligible to the NRHP. But in some instance, land managers may protect and use cultural sites for their educational or recreational opportunities, regardless of eligibility.

Therefore, the primary threshold indicator is whether there is a loss of the characteristics that may qualify a property for listing on the NRHP or would diminish the cultural value of areas important to Native American or other traditional communities. These characteristics can be affected by physical

destruction, damage, or alteration of the resource; isolation of the resource; alteration of setting; neglect resulting in deterioration and destruction; or the transfer, sale, or lease of the resource. Specific indicators include the extent or intensity of natural weathering, erosion, wildfire, ground disturbance, grazing, recreation use, unauthorized collection, intrusions to setting, and vandalism. This loss affects the completeness and accuracy of the scientific information that can be derived from a resource; the aesthetic, historic, or interpretive value of the resource; and/or the importance of the resource in maintaining social and cultural traditions.

Current Conditions

At this time, the vast majority of the recorded cultural resources on the land administered by the CCD are archaeological sites. At present, less than 500,000 acres, about 10 percent, of the land administered by the CCD have been inventoried for cultural resources, although many older inventories do not meet modern Class III standards. Cultural resources surveys have led to the documentation of approximately 9,000 prehistoric and historic archaeological sites. Only a few sites have been formally nominated for listing on the NRHP (see **Table 2-17**, Properties Listed on the National Register of Historic Places in the CCDPA), but many more have met the eligibility criteria or have not been evaluated for inclusion in the NRHP.

Western Great Basin cultural resource sites are often exposed on eroded soils and geology that lack dense vegetation. Accretion of sediment is generally slow. Areas of exception, such as the floodplains of the perennial drainages and of the Truckee, Walker, and Carson rivers, are not typically public lands, but privately or tribally held. Therefore, as a result of desert climate conditions throughout the period of human use, prehistoric- and historic-era sites are typically visible on the surface. Because of their visibility, the distribution of known sites can be accurately gauged. Known site numbers, densities, and periods of use vary for historic-era and prehistoric sites, and the sites are unevenly distributed across the landscape.

Some regions are dominated by historical sites with remains that include collapsing and ruined buildings, structures, equipment and other artifacts and features that are visible on or above the present ground surface. These sites occur at and around the historic mines that are throughout the CCDPA. Between the initial boom of mining in the 1860s to the advent of automobiles, settlement generally occupied a similar location as the place searched for ore. Supporting towns, ranches, and agriculture followed a pattern that left cultural resource remains in specific valley landscapes and corridors. Therefore the vast majority of historic-era sites and historic properties are in and around areas of modern or abandoned towns, mines, and ranches.

Table 2-17
Properties Listed on the National Register of Historic Places in the CCDPA

Listed on the National Register	General Location	County	List as:	Date Listed	Relationship to CCD
Cold Springs (Rock Creek Station)	51 miles west of Austin on US 50	Churchill	Site	02/23/72	In CCD
Cold Springs Pony Express Station	Frenchman vicinity	Churchill	Site	05/16/78	In CCD
Grimes Point	Fallon vicinity	Churchill	Site	02/23/72	In CCD
Sand Springs Pony Express Station	Fallon vicinity	Churchill	Site	11/21/80	In CCD
Lahontan Dam and Power Station	Southwest of Fallon	Churchill	Part of Newlands Rec. TR	03/25/81	In Planning Area (on Nevada state land)
East Walker River Petroglyphs	Yerington vicinity	Lyon	Site	07/24/80	In CCD
Virginia City Historic District	Virginia City and its environs	Storey/ Washoe/ Carson City/ Lyon	District	10/15/66	Partially in CCD
Marlette Lake Water System	Marlette Lake to Virginia City	Washoe/ Carson City/ Storey	District	09/16/92	Partially in CCD
Old Winters Ranch/Winters Mansion	US 395 north end of Washoe Valley	Washoe	Building	07/30/74	Adjacent to CCD

Additionally, development and resource use of public lands continues to be driven by the relative location of recent human activities. These areas of mines, grazing allotment improvements, military and resource use of public lands continues to be driven by the relative location of recent human activities. These areas of mines, grazing allotment improvements, military activity, lands actions, geothermal exploration, and other resource uses occupy specific positions on the landscape and do not occur evenly across the entire CCDPA. With cultural resources laws, regulations, and policies often requiring inventory prior to these actions being approved, looking for cultural resources in these areas will result in more sites being identified.

Therefore, the irregular patterns of known distribution and density of cultural resource sites are twofold. One factor is that prehistoric and historic era people used some areas of the landscape more intensely and more often than others. The second factor is modern resource use, where specific, non-randomly distributed areas proposed for use are subject to necessary cultural

resource identification efforts, thereby shaping our geographic awareness of known sites.

Cultural resources in the CCDPA can be adversely affected by two broad categories of agents of change: those that are caused by people, and those that are caused by nature. Examples of agents caused by people include actions permitted or authorized by BLM such as mining, recreation, or energy development, as well as activities that are related to emergency fire suppression, casual use, or actions not authorized by BLM such as illegal dumping. Examples of agents that are caused by nature include wildland fires (regardless of origin), river/stream and hillside erosion, inadvertent animal disturbance (such as burrowing rodents), and natural weathering.

Trends

The desired condition of cultural resources on federal lands is that they remain stabilized and not adversely affected by natural and cultural processes, and/or towards increased educational and interpretive use. As reviewed above, the current trend of the properties (NRHP-eligible or listed sites) in the CCDPA is that those near to urban interface are subject to greater potential for damage, removal, or alteration from agents caused by people and their equipment. Those resources farther from urban or developed areas are relatively stabilized and are not, in large measure, being adversely affected.

Based on historic trends, large-scale and intense wildland fires can and will occur in western Nevada. Such fires, if they sweep through specific portions of the CCDPA, such as Virginia City National Historic Landmark (NHL), would have a severe effect on the significant cultural resources of that area. Interest in mining gold and other minerals has gone up in the past couple of years on both private and public lands, as the value of these commodities has increased dramatically. Current Federal law, BLM management, regulations, and policies permit mining wherever it is legally allowable and where it does not adversely affect critical resources. As a result, more mining on BLM-managed lands is occurring relative to only a few years ago when prices were much lower. Whether this recent upsurge in mining activity is normal, or whether it forecasts the beginning of a larger trend, is not currently known.

Qualitative observation indicates a downward trend in condition for recorded and unrecorded cultural resources that are not associated with formal surface disturbing management proposals. Illegal removal of artifacts, ground disturbance associated with recreational activity, limited law enforcement, and intensive grazing practices all contribute to the downward trend.

Forecast

Based on current management practices, improved access to public lands, and increased urbanization, the forecast would be to continue this downward trend of cultural resource conditions due to:

- greater potential for cultural resources being illegally removed or damaged, due to increases in recreational and commercial usage, and limited law enforcement presence,
- a likelihood for continued large-scale wildfires in the CCDPA resulting in damage;
- continued activities that result in damage or destruction of cultural resources on private, state, and non-BLM-administered lands; and,
- continued permitting of authorized actions by BLM including mining, grazing, geothermal development, etc. that contributes to sites and artifacts being affected.

Key Features

The CRMP states that BLM will identify areas of significant heritage properties for protection, enhancement, complimentary use, and public enjoyment. The CRMP also states that BLM will designate high-value areas for special management action based upon criteria outlined in the resource protection planning process reports and cultural resource management guide for the resource area. Several of the critical management areas are shown on **Figure 2-8**, Cultural and Paleontological Areas, with additional information presented in **Table 2-18**, Heritage Areas Identified for Management in the CCDPA.

2.2.10 Paleontological Resources

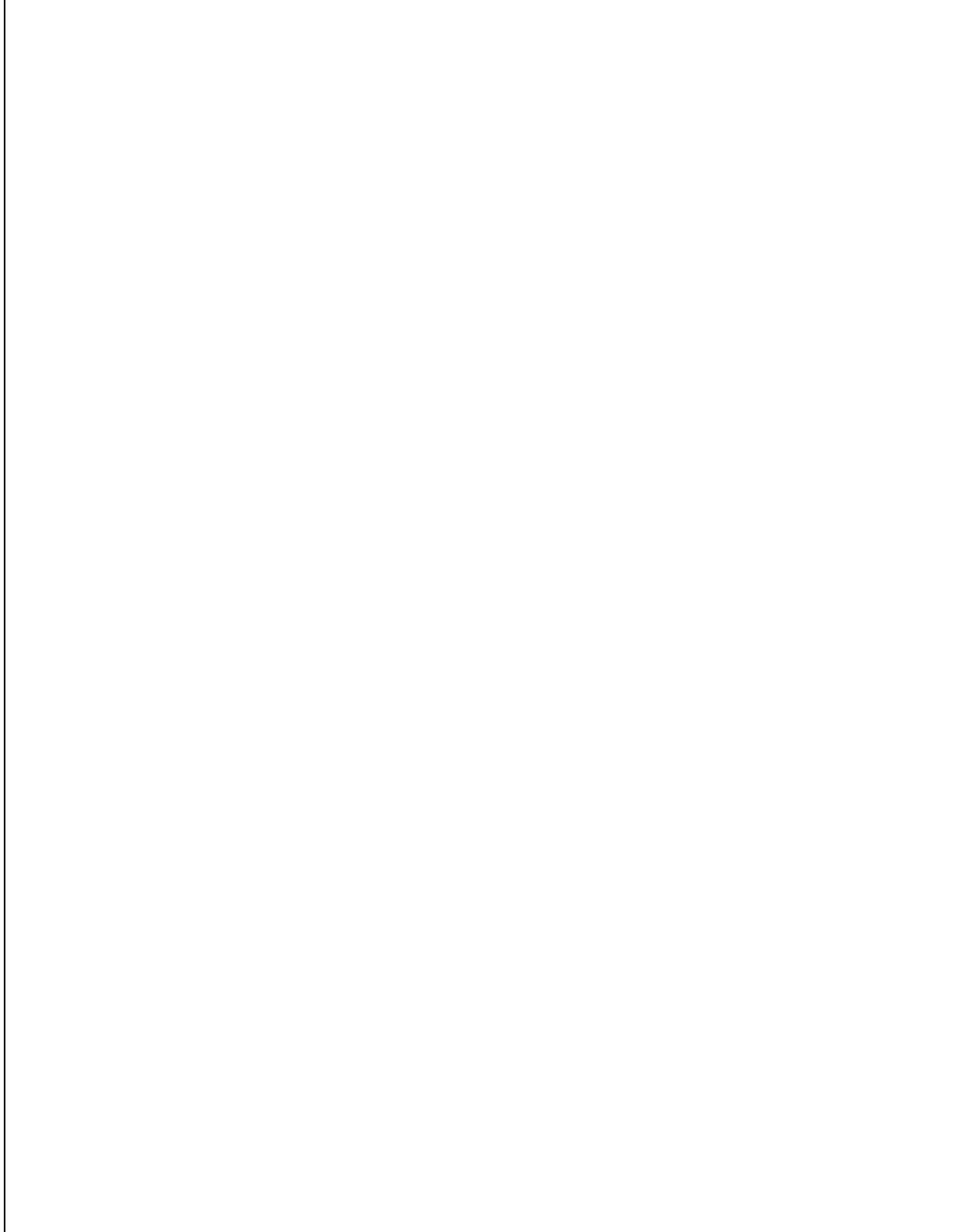
Paleontological resources constitute a fragile and nonrenewable scientific record of the history of life on earth. BLM policy is to manage paleontological resources for scientific, educational, and recreational values and to protect or mitigate these resources from adverse impacts. To accomplish this goal, paleontological resources must be professionally identified and evaluated, and paleontological data should be considered as early as possible in the decision-making process. Paleontological resources are managed according to the BLM 8270 Handbook and BLM Manual for the Management of Paleontological Resources.

Paleontological resources are known to occur throughout the CCDPA. Fossils are identified within the geological units in which they occur and are extensively distributed both vertically and horizontally. Locating, evaluating and classifying paleontological resources and development of management strategies must be based upon the best science available (BLM Manual H-8270-1.A.1).

Indicators

Resource condition is assessed by field observations, paleontological reports, commercial site reports, and project review. The primary resource indicator is whether there is a loss of those characteristics that make the fossil locality or feature important for further scientific investigation. Natural weathering, decay, erosion, improper collection, and vandalism can have a permanent adverse effect on those characteristics that are important to the analysis of the paleontological resources and convey their scientific importance.

2-8 Cultural and Paleontological Areas (Scoping Map 12-1)



**Table 2-18
Heritage Areas Identified for Management in the CCDPA**

Site Name	County	Acres/ Miles	Interpretive Services in Place	Environmental Education/ Scientific Research	Description
Grimes Point Archaeological Area	Churchill	1,160 acres	Designated parking area, kiosk, trail system, other signage, restrooms, and picnic tables	Guided tours/ rock art research by agreement with Nevada Rock Art Foundation	Grimes Point Petroglyph Site is listed on the NRHP in 1972 and managed by BLM as a recreation site with public facilities, trails, and passive interpretation. Grimes Point Archaeological Area is managed under a 1976 Memorandum of Agreement with BOR, with BLM designated as Lead Agency (560 acres BOR; 600 acres BLM).
Hidden Cave Interpretive Site	Churchill	(within Grimes Point Area)	Designated parking area, kiosk, trail system, restroom	Guided tours by BLM staff and by agreement with Churchill County Museum docents	Hidden Cave is an open archaeological excavation on public lands within the Grimes Point Archaeological Area. The cave site is locked and actively interpreted for the public by BLM and Churchill County Museum voluntary tour guides under a Cooperative Management Agreement (July 30, 2003).
Sand Springs Pony Express Station	Churchill	40 ac	Designated parking area, kiosk, trail system	None	The Sand Springs and Cold Springs Pony Express Stations have been excavated, stabilized, and developed as public interpretive sites. Included are self-guided interpretive trails and informational signs.
Cold Springs Pony Express Station	Churchill	80 ac	Designated parking area, kiosk, trail system, restroom	None	

Table 2-18
Heritage Areas Identified for Management in the CCDPA

Site Name	County	Acres/ Miles	Interpretive Services in Place	Environmental Education/ Scientific Research	Description
Rock Creek Stage and Telegraph Site	Churchill	80 ac	Designated parking area	None	The Rock Creek Stage and Telegraph Site are fenced. A few hundred yards to the west is a paved pullout and state historic marker, erected in 2011, describing the sites.
Pah Rah High Basin (Dry Lakes) Petroglyph Area (ACEC)	Washoe	3,881 ac	None—high potential for interpretation	Rock art research by agreement with Nevada Rock Art Foundation	The Pah Rah High Basin (Dry Lakes) Petroglyph Area is designated as an ACEC in the 2001 Final Southern Washoe County Urban Interface Plan Amendment.
Virginia City National Historic Landmark	Storey/ Washoe/ Carson City/ Lyon	ca. 16,000 acres	By county/private entities within Virginia City townsite	Commercial tours only/ no BLM programs (lands approximately 70 percent public)	Virginia City NHL was originally listed in 1966, and is summarized by a 1978 NRHP inventory. The Virginia City Historic District (National Register District) includes the area of the NHL and additional lands that are mostly non-federal to the north, east, and, south of the NHL. The National Register District was certified as official by the Nevada SHPO, Ronald M. James, on February 6, 1991 (Signature of the Keeper March 27, 1991).
Virginia City Historic District (National Register District)-- includes all of the NHL	Storey/ Washoe/ Carson City/ Lyon	ca. 33,000 acres	By county/private entities within Virginia City townsite	Commercial tours only/ no BLM programs (lands approximately 55 percent public)	
California Historic Trail	multiple	ca. 300 mi	Signage	None on CCD	
Pony Express National Historic Trail	Churchill/ Lyon/ Carson City/ Douglas	ca. 130 mi	Signage	None on CCD	
Lahontan Dam and Power Station and Carson River Diversion Dam					Lahontan Dam and Power Station and Carson River Diversion Dam are listed in the CRMP, but are on lands acquired BOR and managed by the State of Nevada.

Current Conditions

In 1981, a district wide paleontological inventory was conducted to identify fossils and fossil bearing sediment localities within and immediately adjacent to the Carson City District (Firby, 1981). Based upon the inventory, 331 locations were identified and comprised of 225 vertebrates, 73 invertebrates and 33 paleoflora fossils. Based upon the 1981 analysis the paleontological timeframe ranges from the Triassic (approximately 230 million years before present) to the Quaternary/Rancho Labrean (1.5 million years before present) periods.

In the early 1980s paleontological inventories assisted BLM with consideration of the Stewart Valley Fossil Area for a proposed Area of Critical Environmental Concern (ACEC) (Scudder, 1986). The inventories confirmed the importance of the Stewart Valley area for future paleontological studies due to the diversity of fossils, and the Stewart Valley ACEC was officially designated in the BLM Walker Resource Management Plan (BLM, 1986). BLM completed an ACEC Management Plan for the Stewart Valley Fossil Site in September 1990 (BLM, 1990). The plan included 1,420 acres of mineral entry withdrawal (expired in 2010) for the most sensitive portion of the 16,000-acre ACEC.

Numerous additional localities of paleontological resources are known throughout the CCD. In the late 2000s, CCD personnel used the results of the 1981 inventory and created a GIS paleontological layer. This GIS layer is used to identify areas of sensitivity for known and unknown fossil locations throughout the CCD and used during analysis for proposed projects. The analysis is used to recommend further paleontological inventories especially in areas of high sensitivity for vertebrates, such as a fossil locality at Ruhenstroth in the southern Pine Nut Mountains. The results of these inventories are used to continually update the paleontological GIS layer and our understanding of the deposition of the paleontological area in the CCD.

Trends

The desired condition of paleontological resources on federal lands is that they remain stabilized and protected from adverse effects due to natural and human processes. The current management trend for the resources in the CCDPA is toward continued scientific research, additional monitoring and travel signage, and increased opportunities for environmental education and interpretive use.

The proposed Ruhenstroth Paleontological Area is near the Douglas County Fairgrounds and at an urban interface subject to a trend of increasing recreational use resulting in greater erosion of fossil-bearing sediments and observed increase in the resource damage, removal, or alteration by people and their equipment. Resources farther from urban or developed areas are relatively stabilized and are not, in large measure, adversely affected by human activity. However, all areas of fossil-bearing sediments are trending toward increased recreational use and the limits to the availability of resource staff and law enforcement monitoring.

Forecast

Based on current management practices, improved access to public lands, and increased urbanization, the forecast would be for a greater potential for paleontological resources being illegally removed or damaged, due to increases in recreational and commercial usage, and limited law enforcement presence. Based on this, the forecast is currently for a continuing downward trend in resource condition.

Key Features

Table 2-19, Paleontological Areas Identified for Management in the CCD, provides the list of three significant resources that are actively managed and subject to scientific research in the CCD (See **Figure 2-8**, Cultural and Paleontological Areas).

Steward Valley is a defined ACEC, significant for paleontological diversity for paleoflora, invertebrates, and vertebrate fossil remains.

Much like the Steward Valley ACEC, the Pine Nut Range has been identified as an area of paleontological diversity and includes two specific areas, although neither is identified in the CRMP: the Pine Nut Range Hemphillian/Early Blancan interface and the Ruhenstroth Paleontological Area.

Table 2-19
Paleontological Areas Identified for Management in the CCD

Site Name	County	Acres	Interpretive Services in Place	Environmental Education/ Scientific Research
Steward Valley Fossil Site	Mineral	16,000 acres	Signage for travel management	Ongoing research and monitoring of sites
Pine Nut Range Hemphillian/Early Blancan interface	Douglas	ca. 3,000	None	Of high scientific importance
Ruhenstroth Paleontological Area	Douglas	2,340 acres	Travel management signage and route designations	Ongoing research and monitoring of sites

The Hemphillian/Early Blancan interface, dating to about 4.0 million years before present, is a specifically important resource. The dated sediments and fossils here are used to correlate other fossil locations throughout North America (Lindsay, 2002). Although fossil bearing sediments have been identified and some excavations conducted, the range of this area is not precisely mapped.

In the southwest area of the Pine Nut Range, large Pleistocene vertebrate faunal remains are primarily represented at Ruhenstroth. Due to continued pressure on resources from OHV use, the area was temporarily closed to OHV use

(limited to designated routes) under an emergency closure per Federal Register Notice (Vol 73, No. 20, p5584).

2.2.11 Visual Resources

The objective of Visual Resource Management (VRM) is to manage public lands in a manner which will protect the quality of the scenic or visual values of those lands. Scenic values are identified through the Visual Resource Inventory (VRI) process and are considered along with other resource values in the RMP planning process to establish VRM management objectives. VRM objectives are established in conformance with land use allocations, are area specific, and provide visual standards for planning, designing and evaluating proposed development projects or changes to the landscape. The VRM system also provides guidelines for timely evaluation of proposed surface-disturbing projects to ensure VRM objectives are met.

The BLM categorizes visual resources into four distinctive classes which are based on scenic quality evaluations, sensitivity level analysis, manageability, and the delineation of distance zones. Proper implementation of VRM will help reduce visual degradation and maintain important visual resource values. Recreational opportunities as well as visitor experiences and benefits are heavily influenced by the scenic quality of the landscapes. Consideration for the public and non-federal agency perception and concern for visual resources is also a critical element in the land use planning process.

Indicators

The BLM uses the VRM system to classify the scenic value of its lands and establish management objectives during the planning process. The VRM system involves assessing visual resources and assigning them to one of four management classes (Class I to IV) based on three factors: scenic quality, visual sensitivity, and distance from travel or observation points.

Class I. The objective of this class is to *preserve* the existing character of the landscape. This class provides for natural ecological changes with very limited management activity. The level of change by the activity to the characteristic landscape should be very low and must not attract attention.

Class II. The objective of this class is to *retain* the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III. The objective of this class is to *partially retain* the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate

the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV. The objective of this class is to provide for management activities which require *major modification* of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Current Conditions

The majority of the CCDPA has not undergone the visual assessment process for the classification of lands. A partial VRM classification was completed in the mid-1980s mostly in the areas of public interface and greater population densities on lands that now fall within the Sierra Front Field Office. Lands on the eastern side of the CCDPA were, for the most part, never evaluated. Currently, Standard Operating Procedures in the CRMP call for the establishment of interim VRM objectives where a project is proposed and there are no approved VRM objectives.

The VRI, the first step in the classification process was completed by private contractors with assistance from BLM staff in January 2012. During the RMP revision, the VRM designations will be assigned by BLM staff.

Table 2-20, Existing VRM Class Acreages in the CCDPA, details the acreage for VRM Classes that are designated within the CCDPA.

Table 2-20
Existing VRM Class Acreages in the CCDPA

VRM Class	Acreage
Class 1	561,128
Class 2	49,983
Class 3	324,773
Class 4	385,723
Unclassified	3,484,254

Lands that fall within the Class I designation are comprised solely of the Wilderness Study Areas. Class II designations were applied to the special designations such as scenic areas. Classes III and IV comprise the majority of the public lands in the eastern half of the CCDPA. In general, areas located on or near transportation routes in the lower portions of the basin, areas undergoing oil and gas or other development, and areas with less visual variety and scenic quality fall within Class III and Class IV categories.

Trends

In any given year, the BLM authorizes a wide variety of activities which have the potential to impact scenic values. These activities range from vegetation and habitat improvement projects to large scale geothermal energy, mineral and mining operations or exploration. The increased demands for renewable energy and mineral development have increased the pressures on maintaining visual resources. Having an incomplete VRM Classification in the planning area increases the chance that projects or development will not be fully analyzed or that adequate mitigation measures will be required to ensure visual resource protection.

Current management practices have lead to a reduction of impacts on the visual resources in the CCDPA but fail to provide adequate guidance for on-site/off-site mitigation measures or design alternatives. Surface-disturbing activities have been mitigated so as to maintain the objectives of the VRM Class that the BLM parcel is managed under. The result is land uses that remain subordinate against the surrounding natural elements of form, line, color, and texture.

Forecast

The CCDPA falls within the Basin and Range Physiographic Province noted for its limited rainfall and arid conditions and the Sierra Nevada Physiographic Province along the eastern slopes of the Sierra Nevada Mountains. Topographic features in the planning area are representative of the basin and range and include a variety of landscapes such as the majestic snow-capped (i.e. *nevada*) mountain ranges, low foothills, and wide flat basins. Scenic quality values are high and visual distance is usually great, hence the origin of the phrase “wide open Nevada”. Landscapes that would suffer the greatest negative impacts as a result of development without consideration of scenic values, the use of mitigation measures or from unauthorized dispersed recreation uses include areas with urban interface, travel corridors, popular recreation sites, and areas with multiple or conflicting resource use demands.

The present VRM classification throughout the CCDPA does not adequately reflect the visual quality of the region and VRM mitigation standards and design alternatives are not sufficiently outlined in the CRMP or subsequent activity plans. Cumulative impacts from the lack of direction may reduce the visual quality in some areas due to short and long term impacts. Potential transportation or utility corridors, including interstate transmission and gas lines that traverse the CCDPA, could also negatively affect visual resources in the CCDPA without the proper planning.

Key Features

Key features in the CCDPA include areas with unique landforms, impounded or flowing water, historic trails, scenic areas and recreation sites. Examples include Incandescent Rocks Natural Scenic ACEC, Lassen Red Rocks Scenic Area, Burbank Canyons Scenic Area, and all WSAs. Certain transportation corridors

such as the East Fork of the Carson River, V&T Railroad and Fort Churchill to Wellington Back Country By-way, Highways 50 and 95, Sand Mountain, National Historic Trails, and special designation areas such as Grimes Point Archeological Area would also be considered key features.

2.2.12 Wilderness Characteristics

Since 1976, Section 201 of FLPMA has required the BLM to continue to maintain an inventory of all public lands and their resources and other values. This inventory requirement includes maintaining information regarding wilderness characteristics. The Bureau reaffirmed this policy to continue to conduct and maintain inventories regarding the presence or absence of wilderness characteristics, and to consider identified lands with wilderness characteristics, in land use plans and when analyzing projects under NEPA in 2012 (within BLM Manual 6320-*Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process*).

Indicators

BLM Manual 6310-*Conducting Wilderness Characteristics Inventory on BLM Lands* (BLM, 2012) provides the latest policy and guidance for conducting wilderness characteristic inventories under Section 201 of FLPMA. This manual provides guidance for areas that are not under WSA designation. BLM lands are assessed for wilderness characteristics on a continuing basis using the potential for naturalness, solitude, and opportunity for primitive types of recreation.

Naturalness. Lands and resources exhibit a high degree of naturalness, are affected primarily by the forces of nature, and are areas where the imprint of human activity is substantially unnoticeable. The BLM has authority to inventory, assess, and/or monitor the attributes of the lands and resources on public lands, which, taken together, are an indication of an area's naturalness. These attributes may include the presence or absence of roads and trails, fences and other improvements, the nature and extent of landscape modifications, the presence of native vegetation communities, and the connectivity of habitats.

Outstanding opportunities for solitude. Visitors may have outstanding opportunities for solitude when the sights, sounds, and evidence of other people are rare or infrequent and where visitors can be isolated, alone, or secluded from others.

Outstanding opportunities for primitive and unconfined types of recreation. Visitors may have outstanding opportunities for primitive and unconfined types of recreation where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered.

Public lands possessing the above values may be managed to maintain some or all of those characteristics. Wilderness characteristics such as solitude, primitive recreation, and naturalness are a part of the land use planning process and will

be evaluated and addressed along with all other resource values and uses. The BLM is authorized to consider this information when developing the affected environment section and the range of alternatives, or to analyze the environmental impacts to other resources.

In general, wilderness character conditions tend to be more qualitative in nature, measured by the overall visual quality and naturalness of an area that may be affected by changes to levels of recreational activities, development, and surrounding land use. Indicators that can quantitatively be measured include changes to the frequency and number of routes, including the number of unauthorized trails, the number of encounters with other users, and increased requests for use of areas with wilderness characteristics for renewable or non-renewable resource development.

Current Conditions

In 1979 and 1980, per the mandates established by FLPMA, original and intensive inventories were conducted on all public lands to identify the presence or absence of wilderness characteristics. In December of 1980, the BLM designated nine areas within the CCDPA that met the minimal requirements for wilderness designation including minimal amount of human disturbance, high scenic quality, naturalness, outstanding opportunities for solitude, and primitive and unconfined recreation as Wilderness Study Areas (WSAs). Of the 578,593 total acres identified as having wilderness characteristics within the CCDPA, that were subsequently set aside as WSA's, only 112,188 acres, or 19.5 percent were recommended as being suitable for wilderness designation. Refer to **Section 2.4.8** for further discussion on WSAs.

Currently, the CCD manages eight of the nine WSAs in the CCDPA that contain resources that fit the definition of wilderness characteristics as defined in the Interim Management Policy. (BLM H-8550-1 *Interim Management Policy and Guidelines for Lands under Wilderness Review*). The CCD will continue to manage the WSAs to preserve wilderness characteristics so as not to impair the suitability of such areas for designation as wilderness until Congress either designates them as wilderness or releases them from further wilderness study. It should be noted that as of July 13th, 2012, BLM Manual 6330 Management of Wilderness Study Areas, superseded Handbook H-8550-1.

BLM Manual 6320, *Considering Lands with Wilderness Characteristics in the Land Use Planning Process (2012)*, provides current policy direction for lands with wilderness characteristics that lay outside of WSA's. This manual provides policy for updating and maintaining the wilderness inventory for lands within the CCDPA and ensures that wilderness characteristics are protected in a manner consistent with the BLM planning process.

If any new areas outside of WSA's are found to have wilderness characteristics during the planning process, the management guidelines will be to manage these areas in a manner to preserve those characteristics where possible as

established in the RMP. Per FLPMA policy, the BLM will continue to conduct wilderness character review on public lands, but will not designate additional WSAs, nor make recommendations related to wilderness suitability in the planning process.

Trends

Varying degree of original and intensive wilderness characteristic inventories were conducted within the CCDPA in 1979 and 1980. If any areas with wilderness characteristics outside of the established WSAs were missed during the inventories however, increased residential and commercial development, successive wildland fires, ROW's and increased recreational use with OHV's over the last thirty years may have negatively impacted the naturalness and outstanding opportunities for solitude/primitive recreation in these areas.

The continued popularity of all-terrain vehicles and utility vehicles over the last decade has led to an increase in OHV use on public lands that can impact the naturalness and solitude of previously undisturbed areas. Strict registration requirements for OHVs as well as loss of riding areas due to increased environmental regulations in California has led to an influx of California residents utilizing lands in the CCD as OHV playgrounds. Increase in fire frequency from invasive grasses has led to the loss and reduction of potential naturalness in many areas. Renewed interest in alternative energy programs such as geothermal exploration and development and mineral exploration and development may also affect the availability of natural areas that provide solitude or unconfined recreation opportunities.

Forecast

As the demands from the public and private sector for increased recreational opportunities, access to public lands for renewable energy development and mineral exploration continues to increase, the resulting impacts to areas with potential wilderness characteristics will be difficult to manage. The economic importance of recreational lands and non-renewable resources to the local or regional economies will be a driving influence on management actions and decisions. Uses that may cause impairment to wilderness characteristics can be prevented or mitigated through the implementation of management objectives developed in the RMP.

Outstanding opportunities for unconfined, primitive recreation will need to focus on undeveloped recreational activities or activities that do not require facilities or motorized equipment.

Key Features

The key features that determine wilderness characteristics are based upon naturalness, outstanding opportunities for solitude, and primitive/unconfined types of recreation. Within the CCDPA, inventories were completed in 1979 and 1980 and areas with these characteristics were identified and set aside by Congress as WSA's. No areas outside of the WSA's have been identified as

having wilderness characteristics during subsequent inventories or NEPA project analysis.

FLPMA requires the continued inventory of public lands for potential wilderness characteristics even though there is no authority to establish new WSAs should any be found. The identification of lands with wilderness characteristics would necessitate alternative management decisions to protect the identified characteristics in the land use planning process.

2.2.13 Cave and Karst Resources

With the passage of the Federal Cave Resources Protection Act (CRPA), Sec. 3(1) of 1988, Congress declared that significant caves on federal lands are an invaluable and irreplaceable part of the Nations natural heritage and recognized that significant caves may be threatened due to improper use, recreational demand, urban spread, and lack of protection. The purpose of this CRPA is to secure, protect, and preserve significant caves on federal lands for the perpetual use, enjoyment, and benefit of all people and to foster increased cooperation and exchange of information between governmental authorities and those who utilize caves located on federal lands for scientific, education, or recreational purposes. With the Act, Congress established policy that federal lands be managed in a manner that protects and maintains, to the extent practical, significant caves.

The CRPA defines a cave as any naturally occurring void, cavity, recess, or system of interconnected passages occurring beneath the surface of the Earth or within a cliff or ledge that is large enough to permit an individual to enter, whether or not the entrance is naturally formed or man-made. A karst is an area of irregular limestone or carbonate in which erosion has produced fissures, sinkholes, underground streams, and caverns. Caves may be considered nonrenewable resources due to the nature of the animal and plant life, paleontological deposits, biological resources, or minerals.

It is the policy of the Secretary of the Interior that federal lands be managed in a manner which, to the extent practical, protects and maintains significant caves and cave resources (43 CFR Part 37.2). The type and degree of protection will be determined through the local agency resource management planning process with full public participation.

The CCD CRMP does not address or provide direction on caves and karsts within the CCDPA.

Indicators

Under the CRPA, a cave is considered significant if it meets one or more of the following six criteria:

Biota. The cave serves as seasonal or yearlong habitat for organisms or animals, or contains species or subspecies of flora or fauna native to caves, or is sensitive

to disruption, or contains species found on state or Federal Sensitive, Threatened, or Endangered species lists.

Cultural. The cave contains historic or archeological resources included in or eligible for inclusion in the NRHP because of its research importance for history or prehistory, its historical association, or other historical or traditional significance.

Geological/Mineralogical/Paleontological. The cave possesses one or more of the following features: geologic or mineralogical features that are fragile or exhibit interesting formations.

Hydrologic. The cave is part of a hydrologic system or contains water important to humans, biota, or development of cave resources.

Recreational. The cave provides or could provide recreational opportunities or scenic values.

Educational or Scientific. The resource offers opportunities for educational or scientific use or is in a virtually pristine state, lacking evidence of contemporary human disturbance or impact, or the length, height, volume, total depth, or similar measurements are notable (43 CFR Part 37).

Current Conditions

The geologic setting of the CCDPA consists of granitic and metamorphic rocks that are overlain by volcanic and sedimentary rocks, so there is little opportunity for the formation of large or extensive cave systems. The majority of the caves in the CCDPA consist of undercut rock shelters and shallow cavities in basalt or rhyolite rock that were formed by wave action from ancient Lake Lahontan approximately 21,000 years ago. The wave action at various lake levels provided a mechanism to carve shoreline terraces and caves into the surrounding topography. The CCDPA does not have any significant deposits of limestone that are required for the formation of karst type caves or fissures

The most significant cave is Hidden Cave which is located within the Grimes Point Archaeological Area twelve miles east of Fallon. This cave is an archeological site of importance for the understanding of the human occupation of the Great Basin and climatic changes that have occurred over the last 20,000 years. Excavations occurred in the 1940s, 1950s, and in the 1970s when the last set of excavations were left intact to serve as interpretive materials for archeological methods. Interpretive tours of the cave and surrounding area have been provided for 30 years, and in 2010, over 1,300 people were provided tours of Hidden Cave by BLM interpretive specialists and the Churchill County Museum. Two rock shelters, Burnt Cave and Picnic Cave are part of the Hidden Cave interpretive tour.

There are no caves that provide recreational caving opportunities such as exploration or spelunking. The most important significance for caves is the support of several bat species that live or migrate through the area and for cultural resources. No significant karst features have been identified in the CCDPA. The CCD CRMP does not address or provide direction on caves and karsts within the CCDPA.

Trends

Primarily, caves within the CCDPA have significance due to bat habitat, prehistoric use, or the presence of artifacts and pictographs as well as cultural connections with local Tribes. While the physical location of culturally significant caves is not publicized by the BLM, they are often known to the local populations through printed literature, USGS topographic maps, and from being passed down verbally through family and friends. This has resulted in historic as well as present day concerns from acts of theft, vandalism, and degradation of cultural artifacts and values.

With the exception of documented occurrences of vandalism, trend data for cave resources in the CCDPA is not collected and remains anecdotal. As recreational use of public lands increase and the public becomes more aware of cave locations, the incidents of vandalism from graffiti and target shooting may increase. Visitation can negatively impact the biological and cultural importance of a cave from the introduction and spread of invasive weeds and organisms, soil compaction and the disturbance of artifacts. Cave resources will continue to be impacted by the public until management decisions are developed to adequately protect the resources.

Forecast

The potential for additional cave discoveries within the CCDPA is low considering geological data, the basin and range topography, and the amount of mineral exploration that has occurred in the ranges since the mid-1800s.

Key Features

The geological and climatological processes within the CCDPA are not conducive for the development of significant caves or karsts. Hidden Cave, Picnic Cave, and Burnt Cave, all located within the Grimes Point Archaeological Area, are the most significant caves within the CCDPA. Other caves with cultural significance exist but have not been identified or mapped in a single database, or the caves are proprietary in nature and the locations are documented only in cultural files as a means to protect the resource. Natural caves suitable for supporting biota such as bats are scattered throughout the CCDPA but minimal mapping or identification has occurred for this resource as well.

2.3 RESOURCE USES

2.3.1 Forestry and Woodland Products

Current Conditions

The Federal Land Policy and Management Act of 1976 require that BLM public lands be managed under principles of multiple use and sustained yield. It also requires that fair market value generally is received for the use of public lands and its resources. As such, all forest products removed for commercial and public use require a permit unless it falls under casual use. At this time the only product that is removed from BLM lands in the planning area without a permit is up to 25 pounds of pine nuts by individuals. Christmas trees, native seed, firewood, post, poles and lumber require a permit issued under forms 5450-1, 5450-3, 5450-4, 5450-25, and 5450-26 (BLM, 1992).

Historically, the CCD sold more special forest products (e.g. firewood, Christmas trees, poles) than any other BLM district in Nevada. However, in recent years, the Ely District has been selling more special forest products than Carson City as a by-product of fuels and rangeland restoration projects.

Electronic data on products sold is only available since 2007 (BLM, 2012). Biomass, pine nuts, posts, poles, and boughs sold during this 5 year period make up less than 1 percent of the total product sales. Fire wood and Christmas trees make up 99 percent of the products sold on the CCD (**Table 2-21**, Permits Sold and Receipts Received from 2007 to 2011 in the CCD).

Table 2-21
Permits Sold and Receipts Received from 2007 to 2011 in the CCD

Year	2007	2008	2009	2010	2011	5-year Average
Christmas Tree Permits	2,208	1,954	1,882	1,607	1,583	1,847
Fire Wood Permits	397	579	933	1,051	743	741
Total Permits	2,605	2,533	2,815	2,658	2,326	2,588
Christmas Tree Receipts	\$7,912	\$9,770	\$7,448	\$6,428	\$6,338	\$7,579
Fire Wood Receipts	\$2,415	\$9,337	\$14,844	\$15,900	\$13,184	\$11,136
Total Receipts	\$10,327	\$19,107	\$22,292	\$22,328	\$19,522	\$18,715

Christmas tree sales are showing a slight decline, whereas firewood permits were on the increase until 2011. Without specific data on regional economic trends influencing these sales, there can be no conclusions drawn about the cause of the declines/increases. However, the BLM has an active program to provide permits to the general public. The CCD has made recent attempts to increase the supply and availability of permits by selling permits in Fallon, Hawthorne, Middlegate, Reno, and Cold Springs, Nevada.

In addition to the aforementioned public sales of forest products, commercial sales of firewood have been implemented in the past. To meet this demand, the BLM typically designates a commercial harvest area and sells the products by using a Forest Product Sale Contract. The designated harvest areas are determined by resource needs such as fuel hazard reduction, rangeland restoration, or salvage of dead and dying trees.

Another important forest product opportunity that has been implemented on CCD is the use of stewardship contracts to harvest products and pay for restoration services. In these contracts, the contractor harvests trees designated by the BLM and the receipts from the sale of these products help pay for the cost of disposing of activity fuels, trail and road restoration, and site rehabilitation. Since 2007 there has been three stewardship contracts totaling 109 acres on the district.

There are numerous state and national efforts to utilize woody biomass in meeting forest health objectives and renewable energy goals. For example, a Statewide Natural Resource Assessment was issued in 2010 by the Nevada Division of Forestry, which identified BLM lands in CCD as priority landscapes for addressing catastrophic wildfire, forest health declines, and invasive weeds (NDF, 1990). This assessment identified the lack of product utilization opportunities (e.g. mills, biomass plants, pellet plants) as a limiting factor in successful restoration of forest and woodland stands in the priority landscapes located within the CCD. Other than fire wood permits, there has been only 13 green tons of biomass sold on the CCD. The one biomass facility constructed in 2007 within the CCDPA has since shut (Atkins, 2012).

Pinyon pine nuts are another important forest product available within the CCDPA. The CRMP allowed harvest throughout the CCDPA with no limitations on the amount that can be harvested overall. The CRMP limited non-commercial harvest to less than 25 pounds per individual. Harvest exceeding the 25 pound threshold requires a commercial permit at fair market value, subject to Field Manager approval. Commercial permits have not been issued on the CCD since the early 1990's due to concerns expressed by Tribes about commercial collection within traditional pine nut hunting areas.

Forecast

Firewood, posts, poles and biomass are all low value products. The felling (cutting down individual trees), processing, and transportation costs associated with these products limit the feasibility of large scale utilization.

The major emerging markets for forest products from the lands in the CCDPA include bioenergy, biofuels, biochar, and to a lesser extent pellet plants. These markets are in the early stages of development in Nevada. In California however, the market for bioenergy has already been developed in certain regions (e.g. Northeast California). In general, these California markets help pay for the processing and transport of biomass (wood chips).

Forest health and landscape diversity to build resiliency to climate change, fire, insects, and disease are issues that forest and woodland management objectives should specifically address. The need for vegetation treatments such as density reduction of overstocked stands, removing encroaching conifers from Aspen stands, addressing disease or insect outbreaks, restoration of riparian tree communities, etc. will continue to be a challenge into the future.

Key Features

A key factor of where forest and woodland product availability can be enhanced is consideration of the topographic and geographic locations of forest and woodland stands. Special emphasis should be placed on areas that meet one or more of the following criteria:

- Proximity to existing or emerging markets (i.e. short distance for transport of products)
- Near rural and urban areas when implementing fuels reduction and forest health treatments
- Along road systems to minimize yarding distances
- On gentle slopes where mechanical treatments are more feasible (<30 percent).

As discussed in the **Section 2.2.4** Vegetation, pinyon-juniper expansion has created the need to remove Phase I and Phase II woodlands around critical sagebrush habitats. In general these lower density woodlands won't produce as much product opportunity as denser stands and may be better treated by leaving individual trees on site. Denser woodlands that are in need of thinning would be the best opportunity for product utilization. Best management practices should be integrated into management guidelines to insure the protection of soil and water resources and the retention of critical ecosystem components.

The pine, mixed conifer and fir stands in Alpine County are larger diameter than any other areas of the district and as such there are established markets for commercial sized trees (>8 inches in diameter) that could be thinned out to achieve forest health and resiliency to fire. Because there is product value there is more potential for funding the restoration of these stands using various contract types (e.g. timber sale, service, stewardship, etc.).

Due to the importance of riparian deciduous and aspen stands for landscape diversity, ecosystem functioning, and water availability for wildlife, cattle and horses, the management of these stands should focus on retaining key species/structures, protecting stands from high intensity wildfire, and limiting surface erosion / soil deposition. There are no established markets for utilizing by-products of treatments in this type, but there are opportunities to harvest cuttings or seed that can be transplanted or grown in nurseries for planting into

similar areas to meet restoration goals. No significant forest product markets exist for mountain mahogany, but there are needs to collect seed for growing plants that can be used to plant areas after disturbance.

2.3.2 Livestock Grazing

Current Conditions

Current Level and Locations of Use

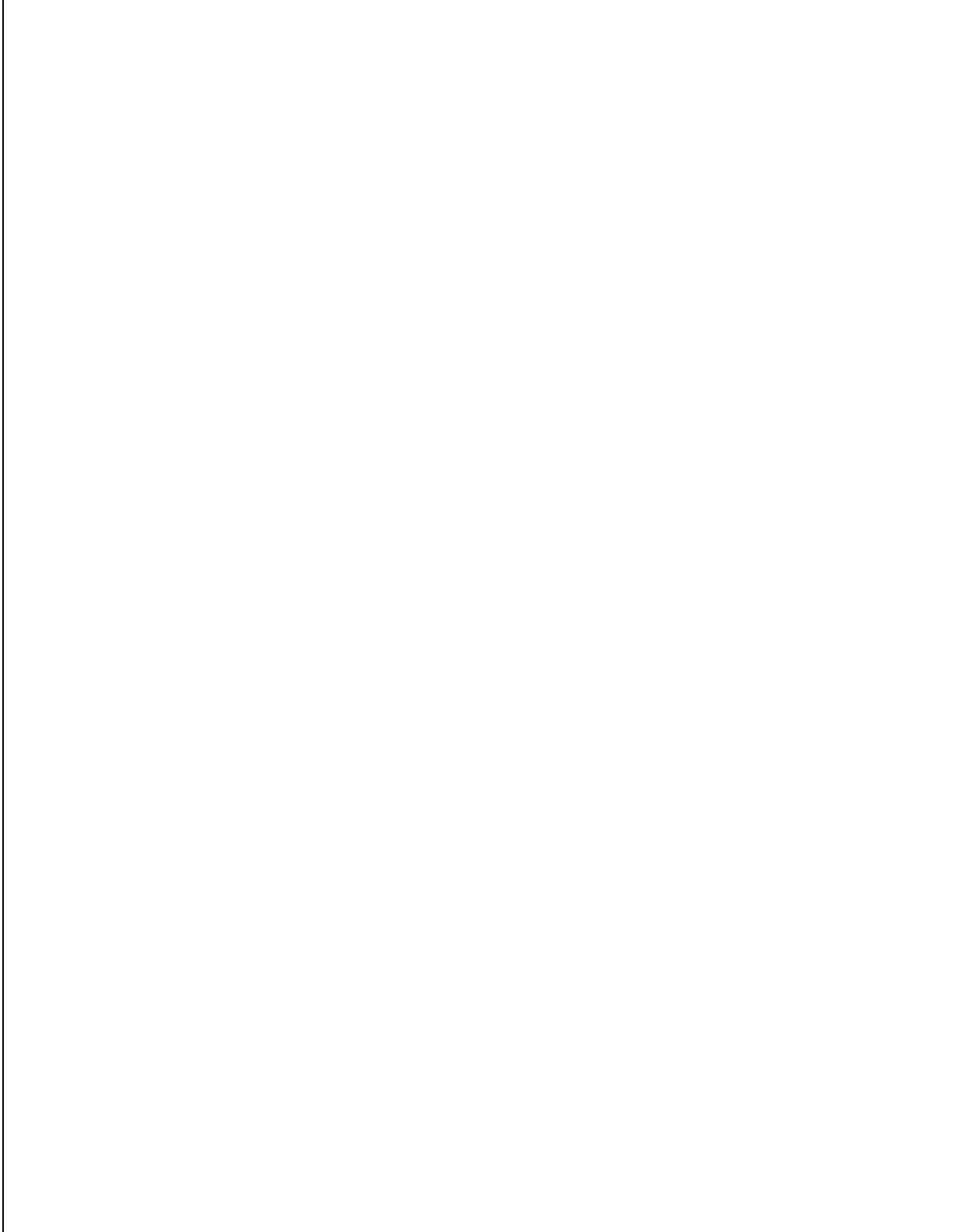
Currently 4,720,183 acres (according to GIS) (98percent) of BLM-administered public land within the CCDPA are allocated for livestock grazing (see **Figure 2-9**, Livestock Grazing). The public range is permitted at a level of 156,731 Animal Unit Months (AUMs) of forage. An AUM is equal to the approximate amount of forage needed to sustain one cow, one horse, five sheep, or five goats for a month. The permitted level includes 156,731 active AUMs and 6,222 suspended use AUMs. Permittees paid to use 99,251 AUMs of forage in 2011. **Appendix C**, Carson City District Allotment Status, details grazing allotments, acreages, permitted AUMs, and grazing periods within the CCDPA.

In addition, the CCDO has memorandums of understanding (MOUs) with other Districts that establish our management of their grazing allotments, or vice versa. New Pass, Porter Canyon, South Smith Creek, and a portion of Boyer Ranch Allotments are within the Battle Mountain District, however are administered by the Stillwater Field Office. Hole in the Wall and Rochester Common Allotments are within the Winnemucca District, with administration provided by the Stillwater Field Office.

Over the past five years, billed use has averaged 66,170 AUMs, or 42.2 percent of total permitted use. This difference can be attributed to a number of variables. Seasonal variations in precipitation and temperature result in more or less available forage from one year to the next. Drought conditions have required a reduction in grazing use in order to maintain good range conditions. Permittees may also opt for voluntary non-use for a variety of reasons, resulting in AUMs that are available but not used. Some permitted AUMs are in suspension due to problems with the base property or other issues, and are not available for use. In addition, grazing is typically deferred in an area for two years following some land treatments and fire rehabilitation projects, accounting for lower use levels.

There are 79,817 acres (2 percent) of BLM-administered public land within the CCDPA not allocated for livestock use. In addition, a small number of permits have been voluntarily relinquished and the allotments are considered vacant. There are several allotments that have base property issues that need to be cleaned up. The private land that is legally attached as 'base property' to the allotment is sometimes sold for private sub-development, or other reasons, that

2-9 Livestock Grazing (Scoping Map 6.3)



create a problem as the allotment can no longer be attached to that base property. The issues need to be resolved so that the allotments can be either attached to other base property, or used for other purposes.

Within the CCDPA, there are 111 allotments and 52 permittees. The allotments vary in size from 120 to 512,449 public acres, with grazing allocations ranging from 29 to 11,410 AUMs in each allotment. In 2011, 82 percent of the permits were for cattle (55 permits), with sheep and horse grazing accounting for the remaining 18 percent (12 permits). Individual operators graze animals on 72 allotments, while the remaining 5 are common allotments grazed by two or more operators. There are 34 allotments that are currently closed to grazing for wildlife, voluntary relinquishment, base property issues, or other reasons.

Grazing within the CCDPA occurs throughout the year, with much of the use concentrated during winter and spring months. Summer use allotments are commonly found at higher elevations, while winter use allotments are primarily located in lower elevations associated with an arid climate.

All grazing permits include terms and conditions regarding management of the allotment. In some cases, Allotment Management Plans (AMPs) have been developed, which provide details about the location, amount, and timing of permitted grazing use, and incorporate allotment-specific planned grazing systems.

Most allotments in the CCDPA contain portions that are only slightly used or not used at all by livestock due to topography, distance from water, limitations caused by natural barriers, or for other reasons. Rangeland improvement projects, water developments in particular, have been implemented within the CCD to better distribute livestock grazing.

Many other uses take place within CCD grazing allotments, such as recreation, wildlife use, energy development, mining, and utility easements. Resources requiring special management attention, such as threatened and endangered species, Special Recreation Management Areas, Wilderness Areas or Wilderness Study Areas, and Areas of Critical Environmental Concern, also occur within grazing allotments.

Forecast

Anticipated demand for use is expected to continue into the future. There is interest in acquiring grazing permits as they become available. In addition, due to the proximity to cities/towns, and the problems associated with urban interface, some grazing areas may lose some acreage. This loss ensures the demand for the areas that will remain open to livestock.

Due to the increased interaction of livestock grazing and other land uses as urban areas expand, education is becoming increasingly important so that land users can understand and respect each other's use. Grazing allotments in close

proximity to urban areas often receive a large amount of vandalism and theft on infrastructure such as troughs, pumps, fence posts, etc.

In addition, understanding of vegetative communities and livestock interactions with the vegetative component are continually becoming better understood, and dynamics are also changing as the vegetation in the CCD undergoes transitions. These ongoing changes require that grazing systems remain responsive to the ecological capability and requirements.

Prescriptive grazing for invasive specie reduction may be a viable option in areas of the CCD.

Key Features

The elevation and ecological site present on any given allotment plays a significant role in determining the grazing season and system most appropriate for that allotment. Higher elevation sites are often more able to provide for summer grazing, whereas the lower elevation sites are often well suited for winter grazing.

Allotments that have small, non-contiguous blocks of BLM land intermixed with private land often provide management problems. In addition, problems are often associated with BLM grazing allotments adjacent to developed areas (urban-interface).

It is important to recognize and acknowledge the grazed areas that have improved in ecological integrity under the implementation of a well suited management plan.

The Mustang and 102 properties on the Truckee Corridor may provide an opportunity to use a prescribed grazing system to reduce the whitetop on site.

2.3.3 Geology and Minerals (Locatable, Salable, and Leasable [Excluding Geothermal])

Physiography

Most of the CCDPA lies within the western portion of the Basin and Range physiographic province which owes its name to the extensional geologic events that began about 17 million years ago (Ma). The Basin and Range physiographic province roughly corresponds in proximity to the Great Basin, a contiguous watershed region between the Sierra Nevada and the Rocky Mountains that has no natural outlet to the sea. Extensional forces in the Earth's crust within in the Great Basin are responsible for moving Reno away from Salt Lake City at the rate of a couple of inches a year. These forces have resulted in the present-day landscape of alternating mountain ranges and deep, sediment filled basins which characterize the eastern portion of the CCDPA. Elevations within the CCDPA range from 3,796 feet at Pyramid Lake, 40 mi northeast of Reno, to 11,236 feet

on Mount Grant, in the Wassuk Range, approximately eight miles northwest of Hawthorne.

The mountain ranges within the CCDPA do not trend in a uniform direction. In the eastern portion of the CCDPA a general north-south orientation is apparent. The western margin of the CCDPA, near the Nevada-California state line, runs along the mountainous Sierra Nevada physiographic province which trends in a more northwesterly direction. The Walker Lane structural zone, a zone of very irregular topography, represents a transition zone between the northwest moving Sierra Nevada Block to the west, and the east-west extending Basin and Range province to the east. The Walker Lane structural zone consists of an approximate 90-mile wide zone of strike-slip faulting with diverse orientations of mountain ranges and faults.

During the late Pleistocene (0.01 to 1.8 Ma), an extensive portion of the Great Basin was occupied by several large pluvial lake systems. One of the largest pluvial lakes in the Great Basin was ancient Lake Lahontan, an enormous pluvial lake that covered much of the CCDPA in northwestern Nevada, and extended into northeastern California and southern Oregon. At its highstand about 15,000 years ago, the lake climbed to an elevation of 4,380 feet above mean sea level and covered a surface area of more than 8,500 square miles (USGS, 2004). At that time, the maximum lake depth is estimated to have been about 900 feet at present-day Pyramid Lake in the north end of the CCDPA. During the late Pleistocene, Lake Lahontan was subjected to a series of deep-lake fluctuations. Wave action from this huge lake carved shorelines, terraces and caves into the surrounding topography.

Geologic Overview

The oldest rocks in the CCDPA are Precambrian (greater than 540 Ma) schists. Paleozoic (250 to 540 Ma) rocks are present in areas, but Mesozoic (65 to 250 Ma) age rocks comprise the most extensive pre-Tertiary (greater than 65 Ma) outcrops exposed within the CCDPA. Mesozoic rocks in the CCDPA consist of Triassic (201 to 250 Ma) and Jurassic (145 to 201 Ma) metasedimentary and metavolcanic rocks and Jurassic and Cretaceous (65 to 145 Ma) granitic rocks. Over much of the CCDPA, these Mesozoic granitic and metamorphic rocks are overlain by an extensive sequence of Cenozoic (younger than 65 Ma) volcanic and interbedded sedimentary rocks. All of these rocks have been exposed to extensive folding and faulting from multiple tectonic events that have affected the region.

Zones of crustal weakness are important targets for precious metal exploration because they represent major conduits for the hydrothermal activity associated with ore deposit formation. The local and regional stresses occurring in these zones are also important in providing the mechanical ground preparation required for ore deposit emplacement. As a result, the Walker Lane structural zone is associated with the occurrence of several precious metals deposits that

have been discovered within the CCDPA as evidenced by the past establishment of numerous historic mining districts (see **Figure 2-10**, Minerals).

Geologic/Seismic Hazards

A fault is a break in earth in which one side moves in relation to the other. There are faults all over Nevada. When there are sudden and strong movements, earthquakes occur on the faults. Faults and the earthquakes occurring along them have created the mountains and valleys in the Great Basin. Larger earthquakes typically result from greater displacement occurring along a fault. Often the earthquakes do not break the surface. However, the effects of a few large earthquake events have manifested themselves in some sizable surface ruptures. Evidence of two such large earthquakes occurring within the CCDPA may be observed. One at a gravel pit in Alpine County south of Genoa, California, and another more recent event which occurred in the 1950s along the east side of Fairview Peak and along Dixie Valley in Churchill County.

Nevada is the third most-active state for earthquakes behind Alaska and California (Price, 2004). A highly destructive earthquake of the 7.0 or greater magnitude generally occurs every 30 years in Nevada, but one of 6.0 to 7.0 range occurs each decade. The CCDPA is situated within two active seismic regions, the Walker Lane structural zone to the west and the Central Nevada Seismic Belt to the east.

Surface ruptures with documented offsets of up to 2.5 feet occurred following a series of 1954 earthquakes (Caskey, 2004). A right lateral component of movement measured along portions of the rupture zone was evidenced by stream channels being offset by as much as 3 feet. The rupture zone resulting from the 1954 earthquakes spans approximately 37 miles and extends from Highway 50 and into the Carson Sink.

Minerals Overview

The presence and distribution of minerals is largely controlled by the associated geology. Indicators for a particular commodity include known occurrences and deposits; mineral potential reports from various industries, and government and academic agencies; and geologic factors derived from studies of controlling fault structures, hydrothermal alteration of rocks, geochemical surveys, satellite imagery, and geophysical surveys.

Public lands within the CCDPA are known to contain several areas of moderate to high mineral resource potential. The BLM Nevada State Office adjudicates mining claims and mineral leasing associated with the federal mineral estate within the CCDPA. The majority of the federal mineral estate within the CCDPA underlies federal lands managed by the BLM, BOR or USFS. There is a very limited amount of split estate in the CCDPA where private surface/federal minerals or federal surface/private minerals exist. These limited areas of split estate are primarily associated with town lot patents in the Virginia City and

2-10 Minerals (Scoping Map 10.1)

Gold Hill townsites of Storey County, Nevada, which were patented without the underlying mineral estate.

Current Condition

Surface disturbing activities associated with exploration and development of mineral resources on public land in the CCDPA is regulated by the CCD. The BLM permits mineral exploration, development and production on public lands through three programs – Saleable Minerals, Leasable Minerals and Locatable Minerals:

Salable minerals are commonly referred to as sand and gravel, aggregates, or mineral materials, and consist of common varieties of sand, stone, gravel, cinders, clay, pumice and pumicite as described under the Materials Act of 1947 and the Surface Resources Act of 1955. Salable mineral disposals on public land are administered by the CCD under sale contracts or free use permits. At present there are more than 260 authorized salable minerals contracts/permits issued from public land within the CCDPA.

Leasable minerals have been subdivided into two classes, solid and fluid. Solid leasables include phosphate, coal, oil shale, sodium, and nitrate. Fluid leasables include oil & gas and geothermal resources. The exclusive right to explore, develop and/or produce leasable minerals from the CCDPA is secured through obtaining a lease from the BLM Nevada State Office. There are no active solid mineral leases within the CCDPA. There are less than 30 active oil & gas leases within the CCDPA, but only a limited amount of exploration and no production has occurred in association with any of these leases. The bulk of the fluid mineral exploration and development within the CCDPA is related to geothermal resources (refer to **Section 2.3.6**, Renewable Energy, for a description of geothermal resources in the CCDPA).

Locatable minerals contain all minerals not identified as a salable or leasable mineral as described under the General Mining Law (Mining Law) of 1872 as amended. Locatable minerals are obtained through the staking of mining claims and include both metallic and nonmetallic (industrial) minerals. It is very difficult to prepare a complete list of locatable minerals because the history of the law has resulted in a definition of minerals that includes economics, and by statute, certain minerals have been excluded from the operation of the General Mining Law.

The CCD regulates the development of locatable minerals through the permitting and approval of exploration and mining Plans of Operation. Small areas of disturbance (less than 5-acres each) associated with exploration may be acknowledged through a simple notification process. Presently within the CCDPA there are 24 authorized exploration or mining Plans of Operation (required for any mining of locatable minerals or locatable mineral exploration causing surface disturbance of more than five acres) and 37 authorized

exploration Notices (required for locatable mineral exploration surface disturbance of less than five acres).

Salable Minerals

Salable mineral disposals from public land are administered by the CCD under sale contracts or free use permits. The vast majority of these contracts/permits are associated with the sale or free use of small amounts of material which is used for nearby road jobs or construction projects in rural areas. In contrast, there are three large contracts which have been issued to operators within the urban interfaces of Reno, Carson City and Douglas County. These contracts have been issued on a competitive basis for the purchase and use of larger amounts of material from public land within the CCDPA. They supply more material annually than all of the other contracts/permits combined. The general information associated with these larger Competitive Sale contracts in the CCD are listed in **Table 2-22**, Active Competitive Sale Contracts and Acres in the CCD.

Table 2-22
Active Competitive Sale Contracts and Acres in the CCD

Operator	Serial Number	Date Issued	Term (Years)	Pit/Quarry Name	Location			Acres	Contracted Tons
					Township	Range	Section(s)		
Cinderlite Rock	NVN 077480	9/30/2005	10	Goni Pit Expansion	16N	20E	28 & 29	28.2	2,000,000
Pyramid Materials Inc.	NVN 085679	7/12/2010	10	Tracy	20N	22N	22	520	1,500,000
Martin Marietta Materials	NVN 087320	9/27/2009	10	Spanish Springs	21N	20N	15	178.29	1,005,520

Leasable Minerals (excluding Geothermal)

Depositional environments that would be conducive to the formation of economic coal resources have not been identified within the CCDPA. As such, there are no coal mine operations within the CCDPA. No known economic deposits of phosphate, oil shale, sodium, or nitrate are known to occur within the CCDPA. Likewise, no economic supplies of oil and gas are known to exist within the CCDPA.

Locatable Minerals

Metallic Minerals. Economic metaliferous deposits are generally considered to be locatable minerals under the Mining Law. Metallic mineral commodities produced in the CCDPA include gold, silver, copper, iron, tungsten, lead, and zinc. Nevada is a major producer of precious metals and is currently ranked as the third or fourth largest gold producing region in the world in terms of its annual production (USGS, 2012). Therefore it is not surprising that Nevada ranks #1 in the nation in gold production accounting for 72%, or 5.3 million ounces, of the gold produced domestically in the U.S. in 2010. Most of the gold

in Nevada is produced from the major gold belts of north-central Nevada (USGS, 2012). Gold and silver deposits in the CCDPA are found primarily in association with Tertiary rocks.

Vein deposits or “Bonanza Veins” containing silver and gold were the most important type of deposits discovered and exploited in Nevada from the 1850s to the early 1900s as they accounted for almost all the precious metal production. A small amount of gold was also produced from placer deposits located near some of the old high-grade mines. In the early 1970s, after the central role of gold in world currency systems ended, the dollar and gold floated and in January 1980 the gold price briefly hit a record of \$850 per ounce before retreating but ultimately averaging over \$600 per ounce that year (COMEX, 1980). Following this event, several mining companies began exploring extensively in the CCDPA near the old high-grade mines. The emphasis of exploration at that time had shifted to finding and developing large, low-grade deposits, which became economical using cyanide heap leach methods for gold and silver recovery. Exploitation of these large low grade precious metal deposits peaked within the CCDPA in the mid-1990s when the price of gold began to decline steadily. Many precious metal mines that were active on the district at that time are listed in **Table 2-23**, Active Plans of Operation in the CCD. Most of these operations are currently in closure. The Rawhide Mine in Mineral County is the only major producer of precious metals currently operating within the CCDPA. Reported production from the Rawhide Mine in 2010 was 20,159 ounces of gold and 342,382 ounces of silver (NDOM, 2011). Mesozoic contact metamorphic rocks were a major source of base metals including copper, iron, and tungsten. Copper deposits, many with associated precious metals values, were exploited in several areas within the CCDPA during the first decades following 1900. One area near Yerington produced copper into the late 1920s, and again between the mid-1950s and the mid-1970s. At present copper may be making a comeback as several new operators are currently exploring for copper in the Yerington area. Iron and Tungsten was also produced historically in the CCDPA. Several tungsten mines within the CCDPA generated small to moderate production during periods of high tungsten prices, mainly during World Wars I and II, and the Korean War. A limited amount of iron was also produced within the CCDPA during that time. Presently, iron and tungsten are less sought after in the CCDPA due to increasing global competition for those commodities in the base metals markets.

Non Metallic (Industrial) Minerals. Nonmetallic (industrial) minerals produced in the CCDPA include salt, borates, gypsum, fluorite, clay, zeolite, limestone, and diatomite (diatomaceous earth). In the CCDPA, nonmetallic minerals activity began in the early 1860s with the exploitation of salt deposits from playa lakes at various locations in Churchill and Mineral counties. One operator in the CCDPA continues to produce salt from brines occurring on public land in the Four Mile Flat area of Churchill County. Borate minerals were later discovered

**Table 2-23
Active Plans of Operation in the CCD**

Serial Number	Type	Commodity	Operator	Date Authorized	Operation	Township	Range	Section(s)	Acres
NVN 069118	MINING	GOLD	BARRICK MINING CO	4/18/1985	GIROUX VALLEY	8N 8N 9N 9N	34E 35E 34E 35E	1, 3 & 24 6 36 31	400
NVN 069126	MINING	GOLD	ANACONDA MINERALS CO, MIRAMAR GOLD CORP	5/12/1994	SIX MILE CANYON	17N	21E	23,24,26	50
NVN 069128	MINING	GOLD	CANDELARIA MINING CO, NERCO METALS INC	5/29/1981	CANDELARIA	3N 4N	35E 35E	3,4 25,26,27,32,33,3 4,35	600
NVN 069134	MILLING	CINDERS	CINDERLITE ROCK	4/8/1997	GONI ROAD	15N	20E	4	13.8
NVN 069458	MINING	GOLD	BARRICK MINING CO	3/10/1992	CALVADA FLAT	8N 9N	35E 35E	4,5 28,32,33	260
NVN 069458	MINING	GOLD	PRUETT RANCHES	6/22/1993	BUCKSKIN MINE	13N	24E	18	18
NVN 069623	MINING	DIATOMITE	EAGLE PICHER MINERALS INC	1/14/1997	CLARK MINE	20N	23E	34	120
NVN 069690	MINING	GOLD	RAWHIDE MINING LLC	12/22/1994	RAWHIDE	13N	32E	4,5,6,7,8,9,10,16, 17	1,000
NVN 069929	MINING	SALT	HUCK SALT	11/19/2002	FOURMILE FLAT	16N	31E	7,11,12,13	16.5
NVN 069932	MINING	LIMESTONE	NEVADA CEMENT CO	1/13/1992	FERNLEY	19N 20N	25E 25E	3,4 32,33	45
NVN 069957	MINING	PEARLITE	EAGLE PICHER MINERALS INC	3/15/1993	RUSSELL PASS	16N 16N	28E 29E	24 19	24.5
NVN 069966	MINING	DIATOMITE	CELITE CORP	8/19/1994	FERNLEY	19N	26E	8	103

**Table 2-23
Active Plans of Operation in the CCD**

Serial Number	Type	Commodity	Operator	Date Authorized	Operation	Township	Range	Section(s)	Acres
NVN 070004	MINING	DIATOMITE	EAGLE PICHER MINERALS INC	11/6/1996	HAZEN	19N	26E	6	6.64
NVN 070006	MINING	GOLD	AMERICAN GOLD CAPITOL INC	2/15/1995	TALAPOOSA	18N 19N	24E 24E	2,3,10,11 34	120
NVN 070049	MINING	GOLD	CUSTOM DETAILS, LLC	7/12/2002	BOVIE LEW	13N	24E	8,17,20	10.35
NVN 070054	MINING	Clay	NEVADA BENTONITE ENT	12/22/1997	LAHONTAN MTNS	18N 18N	30E 31E	24,25 18,19	65.5
NVN 075839	MINING	PEARLITE	NOBLE PERLITE	4/2/2002	NOBLE PERLITE	16N	29E	15,16,21,22	2
NVN 083297	MINING	GOLD	GEO-NEVADA INC	1/20/2011	SPRING VALLEY	16N	21E	20,21,28	27.2
NVN 084570	EXPL.	COPPER	ENTREE GOLD US INC	3/2/2010	ANN MASON	13N	24E	10,11,13,14,15,1 6,23,24	14.22
NVN 084610	EXPL.	GOLD	BONAVENTURE NV INC	11/17/2009	NEW PASS	20N 21N	40E 40E	6 31	9.32
NVN 085212	EXPL.	COPPER	QUATERRA ALASKA INC	11/20/2009	MACARTHUR PIT	14N 14N	24E 25E	24,25,26 19,30	43.34
NVN 085589	MINING	GOLD	TNT VENTURES LLC	2/17/2010	MASON PASS	14N	25E	18,19	4.4
NVN 086260	MINING	POZZOLAN	NV CEMENT CO	3/1/2011	NV CEMENT CO	20N	24E	28	25.9

at similar locations in Churchill and Mineral counties, and small amounts of borax were produced. However, no borate production is occurring currently within the CCDPA. Gypsum has been produced from three localities within the CCDPA and continues to be produced from one deposit at Moundhouse in Lyon County. No Gypsum is actively being produced from public land within the CCDPA. Fluorite has been produced from two locations but there has been no production of fluorspar since 1957. Small deposits of clay have been mined at several locations within the CCDPA, and some intermittent clay and zeolite mining still occurs in the Lahontan Valley of Churchill County, Nevada.

Industrial mineral resources such as limestone and diatomite are actively being mined on a large scale within the CCDPA. Diatomite is mined east of Reno near Clark Station in Storey County, and from deposits near Hazen, in Churchill County. Limestone is mined from one location in Lyon County southeast of Fernley, and is used to manufacture cement at the cement plant in Fernley. While industrial minerals such as diatomite, limestone, and gypsum are being mined within the CCDPA, no production data for these minerals has been reported (NDOM, 2011).

Forecast

The US minerals sector in 2009 suffered decreased performance resulting from the widespread effects of the struggling domestic economy (USGS 2010). Although minerals contributed to the real gross domestic product at several levels, including mining, processing, and manufacturing of finished products, their contribution to the gross domestic product was less than that in 2008. Trends in other sectors of the domestic economy were reflected in mineral production and consumption rates.

Salable Minerals

Continued declines in the US housing market during 2009 were reflected in further reductions in the production and consumption of cement, clays, construction sand and gravel, crushed stone, and gypsum (commodities that are used almost exclusively in construction), and those associated with the related manufacture of goods, such as ceramic tile, paint, roofing, and wallboard, used by the housing industry. As the economy rebounds and the housing industry improves, so will the demand for industrial minerals in the CCDPA.

Leasable Minerals (excluding Geothermal)

Drilling for oil and gas resources within the CCDPA in Washoe, Lyon, Churchill and Mineral counties has been conducted on a limited basis since the early 1900s until present and no economic oil or gas deposits have been found to date. Hence, there is no reason to believe that oil and gas would constitute an economic resource within the CCDPA in the future. However, it is likely that oil and gas exploration will continue to occur on a limited basis as new potential targets are identified within the CCDPA.

Locatable Minerals

Metallic Minerals

The metals industry is highly cyclical. The length and magnitude of industry cycles have varied over time and by product, but generally reflect changes in macroeconomic conditions, levels of industry capacity and availability of usable raw materials. Recent years have seen resurgence in precious and base metal exploration resulting from increasing commodities prices. The recent spike in the value of gold and silver, and copper, respectively, has resulted in a renewed interest in the exploration for these metals within the CCDPA. Precious metals exploration appears to be directed at redefining existing resources associated with or surrounding areas of known potential. Base metal exploration within the CCDPA has focused on copper resources in the area of the former Anaconda Copper Mine in Yerington, Nevada. Based on the cyclical nature of the metals industry, the potential for future development of gold and silver, or copper within the CCDPA is likely to occur, contingent on an increase in demand and hence increasing or stable prices of those resources in the market place.

Non Metallic (Industrial) Minerals

The economic forecast for non-metallic (Industrial) minerals would be similar to that described above for salable minerals with the exception of diatomaceous earth which is used for industrial filter applications. Such uses have been insulated from the recent downturn in the construction industry. Therefore, the production of diatomaceous earth from active operations within the CCDPA is anticipated to continue.

Key Features

Public lands within the CCDPA are known to contain several areas of moderate to high mineral resource potential.

Salable mineral (e.g., sand & gravel and crushed stone) potential is widespread throughout the CCDPA. The greatest potential is in the alluvial-covered areas along the lower flanks of the mountain ranges within the CCDPA, as well on alluvium deposited by the Truckee, Walker, and Carson Rivers and their tributaries. Terrace sand and gravel deposits left along the various levels of ancient Lake Lahontan are also exploited as a sand and gravel resource. Because of their low unit value, sand and gravel deposits are generally not transported long distances, however sand and gravel operations within the CCDPA will continue to be developed as close to the consuming areas as possible. The largest operations within the CCDPA are located close to the urban interface surrounding Reno and Carson City, while numerous smaller operations are situated adjacent to smaller towns and at regular intervals along transportation corridors.

The potential for leasable minerals (excluding geothermal) such as oil & gas, coal, uranium, and potash are low throughout the CCDPA. The depositional

environments that would be conducive to the formation of and economic quantities of these minerals have not been identified within the CCDPA. An indicator of leasable mineral potential is the number of active leases. The CCDPA has 29 active oil & gas leases containing 65,988.75 acres. The average size of these leases is 2,275 acres.

Locatable minerals, namely precious and base metals such as gold, silver and copper, and industrial minerals such as diatomite and limestone have the highest potential for continued development within the CCDPA. An indicator of locatable mineral potential is the number of active mining claims. At present there are approximately 23,800 active claims within the CCDPA. With the average mining claim comprising approximately 20 acres, that equates to approximately 475,000 acres under claim.

2.3.4 Recreation and Visitor Services

Federal lands within the CCDPA provide a broad spectrum of outdoor opportunities that afford visitors the freedom of recreational choice with minimal regulatory constraints. As a national provider of recreational opportunities, the BLM focuses on its primary niche: providing resource based recreation and tourism opportunities. Visitor's freedom to pursue unstructured recreational opportunities is promoted, as long as they accept the responsibility to use public lands wisely and to respect other public land users. Responsible use is encouraged by the BLM and its partners through land use ethics programs such as Tread Lightly and Leave No Trace! Recreational opportunities are offered to the public on all BLM-administered lands within the CCDPA where legal access exists.

The BLM provides opportunities for outdoor recreation and nature-based tourism using the concept of multiple-use management. It is one of the four primary missions of the Department of the Interior. The public values natural landscapes, the freedom to choose a particular activity to participate in, the opportunity to test personal skills in a sport or activity, time spent with family and friends, and the opportunity for discovery. Recreational activities occurring on public lands are multifaceted and generally considered to be non-consumptive.

Whether the visitor chooses to recreate in one of the three developed designated fee sites or spend time in remote areas where fees or registration is not required, the BLM relies heavily on public land users to protect the land, water, and structures so that the next person can also have a quality recreational experience. Most recreational use in the CCDPA area occurs within dispersed, non-fee areas.

Indicators

Recreation Setting Characteristics

The Recreation Setting Characteristics is a modified version of the Recreation Opportunity Spectrum (ROS) process that identifies recreation opportunities based on the area's setting and activities. Public lands in the CCDPA contain the full spectrum of ROS classes: Primitive, Back Country, Middle Country, Front Country, Rural and Urban. Natural Resource Recreational Settings are indicators of the type and quality of recreational experience available in a given area. Utilization of the Recreation Setting Characteristics tool during the planning process will identify the types of recreation uses and public demands within the CCDPA.

Limits of Acceptable Change

A widely used management-monitoring technique in recreation is Limits of Acceptable Change (LAC). LAC utilizes indicators with prescriptive standards based on the recreation objectives to define acceptable limits. If the standards (acceptable limits) are exceeded the managing partners then make pre-determined management changes that will bring concerns such as: (1) visitor impacts on natural/cultural resources, (2) the physical, social and administrative natural resource recreation setting prescriptions or (3) the visitor's attainment of recreation outcomes back within acceptable standards.

Visitor Use/Demographics

Tracking visitor use and regional demographics is necessary for managing recreational use, identifying trends, projecting and prioritizing future recreation management, identifying natural resource recreation settings, carrying capacities, and LAC. Visitor use and demographic data is collected by means of traffic counters, visitor registrations, recreation use permits, visitor surveys, and from outside sources such as the Nevada Department of Transportation, Nevada Department of Tourism, Nevada state demographer's office, and the Nevada and California Statewide Comprehensive Outdoor Recreation Plans. Annual Visitor use data on BLM lands is tracked through the Recreation Management Information System (RMIS). Visitor and visitor use days in the CCDPA from 2006 through 2011 can be found in **Table 2-24**, Visitor and Visitor Use Days 2006-2011 in the CCDPA.

Table 2-24
Visitor and Visitor Use Days 2006-2011 in the CCDPA

Year	Visits	Visitor Days
2006	972,726	929,440
2007	1,010,192	948,757
2008	1,040,303	912,562
2009	972,392	863,017
2011	945,623	831,742
2012	1,007,842	840,653

Current Condition

Recreation Management Areas

Currently, there are no Recreation Management Areas that have been designated through the land use planning process within the CCDPA; however, the CCD manages developed and undeveloped recreational areas consisting of trailheads, campgrounds, interpretive sites, and fishing/floating access sites. Some of the trailheads are day-use only while others allow camping. Several of the trailheads provide access to both BLM-administered public land and USFS land (trails are discussed further in Trails and Travel Management). There are two Recreation Use Permit fee (RUP) campgrounds and one Individual Special Recreation Permit (SRP) site. The recreation sites provide excellent opportunities for activities such as camping, hiking, backpacking, horseback riding, wildlife viewing, sightseeing, OHV touring, fishing, hunting, and river floating.

The following are recognized as important recreation areas by activity based planning efforts, significant user demand, and/or through the Federal Register process. These areas will need to be evaluated for potential designation as Special Recreation Management Areas (SRMAs) during the planning process.

Sand Mountain Recreation Area. Sand Mountain Recreation Area is located twenty-five miles east of Fallon along Highway 50 in Churchill County. The recreation area consists of approximately 4,700 acres of public lands managed primarily for off-highway vehicle use and sensitive species habitat. The area provides a mix of open riding on the 600 foot high by one and one half by two mile wide dune complex and approximately seventeen miles of designated trails. Camping is allowed in a primitive camp area for RV and tents with services limited to a fee booth, six vault toilets and refuse containers. Approximately 1,280 acres are designated as open to OHV travel, 1,500 are designated as limited to designated trails, and 1,918 are closed to OHV travel. Due to the scarce resource of open sand dunes in the west, Sand Mountain draws recreational users from adjacent states including California, Oregon, Idaho, and Utah. The area is managed as a recreation fee site area by the Stillwater Field Office and was designated a recreation area in March of 1986 through a Federal Register Notice.

Prison Hill Recreation Area. Visible throughout Carson City, the approximately 2,450 acre Prison Hill Recreation Area has been set aside and dedicated as open space for the community of Carson City. This popular open space is available for those who wish to hike, mountain bike, horseback ride, ride off-highway vehicles (south end only), technical rock climbing, experience great views of the Carson Range and Pine Nut Mountains enjoy the quiet and nature photography. Prison Hill is located on the southeast side of town and has three main community parking areas. This area will be transferred to Carson City in 2013. (See note under Silver Saddle Ranch paragraph below.)

Silver Saddle Ranch. Located in the southeastern part of Carson City off Carson River Road, the ranch encompasses 702 acres that run along the east and west banks of the Carson River. The ranch connects public lands on Prison Hill and the Pine Nut Mountains. Once proposed as a location for residential development, the ranch is considered a key piece of property by Carson City residents and the BLM for maintaining open space and recreational and educational opportunities while preserving part of the natural Carson River environment. It is a great place to hike, bird-watch and soak up a rural experience that is fast disappearing in much of western Nevada.

Congress directed transfer of the Silver Saddle Ranch and federal public lands along the Carson River, including the existing Prison Hill Recreation Area (approximately 3,604 acres), subject to the reservation of a conservation easement, to Carson City under the authority of the Omnibus Public Lands Management Act of 2009 (Public Law 111-11, Section 2601). Though the actual transfer of these lands is not anticipated until sometime in 2013, when the transfer does occur Carson City will use the property for undeveloped open space, passive recreation, customary agricultural practices and wildlife protection. Carson City will construct new, and maintain existing trails and trailhead facilities, conduct fuels reduction projects, maintain or reconstruct any improvements on the property that were in existence on March 31, 2009, and allow the use of motorized vehicles on designated roads, trails and areas in the south end of Prison Hill.

Wilson Canyon. Wilson Canyon is located along the banks of the West Fork of the Walker River in Lyon County twenty miles south of Yerington along Highway 208. The area supports a strong OHV contingency and attracts both community and destination based visitors. Recreation opportunities include camping, fishing, equestrian use, hiking, picnicking and riding off-highway vehicles in the surrounding hills. This area is managed by the Sierra Front Field Office.

Hungry Valley Recreation Area. Located north of Reno, NV, the approximately 27,402 acre Hungry Valley Recreation Area is a popular off-highway vehicle riding area for OHV's, motorcycles and rock crawlers. The area attracts both community and destination based visitors from the Reno area and central California. Recreation opportunities are varied but the dominate activities include camping, general use target shooting and intensive off-highway vehicle and equestrian use. This area is managed by the Sierra Front Field Office.

Pah Rah Hills. Located south of Sparks, NV, the Pah Rah Hills area is a popular mountain bike riding area. The area attracts primarily community based visitors; however, it also has a high potential to attract destination based mountain bike use in the future if the activity is managed and promoted. Recreation opportunities include mountain biking, hiking, and general use target shooting. This area is managed by the Sierra Front Field Office.

Jumbo Grade / Virginia City. Located east of Washoe Lake, NV, in the Virginia City National Historic Landmark, the Jumbo Grade and Virginia City areas attract both community and destination based recreation users. Recreation opportunities are varied but the dominate activities include off-highway vehicle use, hiking, horseback riding and intensive OHV play near the Jumbo Grade OHV trailhead. This area is managed by the Sierra Front Field Office.

Lemmon Valley Motocross Area. Located north of Reno, NV, the 192 acre Stead Moto-cross site has been set aside specifically for motor-cross use. The difficulty in adequately managing the ongoing use and maintenance of this type of recreation site may pose potential public health and safety and BLM liability issues. Typically the course structures, constructed and maintained by the public with heavy equipment, include earthen jumps or ramps and banked turns designed with no known industry standards. Moreover, there are no partners or user groups under agreement with the BLM to manage or maintain the site. This site is designated open to OHV use and is managed by the Sierra Front Field Office.

Fort Churchill to Wellington Backcountry Byway. This byway is a 67 mile gravel surface road that provides a scenic drive through the foothills of the Pine Nut Mountains. Additional discussion can be found in **Section 2.4.4** National Backcountry Byways. Sections of the road are maintained infrequently and are prone to washouts. High clearance 4WD vehicles are recommended for travel on this route.

Faye-Luther Trail. The Faye-Luther Trail currently provides the only public trail access from the Carson Valley into the Carson Range of the Sierra Nevada Mountains. The trail system is a joint effort of the Humboldt-Toiyabe National Forest-Carson Ranger District, the CCD -Sierra Front Field Office, the American Land Conservancy, and the Carson Valley Trails Association (CVTA). The five-mile long Faye-Luther Trail provides majestic views of Job's Peak to the northwest and the Pine Nut Mountains to the east of Carson Valley. The non-motorized trail is open for dog-walking, hiking, horseback riding and mountain biking during the dry season and is popular for crosscountry skiing and snowshoeing in winter. The area is closed to overnight camping.

Special Recreation Management Areas (SRMA)

During the land use planning process, public lands that are identified as providing unique or outstanding recreational opportunities or potential opportunities, can be set aside as Special Recreation Management Areas (SRMAs). SRMAs are administrative units that traditionally have higher recreation use, require extra recreation investment or where more intensive recreation management is needed. Recreation Area Management Plans (RAMPs) are usually developed specifically for a SRMA to protect and enhance a targeted set of recreational activities, experiences, benefits, and desired recreation setting characteristics. Since recreation is the management focus and highest use value over other

resource uses, management of these areas provides for the long-term protection of the recreation resource.

Walker Lake and Indian Creek/East Fork Carson River are the only two sites within the CCDPA that are currently designated as SRMAs, through past land use planning process, due to the unique and identified recreational niche found in these areas. Refer to **Figure 2-11**, Special Recreation Management Areas, for location and boundaries of these two sites.

Indian Creek /East Fork of the Carson River SRMA. The Indian Creek recreation area consists of more than 7,000 acres of lands that are managed for public outdoor recreational use. Access is provided by Airport Road, off State Highway 89 midway between Woodfords and Markleeville, California. The 160-acre 30 unit campground is located on the west shore of Indian Creek Reservoir. The East Fork of the Carson River supports white water rafting and fishing. Additional discussion can be found in **Section 2.4.7** Wild and Scenic Rivers. Recreational opportunities include camping, picnicking, hiking, hunting, fishing, white water rafting, sailing, mountain biking, nature study, rock collecting, sightseeing and photography. While geographically located in California, the area is managed as a special recreation fee area by the Sierra Front Field Office.

Walker Lake SRMA. The Walker Lake Recreation area encompasses 87,700 acres along the east and west shorelines of Walker Lake near the town of Hawthorne in Mineral County. On the western shoreline along Highway 95, the recreation area consists of Sportsman's Beach Campground which includes thirty one individual camp sites, and the dispersed camping areas of The Cove, Tamarack, and Twenty Mile Beach. There are no developments along the eastern shoreline. Walker Lake offers a variety of recreational opportunities including swimming, picnicking, boating, bird watching, and water-skiing.

Extensive Recreation Management Areas (ERMA)

In addition to managing developed recreation sites ranging from minor improvements for parking to hosted campground areas to off highway vehicle areas, the CCD recreation program also has responsibility for managing dispersed recreation throughout the CCDPA. Public lands that are not identified as a SRMA but provide some form of recreational opportunities are managed as extensive recreation management areas. These areas are monitored for use but little or no facilities or use related services are provided.

Recreation management actions within an ERMA are limited to those of a custodial nature and address visitor health and safety, resource protection and use and user conflicts. Management decisions within ERMAs for recreation are considered equally with other resource uses and demands and recreation is actively managed on an interdisciplinary-basis along with other resources and resource uses. There are no designated ERMAs within the CCDPA at this.

2-11 Special Recreation Management Areas (Scoping Map 4.1)

Undeveloped/Dispersed Recreation

By definition, dispersed recreation is made up of small events distributed over large areas. Impacts, such as minor disturbances to soil and vegetation, are negligible and the environment tends to recovery quickly. It is the general policy of the BLM that undeveloped Federal lands under its administration are available to the public for dispersed camping and general recreation, with the following provisions:

- Camping is limited to 14 days within a 25-mile radius in a 28 day period
- Pack out what you pack in
- Avoid camping within 200 feet of any water source
- Do not leave campfires unattended.

Unless otherwise designated, most of the CCDPA is open for dispersed recreation use, which can be popular in many areas. Long-term cumulative impacts do occur in association with dispersed recreational activities and need to be monitored. These activities are normally, but not exclusively, linked to heavily used popular areas and can include soil compaction and erosion, noxious weed dispersal, the creation of unauthorized two-track, single track and non-motorized trails as well as the purposeful vandalism of natural and cultural resources. Over time, recreational activities can adversely affect sensitive soils, wildlife habitat, riparian areas and important cultural and historical sites.

Special Recreation Permits

The CCD administers over fifty commercial and competitive permits. These single and multiple event permits generally include OHV races and tours, horse endurance rides, dog trials, vendors, back country touring and outfitters and guides. Counties generally support and encourage these events as they provide economic benefits to the surrounding communities. Demand for permits is high.

Individual Special Recreation Permits

Individual SRPs are only issued at Sand Mountain Recreation Area for camping and use of the recreation area primarily by OHV enthusiast. Users have the option of purchasing a seven day permit for \$40 or an annual permit for \$90 (2012 figures) for use of the site. Revenue collected is returned to the site to provide for facility maintenance, staffing, law enforcement, and site improvements. An estimated 50-70,000 users visit the recreation site annually with roughly 60 percent of the users travelling from California. **Table 2-25**, Recreational Permit Data for Sand Mountain Recreation Area, presents permit sales and revenues for Sand Mountain Recreation Area from 2006 through 2011.

Table 2-25
Recreational Permit Data for Sand Mountain Recreation Area

FY	Permits			Revenue		
	Annual	Weekly	Total	Annual	Weekly	Total
2006	1,792	4,895	6,687	\$161,286	\$195,781.00	\$357,067
2007	1,609	4,798	6,408	\$144,826	\$ 91,937.00	\$336,763
2008	1,685	3,941	5,626	\$151,636	\$157,629.00	\$309,265
2009	1,605	4,373	5,977	\$144,408	\$174,918.00	\$319,326
2010	1,255	3,343	4,599	\$112,979	\$133,732.00	\$246,711
2011	1,073	2,697	3,770	\$96,585	\$107,890.00	\$204,475

Recreational Use Permits

Recreational Use Permits (RMPs) are issued to individuals or groups for short term recreational use at the Indian Creek Campground near Markleeville, California and Sportsman's Beach Campground at Walker Lake. Permits are issued at Indian Creek Campground through a camp host while Sportsman's Beach is self-pay. **Table 2-26**, Recreational Use Permit Data for Sportsman's Beach, reflects the fee collection at Sportsman's Beach from 2006 through 2011.

Table 2-26
Recreational Use Permit Data for
Sportsman's Beach

FY	Revenue	Permits
2006	\$ 2,979	490
2007	\$ 3,554	590
2008	\$ 3,438	573
2009	\$ 3,253	523
2010	\$ 2,653	397
2011	\$ 2,344	350

Vending

Issuance of vending SRP within the CCD has mostly been limited to the Sand Mountain Recreation area. Vending associated with specific SRP events is generally captured under the event permit. Vendors sell OHV related items, parts, accessories and clothing, food items or provide welding and repair services. Vendor permits issued at Sand Mountain are for a five year period with the requirement for annual validation and quarterly post use reporting. On average, there are six to eight permits issued annually.

Outfitter and Guide

Outfitter and Guide permits are issued at the District level for a period of ten years with the requirement for annual validation. Permits are issued to guides by the District Office closest to their residence or the office they hunt in the most. While one District has the lead for the permit, the other Districts in the state

provide authorization for the use of public lands in their area. The CCD manages approximately ten guide permits annually.

Letters of Agreement

Letters of Agreement can be used as an alternative to issuing special recreation permits when the proposed recreation use has no foreseeable impact on resources, and stipulations are not required. Agreements have been used to allow such activities as trail ride reenactments and educational events.

Forecast

While the demands for undeveloped, dispersed recreation on public lands had been increasing significantly over the last decade, the dispersed use of public lands has been static over the last several years due to the economic downturn and negative employment situation. As the economy recovers, disposable incomes go up and populations increase in rural areas, the demand for recreational opportunities is expected to sharply rise again.

The influx of off-road recreational users from outside the state of Nevada will continue to escalate due to strict enforcement of vehicle registration and environmental regulations in that state. This will continue to push OHV use into developed and dispersed areas within the CCD resulting in an increased need for additional management as well as resulting in negative impacts to other resources in areas with intensive or unregulated use.

Increase in popularity of high performance and multi-passenger vehicles such as utility terrain vehicle (side-by-sides) will continue to change the requirements for recreation services. Easier accessibility to rugged, remote areas by large groups and families will impact areas that have seen low visitation in the past. Demands for destination touring verses designated riding areas will expand.

Population increases in areas of urban interface will escalate demands for access to public lands near residential developments and the need to provide increased management and protection of resources. Areas with developed access such as the Faye-Luther Trail may experience negative impacts from over use as well as conflicts from multiple user groups such as hikers, equestrian and mountain bikers.

Existing facilities, including trailhead access to public lands, maintenance and public information, generally do not meet the needs of the recreating public within the CCD. This typically results in user created social trails or staging areas that account for the proliferation of new user defined recreation opportunities in areas that may have significant resource values.

The BLM continues to view heritage tourism as an aspect of resource protection, education, recreation, and sustainable economic potential for local communities. Resources important to American heritage remain a part of the urban interface landscape managed by the CCD and include rock art and

paleontology, caves used by Native Americans, and mining towns ranging from an active county seat within the Virginia City National Historic Landmark to ghostly remnants scattered throughout the CCD.

Key Features

Popular recreation sites within the CCDPA include the developed Indian Creek Campground and Walker Lake Special Recreation Management Areas, Sand Mountain OHV Recreation Area, Silver Saddle Ranch, and Grimes Point Archaeological Area, undeveloped or dispersed recreation areas, and Recreation & Public Purpose sites that are managed by local government agencies or organizations. Special Recreation Permits for motorized and non-motorized recreational uses are an important component of the recreation program in the CCD and include OHV races, non-speed OHV events such as poker runs, trail rides, and backcountry touring, and non-motorized events such as dog trials, mountain bike events, equestrian events, vending, reenactments, and weddings.

Increased activities observed at the local level include driving for pleasure, OHV use, fishing, hunting, camping, wildlife viewing, and mountain biking. **Table 2-27**, Popular Recreational Activities within the Planning Area, illustrates popular activities in the CCDPA for 2009 through 2011 obtained from the BLM RMIS database.

Table 2-27
Popular Recreational Activities within the Planning Area

Activity	Visitor Days		
	2009	2010	2011
Motorized Boating	682	683	779
Non-Motorized Boating	2,313	2,038	2,348
Camping/Picnicking	241,347	231,537	251,541
Pleasure Driving	22,767	22,199	23,123
Fishing	14,179	12,683	13,746
Hunting	61,094	58,912	64,366
Interpretation and Education	16,384	16,484	17,344
Non-Motorized travel	126,489	122,551	132,654
OHV Travel	349,205	337,596	302,620
Specialized Motorsport Events	488	44	1,244
Specialized Non-motorized Events	24,697	23,764	27,392
Non-motorized winter activities	3,268	3,145	3,407

Visitor Satisfaction Surveys

In order for the BLM to comply with the Government Performance and Results Act (GPRA), and better meet the needs of the public; a visitor satisfaction survey was conducted at 24 BLM recreation sites in 13 states during fiscal year 2011. The survey was developed to measure each site's performance to BLM GPRA related goals. The survey collected visitor satisfaction data regarding

visitor information (i.e. use of maps, signs, brochures), developed facilities, managing recreation use, resource management, BLM staff and customer service, and educational and interpretive materials. CDD sites used in the national survey included Sand Mountain OHV Recreation Area and Indian Creek Campground. Results of the survey for these two areas can be found on **Table 2-28**, GPRAs Results Table.

Table 2-28
GPRAs Results Table

Site	Overall Quality of Recreation Experience					Number of Respondents	GPRAs Satisfaction Measure ¹
	Very Good	Good	Average	Poor	Very Poor		
Sand Mountain Recreation Area	39%	53%	8%	0%	1%	199	91%
Indian Creek	54%	38%	7%	0%	0%	94	93%

¹percentage of site visitors satisfied overall with appropriate facilities, services, and recreational opportunities.

2.3.5 Comprehensive Trails and Travel Management

Travel management involves the infrastructure and legal rights to provide the public the opportunity to access and use specific public lands within the CCDPA. The BLM's travel management program includes transportation and access needs for ranchers, miners, energy development, recreationist, researchers, and others. The travel and transportation network on public lands is a vital link that enables use and management of these lands. BLM Manual 1626-Travel and Transportation Management (2011) requires the establishment of long-term, sustainable, multi-modal transportation system of open areas, roads, primitive roads, and trails that addresses public and administrative access needs to and across BLM managed lands and related waters.

The transportation network in the CCDPA consists of federal and state highways, county roads, roads built to facilitate industrial development, two track, single track trails for OHV's as well as single track trails for hiking, biking and equestrian use. An extensive network of official BLM roads consists of ditched and crowned gravel roads that are regularly maintained to an extensive array of unofficial roads and vehicle routes which were never formally constructed and which rarely receive maintenance. Many are "two-track" vehicle trails that were created and are maintained simply by the passage of motor vehicles. Non-motorized transportation network includes trails for equestrian, pedestrian and cycling activities. Refer to **Section 2.5.3** Transportation Facilities for detailed discussion on the existing road network.

Historically, OHVs have been used in the CCDPA for recreation and leisure activities, but they have also become indispensable tools for resource-related industries such as ranching, mineral exploration, and oil and gas production.

OHV clubs and organizations are present in the communities within the CCDPA. These groups hold OHV endurance, race, and challenge course events.

Current Level and Location of Use

Travel Management Areas

While no designated travel management areas exist within the CCD, the current management plan has addressed travel management on a case by case basis through land use plans or activity level plans. It should be noted that travel management for WSA's is limited to ways and trails that were existing at the time the area was designated as a WSA. Since the adoption of the CRMP in 2001, the following planning documents have also addressed travel management issues:

- *Carson City Lands Bill (2009)*: Restricted the use of motorized and mechanical vehicles on Federal Lands within the city as limited to roads and trails in existence at the time of passage of the act.
- *Southern Washoe County Plan Amendment (2001)*: Closed Fred's Mountain and Hungry Ridge to motorized travel, designated all lands not designated as open or closed to motorized travel, as limited to existing roads within the planning area.
- *Alpine County Plan Amendment (2007)*: Designated 5,521 acres of public lands as limited to designated roads and trails, 894 acres of the Faye-Luther Canyon as closed to motorized travel, 268 acres within the Indian Creek Recreation area as closed to motorized travel, 5,143 acres in Bagley Valley as limited to designated roads and trails and 378 acres as closed to motorized travel; 2,375 acres in Slinkard WSA as closed to motorized travel regardless of WSA status; designated a preliminary network of roads, primitive roads, and trail networks on 4 miles of non-motorized and 6.8 miles of motorized.

OHV Management Areas

Regulation 43 CFR 8342.1 requires the BLM to establish motorized travel designations for all public lands to promote public safety, protect resources, and minimize conflicts between multiple use groups. This is usually accomplished through the designation of motorized OHV management areas. During the RMP planning process, areas or roads must be classified as Open, Limited, or Closed to motorized travel activities. For legislative purposes, 42 CFR 8340.0-5 defines an OHV as "any motorized vehicle capable of or designated for, travel on or immediately over land, water, or other terrain." In general, the OHV term refers to off-road motorcycles, all-terrain and utility-terrain vehicles, jeeps, specialized four-wheel drives such as rock crawlers, race trucks and buggies, and snowmobiles. Certain authorized vehicles were excluded from this definition including non-amphibious registered motor boats; any military, fire, emergency,

or law enforcement vehicles while being used for emergency purposes; vehicles whose use is expressly authorized by the authorized officer, or otherwise officially approved; vehicles in official use; and any combat or combat support vehicle when used in times of national defense emergencies. The national objectives for OHV management are to provide for OHV use while protecting natural resources, promoting public safety, and minimizing conflicts among the various users of public lands.

An *Open* designation would allow for areas of unfettered motorized travel, regardless of existing roads or trails. A *Closed* designation would close an area to motorized travel activities to protect public health and safety and to protect significant resource values with the exception of administrative use. A *Limited* designation may have various meanings: limited to types or modes of travel, such as foot, equestrian, bicycle, motorized; limited to existing roads and trails; limited to designated trails, closed at certain times of the day or season of the year, or for other reasons and would have to be specified in the designation. Public lands that have not been designated are generally managed as open areas until a travel management plan has been completed. While not developed through a travel management plan, **Table 2-29**, Motorized Travel Designations in the CCDPA, lists the acreages that have been designated under various land use plans or Federal Register notices. Open areas are either opened specifically for designated OHV riding areas or open by default because they did not fall into a closed or limited designation in the Lahonton RMP or the Walker RMP.

Table 2-29
Motorized Travel Designations in the CCDPA

Travel Classification	Acreage*
Open, OHV designated areas	28,819
Closed to motorized	31,822
Limited to designated roads trails	177,574
Limited to existing roads and trails	764,031
Limited by season	13,725
Open by default	3,789,891
Total	4,805,862

* Acreage based upon available data, actual acreage may vary based upon use of old documents verses GIS calculations.

** Areas designated open by Lahonton RMP or Walker RMP based upon being neither closed nor limited.

Commercial, Competitive and Organized Groups

The use of roads and trails by motorized groups to conduct off-highway vehicle events has been a primary component of travel management within the CCDPA. Commercial, competitive, and organized motorized groups utilize roads and trails in both the urban and rural areas for local and regional recreational events. Motorized uses include events such as the annual Vegas to Reno Off Road Race that has been authorized for the past 16 years. This event uses roughly 225

miles of county and BLM maintained roads, sand washes and primitive routes for their designated point to point course which starts in the town of Beatty and ends in Dayton 534 miles later. Other OHV events such as the VORRA Hawthorne, Yerington, and Fallon OHV races use segments of roads, and primitive routes to hold their events on circular courses of 40 to 60 miles. Competitive motorcycle races from local clubs utilize single track trails in areas such as the Dead Camel Mountains and the Virginia City area. Motorized groups such as the Modesto Ridge Runners, who have been active for over 30 years, and the Sierra Trail Dogs utilize roads and trail systems to sponsor rally's and poker runs that are non-speed events for 4WD vehicles and motorcycles. Backcountry or guided touring by commercial and individuals has become more popular in recent years. This includes the use of four-wheel drive vehicles such as individual SUV's or technical off-road vehicles, ATV's and side-by-side vehicles. Roads and trails within the CCDPA are also utilized by groups to access public lands for dispersed recreational activities throughout the year.

Non-motorized events and activities that utilize the travel management system include equestrian endurance events, endurance runs or bike rides, dog trials, and wagon trail reenactments by schools or special interest groups. Hiking trails are increasingly in demand in the urban interface areas, but also provide access to more remote recreation areas such as wilderness study areas.

Forecast

The increased development of private lands adjacent to public lands in the urban interface will necessitate proactive management of trail and road systems and will influence travel management decisions and direction.

The use and popularity of OHVs should continue to grow well into the future increasing the demand for specialized trails and designated OHV areas. The urban interface within the Sierra Front Field Office and dispersed areas throughout the Stillwater Field Office will continue to see an increase in off-road OHV use.

Technological advancements will continue to change the type of use and demands on travel management. For example the advent of all-terrain vehicles in the 1990s has had significant impact on single track trails used by motorcycles. Today, the increasing popularity of utility vehicles is having an impact on trails created by all-terrain vehicles due to their wider wheel base.

Areas rich in cultural resources and areas popular for dispersed motorized and non-motorized recreational use will need increased OHV and travel management focus on designated roads and trails so as to maintain or protect the resources.

The increase in environmental regulations, restrictions on motorized recreational activities and loss of OHV riding areas in California will continue to impact lands in Nevada. More recently, the implementation of travel

management plans on USFS lands in California and Nevada will further impact areas in the CCDPA by driving OHV users onto public lands managed by the CCD. Increases in the amount of cross-country riding and trail development in areas such as Hungary Valley, Pine Nut Mountains, Wilson Canyon and Fairview Peak by motorcycle and 4WD clubs has increased over the last several years.

Backcountry touring or scenic driving by private SUV's and commercial companies has increased, requiring the need for improved infrastructure for road signage and road/trail maps. Interest in commercial operations for backcountry travel using high-end race style vehicles and the use of Utility Terrain Vehicles (UTVs) or side-by-sides, has created a new niche.

Key Features

Major roads crossing public lands within the CCDPA include Highways 395 & 50 and Interstate 80. An extensive network of State, county, city, and utility right-of-ways and BLM maintained roads provide access throughout the CDD. Primitive routes, two-track and single-track trails, provide access to remote areas, usually by means of 4WD or OHV. The BLM road maintenance system includes 789 miles of maintained roads. Non-motorized routes of travel include equestrian and pedestrian designated trail sections at Faye-Luther Canyon, Prison Hill Recreation Area, Indian Creek Recreation Area, Silver Saddle Ranch, Sand Mountain Desert Study Area, and Grimes Point Archaeological Area.

2.3.6 Renewable Energy

Renewable energy resources include wind, solar, biomass, hydropower, and geothermal. In recent years, the Department of Interior in conjunction with the Departments of Energy, Agriculture, and the Defense has developed policy for NEPA compliance for energy projects. This policy development is in response to the nation's increased focus on achieving energy independence from foreign fossil fuel energy supply. The potential for renewable energy resources in the CCDPA was not evaluated in the 2001 CRMP. Wind and solar resource production is permitted via ROWs through the Lands and Realty Program, whereas geothermal resources are considered leasable. However, for ease of reading, all renewable energy resources are discussed in the following sections.

Geothermal

Current Condition

As of January 18, 2012, there were 193 geothermal leases totaling approximately 436,185 acres located in the Carson City District. Six areas are identified within the CCDPA with active geothermal power production of approximately 208 MW of electricity. These include Steamboat Hills near Reno; Dixie Valley; Wabuska near Yerington; and Soda Lake, Stillwater, and Salt Wells near Fallon. Another three areas have active exploration projects with proposed future energy production including Southern Gabbs Valley, Northern Edwards Creek Valley, and the Hazen area. Additional areas that have active geothermal

leases but minimal or no exploration include Rhodes Salt Marsh near Mina, Winnemucca Ranch and Honey Lake areas north of Reno.

As of January 18, 2012, a majority of high interest geothermal areas have authorized leases on the CCDPA. Substantial exploration and/or development projects are now in progress in at least six areas, including Dixie Valley, Edwards Creek Valley, Gabbs Valley, Soda Lake, Patua (Hazen area), and Salt Wells. Additionally, future projects are proposed for the Stillwater (west Stillwater Range) area.

Forecast

Due to the numerous geothermal projects on the district, the large number of acres under lease, the continued interest in new projects, and the renewable energy policies of the executive branch, there are reasons to believe that the CCD will continue to have an active geothermal program.

The near future will likely see more emphasis on exploration and development, as the known active geothermal fields are already under lease and being explored for resource potential. There is also potential for hybrid geothermal-solar plants; the Stillwater plant on private land recently developed the first hybrid plant in the world. Hybridization includes utilization of public land for both solar and geothermal fields, as well as reheating of geothermal fluid through solar means to allow recirculation through a power plant's heat exchanger. The CCD has been approached about hybridization of an existing geothermal project on public land, but no applications have been formally submitted.

Exploration activities usually utilize at least some rights-of-way for road systems. Development activities will almost always necessitate power lines, including possible major rights-of-way for bi- or multi-state transmission lines. A continued, active geothermal program also forecasts an increase in road and power line rights-of-way.

Key Features

Figure 2-12, Active Geothermal Leases, shows the current geothermal leases within the CCD as of January 18, 2012. Geothermal plants that produce electricity are also shown.

Wind

Current Condition

The CCD currently has four authorized wind testing projects listed in **Table 2-30**, Current Wind Testing Projects in the CCD. These projects represent approximately 29,307 acres of potential wind development if the testing data shows that the areas are viable and the proponents proceed with energy development.

2-12 Active Geothermal Leases (Scoping Map 10.2)

**Table 2-30
Current Wind Testing Projects in the CCD**

Serial Number	Customer Name	Project Name and Area	Case Type
NVN 077701	Ridgeline Nevada Energy LLC	Pah Rah Range Ridgeline testing	Testing Type 2
NVN 080937	Lily Invstmnt Holdings LLC	Pah Rah Range Lily testing	Testing Type 2
NVN 085237	Windqwest LLC	Kibbie Flat (Mineral and Nye counties); E Side of Cedar Mts.	Testing Type 2
NVN 085748	Altagas Renewable PAC Energy	Vinegar Peak; NW Virginia Range	Testing Type 2

The Ridgeline project is on hold pending an eagle determination to be made by the US Fish and Wildlife Service. The other three projects expire on December 31, 2012. Under current wind energy regulations, testing projects cannot be renewed unless the application to renew is accompanied by an application for development (and a Plan of Development).

The District also has a number of pending wind testing applications where no authorization has been granted. Many projects are currently awaiting decisions to be made on raptors, such as eagles and two types of sage grouse and the protection of their habitat.

Forecast

It is difficult to predict what effect pending decisions will have on wind projects. Applicants have already been withdrawing applications and cancelling projects in areas that are expected to be designated as key sage grouse habitat.

Solar Energy

Current Condition

National Renewable Energy Laboratory shows that portions of the CCDPA have high potential for solar energy, especially Lyon and Mineral counties. Luning Solar applied for a solar right-of-way on May 20, 2008. Grant was issued for a 575 acre project area on July 15, 2010. The project includes a 500 acre area for up to three phases of solar development, and 75 acres for a distribution line into a nearby substation. To date, construction of this project has not begun. The District also has a pending right-of-way application for solar development near Naval Air Station Fallon. However, the public land which the proposed project would encumber is in a possible land tenure adjustment area, thus, grant processing has been on hold pending land status decisions.

Forecast

Nevada has a high potential for solar energy. However, major power lines for distribution remain a challenge. BLM has been approached about the co-location of solar and geothermal projects. Due to solar having a relatively quick turnaround to development (a year to three years in some instances), whereas

geothermal having a longer development timeline to production (typically five to seven years), it is possible that hybrid solar-geothermal projects in the same lease area will be seen in the near future.

Moreover, as solar becomes less expensive and technologies become more available, collocation of solar on roof-tops very near buildings will likely become more prevalent. Indeed, communication facilities on the District often use solar panels on mountain tops with no power lines as a viable alternative, or even as back-up for power line failures. It can be reasonably expected that this type of solar use (ancillary to existing and proposed projects) will continue in the future.

Other (Biomass/Hydropower)

There are no biomass production facilities and no pending applications for biomass production within the CCDPA. There are numerous ways of using organic matter to directly generate power and heat, process it into fuels, or convert it to organically derived chemicals and other materials. Biomass sources are quite varied and include agricultural food and feed crops, crop waste and residue, wood waste and residues, animal waste, and municipal wastes.

Although there are some hydropower facilities on withdrawn lands, there are no hydropower facilities on BLM-administered lands within the CCDPA. The potential for additional hydropower generation in the CCDPA is low, except for retrofitting existing water pipelines.

Forecast

The District has been approached regarding a reservoir/fore bay approach to hydroelectric power; that is, storage of water to run through turbines to a lower reservoir during peak surges – with pumping occurring in off-times to replenish the upper reservoir from the fore bay, thereby producing energy.

However, at this time, such a project is only a proposal and no formal application has been received by BLM.

Due to water rights allocation issues that go along with the most arid state in the Union, hydropower is not expected to be a renewable with much development potential.

Key Features

The indicators for renewable energy include the existence of current renewable energy facilities, pending or authorized applications, and renewable energy development in neighboring areas with similar geography. There are numerous geothermal power plants within the CCDPA, however, no other renewable energy facilities exist. However, the CCD could potentially receive ROW applications for wind and solar energy facilities initiated under the new national policies for both wind and solar energy development on BLM-administered lands. Isolated locations within the CCDPA may be suitable for wind power

development provided that suitable topographic locations, access to the power grid, and transmission line ROWs could be developed economically. The CCDPA may be suitable for solar power development provided that accessibility to suitable topographic locations, cost reduction in installation and distribution of electricity, access to the power grid and transmission line ROWs, and technological advancement in more efficient systems are obtainable.

2.3.7 Lands and Realty

The goals of the lands and realty program are to manage the public lands in support of goals and objectives of other resource programs, provide for uses of public lands in accordance with regulations and compatibility with other resources, prevent undue and unnecessary degradation, and improve management of the public lands through land tenure adjustments.

The following section describes the current conditions and characterization of lands and realty within the CCDPA. Surface land ownership within the CCDPA is summarized in **Table 2-31**, Surface Land Ownership in the CCD.

Table 2-31
Surface Land Ownership in the CCD

Land Status	Acres
BLM	4,805,862
Private	1,517,253
State of Nevada and California	42,679
Other federal (Tribal, BOR, National Wildlife Refuge, USFS, and other federal lands)	2,278,570
Other	43,794
Water	252,786
Total	8,940,944

Current Condition

Land Tenure

There is a large acreage of public land within the urban interface of the Sierra Front Field Office. The urban areas of Reno/Sparks, Carson City and Gardnerville/Minden have experienced significant growth over the past 10-15 years. Although the growth rate has declined in the past few years, the demands on the public lands remain. The local communities expect public lands to be made available for future commercial and residential development, infrastructure, schools, flood protection, parks and open space among other things. Some of the demands have been met through the sale of land with commercial and residential development potential, acquisition of environmentally sensitive lands, leasing or conveying lands under the R&PP Act for schools, parks and other public purposes.

Current CRMP land tenure designations include Disposal, R&PP Act disposal and Retention, which are defined as follows:

Disposal. Public lands have potential for disposal when they are isolated or difficult to manage. Disposal actions are usually in response to public request or application, such as community expansion. Disposals result in a title transfer, wherein the lands leave the public domain. All disposal actions are coordinated with adjoining landowners, local governments, and current land users. **Figure 2-13, Disposal Lands**, shows lands in the CCDPA that are designated for disposal within the CRMP.

R&PP Disposal. The Recreation and Public Purposes Act (R&PP) of 1926, as amended, allows for the disposal of parcels either directly through patent, or through an interim leasing arrangement to meet an approved Plan of Development prior to disposal through patent. R&PP disposal entities are limited to nonprofit corporations and local governments'. Under this act, land is allowed to be rented and purchased for less than fair market value, and in some instances, for free.

Retention. Most public land under the jurisdiction of the Bureau of Land Management in the CCDPA is designated for retention; that is, to be kept for the public and managed for multiple uses and sustained yields.

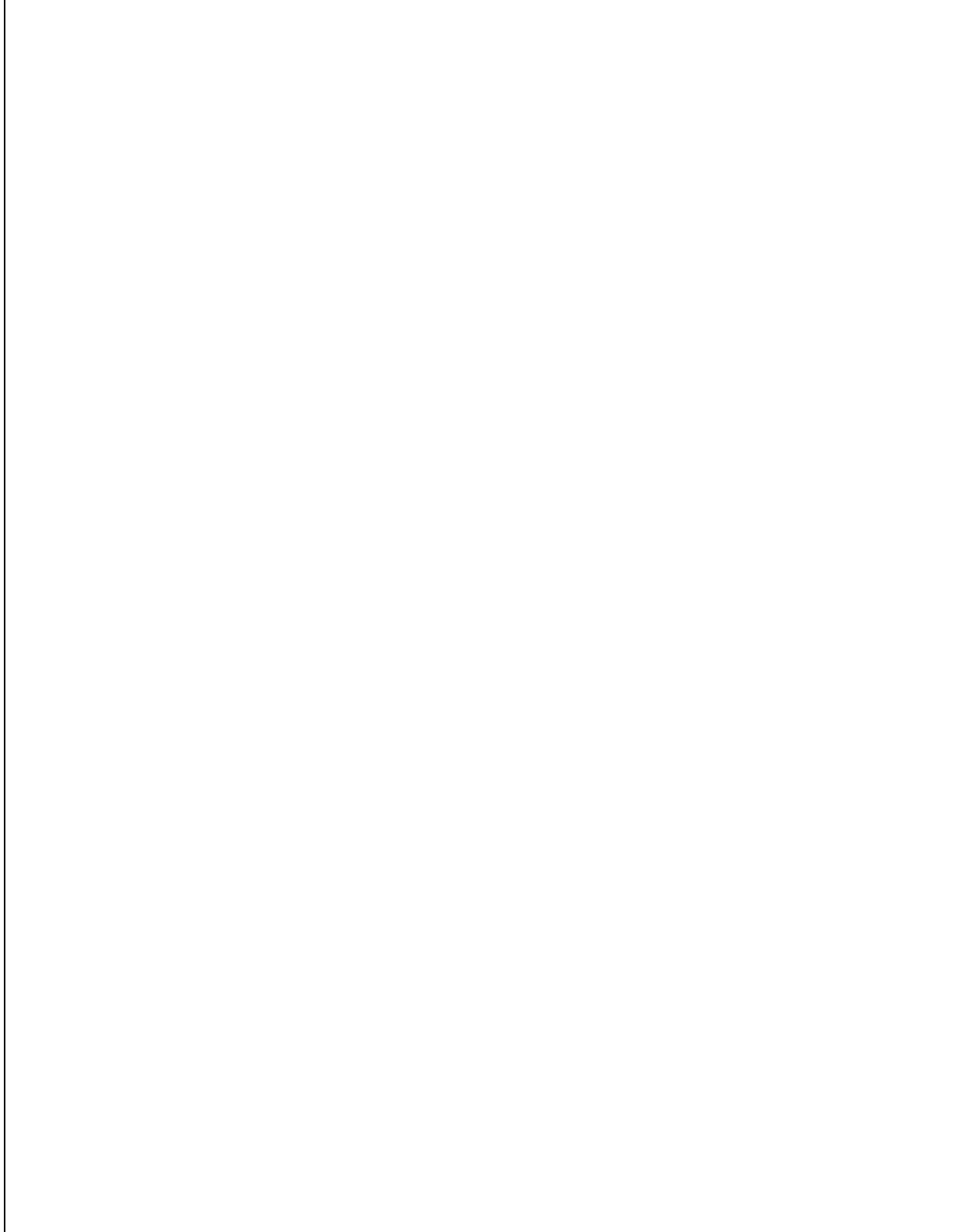
Methods of land tenure adjustments include:

Sale. Public land sales are managed under the disposal criteria set forth in Section 203 of FLPMA. Public lands determined suitable for sale are offered on the initiative of the BLM. The lands are not sold at less than fair market value. Lands suitable for sale must be identified in the RMP. Any lands to be disposed of by sale that are not identified in the current RMP require a plan amendment before a sale can occur.

Acquisition. Acquisition of lands can be pursued to facilitate various resource management objectives. Acquisitions, including easements, can be completed through exchange, Land and Water Conservation Fund purchases, donations, or receipts from the Federal Land Transaction Facilitation Act sales or exchanges.

Exchange. Land exchanges are initiated in direct response to public demand, or by the BLM to improve management of the public lands. Lands need to be formally determined as suitable for exchange. In addition, lands considered for acquisition would be those lands that meet specific land management goals identified in the RMP. Non-federal lands are considered for acquisition through exchange of suitable public land, on a case-by-case basis, where the exchange is in the public interest and where the non-federal lands to be acquired contain higher resource or public values than the public lands.

2-13 Disposal Lands (Scoping Map 11.1)



Special Legislation. Congress has the authority to pass legislation which directs the BLM to make land tenure adjustments. These land tenure adjustments are wholly dependent on the verbiage of the Act, and thus cannot be summarized as each Act is unique.

Withdrawal. Withdrawals are used to preserve sensitive environmental values, protect major federal investments in facilities, support national security and provide for public health and safety. Withdrawal segregates a portion of public lands and suspends certain operations of the public land laws, such as mining claims. Certain stock driveways are also withdrawn. Federal policy now restricts all withdrawals to the minimum time and acreage required to serve the public interest, maximize the use of withdrawn lands consistent with their primary purpose, and eliminate all withdrawals that are no longer needed.

The CCD has disposed of approximately 4,574 acres since January 1, 2001. The disposals were made up of ten R&PP patents (623 acres); two Desert Land Entries (380 acres), seven land exchanges (2,420 acres), special legislation (728 acres) and six sales (803 acres). During that same time frame, CCD acquired approximately 34,254 acres in fee. The acquisitions were comprised of six land exchanges (30,968 acres); seventeen FLPMA (Southern Nevada Public Land Management Act and Land and Water Conservation Fund funded) acquisitions (2,916 acres); one donation (30 acres) and one transfer from another agency (340 acres). CCD has also acquired 1,873 acres of conservation easement. No access easement acquisitions were acquired.

The BLM has moved toward the consolidation of BLM-administered lands to benefit the public. To achieve this goal, candidates for land tenure adjustment through disposal, sale, exchange, possible special legislation, or acquisition include parcels that are difficult to manage or that do not have public access, relatively small parcels adjacent to other federal or state-managed lands, parcels that would increase conservation of natural resources, and parcels that increase access/use of public lands. The majority of the BLM-initiated land tenure adjustments have occurred near communities within the urban interface areas.

Land Use Authorizations

Land Use Authorizations can take on a number of different forms under the lands program. The BLM issues ROWs, permits, and leases under the authority of FLPMA (Section 302), the Mineral Leasing Act (MLA), and other authorities for surface-disturbing activities on public lands that are not eligible for authorization under other laws and regulations.

Rights-of-Way. The CCD is responsible for managing approximately 1,443 ROWs on public lands within the RMPPA. ROWs are the most common form of land use authorizations issued to permit the use of public land by private, commercial, and governmental entities. ROWs are authorized under 43 CFR

§2800 and 2880. **Table 2-32**, ROWs in Carson City District, shows authorizations granted and applied for between January 1, 2001 and December 31, 2011.

Table 2-32
ROWs in Carson City District

Calendar Year	ROWs Authorized	ROWs Applied For
2001	36	37
2002	23	26
2003	30	35
2004	32	33
2005	24	37
2006	32	35
2007	38	39
2008	22	46
2009	26	23
2010	20	28
2011	23	47

ROWs include power lines, pipelines, roads, communication facilities, etc. Over the past 10 years, the CCD has averaged issuance of approximately 28 ROW authorizations per year with an average of 35 applied for annually. Permits have varied due to customer demand and typically longer processing time. Issuance of permits average about 1-3 per year.

Communication Facilities. Communication facility use applications, on both existing and new sites, have increased on BLM-administered lands within the CCDPA. Communication site applications are granted through what is called a “lease,” although still under the right-of-way program. Due to numerous US Forest Service and BLM mountaintops being utilized by the same industry players, communication use grants are called leases (as the Forest Service calls them) to make it easier for the communication users. The CCDPA has 110 authorized communication facilities

Several sites within the CCDPA host communications equipment for various public and private tenants such as phone companies, local utilities, and local, state, and federal agencies.

Permits. Section 302 of FLPMA allows for the issuance of minimal impact permits. While rights-of-way are typically linear in nature (with exceptions such as renewable energy projects and communication facilities) and long term, permits tend to be site-type authorizations for short term (3-year maximum) such as apiary sties, storage yards, etc.

Leasing. Section 302 leasing is a type of land use authorization that is often used for more permanent and impactful uses than FLPMA permits, usually with significant financial investment associated with the facilities. Leasing of public land can also be done for the benefit of local governments, special districts, or public groups in accordance with the terms of the R&PP or other laws such as the Airport Leasing Act. Leases authorize long-term uses, unlike permits.

Unauthorized Use/Trespass. While not an authorized land use, trespass is handled under the same regulations as right-of-way and FLPMA leases (2800, 2880, and 2900 depending on the nature of the trespass). Trespasses are unauthorized use of public land that requires the removal of facilities and reclamation, or authorization for continued use. The CCD has worked to resolve trespass cases as they have been identified. A total of seven realty trespass cases were established between 2001 and 2011. However, trespass can also be resolved without establishing a case file, through such means as amending a current case to incorporate unauthorized facilities and through informal means such as an “issues” letter to the alleged trespasser to prompt resolution. Trespass cases are prioritized based upon human health and safety and severity of resource damage.

Forecast

Land Tenure

The BLM will continue to pursue acquisitions, sales and land exchanges within the CCDPA on a case-by-case basis and respond to special legislation and applications or proposals from other federal agencies, state and local government and the general public as staff and priority workload allow. All proposals will be given full consideration of public benefits and land management goals.

An increase in demand for land tenure adjustments is anticipated. In addition to continuing interest in availability of public lands for public and private enterprises, a number of proposals for federal legislation to transfer public lands to local governments or other entities are currently under consideration. These proposals appear to reflect a desire for more local control of public lands, particularly in the vicinity of populated areas. Whether through special legislation or under current laws and regulation, increased demand for conveyances of public land or interest in lands out of federal ownership is likely. Although acquisition of land or easements for public access purposes has not been a major focus for CCDO in recent years, in part due to limited opportunities, as the demand for securing public access for recreational use of public lands near growing communities continues to increase, acquisitions related to access are anticipated to increase also.

Land Use Authorizations

Demand for land use authorizations in the CCDPA is anticipated to increase in correlation with future residential and commercial development and increasing population and energy demand needs. The last four years held the two highest years for number of applications for ROWs.

Key Features

Land Tenure

Areas with anticipated higher potential for land tenure adjustments include inholdings or lands adjacent to specially designated areas such as ACECs, Special Management Areas, WSAs, and existing or potential recreation sites. In addition, public lands interfacing with areas of increasing population growth, parcels that are landlocked, and parcels that are difficult or uneconomic to manage may be targeted for potential land tenure adjustments.

Land Use Authorizations

Management of current land use authorizations, through monitoring, compliance inspections, amendment, and renewals already present a significant workload district wide. In addition, new applications for rights-of-way, permits, and leases continue to be received for projects across the district. Urban interface areas such as with Reno, Sparks, the North Valleys, Carson City, and Minden/Gardnerville typically see the greatest demand for new authorizations and trespass activities. Rural areas also have the potential and demand, however, for land use authorizations. These demands are not expected to decrease or stabilize – indeed, they are expected to increase.

2.4 SPECIAL DESIGNATION CONDITIONS

2.4.1 Areas of Critical Environmental Concern

An ACEC is defined in FLPMA, Public Law 94-579, Section 103(a) as an area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, geologic, paleontological, or scenic values, to fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards. BLM prepared regulations for implementing the ACEC provisions of FLPMA. These regulations are found at 43 CFR 1610.7-2.

The ACEC designation is an administrative designation that is accomplished through the land use planning process. It is unique to the BLM in that no other agency uses this form of designation. Nominations for the establishment of an ACEC can be made internally by the BLM or externally by the public or special interest groups and only public lands are included in ACEC boundaries. During the planning process, the BLM evaluates each nominated area to determine if it meets the relevance and importance criteria listed in BLM Manual 1613. It is important to note that to be designated as an ACEC; an area must require

special management attention to protect the important and relevant resource values. To be considered a potential ACEC, a nomination must meet one or more of the *relevance criteria* and the *importance criteria* listed below:

Relevance Criteria

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans);
2. A fish or wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species, or habitat essential for maintaining species diversity);
3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relict plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features); and/or
4. A natural hazard (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the RMP process that it has become part of a natural process.

Importance Criteria

1. Does it have more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource?
2. Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
3. Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA?
4. Does it have qualities that warrant highlighting in order to satisfy public or management concerns about safety and public welfare?
5. Does it pose a significant threat to human life and safety or property?

Designation of an ACEC does not automatically prohibit or restrict other uses in the area. The one exception is that a mining plan of operation is required for any proposed mining activity within a designated ACEC.

There are six ACECs totaling 21,712 acres on BLM-administered lands in the CCDPA (**Figure 2-14**, Area of Critical Environmental Concern). The size of

2-14 Area of Critical Environmental Concern (Scoping Map 4.1)

each area and the values it is designed to protect are listed in **Table 2-33**, ACECs within the CCD. Currently, activity level management plans for most of the ACECs have not been completed or are in need of updating to reflect the impacts from surrounding development or resource uses. During the planning process, all ACEC's will be re-evaluated to ensure the relevance and importance criteria are still applicable. There are six ACECs that have been nominated internally or externally that are in various stages of review (see **Table 2-34**, ACEC Nominations within the CCDPA).

Table 2-33
ACECs within the CCD

ACEC Name	Acreage	Type	Status	Field Office
Stewart Valley Fossil Site	16,000	Paleontological	Completed 1986	Stillwater
Incandescent Rocks Natural Scenic	1,075	Scenic	Completed 1984	Sierra Front
Steamboat Hot Springs Geyser Basin	40	Unique Geologic Feature	Completed 1984	Sierra Front
Pah Rah High Basin Petroglyph	3,881	Cultural	Completed 2001	Sierra Front
Carson Wandering Skipper	243	Biological	Completed 2001	Sierra Front
Virginia Range Williams Combleaf Habitat Area	473	Biological	Completed 2001	Sierra Front

ACEC Description

Stewart Valley Fossil Site ACEC

The Stewart Valley ACEC is a 16,000 acre paleontological site located in the east central part of Mineral County within the Stillwater Field Office. The ACEC was officially designated as a Research Natural Area ACEC in the land use planning process through the BLM Walker Resource Management Plan in 1986 (BLM, 1986). The site is situated within a basin formed by the uplifted fault-block system typical of the Basin and Range physiographic province. The ancient lake bed that was formed by the uplifting is filled with sediments from the Miocene age and includes fossil specimens of mammals, clams, snails, fish, insects, pollen and leaves. An ACEC Management Plan was completed in September 1990 with the objective of protecting fossil resources while allowing the continuation of authorized scientific study. The plan restricted recreational activities, limited vehicles to designated roads and trails, prohibited the hobby or commercial collection of fossils, and provided for a mineral entry withdrawal of 1,420 acres for the most sensitive portion of the ACEC. Due to a 20 year regulatory limitation, the withdrawal automatically expired on January 9, 2010.

Incandescent Rocks Natural Scenic ACEC

The Incandescent Rocks ACEC is a 1,072 acre site located in southern Washoe County roughly 25 miles north of the Reno-Sparks area and five miles east of

Pyramid Lake. The significance of the site centers on the rhyolitic outcrops and ridges that are characterized by red, yellow, orange and purple hues that appear to fluoresce or glow as light reflects off the walls. The ACEC was designated through the Reno Management Framework Plan in 1983 and incorporated into the Lahontan Resource Management Plan in 1984. An ACEC Management Plan was completed in 1988 with the objective of preserving and protecting the natural integrity and scenic resources of the area. Potential threats to the resource were identified as being OHV use and mineral exploration and extraction.

Pah Rah High Basin Petroglyph ACEC

The Pah Rah High Basin Petroglyph ACEC is a 3,881 acre site located north of Hwy 80 East and approximately 6 miles northeast of Sparks, Nevada. The significance and relevance of this site is primarily cultural but also includes historical and scenic values. Evidence indicating the site was used by Native Americans for over 3,500 years includes petroglyphs, rock rings, stone artifacts, as well as seasonal and residential camps. This site is culturally significant to both the Southern Washoe and Northern Paiute Tribes. The objective of the ACEC, which was established by the Washoe County Plan Amendment in 2001, was to protect the site from urban expansion, increased recreational use of OHV's, theft of artifacts and acts of vandalism.

Carson Wandering Skipper ACEC

The Carson Wandering Skipper ACEC is a 243 acre site located approximately 25 miles north of the Reno-Sparks area along Winnemucca Ranch Road. The significance of this site evolves around the ESA listed Carson Wandering Skipper (November, 2001), a small butterfly that occupies grassland habitat on alkaline substrate in California and Nevada. This area is one of only four known populations for this subspecies that provides the essential habitat for their existence. Designation of the ACEC serves to protect the habitat from agricultural use and the expanding residential and commercial development from Reno and Sparks to the south. This site was designated an ACEC by the Southern Washoe County Plan Amendment signed in 2001. Private lands containing core habitat for the Skipper adjacent to the ACEC have been acquired since the ACEC designation and need to be assessed for inclusion as part of the existing ACEC during the planning process.

Virginia Range Williams Combleaf Habitat ACEC

The Virginia Range Williams Combleaf ACEC is a 473 acre site located northeast of Washoe Lake two miles east of Hwy 395 between Carson City and Reno. The ACEC was established for the Williams combleaf, a plant of the mustard family that has the potential to be listed as an endangered species. Essential habitat encompasses barren sandy or clay soils at the bottoms of seasonal pools or lakes. The objective of the ACEC designation was to preserve the habitat from indiscriminant OHV use, livestock grazing and water diversions. A conservation agreement was entered into between the BLM and U.S. Fish and

Wildlife signed in 1997 to provide long-term protection for Williams Combleaf as an action to preclude listing the species as a threatened or endangered species under the Endangered Species Act. This site was designated an ACEC by the 2001 Southern Washoe County Plan Amendment.

Steamboat Hot Springs Geyser Basin ACEC

The Steamboat Hot Springs Geyser Basin ACEC is a 40 acre site located northeast of Washoe Lake one-half mile west of Hwy 395 between Carson City and Reno. The ACEC was established to protect and interpret the unique geyser field and related thermal features found at Steamboat Hot Springs. At one time, the geysers were considered to be the third most active geyser area in the United States but the formerly active geysers have reportedly become inactive resulting in the cessation of hot water flowing upon the surface. A management plan was prepared for the ACEC in 1983 with the objective of protecting the site from OHV use, withdrawal from mineral entry, protection of the Steamboat buckwheat, and protection of the water table from development impacts but it is not known if the plan was ever signed or in effect. Steamboat Hot Springs also contains the federally listed (July, 1986) Steamboat buckwheat which is restricted to substrates derived from hot springs deposits in the Steamboat Hills. This species indirectly benefits from being within the ACEC; however there are no special management goals for the plant within the management plan. The ACEC was designated in the 1984 Reno Management Framework Plan.

Potential ACECs

Six nominations for ACEC designations within the CCDPA have been made in the past and are in various stages of review but the nomination process has yet to be finalized. **Table 2-34**, ACEC Nominations within the CCDPA, details areas that were nominated prior to the start of the RMP revision. These nominations, along with any new nominations brought forward during the planning process by the public or the BLM will be evaluated for the relevance and importance criteria to be considered as potential ACECs. All ACEC nominations meeting one relevance criteria *and* at least one importance criteria will be considered under at least one alternative in the RMP process.

Table 2-34
ACEC Nominations within the CCDPA

Name	Acreage	Relevance or Importance	Field Office	Nomination
Williams Combleaf	762	Biological	SFFO	Internal
Pine Nut Range				
Churchill Narrows	5,900	Biological	SFFO	Internal
Buckwheat				
Sand Mountain	28,931	Biological	SFO	Internal and External
Stillwater Mountain	325,121	Cultural	SFO	External
Range				

**Table 2-34
ACEC Nominations within the CCDPA**

Name	Acreage	Relevance or Importance	Field Office	Nomination
Grimes Point	22,513	Cultural	SFO	External
Ruhenstroth	2,340	Paleontological	SFFO	Internal
Steamboat Buckwheat	80	Biological	SFFO	Internal and External

2.4.2 Natural Areas

The Outstanding Natural Area (ONA) and Research Natural Area (RNA) designations were established by Congress in the 1960's primarily to protect unique scenic, scientific, educational, and recreational values. ONA's are areas of high scenic values where little man-made alterations have occurred and RNA's are areas where natural processes are allowed to predominate and the area is primarily preserved for the purpose of research and education. Recreation activities within natural areas focus on education and interpretation of the unique resources. Since the passage of the Federal Lands Policy Management Act of 1976, the ONA's and RNA's designation changed and any new designations must now meet the relevance and importance criteria of ACEC's and in fact, are designated as ACEC's. Designation criteria can be found in the BLM Manual 1613 and 43 CFR 1610.7-2. The five Natural Areas within the CCDPA were authorized through previous land use process or Federal Register notice and are administrative actions and not congressionally designated areas and therefore, do not receive the same recognition or protection under the Code of Federal Regulations as those designated by congress. While areas can continue to be designated as natural areas in the land use planning process, this action is discouraged due to the confusion that can be created between the administrative and congressional designation. New designations should appropriately be called a natural area ACEC, or if designated for recreational values, as a special recreation management area. The following areas within the CCDPA have been designated as natural areas:

Swan Lake Nature Study Area

Dedicated in April 1999, Swan Lake Nature Study Area (NSA) is a wetland in the midst of suburban housing and warehouses in the northern section of Reno. Depending on annual precipitation, the wetland varies from 100 acres to 1,000 acres. Surrounded by sagebrush, greasewood, and other desert vegetation, this large, shallow lake has a marshy habitat on the west side and adjacent sewage treatment ponds on the east. Over 150 species have been recorded here. Burrowing Owls often nest in man-made boxes located at the west and north edges of the nature study area. Swan Lake NSA is a Nevada Important Bird Area.

Ambrose Natural Area

The Ambrose Carson River Natural Area is located along the east side of Carson City along the banks of the Carson River. Facilities at this passive recreation site consist of a parking area and trail system that is jointly managed by the BLM and Carson City. It is anticipated that this site will be transferred to Carson City in 2013 upon finalization of the Carson City Lands Bill.

Petersen Mountain Natural Area

The Petersen Mountain Natural Area is a 9,963 acre tract of high desert located along the California and Nevada state line north of Reno and southwest of Pyramid Lake. To preserve the naturalness, the area is managed for semi-primitive non-motorized recreation including hiking, biking and equestrian use. There is a trailhead and parking /staging lot located on the east side of the area. In September of 1988, 5,120 acres of the area was closed to motorized use (Federal Register Notice Vol 53, No 179). The CRMP recommended that this site be designated as the Petersen Ridge "Recreation Lands", however, at the time of designation, it was determined that recreation lands was no longer a valid designation so the name was changed to the Petersen Mountain Natural Area through Federal Register Notice Vol 49, No. 213 in November 1984 .

Sand Springs Desert Study Area

The Sand Springs Desert Study Area is a fenced forty acre tract located just south of the Sand Mountain Recreation Area that preserves a remnant of the land the way it was during the days of the Pony Express. The area is closed to OHV travel and open to hiking. There is a one-half mile self-guiding interpretive trail that winds through the study area. Along this trail visitors will find more than a dozen signs which provide information on the wildlife, plants, history, and geology of the Sand Mountain area. The Sand Springs Pony Express Station, one of the few remaining rock walled structures, is located within the study area. The station was buried under sand for close to 100 years prior to being excavated by University of Nevada, Reno in 1977.

No additional natural areas have been identified or proposed for the CCDPA. Since the existing natural area designations are not congressional designations, they should be reviewed during the RMP process for re-designation as ACEC's or Special Recreation Management Areas to ensure the protection of values that have been identified.

2.4.3 Scenic Areas

Scenic areas are established to identify areas of outstanding visual quality and are managed to protect and enhance scenic qualities while allowing the maximum amount of recreational use as possible. Designated lands are managed for VRM Class II objectives where actions may be seen but should not attract the attention of the casual observer and the level of change to the characteristic landscape should be kept low.

East Walker Scenic Area

This 3,889 acre scenic area was expanded to 4,300 acres through the Walker Resource Area Management Plan WRAMP of 1985. Under the Forest Enhancement Act of 1989, most of the lands within the scenic area were transferred to the U.S. Forest Service, but approximately 53 acres within the scenic area remain as public lands. The remaining lands are located west of Hawthorne along the California and Nevada border and are surrounded by Forest Service and private lands. The WRAMP calls for management of the East Walker River Scenic Area as a Class II visual resource management zone to preserve the scenic quality of the area.

Incandescent Rocks Natural Scenic ACEC

The Incandescent Rocks ACEC is a 1,072 acre site located in southern Washoe County roughly 25 miles north of the Reno-Sparks area and five miles east of Pyramid Lake. The site is known for the rhyolitic outcrops and ridges that are characterized by red, yellow, orange and purple hues that appear to fluoresce or glow as light reflects off the walls. Further discussion can be found in **Section 2.4.1** Areas of Critical Environmental Concern.

Lassen Red Rocks Scenic Area

The Lassen Red Rocks Scenic Area is an 804 acre site located in Lassen County, CA and Washoe County, NV off of Hwy 395 on the southwest edge of Petersen Mountain. The scenic area designation is attributed to the unique and colorful geological features including bright red, white and grey pillars, pinnacles, crags and canyons. Management objectives were to develop a day use/picnic area, limit OHV use to roads and trails, and protect the geologic features. The designation was finalized with Federal Register Notice Vol. 49, No 213 on November 1, 1984. In 1986, due to an error in the public land description, a correction was made to the boundary of the Area that changed the acreage from 700 acres to 804 acres.

Burbank Canyons Scenic Area

The Burbank Canyon Scenic Area is located in Douglas and Lyon counties five miles northwest of Wellington and 15 miles southeast of Gardnerville and overlays the Burbank Canyon WSA. In the event the WSA is released from wilderness consideration by Congress, the Scenic Area designation will remain in effect. Further discussion of this area can be found in **Section 2.4.8** Wilderness Study Areas.

No additional scenic areas have been proposed for the CCDPA but the land use planning process and public scoping may identify areas suitable for this designation. During the RMP revision, areas that have been previously designated as Scenic Areas will be evaluated for classification as Scenic Areas of Critical Environmental Concern per the guidance provided for in the LUP handbook.

2.4.4 National Back Country Byways

The BLM began a National Back Country Byway program in 1989 to focus on enhancing recreational opportunities. A Scenic Byway System was created two years later under Section 1047 of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The ISTEA recognized the BLM Back Country and Scenic Byways as a component of the national scenic byway system (Section 1032, eligible projects).

The CCD manages one National Back Country Byway in the CCDPA: the Fort Churchill to Wellington Backcountry Byway. This byway is a 67 mile paved, gravel, and natural surface road that provides a scenic, though challenging in some sections, drive through the foothills of the Pine Nut Mountains. In addition to its proximity to Carson City, Reno, and the Tahoe area, active promotion of this byway has been via maps, brochures and interpretive kiosks at either ends of the byway. Local visitors familiar with the area constitute the majority of recreation use. These visitors are generally comfortable with the experience and enjoy the seclusion and the panoramic scenery of the Pine Nut Mountains and the Sierras to the west and the experience, opportunities, and benefits that come from the local areas accessible via the Byway. However, outdoor enthusiasts unfamiliar with the area can become intimidated by the type II and III road conditions and limited signage. Hazardous road conditions along this route include a narrow running surface, deep ruts, steep rocky slopes, and soil types that become extremely muddy and slippery during times of both inclement weather and light rain. The route is impassable during the winter season.

Multiple-use resource activities have remained limited within the corridor of the Byway. Visual intrusions along the Byway do not disrupt the overall character of landscape. However, impacts of dispersed recreation including OHV use are becoming apparent and can be contributed to the popularity of the area during the hunting season.

While this route is included in the National Back Country Byway program, available records cannot verify that the official designation process was ever completed or finalized. The official designation for this Byway will have to be researched and verified during the RMP revision and any necessary corrective actions taken to resolve this issue. There are no other roads currently identified for inclusion into the backcountry byways system though there are areas within the CCDPA that would have potential due to the scenic and historic resources.

2.4.5 National Historic Trails

Many of the pioneer trails and other historic routes that are important in our nation's past have been designated by Congress as national historic trails. The National Trails System Act of 1968 (Public Law 90-543; as amended in 2009 by P.L. 111-11) provides for the development of a national system of trails in urban, rural, and wilderness settings for scenic, historic, and recreational values. National Historic Trails (NHTs) are specifically designated areas in the US

containing the route of nationally and historically significant trail and areas adjacent to the trails to be utilized for scenic, historic, natural, cultural or developmental purposes. NHTs along roadless segments have a generally greater potential for public recreational use or historic interpretation and appreciation. Today, only Congress can designate new NHTs. The CCD has two Congressionally-designated NHTs: the California National Historic Trail and the Pony Express National Historic Trail.

While most of the old wagon roads and routes are not open to motorized traffic, visitors can drive along modern highways that either retrace the original route or closely parallel it. These modern roads are designated as Auto Tour Routes (ATR) by the National Park Service. They are marked with “National Historic Trails” highway signs to help today’s travelers follow the routes used by the pioneers who helped to open the American West. Although there are no current ATRs along NHT segments within the CCDPA, future additions of ATRs along NHT routes in the planning unit will benefit tourism.

The Pony Express NHT extends over 1,900 miles from Saint Joseph, Missouri, to Sacramento, California, with the route from New Pass (eastern Churchill County) to Woodfords, CA, bisecting the CCDPA. Although the exact tread of this short-lived horse trail does not remain, at any point along this approximately 130 miles of route within the CCDPA, the corridor is relatively well-know and mapped. In addition, two extant stations on CCD-managed lands remain at Cold Springs and Sand Springs, both in Churchill County.

The California NHT extends from the vicinity of Omaha, Nebraska, and Saint Joseph, Missouri, to various points in California, and it includes dozens of trail segments. Two major segments pass through the CCD and parallel the Carson and Truckee rivers. In all, nearly 300 miles of route cross the CCDPA, with several segments of trail ruts and traces evident.

2.4.6 National Recreation Trail

National Recreation Trails (NRT) provide for a variety of outdoor recreation uses in or near urban areas and are established by the Secretary of the Interior. The only designated NRT within the CCDPA area is the Grimes Point Interpretive Trail which is a three-quarter mile, self-guided interpretive trail that was constructed by the Youth Conservation Corps and designated Nevada’s first National Recreation Trail in 1978. The trail is situated within the Grimes Point Archaeological Area located 12 miles east of Fallon off of Highway 50 and is easily accessible by the traveling public. Hikers can view examples of petroglyph rock art at one of the largest known petroglyph sites in the US. The rock art was created by Native Americans an estimated 8,000 to 9,000 years ago along the ancient Lake Lahontan shoreline.

2.4.7 Wild and Scenic Rivers

The Wild & Scenic Rivers Act of 1968 lead to the National Wild and Scenic River System, which is a system of nationally designated rivers and their

immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition.

A Wild & Scenic designation:

- Protects a river's "outstandingly remarkable" values and free-flowing character
- Protects existing uses of the river
- Prohibits federally-licensed dams, and any other federally-assisted water resource project if the project would negatively impact the river's outstanding values
- Establishes a quarter-mile protected corridor on both sides of the river
- Requires the creation of a cooperative river management plan that addresses resource protection, development of lands and facilities, user capacities, etc.

The system consists of three designation types: Recreation, Scenic, and Wild:

- "Wild" rivers. Vestiges of primitive America
- "Scenic" rivers. Free of impoundments, with shorelines or watersheds still largely primitive and undeveloped, but accessible in places by roads
- "Recreational" rivers. Readily accessible by road or railroad, may have some development along their shorelines, and may have undergone some impoundment or diversion in the past

The BLM is responsible for and will be evaluating all rivers located on BLM-administered land to determine if they are appropriate for addition to the National Wild and Scenic River System and, as appropriate, making recommendations for legislative actions to accomplish such additions. Currently, no designated Wild or Scenic Rivers exist within the CCDPA.

2.4.8 Wilderness Study Areas

In 1964, Congress passed the Wilderness Act, which established a national system of lands for the purpose of preserving a representative sample of ecosystems in a natural condition for the benefit of future generations. Until 1976, most lands considered for, and designated as, wilderness were managed by the NPS and USFS. This changed in 1976 with the passage of the Federal Lands Policy and Management Act when Congress directed the BLM to inventory, study, and recommend which public lands under its administration should be designated and managed as wilderness. From 1977 through 1979, the BLM conducted inventories for lands with wilderness characteristics and in

November of 1980, BLM designated nine WSA's within the CCDPA for further review. Between 1980 and 1991, each WSA was analyzed through the NEPA process for suitability for wilderness designation. In 1991, BLM completed a Wilderness Study Report that was submitted to Congress that contained recommendations for wilderness and non-wilderness suitability within each WSA. **Table 2-35**, Wilderness Study Areas within the CCDPA, provides the total acreage for each WSA and the amount of suitable, as well as, non-suitable land that was recommended to congress. There are no time limitations placed on Congress to act on these recommendations and Congress has sole authority to designate areas as wilderness or release them from further study.

Table 2-35
Wilderness Study Areas within the CCDPA

Name	WSA Number	Total Acreage	Recommended Suitable	Recommended Non-suitable	Field Office
Clan Alpine Mountains	NV-030-102	196,128	68,458	127,670	Stillwater
Stillwater Range	NV-030-104	94,607	0	94,607	Stillwater
Desatoya Mountains	NV-030-110	51,402	43,180	8,222	Stillwater
Job Peak	NV-030-127	90,209	0	90,209	Stillwater
Gabbs Valley Range	NV-030-407	79,600	0	79,600	Stillwater
Augusta Mountains	NV-030-108	89,372*	0	89,372	Stillwater/ HRFO/MLFO
Burbank Canyons	NV-030-525a	13,395	0	13,395	Sierra Front
Slinkard	CA-010-105	6,268	0	6,268	Sierra Front/BFO
Carson-Iceberg	NV-030-532	550	550	0	Sierra Front

* Roughly 46,434 acres in SFO, 24,501 acres in HRFO, and 17,161 acres in MLFO

Humboldt River Field Office manages the Augusta Mountains WSA

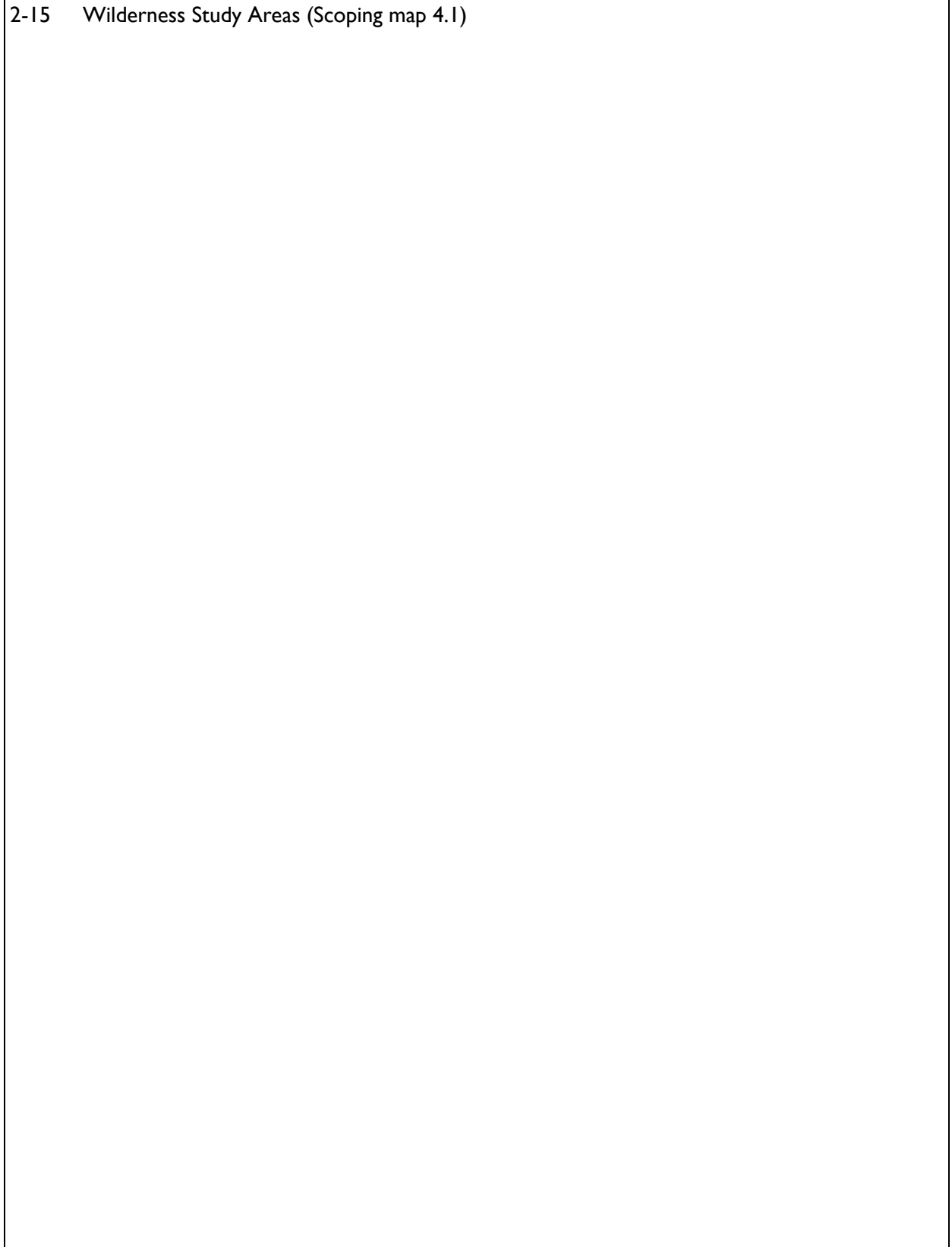
BFO – Bishop Field Office

MLFO-Mount Lewis Field Office

The CCD currently manages eight of the nine WSAs that exist within the CCDPA. The Augusta Mountains WSA lies within three field offices and is managed by the Humboldt River Field Office in the Winnemucca District (**Figure 2-15**, Wilderness Study Areas). Roughly 52% of the WSA falls within the Stillwater Field Office, 20% in the Mount Lewis Field Office, and 28 % in the Humboldt River Field Office. The Carson-Iceberg and the Slinkard WSA's are located in California but are managed by the CCD due to access issues. In 2009, Douglas County, Nevada submitted the Douglas County Conservation Bill to Congress which contained a proposal to designate the Burbank Canyons WSA as a wilderness area.

The increase in demand for consumptive and non-consumptive resources and an increase in urbanization and residential development, the WSAs provide unique

2-15 Wilderness Study Areas (Scoping map 4.1)



niches that are still mostly preserved in their natural and primitive state. With the exception of cherry-stemmed roads or primitive ways (routes that were created solely by the passage of vehicles prior to the WSA designation) these areas are closed to motorized travel. Examples of allowable uses include hunting, camping, equestrian use, and hiking. **Table 2-35** provides the total acreage of each WSA within the CCDPA along with the recommendations for suitable and non-suitable acreages made to Congress.

Stillwater WSA

The Stillwater Range WSA (NV-030-104) is located in Churchill County in west central Nevada. The WSA includes 94,607 acres of BLM lands and 619.78 acres of private inholdings within its boundaries. The WSA is bounded by County Road 399 and section lines on the west and the Copper Kettle and White Rock Canyon roads, as well as three miles of unnamed dirt roads, on the north. County Road 380 and private lands form the eastern boundary and on the south the boundary follows the Cox and Silver Hill Canyon roads. The Stillwater Range WSA includes roughly the central third of the Stillwater Mountain Range.

Job Peak WSA

The Job Peak WSA (NV-030-127) is located in Churchill County in west central Nevada. The WSA includes 90,209 acres of BLM lands. There are no private inholdings within its boundaries. The WSA is bounded by County Road 399, the Mountain Well road and the West Job Canyon road on the west, while the Poco Canyon road and four miles of unnamed dirt roads constitute the northern boundary. County Road 380 and a portion of the Dixie Valley fault scarp form the eastern boundary. On the south the boundary follows the Elevenmile Canyon road, the Sheep Canyon road and a fence line connecting these roads. The Job Peak WSA includes roughly the southern third of the Stillwater Mountain Range.

Desatoya WSA

The Desatoya Mountains WSA (NV-030-110/060-288) lies along the Churchill County/Lander County line, with the majority of the WSA found in the southeast corner of Churchill County, Nevada. The WSA includes 51,262 acres of BLM lands. There are 120 acres of private inholdings. The area is bounded by the Carroll Summit Highway (Old US 50) and a section line on the south, and section lines and a short stretch of US Highway 50 on the west. A powerline and three dirt roads comprise the northern boundary, while a combination of private property lines and dirt roads form the boundary on the east.

Clan Alpine WSA

The Clan Alpine Mountains WSA (NV-030-102) is located in Churchill County in west central Nevada. The WSA includes 196,128 acres of BLM lands. Although private lands form a portion of the WSA boundary, there are no private inholdings. The WSA is bounded by County Road 376, private lands and roads on the east, and a road and section lines on the north. Three roads and a

power line comprise the southern boundary while a combination of section lines and dirt roads form the boundary on the west.

Augusta Mountains WSA

The Augusta Mountain WSA (NV-030-108) is located in three Nevada counties: southeast Pershing, northeast Churchill and western Lander. The WSA is approximately 60 miles southeast of Winnemucca, Nevada and a 5-hour drive from Reno, Nevada. The WSA includes 89,372 acres of public lands and no private or state inholdings. The boundary follows the Home Station Ranch Roads on the north and west sides and utilizes two mine access roads on the south and east sides. At its maximum dimensions, the Augusta Mountain WSA ranges from 17 miles in a north-south direction to 13 miles in an east-west direction. The altitude ranges from 3,400 feet to 8,400 feet.

The WSA straddles a north-south ridge of the Augusta Mountain Range. The study area can be divided into three sections: northern, central and southern. The northern portion is a landscape of silicic ashflow tuff canyons and drainages. Isolated patches of pinyon-juniper are scattered through the area. The central section encompasses Cain Mountain, a limestone peak, which is the highest point of the WSA. The mountain drains in all directions via rugged, deep drainages--Favret Canyon being the largest. The canyons have fossils and are blocked by intermittent waterfalls, with dense pinyon-juniper stands in the upper reaches.

The southern portion of the WSA is 6 to 7 miles long and 13 miles wide. It is uniformly hilly with shallow southwest draining washes and gullies and gently sloping foothills vegetated with low sagebrush and rabbitbrush. There are approximately 1,000 acres of pinyon-juniper woodland covering slopes above 6,600 feet.

Gabbs Valley WSA

The Gabbs Valley Range WSA (NV-030-407) is located in Mineral County, 30 miles east of Hawthorne, Nevada. The WSA contains 79,600 acres of BLM lands and one 40 acre private inholding. Three other private parcels are nearly surrounded by the WSA and were excluded (cherry-stemmed) from the WSA. The WSA is bounded on the northwest by roads and mining disturbance around Poinsettia Spring Mine, and on the northeast side by a combination of the main Finger Rock Wash Road, lesser roads, mining disturbance near roads, and by a private property boundary. The remaining boundary around the southern end of the unit is comprised of a combination of State Highway 23, the main road in Petrified Wash, lesser roads, mining disturbances and private property boundaries. The WSA is approximately 16 miles in length from north to south and varies in width from 3 to 15 miles east to west.

Burbank Canyon WSA

The Burbank Canyons WSA (NV-030-525a) is located primarily in Douglas County, Nevada, five miles northwest of Wellington and 15 miles southeast of

Gardnerville, Nevada. Approximately 1,065 acres along the eastern edge of the study area are located in Lyon County, Nevada. Boundaries of the study area coincide with roads and private property boundaries in Red Canyon on the north, along the foot of the Pine Nut Mountains on the east, in Rickey and Wedertz Canyons on the south, and along the ridge of Bald Mountain on the west. The WSA also has a scenic designation and a closure to OHV travel that will remain in place should the WSA be released from consideration as a wilderness area.

Slinkard WSA

The Slinkard WSA (NV-030-531/CA-010-105) is located in northern Mono County and northeastern Alpine County approximately seven miles north and west of Topaz, California. This WSA includes 6,268 of BLM land; 422 of these acres are split estate lands (surface managed by the BLM, subsurface owned by non-BLM entity). There are neither State lands nor private inholdings within the WSA. The 2007 Alpine County Plan Amendment closed 2,375 acres of the Slinkard WSA to motorized travel.

The northern boundary of this WSA follows the Humboldt-Toiyabe National Forest boundary east until it intersects State Highway 89. The boundary follows the meandering highway to the vehicle route that enters the northern end of Slinkard Valley. The boundary proceeds south along the vehicle route and veers west and south in an irregular pattern around private land. The boundary turns and proceeds west for one mile along the northwestern tip of the Carson-Iceberg Wilderness. The boundary turns north and follows private land, contour features including canyons, and on the Mono/Alpine County line until it reaches the Humboldt-Toiyabe National Forest boundary three-quarters of a mile south of Monitor Pass. This WSA lies at the extreme eastern edge of the Sierra Nevada geomorphic province and consists of a north/south trending mountain range, which is dissected by numerous drainages and canyons. The eastern slope is rugged and steep while the western slope is more gentle and moderate. Elevation ranges from 6,800 feet to 8,938 feet. A tributary of Slinkard Creek is located in the northern end of the unit. Vegetation in the unit consists of Great Basin shrubs and perennial grasses. Dense stands of pinyon-juniper, white fir, quaking aspen, and Jeffrey pine occupy the unit.

Carson-Iceberg WSA

The Carson-Iceberg WSA (NV-030-532) lies in Alpine County near the middle of the eastern edge of California, approximately 30 miles southeast of South Lake Tahoe and 90 miles east of Sacramento. This WSA includes 550 acres of BLM land and no State land or private inholdings and is bounded on the west and south sides by the Humboldt-Toiyabe National Forest/Carson Iceberg Wilderness, on the north and southeast sides by private lands and on the northeast by an unpaved road on BLM land. The entire 550 acres of the WSA was closed to motorized travel by the 2007 Alpine County Plan Amendment.

The WSA comprises a mixed coniferous forest on both sides of the East Fork of the Carson River in the Eastern Sierra Nevada. The river flows northerly through a rugged, winding canyon for one-and-a-half miles in the WSA. The meadows of Silver King Valley flank the WSA to the east at an elevation of 6,400 feet, while the 7,000-foot western side of the WSA is surrounded by higher elevation coniferous forest in the 154,000-acre USFS wilderness.

2.5 SUPPORT CONDITIONS

2.5.1 Cadastral

Cadastral Survey has been used extensively throughout the CCD over the past 20 years primarily with trespass issues related to lands and reality.

Unauthorized agriculture development, residential development, fence construction, and road development have been the primary uses for Cadastral Survey. Cadastral has also been used to survey boundaries related to legislative actions and boundaries associated with land acquisitions, exchanges, and disposals throughout the CCD.

2.5.2 Interpretation and Environmental Education

The CCD reaches out to youth and adults with interpretive and environmental education experiences that inspire them to protect the landscape and support the district's multiple use management goals. The district has a draft district environmental education and interpretive strategy and is developing a long range interpretive plan.

Programs and Projects

Take It Outside-Let's Move Outside. The CCD served over 1100 people in 2011 and over 3500 people in 2012 with its Let's Move Outside on BLM's Carson City District environmental education program series for children, families and the general public. These programs provide fun and easy ways for children and adults to exercise, see more of their public lands, and learn about the natural world. Visitors ferreted out forest facts, collected seeds for restoration projects, toured a cave used by Native Americans for 9,000 years, visited the Sand Springs Desert Study Area, and helped clean up public lands on the Carson River and Truckee River Clean Up days.

Truckee River Environmental Education Days (TREE): In 2011 and 2012, CCD staff partnered with The Nature Conservancy (TNC) and the Fish and Wildlife Service to present four TREE Days for 900 fourth grade students from Washoe and Lyon counties at TNC's McCarran Ranch Preserve east of Reno. Staff and volunteers operated five stations addressing wetlands, ecosystems and invasive species, plant diversity, river morphology and water quality.

Hidden Cave Tours. On the second and fourth Saturday of each month, CCD staff delivers free interpretive tours of the Hidden Cave archaeological site.

Special tours led by BLM-trained volunteer docents can be arranged for twelve or more people through the Churchill County Museum (CCM).

Reno Rodeo Reading Roundup. For the last 12 years, CCD fire staff have partnered with the Reno Rodeo Association and the Reno Rodeo Foundation to present Reno Rodeo Reading Roundup assemblies emphasizing the importance of reading to at-risk first graders at 25 schools annually.

Hidden Cave. BLM, University of Nevada and Churchill County Museum is producing a HD educational video about Hidden Cave in 2012 that will be used to bring the story of Hidden Cave to students and members of the general public unable to physically tour the cave.

Junior Explorer. CCD staff is developing an Indian Creek Recreation Area Junior Explorer Activity book for use by campers, day users and local students.

Hands on the Lands and Take It Outside. The CCD, The Nature Conservancy, local school districts and other partners are developing outdoor classroom opportunities at sites along the Truckee River, Indian Creek Recreation Area, Swan Lake and Faye Luther Creek.

Curtz Lake Interpretive Trail. CCD staff is constructing a 1.5 mile interpretive loop with 13 interpretive wayside exhibits scheduled for completion in 2014.

Developed Interpretive Sites include: Fairview Earthquake Site, Sand Springs Desert Study Area, Cold Springs Pony Express Station, Hidden Cave Interpretive Trail, Grimes Point Interpretive Trail, Indian Creek Recreation Area Curtz Lake Interpretive Trail, and Faye-Luther Trail.

2.5.3 Transportation Facilities

The BLM's transportation system represents one of the most critical assets to the accomplishment of the BLM's mission to manage public lands. It affords entry for public access and provides the infrastructure that supports uses ranging from recreation to commercial activity and is the primary means of access to public lands under CCD jurisdiction.

Federal, State, and County Roads

A network of federal, state, and county roads provide local access throughout the CCD. Highways 395 & 50 and Interstate 80 provide major access to the District from all directions.

Traffic volumes on the road network are highly variable. The highest volume counts are found on major roadways in or near the largest communities, but BLM recreation sites and back road throughways within the CCD also experience heavy seasonal traffic flow.

BLM Roads

BLM roads provide public and administrative (agency and permittee) access to public lands, through public lands, and to inholdings of private land within the District. Reasonable administrative access is made available to persons engaged in valid uses, such as mining claims, mineral leases, livestock grazing, and recreation. Most use of BLM roads would be described as casual use where foot, pack stock, and mechanized and motorized vehicle travel is appropriate, restricted, or not allowed, depending on resource objectives and use considerations.

Road System Maintenance

The CCD maintains 789 miles of roads throughout the district (**Figure 2-16**, BLM Maintained Roads) as part of the CCD Transportation Plan (CCD TP). The BLM maintains roads under standards set forth in BLM 9100 Series Manuals and the CCD RMP. Maintenance provides for resource protection, accommodation of permitted users, and protection of the BLM's investment. The BLM uses the road maintenance levels described in **Table 2-36**, Road Maintenance Levels.

Table 2-36
Road Maintenance Levels

Maintenance Level	Description
Level 1	Assigned to roads where minimum maintenance is required to protect adjacent lands and resource values. These roads are no longer needed and are closed to traffic. The objective is to remove these roads from the transportation system.
Level 2	Assigned to roads where the management objectives require the road to be opened for limited administrative traffic. Typically, these roads are passable by high clearance vehicles.
Level 3	Assigned to roads where management objectives require the road to be open seasonally or year round for commercial, recreational, or administrative access. Typically, these roads are natural or aggregate surfaced but may include low use bituminous surfaced road. These roads have a defined cross section with drainage structures (e.g., rolling dips, culverts, or ditches). These roads may be negotiated by passenger cars traveling at prudent speeds. User comfort and convenience are not considered a high priority.
Level 4	Assigned to roads where management objectives require them to be open all year (except that they may be closed or have limited access due to snow conditions) and which connect major administrative features (such as recreational sites, local road systems, administrative sites) to county, state, or federal roads. Typically, these roads are single or double lane, aggregate or bituminous surface, with a higher volume of commercial and recreational traffic than administrative traffic.
Level 5	Assigned to roads where management objectives require the road to be open all year and are the highest traffic volume roads of the transportation system.

2-16 BLM Maintained Roads

Road system maintenance has focused on maintaining major recreational access roads, which generally receive most of the traffic volume. Support Services for the CCD is responsible for maintaining approximately 225 lane miles of road within the District, depending on road conditions and funding availability; approximately 200 miles are also planned for Fiscal Year 2012. Road maintenance generally consists of shaping, providing drainage, blading and grading. It is usually performed in the summer or fall. Additional corrective maintenance or water drainage work (installation of culverts, drains, or other water-management devices) is performed as needed, such as after periods of heavy rainfall. Snow is not removed.

Maintenance is scheduled on an annual, 5 year, and 10 year cycle. Transportation plan meetings are held quarterly to update CCD TP. Road specifications statistics and work order requirements are tracked as a locational asset through BLM's Facility Asset Management System (FAMS) (**Appendix D**, Facility Asset Management System Road List). The district engineer serves as data steward. Repair emergencies and special case maintenance priorities are assigned according to severity of disrepair, and effect on BLM administration's or permit holder's mission. Roads included in the CCDTP are classified as level 3 roads with the exception of approximately 12 lane miles of Level 1 and 2 paved roads at our major recreation sites. Recent weather related emergency repairs combined with declining funding for personnel and equipment has been detrimental to our plan of keeping all of the 5 and 10 year roads to the level 3 standard.

Functional Road Classification Types for BLM System Roads

Based on BLM Manual Section 9113 (Roads), roads on BLM lands are classified based on the amount of traffic movement into three classes: collector, local, and temporary resource roads.

Collector Roads (Level 4 or 5). These BLM roads normally provide primary access to large blocks of land and connect with or are extensions of a public road system. They accommodate mixed traffic and serve many uses. They generally receive the highest volume of traffic of all roads in the BLM road system. User cost, safety, comfort, and travel time are primary road management considerations. Collector roads usually require application of the highest standards used by the BLM.

Local Roads (Level 4 or 3). These BLM roads normally serve a smaller area than collectors and connect to collectors or public road systems. Local roads receive lower volumes, carry fewer traffic types, and generally serve fewer users. User cost, comfort, and travel time are secondary to construction and maintenance cost considerations. Low volume local roads in mountainous terrain, where operating speed is reduced by terrain, may be single-lane roads with turnouts. Environmental impacts are reduced because steeper grades, sharper curves, and lower design speeds than would be permissible on collector roads are allowable.

Resource Roads (Level 2). These BLM roads are spur roads that provide point access and connect to local or collector roads. They carry very low volume and accommodate only one or two types of use. Use restrictions are applied to prevent conflicts between users needing the road and users attracted to the road. The location and design of these roads are governed by environmental compatibility and minimizing Bureau costs with minimal consideration for user cost, comfort or travel time.

Airports and Railroads

There are 29 Federal Aviation Administration designated airports, both public and private, and 6 heliports within the Carson City District. This includes 3 public airport leases on public lands within CCD as well as a few private airstrips that are used year round by public and private entities. These airstrips are the necessary link for small aircraft to cover expansive distances safely.

The CCD has over 200 miles of operational railroads cross public and private lands within the district, mainly in Churchill, Lyon, Mineral, Storey and Washoe counties. Original railroad rights-of-way held by Western Pacific, Central Pacific and Southern Pacific Railroad companies in this area are now controlled by Union Pacific Railroad Company. The V&T Historic Railway Reconstruction Project, a tourism railroad administered by the Nevada Commission for the Reconstruction of the V&T Railway, which runs between Gold Hill and Carson City, crosses public and private lands within Storey County, Lyon County and Carson City. There are plans to continue to extend the railway reconstruction project to other parts of this area. There is currently no outstanding access issues associated with railroads within the CCDPA.

2.6 SOCIAL AND ECONOMIC FEATURES

2.6.1 Tribal Interests

The CCD manages public lands within the aboriginal territory of people identified based on commonality and differences in language and culture as Washoe, Northern Paiute, and Western Shoshone. Six tribal governments have reservations within the CCDPA and four additional Tribes hold reservation lands beyond the CCD boundary (see **Table 2-37**, Tribal Reservations within and near the CCD). Each of the ten groups is a federally recognized Indian Tribe (25 USC 479a). Each Tribe, along with the California Native American Heritage Commission and the Inter-Tribal Council of Nevada, maintains a general concern for protection of and access to areas of traditional and religious importance, as well as, the welfare of plants, animals, air, landforms, and water on reservation and public lands. **Table 2-37** includes the geographic area(s) that CCD utilizes for consulting with tribal leaders and staff, recognizing that each Tribe's ancestral use area(s) may extend beyond the listed locations.

Table 2-37
Tribal Reservations within and near the CCD

Tribe	Cultural Division(s)	General Location	Headquarters/Established	CCD Geographic Area of Specific Concern
Bridgeport Paiute Indian Colony	Northern Paiute	Mono County, CA (outside of planning unit)	Bridgeport, CA (Reservation: 1972)	SWFO and Sierra Front Field Office – Southern Lyon and Western Mineral Counties
Fallon Paiute-Shoshone Tribe	Northern Paiute and Western Shoshone	Churchill County, NV	Stillwater, NV (Reservation: 1902)	SWFO and Sierra Front Field Office – Northeastern Lyon and Western Churchill Counties
Lovelock Colony	Northern Paiute	Pershing County, NV (outside of planning unit)	Lovelock, NV (Colony: 1910) Ties to Fort Bidwell, CA (Reservation: 1897)	SWFO only – Northern Churchill County
Pyramid Lake Paiute Tribe	Northern Paiute	Washoe, Storey and Lyon Counties, NV	Nixon, NV (1859)	Sierra Front Field Office only – Northern Storey and Northern Lyon Counties; Washoe County north of I-80
Reno-Sparks Indian Colony	Northern Paiute, Washoe, Western Shoshone and other Tribes	Washoe County, NV	Reno, NV (Colony: 1917; Hungry Valley Community: 1986)	Sierra Front Field Office only – Northern Storey County and Washoe County from Truckee Meadows north
Susanville Indian Rancheria	Northern Paiute, Washoe, Atsugewi, Achumawi and Maidu	Plumas County, CA (outside of planning unit)	Susanville, CA (Allotments: 1923) Allotments	Sierra Front Field Office only – Plumas and Lassen Counties (CA); Washoe County west of Peterson Mountain and north of Fort Sage Mountains
Walker River Paiute Tribe	Northern Paiute	Churchill, Lyon, and Mineral Counties, NV	Schurz, NV (Reservation: 1859)	SWFO and Sierra Front Field Office – Eastern Lyon, Western Churchill, and Northern Mineral Counties

**Table 2-37
Tribal Reservations within and near the CCD**

Tribe	Cultural Division(s)	General Location	Headquarters/Established	CCD Geographic Area of Specific Concern
Washoe Tribe of Nevada and California	Washoe	Alpine County, CA; Carson City and Douglas Counties, NV	Carson City, NV (Stewart Community: 1990; Carson Colony: 1916) Dresslerville, NV (Colony: 1917) Woodfords, CA (Colony: 1887) Pine Nut Mountain, NV Allotments: 1893-1930 Washoe-Paiute Timber Reserve, NV: 1859-1870	Sierra Front Field Office only – Alpine, Plumas, and Lassen Counties (CA); Washoe County west of Virginia Mountains; Carson City and Storey Counties; Douglas and Lyon Counties west of the Pine Nut Mountain crest
Yerington Paiute Tribe	Northern Paiute	Lyon County, NV	Yerington, NV (Colony: 1917; Campbell Ranch: 1936; Reservation: 1941) Washoe-Paiute Timber Reserve, NV: 1859-1870	Sierra Front Field Office and SWFO – Lyon, Southern Storey, and Eastern Douglas Counties
Yomba Shoshone Tribe	Western Shoshone	Nye County, NV (outside of planning unit)	Reese River Valley, NV (Reservation: 1937)	SWFO only – Eastern Churchill, Eastern Mineral, and Western Nye Counties

The CRMP (2001) and subsequent plan amendments do not specifically identify Native American Interests as a topic separate from Cultural Resources. In the CRMP (2001), “the view of Native Americans will be considered prior to BLM decisions or approvals that could result in changes in land use, physical changes to lands and resources, changes in access, or alienation of lands.” This captures some of the intent of current laws, regulations and policies; it does not describe the means for identifying and managing traditional and sacred sites, or for obtaining and utilizing the perspective of tribal people.

Topics consistently identified by Tribes include access to natural, medicinal, and sacred resources and places. Traditional Cultural Properties(TCPs)/Sacred Sites such as Black Point Petroglyph, Grimes Point, Hidden Cave and several potential TCPs identified in the Stillwater Range by tribal representatives as areas that are important to a respective tribal cultural heritage and to families within the Tribe(s).

Each Tribe maintains interest in specific cultural and traditional resources, tribal access locations, and heritage properties. Tribal concerns within the CCDPA may include, but are not limited to, specific places on the landscape where spiritual and ceremonial events occur or have previously occurred, known and

unknown burial and cemetery sites, pre-contact or historic-era cultural resources, hot springs and geysers, and localities with difficult-to-find or special plant, animal, or mineral resources.

All Tribes in the CCDPA have interest in access to ranges that contain pinyon pine nut gathering locations. This includes the Pine Nut Mountains, Desatoya Range, Stillwater Range, Clan Alpine Mountains, Wassuk Range, and Virginia Range, and ranges beyond the CCD. Due to the 3-5 year production cycle of nut production, the tribal members go where there are pine nuts available, and specific locations that yield pine nuts one year will not be the location of use the following few years. Gathering includes both green and ripe cone harvesting. Some ranges, such as the Virginia and Flowery Ranges, have been used historically, but changes to land status and fire management have reduced the potential for using these locations for pine nut gathering.

BLM manages the sensitive tribal information collected through consultation, including electronic and hard copy files, by utilizing a geospatial layer consistent with the management of public lands. The geospatial layer of historic and current acquired tribal information would facilitate the avoidance or mitigation for future projects including visual effects on sacred sites and traditional cultural properties during the planning phase.

2.6.2 Public Safety

Abandoned Mines

Nevada is estimated to have approximately 165,000 abandoned mines, 50,000 of which are considered to be safety hazards. The Nevada Bureau of Minerals has identified and ranked about 8,000 abandoned mines as to the level of hazard they represent. More than 6,000 of these sites have been secured. Sites are being secured at a rate of about 300 to 400 per year. Some abandoned mines also present toxic chemical hazards. In 1999, the Interagency Abandoned Mined Lands Environmental Taskforce, which includes ten state and federal agencies, identified 33 complex cleanup sites statewide including nine within the CCDPA. The three highest ranked sites within the CCDPA were the Veta Grand Mine, which was assigned a high hazard ranking, and the Nylene Mine and Seneca Gold sites, which were both assigned a moderate hazard ranking. These three sites have been cleaned up and are currently being monitored for effectiveness. The remaining sites were not ranked, not considered or ranked low. Several abandoned mine sites within the CCDPA continue to pose a physical safety hazard.

The Nevada Division of Minerals, a part of the Commission on Mineral Resources, is responsible for administering programs and activities to promote, advance, and protect mining and the development and production of petroleum and geothermal resources in Nevada. In March 1999, the BLM initiated the formation of a Nevada Abandoned Mine Land Environmental Task Force to

begin remediating environmental problems associated with abandoned and inactive mines. In certain mining districts, the CCDPAs has numerous abandoned mine workings. Structures such as shafts, adits, winzes, tunnels, and pits pose safety hazards to the public. Hazardous materials and dynamite are also safety hazards at abandoned mine sites. It is expected that identifying and sealing, fencing, and signing unsafe abandoned mine sites and openings will continue at approximately the same rate as in recent years. Contaminated site remediation will occur based on hazard ranking and available funding. Abandoned mine closure may increase with the assistance of the mining industry, particularly in areas where renewed activity in former mining areas becomes economical.

Petroleum Waste and Hazardous Substances

Unauthorized disposal of petroleum waste and releases of hazardous substances continually occurs on public land throughout the CCDPA. The term “petroleum wastes” are those substances included within the meaning of the petroleum exclusion to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 42 USC 9601). This is petroleum which is not specifically listed or designated as a hazardous substance. The term “hazardous substance” is defined by CERCLA. There are thousands of hazardous substances, but they can generally be categorized as ignitable, corrosive, reactive, or toxic materials. “Release” as defined by CERCLA means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing (including abandonment) of a hazardous substance.

In the CCDPA, releases of hazardous substances and dumping of petroleum products usually occur as a result of unauthorized dumping (also known as midnight dumping) or in association with active or abandoned mining or mill site claims. The CCD follows the National Contingency Plan (40 CFR 300) in dealing with releases of hazardous substances which generally involves the timely removal of the hazardous substance. Removal of petroleum waste is performed in accordance with State and local laws and regulations which also generally involves the timely removal of petroleum waste. A release could require a “removal” action for one drum of liquids which could cost a few hundred dollars up to a “remedial” action which could involve extensive studying and cost thousands (or millions) of dollars.

Because releases are not authorized on public land and generally removed upon discovery, an inventory of sites where hazardous substances and petroleum waste have been released is not maintained in the land use plan. If a parcel of land is to be disposed of, an evaluation pursuant to section 120(h) of CERCLA is prepared. If a parcel of land is to be acquired, an evaluation is conducted in order to comply with the standards and practices for “all appropriate inquiry” pursuant to sections 101(35)(B)(i)(I) and 101(35)(B)(ii) of CERCLA is prepared.

Solid Waste

Unauthorized disposal of solid waste continually occurs on public land throughout the CCDPA. The term “solid waste” is defined by the Resource Conservation and Recovery Act (42 USC 6901) and includes any solid, liquid, semi-solid, or contained gaseous material that is deemed to be a waste. Solid waste is further defined as abandoned piles of household garbage, bags of yard waste, discarded appliances, old barrels, used tires and demolition debris that can threaten the health of humans, wildlife and the environment. A few commonly found illegally dumped items such as vehicles, boats, trailers and motor-homes can fit into either solid waste or hazardous waste dependent on the timeliness of the item being found, reported and subsequently being cleaned up. For example, rubber car tires or an intact fiberglass boat found in the desert does not pose much of a threat as a “solid waste,” but once the rubber tires or fiberglass has been set on fire and burned, it becomes a “hazardous waste.”

The number of solid waste illegal dump sites has not been quantified across the CCDPA. The majority of illegal solid waste dumping occurs on public land in close proximity to the urban interface, but is also common along transportation corridors, recreational shooting areas, and in non-designated camping areas, which are dispersed throughout the CCDPA.

Recreational Shooting

Recreational shooting is common place throughout the CCDPA especially near areas of high population density. Currently there are no designated shooting areas on public lands and only a handful of public shooting areas managed by local agencies. Recreational shooting is a legitimate activity on public land, but does pose a significant risk if not managed correctly. Conflicts arise regularly between shooting and other activities on public land and with nearby private and tribal lands. These conflicts include shooting over roads or trails, not having a backstop, shooting too close to homes/buildings, shooting in areas where there are high levels of other recreation activities, and shooting in sensitive areas like ACECs.

Most shooting areas are littered with garbage and tend to be an attractive nuisance. Shooting areas tend to attract illegal dumping. In these areas, it is common to find shot up TVs, appliances, furniture etc. There are no BLM rules in place regulating shooting or setting a standard for acceptable responsibility while shooting. Most of the counties in the CCDPA have limited ordinances regulating shooting activities. Washoe County has the most restrictive regulations by not allowing shooting within 5000 feet of an occupied dwelling. Other examples of standards set for shooting could include, but not be limited to, requiring shooters to have a back stop to stop bullets from traveling outside the immediate area, not shooting into vegetation, not shooting at trash, TVs, appliances, or glass containers, and requiring shooters to remove shooting related materials i.e. shell casing, targets etc.

Another significant risk associated with recreation shooting is wildland fire. Between 2000 and 2010, about 34% (BLM, 2011) of human caused fires, started on BLM lands in Nevada, were found to be caused by shooting. The BLM has had numerous witnessed fire starts due to shooting with copper jacketed lead and other ammunition. Due to the large amount of urban interface in the CCDPA and the amount of recreation shooting happening near this urban interface, wildland fires pose a significant threat to communities, recreational areas, grazing areas, and wildlife habitat. Possible solutions would be to have multiple designated shooting areas near the urban interface. These areas could be mitigated to help prevent fire starts and potential spread if a fire started. Additionally, limitations could be imposed that would restrict shooting during times of extreme fire danger or times during red flag warnings.

2.6.3 Social and Economic Conditions

Current Conditions

The CCD is responsible for the management and stewardship of approximately 4.8 million surface acres of BLM-administered land within the CCD RMP planning area in portions of 11 counties in Nevada and California (Washoe, Storey, Carson City, Douglas, Lyon, Churchill, Mineral, and Nye counties within Nevada; and Alpine, Plumas, and Lassen counties within California).

The CCD is comprised of two field offices. The Sierra Front Field Office comprises the small portions of the California counties that are within the district as well as Carson City, Washoe, Douglas, Lyon, and Storey counties in Nevada. This field office contains the majority of the population in the planning area and has fewer acres of public lands. The Stillwater Field Office in the eastern portion of the CCD comprises Churchill and Mineral counties and a portion of Nye County. In this field office, population density is lower, and public lands represent a larger portion of total acres in the county.

BLM-administered lands and management have an important presence in the area. The planning area covers all or portions of 11 counties. Of the counties in Nevada, Lyon County and Churchill County lie mostly within the planning area and have only small portions outside of the planning area (1 percent and 14 percent respectively). Only 34 percent of the land within Washoe County lies within the planning area. Nye County has 1 percent of its land within the planning area. For the 3 California counties, less than 10 percent of the land in each county is within the planning area (Lassen, Alpine, and Plumas).

In addition to BLM-administered lands, other federal, state, and private lands are present in the planning area. An overall breakdown of land status of the planning area is shown in **Table 2-38**, Land Status in the CCD RMP Planning Area. The acres of public lands in each county are shown in **Table 2-39**, Land Status for Lands within the CCD RMP Study Area.

Table 2-38
Land Status in the CCD RMP Planning Area

Surface Ownership	Approximate Acres (in planning area)
Nevada	
BLM	4,760,400
Private	1,517,250
US Forest Service	864,780
Bureau of Indian Affairs	654,080
Department of Defense	341,840
Bureau of Reclamation	313,010
Water ¹	252,790
US Fish and Wildlife Service	100,160
Nevada State Parks	24,380
Nevada Regional Parks	15,960
California	
BLM	45,460
US Forest Service	4,700
Unclassified ²	43,790
California Department of Fish and Game	2,330
<i>Total</i>	<i>8,940,940</i>

Source: BLM 2012a

¹Water represents lakes and ponds

²Includes Bureau of Reclamation, Bureau of Indian Affairs, Department of Defense, regional park, and private lands, which are not broken out individually for California regions

Table 2-39
Land Status for Lands within the CCD RMP Study Area

Location	BLM	USFS	Private	BOR	BIA	DOD	USFWS	NV	NV	Water ¹	CADFG	Unclassified ²	Total
								State Parks	Regional Parks				
Nevada													
Carson City	41,270	14,690	32,970	0	320	0	0	1,350	2,300	7,730			100,630
Churchill County	1,811,450	0	273,060	284,410	52,400	221,930	100,160	2,900	0	11,880			2,758,190
Douglas County	162,460	83,800	206,540	0	3,050	0	0	30	790	16,230			472,900
Lyon County	569,450	276,240	335,600	27,390	50,780	0	0	17,140	0	0			1,276,600
Mineral County	1,581,050	380,820	79,970	0	224,150	118,540	0	260	0	57,300			2,442,090
Nye County	189,080	510	3,100	0	0	1,370	0	0	0	0			194,060
Storey County	15,170	0	152,760	500	400	0	0	0	0	0			168,830
Washoe County	390,470	108,720	433,250	710	322,980	0	0	2,700	12,870	159,660			1,431,360
California													
Alpine County	18,230	4,580									1,900	15,420	40,130
Lassen County	26,520	120									430	26,700	53,770
Plumas County	710	0									0	1,670	2,380
Study Area	4,805,860	869,480	1,517,250	313,010	654,080	341,840	100,160	24,380	15,960	252,800	2,330	43,790	8,940,940

Source: BLM 2012a

USFS – US Forest Service; BOR – Bureau of Reclamation; BIA – Bureau of Indian Affairs; DOD – Department of Defense; USFWS – US Fish and Wildlife Service; CADFG – California Department of Fish and Game

¹Water represents lakes and ponds

²Includes Bureau of Reclamation, Bureau of Indian Affairs, Department of Defense, regional park, and private lands, which are not broken out individually for California regions

Key Features

The 4.8 million acres of BLM-administered land in the planning area includes a diverse range of natural landscapes and unique social and economic conditions, ranging from wildland-urban interface, grazing lands, and mining towns to rural communities and large expanses of federally managed land. The varied topography, geology, soils, flora, and fauna in the RMP planning area are typical of the high desert. Opportunities for recreation abound, with an emphasis on off-highway vehicle (OHV) use in many areas of the district. Opportunities for fishing, hunting, hiking, horseback riding, and camping are also available.

Based on the Socioeconomic Baseline Assessment Report (BLM 2013), in 2010, the total population of the counties within or overlapping the planning area was 709,340, ranging from 1,175 in Alpine County, California, to 421,407 in Washoe County, Nevada. The population density for this area in 2010 varied from approximately 1.3 people per square mile in Mineral County, Nevada, to 382.1 persons per square mile in Carson City, Nevada. The average population density for the 11 counties in the study area was 16.1 persons per square mile, less than state averages for both Nevada and California, which were 24.6 and 239.1 persons per square mile, respectively. This is an increase from 2000, when the population density was 13.3 for this area. In 2000, the population densities ranged from 1.4 persons per square mile in Mineral County, Nevada, to 362.6 persons per square mile in Carson City, Nevada.

In 2010, the vast majority of the population in the study area resided in Washoe County in the city of Reno (225,221 people) and the surrounding metropolitan area (including Sparks, 90,264 people, and Sun Valley, 19,299 people). Other population centers in the study area include Carson City, with a population of 55,274 in 2010, and the city of Fernley in Lyon County, with a population of 19,386 in 2010 (US Census Bureau 2010a).

Forecast

According to findings in the Socioeconomic Baseline Report (BLM 2013), population within the planning area is projected to experience an increase for all counties from 2015 to 2030. Populations are expected to increase by approximately 20 percent across the entire study area, with Nye County, Nevada, having the strongest growth (22 percent) and Alpine County, California, having the weakest growth (less than 1 percent). All other Nevada counties are expected to grow by between 8 and 16 percent between 2015 and 2030, which is equal to the expected growth of both states (approximately 15 percent each). All California counties are expected to grow by less than 10 percent.

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CHAPTER 3

CURRENT MANAGEMENT DIRECTION

This chapter describes the current management situation for BLM-administered lands in the Carson City Planning Area (CCDPA). Current management actions are found in the Carson City Field Office Consolidated RMP (BLM, 2001) (CRMP) and subsequent amendments. These management actions form the basis of the No Action Alternative that will be evaluated in the RMP/EIS and describe the management direction that would continue into the future if the BLM does not revise the CRMP.

This chapter is divided into five sections: Resources, Resource Uses, Special Designations, Support, and Social and Economic Conditions.

Section 3.1 Resources: Describes the current management direction for the natural, biological, and cultural components that make up the CCDPA. These resources include air and climate change, soil, water, vegetation, special status species, fish and wildlife (including; allocated animal units for certain game species, riparian/meadow habitat, springs, and activity plans), wild horse and burros, wildland fire management, cultural resources, paleontological resources, visual resources, (**Table 3-1**, Current Management Direction for Air and Climate Change, through **Table 3-15**, Current Management Direction for Visual Resources), along with cave and karst resources, and wilderness characteristics.

Section 3.2 Resource Uses: Describes the current management direction for activities that use the natural, biological, and cultural components of the CCDPA. Resource uses include forestry and woodland products, livestock grazing, geology and minerals, recreation and visitor services, comprehensive trail and travel management, renewable energy, and lands and realty (including: land use allocations and tenure adjustments, communication sites, and right-of-way): **Table 3-16**, Current Management Direction for Forestry and Woodland

Products, through **Table 3-24**, Current Management Direction for Land Use Authorizations: Rights of Ways.

Section 3.3 Special Designations: Describes areas of critical environmental concern, natural areas, scenic areas, national backcountry byways, national historic and recreation trails, wild and scenic rivers and wilderness study areas within the CCDPA: **Table 3-25**, Current Management Direction for Areas of Critical Environmental Concern, through **Table 3-31**, Suitable and Non-suitable Acres in WSAs.

Section 3.4 Support: Describes cadastral resources, interpretation and environmental education, and transportation systems and facilities used in the CCDPA: **Table 3-32**, Current Management Direction for Interpretation and Environmental Education.

Section 3.5 Social and Economic Conditions: Describes the social and economic condition of the CCDPA, including tribal interests, public safety, and socio-economic conditions.

3.1 RESOURCES

3.1.1 Air and Climate Change

Table 3-1
Current Management Direction for Air and Climate Change

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	SWA-1	2001	Maintain air quality standards through case by case review of activities on public lands.	Ongoing
CRMP	SWA-3	2001	Authorized activities will be reviewed to determine appropriate measures or stipulations to enhance positive or reduce negative air quality impacts.	Ongoing
CRMP	SWA-3	2001	Air quality will be protected through compliance with the Clean Air Act of 1990 and all federal, state and local emission standards for air quality. Section 176(c) of the Clean Air Act 42 (USC 7506 states that "No department, agency or instrumentality of the federal Government shall engage in, support in any way, or provide federal assistance for, license or permit, or approve any activity which does not conform to an implementation plan after it has been promulgated under section 110 of the Clean Air Act."	Ongoing

3.1.2 Soil Resources

**Table 3-2
Current Management Direction for Soil Resources**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	SWA-1	2001	Reduce soil loss and associated flood and sediment damage on public lands caused by accelerated wind and water erosion due to man's actions.	Ongoing
CRMP	SWA-2	2001	Limit any Bureau development, authorized activity, or land treatment so not to exceed a 50% reduction in ground cover in High Erosion Susceptibility Areas (HESA). Exceptions include water stabilization projects designed to promote vegetative cover, "open" OHV designations on Prison Hill, North Flannigan, Pah Rah Mountains, McClellan Peak, and East Churchill Canyon, non-discretionary mining and prospecting activities, lands disposal in HESAs, green firewood cutting in Bailey Canyon HESA and Christmas tree cutting in the Brunswick Canyon.	Ongoing
CRMP	SWA-2	2001	Limit off-highway vehicle use to designated roads and trails in areas of severe erosion hazard susceptibility and in watersheds where OHV use is causing flood and sediment problems. The areas to be limited, include: Peterson Mountain Warm Springs/Hungry Valley Sun Valley Jumbo/Geiger Grade Portions of Prison and C Hill Mullen Pass	Ongoing

3.1.3 Water Resources

**Table 3-3
Current Management Direction for Water Resources**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WAT-1	2001	Protect, maintain, restore and/or enhance the quality of water on public lands so that its utility for other dependent ecosystems will be maintained equally or above legal water quality criteria.	Ongoing

**Table 3-3
Current Management Direction for Water Resources**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WAT-1	2001	Districts are responsible for maintaining up-to-date water use inventory data and water rights records, including identifying locations that have springs which may qualify as a Public Water Reserve No. 107.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	7	2001	The Navy and BLM will not allow access to the subsurface by drilling or any other means and/or removal of any subsurface material from the Shoal Site without thorough evaluation and coordination with Department of Energy.	Ongoing

3.1.4 Vegetation

**Table 3-4
Current Management Direction for Vegetation**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LSG-1	2001	Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values.	Ongoing
CRMP	LSG-1	2001	Manage livestock use at existing levels.	Ongoing
CRMP	LSG-1	2001	Provide adequate, high quality forage for livestock by improving rangeland condition.	Ongoing
CRMP	LSG-1	2001	Improve overall range administration.	Ongoing
CRMP	LSG-1	2001	Within ten years the objective of the proposed action is to cause an overall shift in ecological condition of the native ranges follows: (1) increase excellent condition by 3,017 acres, (2) increase good condition by 28,448 acres, (3) reduce fair condition by 12,687 acres and poor condition by 18,778 acres.	Ongoing
CRMP	LSG-2	2001	Maintain a sufficient quality and diversity of habitat and forage for livestock, wildlife, and wild horses through natural regeneration and/or vegetation manipulation methods.	Ongoing
CRMP	LSG-2	2001	Improve the vegetation resource and range condition by providing for the physiological needs of key plant species.	Ongoing

**Table 3-4
Current Management Direction for Vegetation**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LSG-2	2001	Reduce soil erosion and enhance watershed values by increasing ground cover and litter.	Ongoing
CRMP	LSG-2	2001	Improve and maintain the condition of the riparian habitat.	Ongoing
CRMP	LSG-2	2001	Lahontan Resource Area-Authorize livestock use at the three-year average use level of (94,481 AUMs 1987 LMDS0 (64,239 AUMs 1985 LMDS). There would be no initial decision to adjust active preference.	Ongoing
CRMP	LSG-2	2001	Discontinue livestock grazing in allotments where grazing is no longer practical due to land ownership patterns, real estate development, and disposal of the connected base properties. A. Dry Lake B. Pah Rah Mountains C. No grazing implemented on Haskell Peak.	Ongoing
CRMP	LSG-2	2001	Walker Resource Area – Authorize livestock use at the three-year licensed use level of 36,962 AUMs. No initial change in active preference.	Ongoing
CRMP	LSG-2	2001	Black Canyon Road will not be used for public access.	Ongoing
CRMP	LSG-2	2001	Faye Canyon, Spratt Creek and Hangman allotments will continue as areas set aside for wildlife use.	Ongoing
CRMP	LSG-2	2001	Pine Nut-Markleeville Planning Units- Authorize livestock's use at the three-year average licensed use level of 11,536 AUMs. No initial change is active preference.	Ongoing
CRMP	LSG-2	2001	Exclude livestock grazing from Prison Hill, Diamond Valley, Spratt Creek, Hangman, Faye Canyon, and Luther Creek allotments as grazing administration is no longer practical.	Ongoing
CRMP	RIP-2	2001	Protect and maintain existing and potential fisheries and riparian areas in good or better condition (proper functioning condition).	Ongoing
CRMP	FOR-1	2001	Allow commercial timber sales (Markleeville and Long Valley Planning Units) consistent with VRM class designations and objectives for scenic value management.	Ongoing

**Table 3-4
Current Management Direction for Vegetation**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	FOR-1	2001	Commercial sales will not be allowed in the Class II VRM area (Indian Creek Recreation Lands) that is highly visible from recreation developments unless needed for disease or hazard reduction.	Ongoing
CRMP	FOR-1	2001	Salvage and sanitation cutting of commercial timber and other cutting consistent with VRM and wildlife guidelines will be provided for in the Long Valley and Markleeville Planning Units.	Ongoing
CRMP	FOR-1	2001	Sell green pinyon and juniper for fuelwood and fence posts, for personal use, at the rate of up to 5,000 cords and 1,000 posts annually. These sales would take place only in areas where there would be no conflicts, or in areas where the conflicts could be mitigated.	Ongoing
CRMP	FOR-1	2001	The sale of dead standing and down fuelwoods, for personal use, with the exception of standing cottonwood or aspen, will continue in the Reno CCDPA outside of deer migration corridors and identified critical watersheds. Any sales within identified high erosion areas must not reduce ground cover more than 50 percent	Ongoing
CRMP	FOR-1	2001	The J.W. Ranch area will be open to woodcutting for a one-year period to improve forage for wintering mule deer.	Unknown
CRMP	FOR-1	2001	Pinyon pine nuts may be harvested throughout the Field Office area of jurisdiction. The first 25 pounds are free and do not require a permit. After the initial 25 pounds the harvester is considered a commercial user and will be required to get a permit and pay fair market value. Commercial use is subject to Field Office Manager approval.	Ongoing
CRMP	FOR-1	2001	Protect the five-acre stand of western white pine located in T 11 N. , R 22E. , Sec. 16, from damage or destruction.	Ongoing
CRMP	FOR-2	2001	Limit logging in the East Fork of the Carson River Canyon to Class II VRM recommendations. Logging would be allowed if the visual quality of the canyon will be maintained. Salvage logging will be	Ongoing

**Table 3-4
Current Management Direction for Vegetation**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			allowed if the Watashema Dam is constructed.	
CRMP	WLD-2	2001	Protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.	Ongoing
CRMP	WLD-2	2001	Maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses.	Ongoing
CRMP	WLD-2	2001	Maintain or improve the habitat condition of meadow and aquatic areas. Habitat condition for any wildlife species can be defined as the ability of a specific area to supply the forage, cover, water, and space requirements of an animal. Habitat condition, therefore, is a measure of habitat quality, and is determined by assessments, surveys and studies.	Ongoing
CRMP	WLD-2	2001	Maintain or improve the condition of the public rangelands so as to enhance productivity for all rangeland values (including wildlife).	Ongoing
CRMP	WLD-4	2001	Dead-standing or live cottonwood or aspen trees will remain. Any dead or live trees in identified deer migration corridors will be left for wildlife use.	Ongoing
CRMP	SWA-4	2001	In order to insure watershed health, control or elimination of noxious weeds on both upland and riparian areas will be in cooperation with local, state, and other federal agencies, as well private groups or other interested parties.	Ongoing
CRMP	FIR-5	2001	Prescribed burns will be reseeded, using native species to the extent practical, wherever residual vegetation is not adequately abundant to revegetate the sites naturally, prevent domination by invasive weed species, and meet ecosystem restoration objectives.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	3	2001	Navy and BLM will coordinate with appropriate agencies and will implement approved integrated pest management plans to control and remove undesirable vegetation.	Ongoing

**Table 3-4
Current Management Direction for Vegetation**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	The Navy and BLM, in coordination with NDOW, will determine if additional management is required for the riparian area at Horse Creek.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	6	2001	The Navy and BLM will delineate existing vegetation areas that depend on water from existing flowing wells (e.g., in Settlement Area), which support both military training and wildlife habitat.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	6	2001	Management of delineated areas will require a new water right filing with the State of Nevada for a new beneficial use for wildlife. Management of these areas will include fencing.	Ongoing

3.1.5 Special Status Species

**Table 3-5
Current Management Direction for Special Status Species**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	SSS-3	2001	Support reintroduction of Lahontan cutthroat trout, bighorn sheep and other endemic species into suitable, potential and historic habit. Specifically, the Stillwater, Clan Alpine, and Desatoya mountains for desert bighorn sheep and streams and springs identified by NDOW as potential habitat for Lahontan cutthroat trout and other T & E fish.	Ongoing
CRMP	SSS-3	2001	Use fencing, emergency OHV closure, no disposal of public lands, minerals' coordination, or any other legal means necessary to protect identified T/E plant populations. Work with applicants who present mining plans to avoid destruction of T/E plant populations, following guidance in the 43 CFR 3802 and 3809 regulations.	Ongoing

**Table 3-5
Current Management Direction for Special Status Species**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-2	2001	Eliminate OHV use where T&E plants are located.	Ongoing
Final Southern Washoe County Urban Interface Plan	77-78	2001	Designate proposed Carson Wandering Skipper and Virginia Range Williams Combleaf ACECs.	Completed

3.1.6 Fish and Wildlife

**Table 3-6
Current Management Direction for Fish and Wildlife**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	COM-2	2001	Protect important natural, recreation, wilderness, wildlife, watershed, visual, and Native American values by prohibiting future communication and electronic warfare sites of all types in the most sensitive areas. These include portions of the Clan Alpine, Desatoya, Stillwater, Gabbs Valley and Simpson Park Mountain Ranges, Bald Mountain and the Sand Mountain and Hickison Petroglyph recreation areas.	Unknown
CRMP	MIN-2	2001	Areas Where Existing Withdrawals and Segregation from Mineral Entry Will be Maintained (22,500 acres): <ul style="list-style-type: none"> • Key Watershed and Wildlife Areas • Alkali Lake • Antelope Valley • Pine Nut Mountains • Topaz Lake 	Ongoing
CRMP	SWA-2	2001	Critical or at-risk watersheds will be delineated as necessary in order to give these areas special consideration in activity plan development, with the goal of preventing accelerated soil loss and watershed degradation, associated flood and sediment damage to private property or adjacent lands, or to prevent destruction of important wildlife habitat. Delineate high erosion hazard and/or flood-prone areas within the urban interface areas.	Ongoing

Table 3-6
Current Management Direction for Fish and Wildlife

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-2	2001	Eliminate OHV use in the following locations: <ul style="list-style-type: none"> • Through or in the immediate vicinity (near enough to the water source that its water quality or water quantity may be affected) of any surface water source, such as a spring or seep. • Any riparian area associated with meadows, marshes, springs, seeps, ponds, lakes, reservoirs or streams. • Any channel bank, or streambed of a perennial stream. 	Not Implemented
CRMP	RIP-2	2001	Riparian protection measures would involve implementation and evaluation of grazing management systems and techniques which have been designed to enhance riparian habitats before initiating extensive fencing of specific areas to exclude wild horses and livestock. Riparian and fisheries habitat protection measures will involve fencing of some specific areas to prevent over-utilization and trampling. Some grazing uses by livestock and wild horses could occur on those riparian areas where monitoring studies indicate the area has recovered to a good or better condition class. The degree and season of grazing use will be determined through consultation and coordination with affected livestock permittees and other interested parties.	Ongoing
CRMP	WLD-2	2001	Initially, manage habitats for existing numbers of big game.	Outdated
CRMP	WLD-2	2001	Manage wildlife habitat for a long-term goal of providing forage for reasonable numbers of big game as displayed in Table 3-7 , Allocated Animal Unit Months for Certain Game Species.	Outdated
CRMP	WLD-2 RIP-2	2001	Protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.	Ongoing

**Table 3-6
Current Management Direction for Fish and Wildlife**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WLD-2	2001	Maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses.	Ongoing
CRMP	WLD-2	2001	Maintain or improve the habitat condition of meadow and aquatic areas. Habitat condition for any wildlife species can be defined as the ability of a specific area to supply the forage, cover, water, and space requirements of an animal. Habitat condition, therefore, is a measure of habitat quality, and is determined by assessments, surveys, and studies.	Ongoing
CRMP	WLD-2	2001	Maintain or improve the condition of the public rangelands so as to enhance productivity for all rangeland values (including wildlife).	Ongoing
CRMP	WLD-3	2001	Intensive grazing systems will be implemented on the category I allotments within mule deer habitat areas which have cattle, and will recognize bitter-brush as a key species on these allotments.	Expired
CRMP	WLD-3	2001	The Faye Canyon, Spratt Creek and Hangman allotments will continue as areas set aside for wildlife use.	Complete
CRMP	WLD-3	2001	Limit OHV use to designated roads and trails in the Petersen Mountain and Sand Hills crucial deer areas.	Not Completed
CRMP	WLD-3	2001	Limit vehicle traffic to designated roads and trails in the higher elevations of the Pine Nut Mountains. All existing roads and trails will be designated open to OHV use except where roads or trails impact sensitive meadows, seeps, springs and other waters as identified in the watershed decisions.	Not Completed
CRMP	WLD-3	2001	Carson City District's Normal Year Fire Plan will provide for maximum protection of Sand Hills deer winter range from wildfires.	Ongoing
CRMP	WLD-3	2001	The JW Ranch area will be open to commercial or noncommercial wood cutting for a one year period to improve forage for wintering mule deer. If this practice does not accomplish the desired	Expired

**Table 3-6
Current Management Direction for Fish and Wildlife**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			objective, chaining and reseedling will be allowed.	
CRMP	WLD-3	2001	Dead-standing or live cottonwood or aspen trees will remain. Any dead or live trees in identified deer migration corridors will be left for wildlife use.	Ongoing
CRMP	WLD-3	2001	Protect all occupied identified raptor eyries threatened by OHV events or mining operations with area closures from March 1st thru June 15.	Ongoing
CRMP	WLD-4	2001	All riparian areas will be given special management consideration through the consultation and coordination process to provide for adequate protection.	Ongoing
CRMP	WLD-5	2001	Acquire private lands in the following areas for wildlife: <ul style="list-style-type: none"> • Lassen-Washoe deer winter range and migration corridor. About 7,400 acres. • Pine Nut Mountains for wildlife habitat management, about 35,000 acres. • Acquire legal access to Faye Canyon, Bagley Valley and the Hangman's Bridge area near Markleeville. Legal access will be acquired in coordination with the USFS. • Acquire or provide legal access through or around Big Canyon, Cottonwood Canyon and Hardscrabble Canyon to provide vehicular access into the Virginia Mountains. Legal access will be provided for administration of BLM lands. 	Unknown
CRMP	WLD-5	2001	Implement range improvement projects to protect and improve (big game) mule deer, bighorn sheep, sage grouse, fisheries, and riparian habitat and to improve livestock and wild horse distribution and vegetation utilization. This includes the following 12 improvements or category of improvements.	Ongoing

**Table 3-6
Current Management Direction for Fish and Wildlife**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WLD-5	2001	Protection of 10.7 miles of fishable rivers and creeks.	Complete
CRMP	WLD-5	2001	Rehabilitation of meadow habitats in the McBride Flat allotment.	Expired
CRMP	WLD-5	2001	Removal of 600 acres of pinyon-juniper overstory on selected sites in the Pine Nut Mountains, Excelsior Mountains, Wassuk Range, and the McBride Flat area through fuelwood harvest.	Not Completed
CRMP	WLD-5	2001	Installation of 10 guzzlers	Completed
CRMP	WLD-5	2001	Development of water for wildlife at six spring development and 5 undeveloped riparian areas.	Unknown
CRMP	WLD-6	2001	Removal of 250 acres of pinyon-juniper and potential chaining and seeding in the J-W Ranch area.	Completed
CRMP	WLD-6	2001	Rehabilitate 6,000 acres of burned deer winter range (Peterson Mountain).	Completed
CRMP	WLD-6	2001	Rehabilitate 6,000 acres of burned critical deer winter range. The specific locations and types of rehabilitation will be determined by consultation and coordination through a public process.	Unknown
CRMP	WLD-6	2001	Fencing of small habitats will be accomplished through the Activity Planning process and will include public participation and collaboration.	Ongoing
CRMP	WLD-6	2001	Wildlife habitat improvement projects will be guided, in the most part, by provisions in activity level plans such as habitat management plans (see Table 3-10 , Activity Plans), or interdisciplinary activity plans. These plans will be developed through consultation with interested parties and will be coordinated with livestock, wild horse, and wilderness plans. These plans will be focused on rehabilitation and improvement of wildlife habitat through protective fencing, water developments, grazing management, and vegetation treatments.	Outdated
CRMP	WLD-6	2001	Riparian protection measures would involve implementation and evaluation of grazing management systems and techniques which have been designed to	Ongoing

Table 3-6
Current Management Direction for Fish and Wildlife

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			enhance riparian habitat before initiating extensive fencing of specific areas to exclude wild horses and livestock. Riparian and fisheries habitat protection measures will involve fencing of some specific areas to prevent over-utilization and trampling. Some grazing uses by livestock and wild horses could occur on those riparian areas where monitoring studies indicate the area has recovered to a good or better condition class. The degree and season of grazing use will be determined through consultation and coordination with affected livestock permittees and other interested parties.	
CRMP	WLD-6	2001	Protection of 95 small wildlife habitat areas. This also includes protection of riparian/meadow habitat areas prioritized in Table 3-8 , Priority Riparian/Wet Meadow Habitat Areas for Protection, and protection of 65 spring sources with the top 20 prioritized in Table 3-9 , The Top 20 Prioritized Springs for Protection.	Ongoing
CRMP	REC-4	2001	Peterson Mountains closed to OHV use year round.	Completed
CRMP	REC-4	2001	Occupied Raptor Eyries are restricted March 1 to June 15 for OHV event and mining operations.	Ongoing
CRMP	REC-4	2001	Sand Hill Critical Deer Range restrictions from December 1 to April 30.	Ongoing
CRMP	MIN-3	2001	Restrictions in the spring for six sage-grouse strutting grounds for oil and gas leasing.	Ongoing
CRMP	MIN-3	2001	Restrictions from March 1 to July 30 for sage-grouse habitat for oil and gas leasing.	Ongoing
CRMP	MIN-3	2001	Restrictions in the spring for all sage-grouse strutting grounds for geothermal leasing.	Ongoing
CRMP	WLD-3	2001	Restrictions for March 1 to July for Bedell Flat sage-grouse strutting ground.	Ongoing
CRMP	MIN-4	2001	Restrictions from February 1 to September 1 for prairie falcon habitat.	Expired
Final Southern Washoe County Urban Interface Plan	7	2001	A master plan is being developed, with Washoe County, Nevada National Guard, Audubon Society, City of Reno, and	Master Plan completed in 2012

**Table 3-6
Current Management Direction for Fish and Wildlife**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
Amendment			Nevada Division of Wildlife, for the Swan Lake Nature Study Area in Lemmon Valley. The 160 acres of public land, located in this area, will be withdrawn from locatable mineral entry; motorized vehicle use will be restricted to "designated" roads only. Any non-federal lands within the Swan Lake Nature Study Area will be considered for acquisition by BLM and these lands will be managed consistent with this plan amendment.	
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	BLM and Navy will jointly coordinate with Animal Plant Inspection Service (APHIS) for predator control, when needed.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	BLM and NDOW will coordinate to assess the potential for sage grouse habitat within the Management Area.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	The Navy, BLM and NDOW will coordinate to develop a cooperative agreement to provide access to the six wildlife guzzlers located south of Fairview Peak.	Ongoing

**Table 3-7
Allocated Animal Unit Months for Certain Game Species**

Resource Area	Species	Animal Units Months
Lahontan Resource Area	Mule Deer	13,254
Lahontan Resource Area	Bighorn Sheep	960
Lahontan Resource Area	Antelope	Objectives only in the Rangeland Program Summary
Walker Resource Area	Mule Deer	9,220
Walker Resource Area	Bighorn Sheep	180
Walker Resource Area	Antelope	Objectives only in the Rangeland Program Summary

**Table 3-8
Priority Riparian/Wet Meadow Habitat Areas for Protection**

Site	Miles or Acres
Edwards Creek	4.6 miles
Horse Creek	5 miles
Big Dens Creek	6 miles
Cherry Valley Meadows	1600 acres

Table 3-8
Priority Riparian/Wet Meadow Habitat Areas for Protection

Site	Miles or Acres
Park Canyon Creek	1.1 miles
Willow Creek	3.4 miles
War Canyon Creek	5.1 miles
Cherry Creek	4.6 miles
Carson River	0.2 miles

Table 3-9
The Top 20 Prioritized Springs for Protection

Inventory Number	Area	Location
K0780008A 13	Cherry Valley	T.20 N., R.36 E, Sec.33, NE
K0770001A 13	South War Canyon	T.20 N., R.26 E, Sec.13, NESW
K0770002A 13	South War Canyon	T.20 N., R.36 E, Sec.23, NWNW
K0770003A 13	South War Canyon	T.20 N., R.36 E, Sec.23, SWSW
K0780003A 13	South War Canyon	T.20 N., R.36 E, Sec.28, SESW
L0020007B 63	Burnt Canyon	T.19 N., R.33 E, Sec.33, NESW
D0370001A 13	Cherry Valley	T.20 N., R.36 E, Sec.20, SESE
D0370002A 58	Cherry Valley	T.20 N., R.36 E, Sec.28, SWNW
D0580002A 12	Silver Hill	T.21 N., R.33 E, Sec.12, SENW
D0570002A 13	Silver Hill	T.21 N., R.33 E, Sec.07, NWNW
D0570001A 12	Silver Hill	T.21 N., R.33 E, Sec.12, SENW
D0610001B 42	Mud Spring	T.20 N., R.34 E, Sec.05, SWNE
D0610005A 13	East Job Canyon	T.21 N., R.33 E, Sec.25, NESW
D0580004A 13	West Wood Canyon	T.21 N., R.34 E, Sec.30, SWNE
D0360001A 36	Mount Augusta	T.19 N., R.36 E, Sec.09, SESE
K0750004A 13	North War Canyon	T.20 N., R.37 E, Sec.19, NWSE
K0750006A 13	North War Canyon	T.20 N., R.37 E, Sec.18, NESW
K0750007A 13	North War Canyon	T.20 N., R.37 E, Sec.18, SENW
K0440004A 27	Straight Canyon	T.21 N., R.38 E, Sec.30
K0440005A 27	Rocky Canyon	T.21 N., R.38 E, Sec.19

Table 3-10
Activity Plans

Habitat Management Plans (HMP)	Completion Date
Stillwater Range HMP	September 1987
Amendment to Stillwater Range and Clan Alpine HMPs	August 1995
Lassen-Washoe Wildlife Habitat Area HMP (Revised)	June 1988
Desatoya Mountains HMP	June 1994
Desatoya Range Bighorn Sheep HMP	August 1986
HMP Desert Mountains Wildlife HMA	June 1983
HMP Sand Springs - Fairview Peak	April 1981
HMP Dogskin - Virginia Mountain Wildlife HMA	September 1977
HMP Pah Rah Range Wildlife HMA	August 1982

**Table 3-10
Activity Plans**

Habitat Management Plans (HMP)	Completion Date
Pine Nut HMP (Revised)	March 1987
Mina HMP	August 1988
Gillis Mountains Desert Bighorn Sheep Release Package	October 1997
Clan Alpine HMP	February 1988

3.1.7 Wild Horse and Burros

**Table 3-11
Current Management Direction for Wild Horse and Burros**

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WHB-2	2001	Initially, manage for wild horses and their habitat in herd areas at current population levels, or at a level identified in an approved activity plan.	Complete
CRMP	WHB-2	2001	Maintain sound thriving populations of wild horses within herd management areas	Ongoing
CRMP	WHB-2	2001	Maintain or improve the condition of public rangelands to enhance productivity for wild horses and burros within herd management areas.	Ongoing
CRMP	WHB-2	2001	Totally remove wild horses from the following areas: Pah Rah WHA Jumbo WHA Southern Pine Nut WHA	Completed 1984 – ongoing maintenanc e in the Southern Pine Nut area due to horses moving south from the HMA.
CRMP	WHB-2	2001	Propose an area of about 68,000 acres in the Marietta Land Area for designation as the Marietta National Wild Burro Range.	Completed

3.1.8 Wildland Fire Ecology and Management

Table 3-12
Current Management Direction for Wildland Fire Ecology and Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	FIR-2	2001	Restore fire as an integral part of the ecosystem, improve the diversity of vegetation, and reduce fire hazard fuels.	Ongoing
CRMP	LSG-1	2001	Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values.	Ongoing
CRMP	WLD-2	2001	Maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses.	Ongoing
CRMP	WLD-2	2001	Protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.	Ongoing
CRMP	CUL-1	2001	Cultural and paleontological resources will be protected to the maximum extent practicable, consistent with other resource values.	Ongoing
CRMP	FOR-1	2001	Forest and woodland management will be based on the principles of multiple use, sustained yield, and ecosystem management.	Ongoing
CRMP	REC-2	2001	Provide a wide range of quality recreation opportunities on public lands under management by the Carson City Field Office.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	3 and 4	2001	<p>The BLM will integrate all Navy closed and open lands, except Main Station, into the Fire Management Final Plan Amendment (BLM, 1998). Currently fire management is handled by the NAS fire department. Due to the location and proximity to BLM lands, incorporation of Navy lands (not including the Main Station) into the Fire Management Final Plan Amendment is effective and efficient. The plan amendment assigns fire management categories to all public lands managed by the Carson City Field Office.</p> <p>Category A. Those areas where wildlife suppression is warranted, including threatened and endangered species habitat and urban/wildland interface. Full suppression of wildlife will be the objective.</p> <p>Category B. Those areas where wildfire suppression is not warranted, but where,</p>	Completed

Table 3-12
Current Management Direction for Wildland Fire Ecology and Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<p>if fires occur and escape, management options on how to suppress the fire are available. Escaped fire will be closely analyzed to protect life, the property, then natural resources, and suppression strategies that will most effectively meet these goals will be used.</p> <p>Category C. Those areas where fire has a significant role in the environment and where wildfire should be used to accomplish resource management goals. Constraints exist but are generally localized (e.g., small towns, ranches, riparian sites), and will require buffer zones of full protection and fuels treatments; but as a whole, the areas are delineated for the beneficial effects of fire. Category D. Those areas where wildfire should be allowed to burn in a mostly unrestricted fashion to achieve resource objectives. All fires receive a response and will be evaluated for potential threats or negative impacts. Fire suppression will be limited to protecting small sites with constraints (such as ranches, improvements, or riparian zones).</p>	
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	All Navy withdrawn and owned lands will be assigned a category to match those of adjacent BLM lands, most likely Category D.	Completed
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	BLM will assist the Navy in developing and implementing fire prevention measures pursuant to the Military Lands Withdrawal Act of 1999.	Completed
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	Pursuant to the Navy and BLM mutual aid agreement, both parties would conduct air and ground suppression activities where they are determined to be necessary and safe.	Completed
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	The Navy and BLM will coordinate with appropriate agencies (i.e., State of Nevada and Churchill County) for fire suppression activities.	Completed

3.1.9 Cultural Resources

**Table 3-13
Current Management Direction for Cultural Resources**

Decision/ Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-4	2001	Designate appropriate sites for public use and provide access and information. Promote visitation and interpretation of the resource: <ul style="list-style-type: none"> • Grimes Point • Hidden Cave • Pony Express Stations at Sand Springs and Cold Springs • Cold Springs Telegraph and State Stations • New Pass Overland Stage Station 	Ongoing
CRMP	CUL-1	2001	Scientifically excavate, stabilize, and developed as public interpretive sites the Sand Springs and Cold Springs Pony Express Stations.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	BLM and Navy will preserve, protect, and interpret significant cultural resources by preparing an agreement document between the Navy, BLM, and the Nevada State Historic Preservation Officer (SHPO), which defines how the Navy and BLM will implement the NHPA.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	The Navy/BLM will coordinate with Native American Tribes and individuals in accordance with BLM policy.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	Navy/BLM will prepare treatment options for contextual studies.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	Navy/BLM will perform research projects to aid contextual studies.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	Navy and BLM will share cultural information.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	All proposed Navy/BLM activities will be subject to NHPA Section 106 review.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	7	2001	BLM will pursue withdrawal of locatable minerals from operation of the 1872 Mining Law at Grimes Point Archaeological Area, Sand Mountain Recreation Area and the Cold Springs Historical Site.	Not Completed

3.1.10 Paleontological Resources

Table 3-14
Current Management Direction for Paleontological Resources

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	CUL-4	2001	Manage paleontological resources for preservation, protection, scientific use, recreational use, and educational use. The BLM must insure that authorized land uses do not inadvertently damage or destroy important paleontological resources on public land.	Ongoing

3.1.11 Visual Resources

Table 3-15
Current Management Direction for Visual Resources

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	VRM-2	2001	Manage the following areas to achieve VRM Class II standards. Changes in the landscape caused by management activities should not be evident or attract attention. A. Incandescent Rocks B. Red Rocks C. Mount Siegel D. Burbank Canyons E. East Fork of the Carson River F. Indian Creek G. Walker Lake H. East Walker River	Ongoing
CRMP	VRM-3	2001	Manage the following areas to achieve VRM Class III standards. Activities may be evident in the landscape, but should remain subordinate to the existing landscape characteristics. A. Virginia Mountains B. Palomino Valley C. Spanish Springs Valley D. Winnemucca Ranch Valley E. Pah Rah North F. Truckee River G. Fort Sage H. Long Valley I. Red Rock Road J. Peavine Transferred to USFS K. Mount Rose. Transferred to USFS	Ongoing

Table 3-15
Current Management Direction for Visual Resources

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			L. Huffaker Hills M. Orlean Hills N. Virginia City O. Flowery Ridge P. Lower Carson River Q. Carson City R. Prison Hill S. Rawe Peak T. Pine Nut Mountains Crest U. Highway 395 South V. Markleeville W. Bagley Valley	
CRMP	VRM-3	2001	Manage the following areas to achieve VRM Class IV standards. Development may attract attention and even dominate the landscape as long as the changes repeat the basic elements found in the landscape character. A. Common hills and valleys north of Reno B. Urban and congested lands around Reno C. Pah Rah South	Ongoing
CRMP	VRM-3	2001	Areas having outstanding (Class A) scenery will be protected if the Clan Alpine and Desatoya WSAs are designated as wilderness as recommended in this document.	Ongoing
CRMP	VRM-3	2001	Other areas in the Clan Alpine, Desatoya, Stillwater, and New Pass Ranges as well as Sand Mountain and the Carson River are ranked as having above average (Class B) scenery.	Ongoing
CRMP	VRM-4	2001	The Field Office Manager may allow temporary projects to exceed VRM standards if the project will terminate within two years of initiation and be in compliance with VRM objectives immediately upon removal and initial rehabilitation efforts.	Ongoing
Final Southern Washoe County Urban Interface Plan	4	2001	Designate 160,020 acres for retention in public ownership under the administration of the BLM. Lands retained in public ownership will be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources will be given priority over other land uses.	Ongoing Ongoing

3.1.12 Wilderness Characteristics

The CCD CRMP and subsequent amendments did not address wilderness characteristic resources.

3.1.13 Cave and Karst Resources

The CCD CRMP and subsequent amendments did not address any cave and karst resources.

3.2 RESOURCE USES

Resource uses involve activities that utilize the natural, biological, and/or cultural components of the CCDPA, such as mineral development, livestock grazing, and recreation.

3.2.1 Forestry and Woodland Products

Table 3-16
Current Management Direction for Forestry and Woodland Products

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	FOR-I	2001	Forest and woodland management will be based on the principles of multiple use, sustained yield, and ecosystem management.	Ongoing
CRMP	FOR-I	2001	Allow commercial timber sales (Markleeville and Long Valley Planning Units) consistent with VRM class designations and objectives for scenic value management.	Ongoing
CRMP	FOR-I	2001	Commercial sales will not be allowed in the Class II VRM area (Indian Creek Recreation Lands) that is highly visible from recreation developments unless needed for disease or hazard reduction.	Ongoing
CRMP	FOR-I	2001	Salvage and sanitation cutting of commercial timber and other cutting consistent with VRM and wildlife guidelines will be provided for in the Long Valley and Markleeville Planning Units.	Ongoing
CRMP	FOR-I	2001	Sell green pinyon and juniper for fuel wood and fence posts, for personal use, at the rate of up to 5,000 cords and 1,000 posts annually. These sales would take place only in areas where there would be no conflicts, or in areas where the conflicts could be mitigated.	Ongoing
CRMP	FOR-I	2001	The sale of dead standing and down fuelwoods, for personal use, with the exception of standing cottonwood or aspen will continue in the Reno CCDPA outside of deer migration corridors and identified critical watersheds. Any sales within identified high erosion areas must not reduce ground cover more than 50 percent.	Ongoing

Table 3-16
Current Management Direction for Forestry and Woodland Products

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	FOR-1	2001	The J.W. Ranch area will be open to woodcutting for a one-year period to improve forage for wintering mule deer.	Ongoing
CRMP	FOR-1	2001	Pinyon pine nuts may be harvested throughout the Field Office area of jurisdiction. The first 25 pounds are free and do not require a permit. After the initial 25 pounds the harvester is considered a commercial user and will be required to get a permit and pay fair market value. Commercial use is subject to Field Office Manager approval.	Ongoing
CRMP	FOR-1	2001	Protect the five-acre stand of western white pine located in T 11N. , R 22E. , Sec. 16, from damage or destruction.	Ongoing
CRMP	FOR-2	2001	Limit logging in the East Fork of the Carson River Canyon to Class II VRM recommendations. Logging would be allowed if the visual quality of the canyon will be maintained. Salvage logging will be allowed if the Watahema Dam is constructed.	Ongoing
CRMP	FOR-2	2001	Commercial sales may be either negotiated or competitive bid depending on the size of the sale and local demand. Sales of 250,000 board feet or more will be competitive bid.	Ongoing
CRMP	FOR-2	2001	Maximum Field Office-wide harvest rates are currently 5,000 cords and 16,000 Christmas trees annually.	Ongoing

3.2.2 Livestock Grazing

Table 3-17
Current Management Direction for Livestock Grazing

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LSG-1	2001	Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values	Ongoing
CRMP	LSG-1	2001	Initially, manage livestock use at existing levels.	Ongoing
CRMP	LSG-1	2001	Provide adequate, high quality forage for livestock by improving rangeland condition.	Ongoing

Table 3-17
Current Management Direction for Livestock Grazing

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LSG-1	2001	Improve overall range administration.	Ongoing
CRMP	LSG-1	2001	Reno CCDPA-Within ten years the objective of the proposed action is to cause an overall shift in ecological condition of the native ranges follows: (1) increase excellent condition by 3,017 acres, (2) increase good condition by 28,448 acres, (3) reduce fair condition by 12,687 acres and poor condition by 18,778 acres.	Ongoing
CRMP	LSG-2	2001	Walker and Lahontan Rangeland Program Summary (RPS)-The long range objectives of the grazing management program are to manage, maintain, and improve the rangeland conditions on the public lands through the following: A. Maintain a sufficient quality, and diversity of habitat and forage for livestock, wildlife, and wild horses through natural regeneration and/or vegetation manipulation methods. B. Improve the vegetation resource and range condition by providing for the physiological needs of key plant species. C. Reduce soil erosion and enhance watershed values by increasing ground cover and litter. D. Improve and maintain the condition of the riparian habitat.	Ongoing
CRMP	LSG-2	2001	Lahontan Resource Area- Initially, authorize livestock use at the three-year average use level of (94,481 AUMs 1987 LMDS) (64,239 AUMs 1985 LMDS). There would be no initial decisions to adjust active preference.	Ongoing
CRMP	LSG-2	2001	Discontinue livestock grazing in allotments where grazing is no longer practical due to land ownership patterns, real estate development, and disposal of the connected base properties. (1). Dry Lake, (2). Pah Rah Mountains, (3). Peavine Watershed, (4). Haskell Peak.	Dry Lake is gone. Peavine Watershed transferred to USFS. No grazing implemented on Haskell Peak.

Table 3-17
Current Management Direction for Livestock Grazing

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LSG-2	2001	Walker Resource Area -Initially authorize livestock use at the three-year average licensed use level of 36,962 AUMs. There would be no initial change in active preference.	Ongoing
CRMP	LSG-2	2001	The Black Canyon Road will not be used for public access.	Ongoing
CRMP	LSG-2	2001	The Faye Canyon, Spratt Creek and Hangman allotments will continue as areas set aside for wildlife use.	Ongoing
CRMP	LSG-2	2001	Pine Nut-Markleeville Planning Units- Initially authorized livestock's use at the three-year average licensed use level of 11,536 AUMs. There would be no initial change in active preference	Ongoing
CRMP	LSG-2	2001	Exclude livestock grazing from the Prison Hill, Diamond Valley, Spratt Creek, Hangman, Faye Canyon, and Luther Creek allotments as grazing administration is no-longer practical.	Ongoing
CRMP	LSG-3	2001	Initiate land exchanges with the Southern Pacific Railroad and the private owners in the Spanish Springs to block up public lands in the White Hills and Olinghouse allotments.	Completed 01/31/1995, Depoli Phase II land exchange
CRMP	LSG-3	2001	Initiate land exchanges in the Jumbo Allotment to block in the higher country and to release lands in the low country next to residential zones.	Completed 04/2001 Laborde Land Exchange
Alpine County	6	2007	Harvey Flat, Indian Creek (California portion only) and Millberry Canyon Grazing Allotments – BLM managed lands in these allotments will be closed to livestock grazing.	Ongoing
Alpine County	6	2007	Sheep grazing will continue to be permitted on the Bagley Valley Allotment.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	BLM will manage livestock grazing on the open withdrawn lands at B19 in a manner consistent with adjacent lands.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	BLM will amend the existing permits for livestock grazing on lands closed to public access by the Military Lands Withdrawal Act of 1999. This amendment will consist of a livestock management decision to	Ongoing

Table 3-17
Current Management Direction for Livestock Grazing

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			reduce AUMs as a percentage of the allotment converted to closed status.	
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	The BLM will manage livestock on Navy-owned and withdrawn lands in a manner consistent with grazing practices on adjacent public lands and as per amended BLM AMP.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	The existing BLM AMPs for the three allotments adjacent to Navy lands will be amended to include management of the Navy lands.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	5	2001	The BLM will consult with the Navy prior to construction or removal of range improvements on Navy-owned and withdrawn lands.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	7	2001	BLM will manage livestock grazing on the open withdrawn land at Shoal Site in a manner consistent with grazing practices on adjacent public lands.	Ongoing

3.2.3 Geology and Minerals (Locatable, Salable, and Leasable Excluding Geothermal)

Table 3-18
Current Management Direction for Geology and Minerals

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LND-3	2001	Within the Carson City Urban Interface Plan Amendment Area: G. Management of mineral materials in the CCDPA would be determined through a joint aggregate resource plan to be developed with Carson City.	Not completed, managed case by case
CRMP	MIN-I	2001	Encourage development of energy and mineral resources in a timely manner to meet national, regional and local needs consistent with the objectives for other public land uses.	Ongoing
CRMP	MIN-I	2001	Areas Closed to Mineral Entry and Energy development: I. Lands Classified under the Classification and Multiple Use Act. (Approximately 8,000 acres in Sun Valley, Washoe Valley, Steamboat and Peavine	Ongoing

Table 3-18
Current Management Direction for Geology and Minerals

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<p>Mountain). Peavine Mountain Transferred to USFS.</p> <p>2. Within the Walker CCDPA about 11,000 acres is either segregated against mineral entry under the Classification and Multiple Use Act or withdrawn from mineral by through formal withdrawal processes.</p> <p>3. The Carson City Urban Interface Plan Amendment states:</p> <p style="padding-left: 40px;">a. Withdraw 17,892 acres from operation of the locatable mining laws and close these lands to mineral exploration and leasing to protect open space and other public land values. These are discretionary actions.</p>	
			<p>Areas Closed to Mineral Entry (22,672 Acres)</p> <ol style="list-style-type: none"> 1. Grimes Point Archaeological Area 400 acres 2. Cold Springs Historic Area 200 acres 3. Sand Mountain Recreation Area 2,760 acres 4. Stewart Valley ACEC (sensitive areas) 1,420 acres 5. Carson City Urban Interface 17,892 acres 	Ongoing
CRMP	MIN-2	2001	<p>Areas Where Mineral Entry and Development is Restricted to Valid Existing Rights (582,191 Acres) The following areas are Wilderness Study Areas (WSA) and are subject to the provisions of the Wilderness Interim Management Policy. These provisions restrict mining and energy development activities to those that are allowed under valid existing rights and do not impair wilderness quality. WSA designated as wilderness by Congress will be closed to mineral entry.</p> <ol style="list-style-type: none"> 1. Clan Alpine WSA: 196,128 acres 2. Stillwater WSA: 94,607 acres 3. Job Peak WSA: 90,209 acres 4. Desatoya WSA: 51,262 acres 5. Augusta Mountains WSA: 51,000 acres 6. Gabbs Valley Range WSA: 79,600 acres 7. Burbank Canyons WSA: 13,395 acres 	Ongoing

Table 3-18
Current Management Direction for Geology and Minerals

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			8. Slinkard WSA: 5,440 acres 9. Carson-Iceberg WSA: 550 acres	
CRMP	MIN-2	2001	Areas Where Existing Withdrawals and Segregation from Mineral Entry will be maintained (22,500 acres) <ul style="list-style-type: none"> 1. Key Watershed and Wildlife Areas <ul style="list-style-type: none"> a. Alkali Lake b. Antelope Valley c. Pine Nut Mountains d. Topaz Lake 2. Major Recreation and Scenic Areas <ul style="list-style-type: none"> a. East Walker River b. Wilson Canyon c. Walker Lake d. Prison Hill 	Ongoing
CRMP	MIN-2	2001	Areas Closed to Oil, Gas and Geothermal Leasing (45,392 acres) <ul style="list-style-type: none"> 1. Key Scenic, Wildlife, Recreation, and Historic Areas <ul style="list-style-type: none"> a. Jack's Valley - Transferred to USFS, 1988. b. East Walker River - Transferred to USFS, 1988. c. Walker Lake d. Indian Creek e. Virginia City f. Aurora (680 acres) - Transferred to USFS, 1988. g. Prison Hill h. Alkali Lake i. Wilson Canyon - South of River Transferred to USFS, 1988. j. Sand Mountain 1,960 acres k. Carson City Urban Interface 17,892 acres 	Ongoing
CRMP	MIN-3	2001	Areas Closed to Oil, Gas, Sodium and Potassium Leasing <ul style="list-style-type: none"> 1. Key Areas In the Reno CCDPA <ul style="list-style-type: none"> a. Galena Creek b. Whites Creek c. Jumbo Reservoir d. Truckee River e. E. Fork Carson River f. Carson River g. Jones Canyon Reservoir 	Ongoing

Table 3-18
Current Management Direction for Geology and Minerals

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	MIN-3	2001	<p>Areas Where Some Restrictions Apply to Oil and Gas Leasing</p> <ol style="list-style-type: none"> I. No Surface Occupancy (NSO) <ol style="list-style-type: none"> a. Within 500 feet of any water (Lahontan RMP Management Decisions Summary [MDS]) b. Within 300 feet of any water (Walker RMP MDS) c. Cold Springs Pony Express Station 40 acres d. Grimes Point 960 acres 2. Seasonal Restrictions on Activities <ol style="list-style-type: none"> a. Spring Restrictions <ol style="list-style-type: none"> i. Six Sage Grouse Strutting Grounds 56,320 acres (Fort Churchill/Clan Alpine Geothermal Environmental Assessment Report (EAR) 1975) ii. All Occupied Raptor Eyries b. March 1 to July 30 Restrictions <ol style="list-style-type: none"> iii. Sage Grouse Habitat 85,300 acres iv. East Walker River Area v. Pine Nut Mountains c. February 1 to September 1 10,240 acres <ol style="list-style-type: none"> vi. Prairie Falcon Habitat vii. Excelsior Mountains 	Ongoing
CRMP	MIN-4	2001	No mineral material sales or disposal will be authorized within the 40 acre Jumbo Postpile area.	Ongoing
CRMP	MIN-4	2001	The Navy has proposed to withdraw an additional 181,323 acres in Churchill County. These areas are segregated from operations under the Mining Law, mineral leasing laws, and the Material Sales Act pending a decision on the proposed withdrawal.	Completed "Military Lands Withdrawal Act of 1999" October 1999

Table 3-18
Current Management Direction for Geology and Minerals

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	MIN-4	2001	In the Reno CCDPA, Keep 46 mineral material sites open for sales and free use, restructure use of the sites to accommodate Visual Resource Management (VRM) and monitor to insure compliance.	Ongoing
Final Southern Washoe County Urban Interface Plan	6	2001	Withdraw 160,530 acres of public land and 15,800 acres of federally owned minerals from the operation of the locatable mining laws.	Ongoing
Final Southern Washoe County Urban Interface Plan	6	2001	Portions of the Olinghouse and Pyramid mining districts are excluded from the mineral withdrawal (Map 3). Lands withdrawn from mineral entry recognize the rights of mining claims existing at the date of the mineral segregation order, published in the Federal Register on July 8, 1998. Such lands are withdrawn, but subject to the valid existing rights of the claimants.	Ongoing
Final Southern Washoe County Urban Interface Plan	6	2001	Operators of existing mining claims within the plan boundaries would be required to file a "plan of operations" with the BLM prior to any mining activity proposed within the "Closed" travel designation areas, regardless of the size of the proposed disturbance.	Ongoing
Final Southern Washoe County Urban Interface Plan	6	2001	Existing aggregate facilities on public land will continue to operate. Expansion of existing operations will require standard approval through a joint permitting process with the BLM (Mineral Materials Sale Contract) and Washoe County (Special Use Permit).	Ongoing
Final Southern Washoe County Urban Interface Plan	7	2001	New permanent aggregate facilities will be restricted to locations that are topographically screened or concealed from sight of existing or planned residential areas and major transportation corridors.	Ongoing
Final Southern Washoe County Urban Interface Plan	7	2001	New temporary aggregate facilities will be available to government entities only. Proposed sites will be restricted to locations that are topographically screened or concealed from sight or visually unobtrusive to existing or planned residential areas and major transportation corridors.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	6	2001	BLM will manage leasable and saleable minerals on Navy-owned and withdrawn lands in coordination with the Navy.	Ongoing

Table 3-18
Current Management Direction for Geology and Minerals

Decision/Guidance Document	Page No.	Year	Management Decision	Status
BLM/Navy for Certain Federal Lands in Churchill County NV	7	2001	BLM will pursue withdrawal of locatable minerals from operation of the 1872 Mining Law at Grimes Point Archaeological Area, Sand Mountain Recreation Area and the Cold Springs Historical Site.	Ongoing

3.2.4 Recreation and Visitor Services

Table 3-19
Current Management Direction for Recreation and Visitor Services

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC 4	2001	Maintain nationally important historic sites in public ownership. Provide for public interpretation of the following major historic trails: A. Pony Express B. Butterfield Overland Stage C. Transcontinental Telegraph D. California Emigrant Route E. John Fremont Trail F. Jumbo Water System Pipeline G. V&T Railroad H. Nevada-California-Oregon Railroad	Ongoing
CRMP	REC-5	2001	Identify the Jumbo Postpile on maps and construct an interpretive trail. Authorize no mineral material disposal in the 40 acre area.	Ongoing
CRMP	REC-4	2001	Guarantee public access to the following fishable waters in case of public land disposal: A. Galena Creek (Transferred to USFS) B. Whites Creek (Transferred to USFS) C. Jumbo Reservoir (Reservoir Breached) D. Truckee River E. East Fork Carson River F. Carson River G. Jones Canyon Reservoir (No Fish, Should be Breached)	Some actions have been completed. Remaining actions are ongoing.
CRMP	REC-4	2001	Allow development of a facility at Granite Mountain for use by hang-glider recreationists. Designate a safety zone to discourage new above-ground structures on public lands.	Ongoing

Table 3-19
Current Management Direction for Recreation and Visitor Services

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-4	2001	Maintain the opportunity for the public to have panoramic views of the Truckee Valley – Reno area by controlling developments and allowing vehicle access to ridge points on existing roads and trails on Peavine Mountain.	Completed. Transferred to USFS.
CRMP	REC-5	2001	Maintain the roaded natural, general recreation opportunities in Bedell Flat and Dry Valley areas by keeping the existing 2-wheel drive dirt road system, and limiting developments to those which do not alter the present undeveloped character of the landscape.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	4	2001	All organized recreation activities will be managed by BLM in consultation with the Navy.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	6	2001	The Navy and BLM will assess improving recreation facilities at Horse Creek and establishing a trailhead to the Clan Alpine Wilderness Study Area.	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	7	2001	BLM will pursue withdrawal of locatable minerals from operation of the 1872 Mining Law at Grimes Point Archaeological Area, Sand Mountain Recreation Area and the Cold Springs Historical Site.	

3.2.5 Comprehensive Trails and Travel Management

Table 3-20
Current Management Direction for Comprehensive Trails and Travel Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-2	2001	All Public lands under Carson City Field Office jurisdiction are designated open to Off- Highway Vehicle (OHV) use unless they are specifically restricted or closed.	Ongoing
CRMP	REC-2	2001	Eliminate OHV use in the following locations: A. Through or in the immediate vicinity (near enough to the water source that its water quality or water quantity may be affected) of any surface water source, such as a	Ongoing

Table 3-20
Current Management Direction for Comprehensive Trails and Travel Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<ul style="list-style-type: none"> spring or seep. B. Any riparian area associated with meadows, marshes, springs, seeps, ponds, lakes, reservoirs or streams. C. Any channel bank, or streambed of a perennial stream. D. Threatened or Endangered Plant location 	
CRMP	REC-2	2001	<p>The following areas are closed to OHV use:</p> <ul style="list-style-type: none"> A. Grimes Point Archaeological Area- 400 acres B. Steamboat Hot Springs- 20 acres...OHV Limited to Designated Routes Federal Register Notice, September 15, 1988. C. Petersen Ridge- 5,120 acres D. Sand Springs Desert Study Area- 50 acres E. North End Prison Hill- 1,480 acres F. Burbank Canyons Scenic Area- 13,395 acres G. Middle Portion of Prison Hill – Middle Portion <p>Post RMP Emergency Closures</p> <ul style="list-style-type: none"> H. Unnamed Canyon North of War Canyon, Clan Alpine WSA....Completed Federal Register Notice, April 12, 1994 I. Sand and Gravel Pit, Pine Nut Road No. 2....Completed Federal Register Notice, October 15, 1997. J. Sagebrush Flat East of Petersen Mountain...Completed Federal Register Notice, April 2, 1999. K. Sand and Gravel Pit south of hungry Ridge and Fire Rehabilitation Areas....Completed Federal Register Notice, March 30, 2000. L. Faye/Luther Canyon Area all BLM Public Lands...Notice to Federal Register, April, 2001. 	Ongoing
CRMP	REC-3	2001	The following areas are subject to the non-impairment criteria outlined in the Interim Management Policy for Lands Under Wilderness Review (IMP). Essentially, this	Ongoing

Table 3-20
Current Management Direction for Comprehensive Trails and Travel Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			limits OHV use to existing roads and ways, except in emergency situations as defined in the IMP. A. Gabbs Valley Range WSA- 79,600 acres B. Burbank Canyons WSA - 13,395 acres C. Slinkard WSA - 6,350 acres D. Carson Iceberg WSA – 550 E. Clan Alpine WSA – 196,128 acres F. Stillwater WSA - 94,607 acres G. Job Peak WSA - 90,209 acres H. Desatoya WSA – 51,262 acres I. Augusta Mountains WSA - 51,000 acres	
CRMP	REC-3	2001	Restrict OHV use to designated roads and trails in the following areas: A. Peavine Mountain...Transferred to USFS B. Red Rocks...700 acres C. Incandescent Rocks & Virginia Mountains...67,500 acres D. Steamboat Hot Springs...40 acres E. Bailey-Jumbo Watershed...8,600 acres F. East Walker River Scenic Area...Transferred to USFS G. Stewart Valley ACEC...16,000 acres H. Bagley Valley...6,200 acres I. Indian Creek/East Fork Carson River SRMA...6,065 acres J. Pine Nut Mountain Crest...45,000 acres K. McClellan Peak L. "C" Hill M. West Side of Walker Lake...2,640 acres N. Sun Valley West O. Sun Valley East Post RMP Designations of Roads and Trails P. San Mountain Recreation Area...2,096 acres (completed Federal Register Notice, September 15, 1988)	Some actions have been completed. Others are ongoing.

Table 3-20
Current Management Direction for Comprehensive Trails and Travel Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			Q. Warm Springs-South Dogskin OHV Area...40,000 acres (Completed Federal Register Notice, September 15, 1988)	
			R. American Flats Millsite...190 acres (Completed Federal Register Notice, September 15, 1998)	
CRMP	REC-3	2001	Seasonal closures to OHV use apply in the following areas: A. Jacks Valley Wildlife Management Area – March 1 to May 1. (Transferred to USFS) B. Sand Hill critical deer range – December 1 to April 30. C. Bedell Flat strutting ground- March 1 to May 30. (Strutting Ground Gone) D. Area surrounding all occupied raptor eyries- March 1 to June 15.	Some actions have been completed. Others are ongoing.
CRMP	REC-4	2001	Phase out Mullen Pass OHV Area. Develop a new area in the Hungry Valley/Warm Springs Mountain area, and a motocross course in Lemmon Valley.	Completed 1985
Alpine County	5	2007	Designate 5,521 of public lands as limited to designated roads and trails.	Complete
Alpine County	5	2007	Designate 894 acres in the Fay-Luther Canyon area as closed to motorized vehicle travel. Administrative access will be authorized when necessary.	Complete
Alpine County	5	2007	Designate 268 acres within the Indian Creek Recreation Withdrawal area as closed to motorized vehicle travel and public access. This proposed closure specifically pertains to South Tahoe Public Utility District existing right-of-way, CA-13255. This closure will prevent unauthorized access or contact with the discharged filtered-secondary treated wastewater (California Title 22, Sec. 603010(g) prohibits human contact with recycled wastewater).	Complete
Alpine County	5	2007	Designate 5,143 acres in Bagley Valley as limited to designated roads and trails.	Complete
Alpine County	6	2007	Roads, primitive roads, and/or trails designated within the network may be altered through adaptive management with	Complete

Table 3-20
Current Management Direction for Comprehensive Trails and Travel Management

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			segments closed, realigned, or added when conditions warrant.	
Alpine County	6	2007	Designate a preliminary network of roads, primitive roads, and trail network(s) on approximately 4 miles of non-motorized and 6.8 miles of motorized linear miles.	Complete
Alpine County	6	2007	Roads needed for administrative purposes such as, but not limited to, fuel wood sales, traditional cultural uses, search and rescue, fire suppression, and livestock grazing will be allowable.	Complete
Alpine County	6	2007	An inventory and assessment of roads, primitive roads, and trails not identified in the preliminary network will be completed by 2009. Any new roads or trails constructed will require further environmental analysis.	Complete
Alpine County	6	2007	A completed roads, primitive roads, and trails network will be established through travel management planning by 2010.	Complete
Alpine County	6	2007	Factors to consider in further documenting and designating the roads, primitive roads, and trails network may include, but are not limited to: - Road, primitive road, or trail densities; - Soil erosion - Water quality - Existing and proposed utility and access rights-of-way - Cultural resources - Threatened & endangered plants and animals - Invasive non-native plants and noxious weeds; - Priority species and habitats	Complete

3.2.6 Renewable Energy

Table 3-21
Current Management Direction for Renewable Energy

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	MIN-4	2001	Keep areas with geothermal potential (in the Reno CCDPA) open to leasing, exploration,	Ongoing

Table 3-21
Current Management Direction for Renewable Energy

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			development and production through applicable law, policy and procedure.	
CRMP	MIN-2	2001	<p>Areas Closed to Oil, Gas and Geothermal Leasing (45,392 acres)</p> <p>Key Scenic, Wildlife, Recreation, and Historic Areas:</p> <ul style="list-style-type: none"> a. Jack's Valley - Transferred to USFS, 1988. b. East Walker River - Transferred to USFS, 1988. c. Walker Lake d. Indian Creek e. Virginia City f. Aurora (680 acres) - Transferred to USFS, 1988. g. Prison Hill h. Alkali Lake i. Wilson Canyon - South of River Transferred to USFS, 1988. j. Sand Mountain 1,960 acres k. Carson City Urban Interface 17,892 acres 	Ongoing
CRMP	MIN-3	2001	<p>Areas Closed to Geothermal Leasing Only Key Areas</p> <ul style="list-style-type: none"> Cold Springs Pony Express Station 40 acres Grimes Point 640 acres <p>Areas Where Some Restrictions Apply to Geothermal Leasing</p> <ul style="list-style-type: none"> No Surface Occupancy (NSO) <ul style="list-style-type: none"> Within 500 feet of any water Seasonal Restrictions on Activities Spring Restrictions for Sage Grouse Strutting Grounds 9,920 acres <ul style="list-style-type: none"> North of Cold Springs (Fort Churchill/Clan Alpine Geothermal EAR 1975) March 1 to July 30 Restrictions for Sage Grouse Habitat 85,300 acres <ul style="list-style-type: none"> East Walker River Area Pine Nut Mountains February 1 to September 1 10,200 acres <ul style="list-style-type: none"> Prairie Falcon Habitat Excelsior Mountains 	Ongoing

Table 3-21
Current Management Direction for Renewable Energy

Decision/Guidance Document	Page No.	Year	Management Decision	Status
Final Southern Washoe County Urban Interface Plan	6	2001	The plan amendment decision is to close all areas to mineral leasing except: Geothermal leasing on 1,933 acres in and adjacent to the Steamboat Known Geothermal Resource Area (KGRA).	Ongoing
BLM/Navy for Certain Federal Lands in Churchill County NV	6	2001	BLM will manage leasable and saleable minerals on Navy-owned and withdrawn lands in coordination with the Navy.	Ongoing

The CCD CRMP and subsequent amendments did not address renewable energy with the exception of geothermal.

3.2.7 Lands and Realty

Land Use Allocations and Tenure Adjustments

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	LND-2	2001	Transfer lands out of federal ownership that is uneconomic to manage or have been identified for community expansion or agricultural development and have little value for other resource uses.	Ongoing
CRMP	LND-2	2001	Designate for potential future disposal approximately 185,000 acres in of BLM managed public lands, under jurisdiction of the CCFO, as a pool of lands which meet preliminary criteria for transfer from federal ownership. In general these lands are those where BLM management is not cost effective. A. These include lands that are difficult and uneconomic to manage because of the location and other characteristics; (e.g. Scattered parcels south of Hawthorne and in Smith and Mason Valleys, checkerboard lands near Fernley, Silver Springs and the Carson Sink). B. Land that would support community expansion (e.g. land west of Yerington, land surrounding the towns of Luning,	Designations in place with modifications from subsequent RMP amendments

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Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<p>Mina, Sodaville, Fallon, Gabbs, Reno, Verdi, and lands east of Montgomery Pass, near Honey Lake Valley, and Dixie Valley).</p> <p>C. Lands with possible agricultural potential (e.g. Smith Valley, Mason Valley, Honey Lake Valley, and Edwards Creek).</p> <p>D. Lands along the East Walker River identified for exchange to benefit Bureau programs.</p>	
CRMP	LND-3	2001	Identify as potentially suitable for disposal 5,100 acres for community expansion and 7,700 acres as suitable for disposal for recreation and public purposes in the Pine Nut/Markleeville Planning Units.	Designations in place with modifications from subsequent RMP amendments
CRMP	LND-3	2001	<p>The objective of the City of Fallon Landfill Final Plan Amendment (BLM, City of Fallon Landfill Final Plan Amendment, 1997) is to allow for the transfer of 240 acres of public land to the City of Fallon under the Recreation and Public Purposes Act and to make 600 acres of adjacent land available for disposal for expansion of the landfill or other compatible uses in the future. The amendment includes the following management prescription: The land tenure designation on the public land shown in Figure 2 (within T. 16 N., R. 29 E., sections 20 and 21) is changed from retention to disposal.</p> <p>Following the change in land tenure designation, BLM will offer 240 acres of public land for sale at \$10/acre to the City of Fallon for use as a landfill. In addition a 30-year FLPMA Title V right-of-way will be issued to the City of Fallon across public land for access to the landfill.</p>	Completed, 240 Acres patented to the City of Fallon June 16, 1997
CRMP	LND-3	2001	<p>Within the Carson City Urban Interface Plan Amendment Area:</p> <p>A. Designate 15,690 acres for retention</p>	Partially Completed Pub L. 111-11 supersedes

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
				land tenure designations from the Southern Washoe Plan Amendment.
			<u>Pine Nut Planning Unit Acres Public Land</u> D3 Carson Plains 860 D6 Carson Valley 40 D7 Indian Hill Area 320 D8 Johnson Lane 3120 D11 US Route 395 40 D12 US Route 50 (SR 17) 240 Total 4640	Some of these lands were sold or exchanged, some are now USFS jurisdiction due to PL 100-550 and some are still public.
CRMP	LND-4	2001	Identify the following tracts as available for transfer out of federal ownership to state, county, or local government agencies, or to non-profit corporations and associations, for recreation and public purposes.	Designations in place with modifications from subsequent RMP amendments.
			<u>Pyramid Planning Unit Acres Public Land</u> P1 & P2 Lemmon Valley 2050 P4 Honey Lake Valley 4270 P5 Sun Valley East 920 P6 Sun Valley West 240 P9 Huffaker Hills 210 P 12 Steamboat Hot Springs 40 P16 School Site 390 P17 Galena, Thomas, Whites Circle 30 Total 8150	Some of these lands were leased or conveyed under R&PP Act, some are now FS jurisdiction due to PL 100-550 and some are still public but are now covered by land tenure designations from the Southern Washoe Plan

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
				Amendment.
			<u>Pine Nut Planning Unit Acres Public Land</u> P3 Carson Valley 3920 P5 Indian Hill 160 P6 Carson Plains 160 P7 & P8 Moundhouse 160 P10 Carson River Canyon 210 P11 Six Mile Canyon 320 P12 Mud Lake 80 P13 Diamond Valley 40 P15 Airport 100 Total 5150	Some of these lands were sold or exchanged, some are now FS jurisdiction due to PL 100-550 and some are still public.
CRMP	LND-5	2001	Identify 6,760 acres in Honey Lake Valley as suitable for Desert Land Entry and subsequent agricultural development and disposal.	Designation in place.
CRMP	LND-5	2001	Consolidate by land acquisition 66,970 acres of private land for crucial Lassen-Washoe deer winter range and migration corridors by acquiring about 7,400 acres of private lands in this area.	Petersen Mountain Exchange Acquired 3,812 Acres, December 1997.
				Perma Bilt Exchange Acquired 123 Acres, September 1997.
CRMP	LND-5	2001	Consolidate by land acquisition 34,880 acres of private land that is important as wildlife habitat in the Pine Nut-Markleeville Planning Units (Pine Nut Mountains).	Ongoing
CRMP	LND-5	2001	Acquire private lands adjacent to Prison Hill and along the Carson River if Carson City and the state approve the acquisition.	Perma Bilt Exchange Acquired 703 Acres (Silver Saddle Ranch), September 1997.

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
				Bernhard Exchange Acquired 32 Acres, March 2000.
CRMP	LND-5	2001	Land exchanges will be done to block in the higher country in the Pine Nut Range and Jumbo allotment and to release land next to residential zones.	04/2001 Laborde Land Exchange Acquired about 12,000 acres in the Jumbo Allotment.
				09/1997 Perma Bilt Exchange Acquired about 5,000 Acres in the Pine Nut Mtns.
CRMP	LND-5	2001	Land exchanges will be initiated with Southern Pacific Railroad and private owners in the Spanish Springs and Mustang allotments to block in lands in the White Hills and Olinghouse allotments.	DePaoli Exchange (Phase II) acquired the majority of private lands in the white Hills and northern portion of the Olinghouse allotment, January, 1995.
CRMP	LND-5	2001	Acquire legal access in coordination with USFS to Faye Canyon, Bagley Valley and the Hangman's Bridge area near Markleeville. Leave primary roads open.	Legal access to Faye Canyon and Bagley Valley acquired through USFS land acquisition.

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
				Access to Hangman's Bridge is through Highway ROW
CRMP	LND-5	2001	Acquire or provide legal access through or around Big Canyon, Black Canyon, Cottonwood Canyon, and Hardscrabble canyon to provide vehicular access for the administration of BLM lands in the Virginia Mountains.	Cottonwood Canyon easements acquired in 1970 (1) and 1990 (4) for access.
North Douglas County Specific Plan	10	2001	Designate approximately 64 acres of public lands as available for potential disposal to the private sector or local government for recreation and public purposes under provisions of the Recreation and Public Purposes Act of 1954.	Designation in place. Various R&PP leases/patents cover acreage.
North Douglas County Specific Plan	11	2001	Designate approximately 346 acres of public lands as available for potential disposal to the private sector for development purposes.	Completed in 3 sales from 2002-2006
North Douglas County Specific Plan	11	2001	Designate approximately 30 acres of public lands for transfer to the Washoe Tribe or to another federal agency for management on behalf of the Tribe.	Designation is in place but transfer has not occurred.
North Douglas County Specific Plan	11	2001	BLM will work in support of Douglas County's and other organization's efforts to acquire conservation easements in the Carson Valley. The intent of this coordinated effort is to cooperatively acquire conservation easements on a sufficient number of acres in Carson Valley to protect existing agriculture operations and the important social and natural resource values associated with these lands (Figure 3a.). To this end, BLM will acquire conservation easements on private properties in the Carson Valley from willing sellers in accordance with the identified Acquisition Criteria for Conservation Easements –	Conservation easements acquired on 1,873 acres in Carson Valley meeting acquisition criteria.

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<ul style="list-style-type: none"> -The land is an active agricultural operation. · The land is subject to imminent threat from development, and protection is in conformance with the Douglas County Master Plan. · The land is within the 100-year floodplain. The land contains important wetlands or riparian wildlife habitat. · The agricultural character of the land enhances scenic values. · The landowner is willing to sell a recreational access easement on the property. -The land is of sufficient parcel size to be considered farmland. · The land contains important cultural or historic values that would be protected by the acquisition. · The landowner is willing to discount the sale of the conservation easement to BLM. -The land has other unique values and acquisition would be in the public interest. 	
North Douglas County Specific Plan	11	2001	<p>Acquire environmentally sensitive lands or interests in environmentally sensitive lands elsewhere in Douglas County from willing sellers after consultation and coordination with County government and local organizations and individuals. The Acquisition Criteria for Conservation Easements is –</p> <p>Lands or interests in lands will be acquired by BLM on a willing buyer/willing seller basis only.</p> <ul style="list-style-type: none"> · Private lands or interests in private lands to be acquired by BLM will be subject to consultation and coordination procedures with Douglas County officials prior to completion of the acquisition. · Private lands or interests in private lands to be considered for acquisition by 	Ongoing

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			BLM will serve purposes consistent with provisions in the Douglas County Master Plan. <ul style="list-style-type: none"> · Private lands or interests in private lands to be acquired by BLM will a) provide access to public lands, b) block up federal lands ownership patterns or otherwise serve to improve management of the public lands, c) contain important natural resources, cultural resources, or habitat, or d) serve other public purposes. 	
North Douglas County Specific Plan		2001	Sell small parcels of BLM public lands on which portions of structures or facilities have been constructed in trespass. The Sale Criteria for Small Parcel Sales presented in section 2.6 will be used to determine whether or not the parcel should be sold to the landowner whose property has been found to be in trespass. The Sale Criteria for Small Parcel Sales is – <ul style="list-style-type: none"> -The trespass situation has been created in a clearly unintentional manner. · Portions of residential dwellings, commercial buildings, or other significant structures must have existed on the BLM public lands to be sold prior to approval of this Proposed Plan. · BLM has made the determination that unauthorized structures cannot be practically removed from public lands. · BLM public lands to be sold to resolve trespass violations with an individual landowner are very small and generally less than 1.0 acre in size. 	One small acreage sell completed (Cotta Sale) to resolve trespass. Additionally, subsequent to plan approval this decision was determined to be inadequate unless the lands meeting the criteria also were identified by map or legal description for sale in an RMP.
Final Southern Washoe County Urban Interface Plan	4	2001	Designate 160,020 acres for retention in public ownership under the administration of the BLM.	Designation in place.
Final Southern Washoe County Urban Interface Plan	4	2001	Lands retained in public ownership will be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources will be given priority over other land uses.	Ongoing. Public Land Order 7491 enhances protection

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
				through withdrawal.
Final Southern Washoe County Urban Interface Plan	4	2001	Private lands in southern Washoe County that are designated as desired open space in the Reno, Sparks, and Washoe County Master Plans and the Washoe County Regional Open Space Plan would be considered for acquisition opportunities by the BLM. This includes the corridor of land on both sides of the Truckee River, east of Sparks. Acquisition opportunities may include acquisition of conservation easements or other interest in private lands.	Ongoing Acquisitions include: Mustang Ranch, 102 Ranch, portions of Winters Ranch, Heinz Ranch and Green Gulch Ranch.
Final Southern Washoe County Urban Interface Plan	4	2001	Future acquisitions will take into consideration the costs of management, restoration, and liability to the BLM.	Ongoing
Final Southern Washoe County Urban Interface Plan	4	2001	Future acquisitions within the CCDPA, acquired by exchange, donation, or purchase that fall under BLM jurisdiction, will be managed the same as adjacent BLM lands. The BLM will examine the need to prepare activity level plans on all lands acquired.	Ongoing
Final Southern Washoe County Urban Interface Plan	5	2001	Acquisitions must meet one or more of the following criteria: -Facilitate access to public lands and resources -Provide resource protection -Facilitate implementation of the RMP -Provide for a more manageable land ownership pattern -Maintain or enhance public recreational uses and open space values; In addition, BLM will focus acquisition efforts on lands: -with few or no man-made improvements -not requiring substantial restoration efforts, except in certain circumstances when other entities can be involved as partners in the effort -with no known hazardous materials or contamination problems -with no noxious weed infestations that	Ongoing

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			would present a long-term liability to the BLM.	
Final Southern Washoe County Urban Interface Plan	5	2001	Termination of BOR withdrawals along the Truckee River that are no longer needed for Newlands Project purposes, will be pursued. Unless specifically identified for disposal, lands no longer under reclamation withdrawal will be managed by the BLM for access, recreation, and riparian restoration opportunities.	BOR withdrawals remain in place.
Final Southern Washoe County Urban Interface Plan	5	2001	Designate 4,390 acres for use by State and local government for recreational purposes through the Recreation and Public Purposes Act (R&PP).	Most (over 3000 acres) of designated R&PP land has been leased or conveyed under R&PP Act.
Final Southern Washoe County Urban Interface Plan	5	2001	Designate 2,140 acres for potential disposal into private ownership. Exchange for other lands designated as desired open space in the Washoe County Regional Open Space Plan will be given priority over other disposal methods.	Most (over 3000 acres) of designated R&PP land has been leased or conveyed under R&PP Act.
Final Southern Washoe County Urban Interface Plan	5	2001	Designate 2,140 acres for potential disposal into private ownership. Exchange for other lands designated as desired open space in the Washoe County Regional Open Space Plan will be given priority over other disposal methods.	920 acres of designated disposal land has been conveyed by exchange (Laborde and Wingfield exchanges).
Alpine County	5	2007	Pursue revocation and restoration to the operation of the public land laws and general mining laws, BOR and BLM land withdrawals located along the Snowshoe Thompson Ditch encumbering 80 acres located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, T. 11 N., R. 19 E. of Section 25, T. 11 N., R. 19	No action has occurred.

Table 3-22
Current Management Direction for Land Use Allocations and Tenure Adjustments

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			E. Land withdrawals are actions that generally preclude mining claim location and disposal of public lands. Upon completion of the revocation and restoration process, the land will be managed by BLM in a manner consistent with adjacent lands located within the Indian Creek Recreation Lands boundary.	
Alpine County	5	2007	Designate 17,725 acres for retention in public ownership under the administration of the BLM	Designation in place.
Alpine County	5	2007	Designate 955 acres for conveyance to Alpine County for community expansion purposes under the Recreation and Public Purposes (R&PP) Act of 1926 (as amended); to meet the public needs in the local community. Alpine County will be required to obtain legal access to these parcels across adjacent private lands.	Designation in place.
Denton-Rawhide Mine Land Sale	3	2007	Change the land tenure designation of selected parcels of public land from retention to disposal resulting in a BLM sale offer of the land to KRMC using direct (non-competitive) sale procedures. The area proposed in the Plan Amendment includes approximately 425 acres located in portions of Sections 4, 5, 8, and 9, Township 13 North, Range 32 East; Mineral County, Nevada.	Complete

Table 3-23
Current Management Direction for Land Use Authorizations: Communications Sites

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	COM-1	2001	Land use allocations-communication sites Reno CCDPA Allow new communication site development only when expansion of an existing site is not a reasonable alternative in the Reno CCDPA.	Ongoing

Table 3-23
Current Management Direction for Land Use Authorizations: Communications Sites

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<u>Pyramid Planning Unit</u> CS1 Warm Springs Mountain CS2 Virginia Peak CS3 TV Peak (Red Hill) CS4 Peavine Mountain CS5 Beacon Peak CS6 McClellan Peak	
			<u>Pine Nut Planning Unit</u> CS1 McClellan Peak CS2 Como Pass CS3 Rawe Peak CS4 Pinyon Hill	
CRMP	COM-1	2001	Applications for rights-of-way for communication sites, including all military electronic warfare sites, will be considered in the area identified as permitted on the map (page 4 of the BLM/Navy Amendment for Certain Federal Lands in Churchill County, Nevada [2001]). Any such applications for electronic warfare sites will be analyzed through the National Environmental Policy Act (NEPA) process, within the context of a comprehensive Electronic Warfare Range Plan to be prepared and updated as needed by the Navy. The plan will address the comprehensive management of all Navy facilities on public lands in central Nevada, with provisions for establishing possible thresholds on reasonable numbers of sites on public lands (as determined through the NEPA process), annual assessments of the continuing need for individual sites, including alternative configurations to reduce numbers of sites without sacrificing training quality, and eventual clean-up, rehabilitation and relinquishment of sites no longer required to meet the Navy's mission.	Ongoing
CRMP	COM-1	2001	Facilitate communication site processing and minimize surface disturbance by grouping future communication facilities at locations where existing facilities occur, access is reasonably available, terrain is appropriate for communication facility	Ongoing

Table 3-23
Current Management Direction for Land Use Authorizations: Communications Sites

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			needs, and other resource values are limited. These preferred locations are Fairview Peak, New Pass, Mt. Moses, the north end of the Fish Creek Mountains, and Mt. Lewis. Communication site applicants will be encouraged to locate in these areas. These areas will be available for all civilian and military sites.	
CRMP	COM-2	2001	With proper justification, continue to provide for the location of future civilian and military communication sites (including telemetry sites and threat emitters) on more than four million acres of central Nevada. Proper justification includes physical and economic factors.	Ongoing
CRMP	COM-2	2001	Encourage additional Navy electronic warfare site development in the currently heavily used Dixie/Fairview Valleys Bell Flat/Middlegate area.	Ongoing
CRMP	COM-2	2001	Protect important natural, recreation, wilderness, wildlife, watershed, visual, and Native American values by prohibiting future communication and electronic warfare sites of all types in the most sensitive areas. These include portions of the Clan Alpine, Desatoya, Stillwater, Gabbs Valley and Simpson Park Mountain Ranges, Bald Mountain and the Sand Mountain and Hickison Petroglyph recreation areas.	Ongoing

Table 3-24
Current Management Direction for Land Use Authorizations: Rights of Ways

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	ROW-1	2001	Provide for an east-west and north-south network of rights-of-way corridors in the Field Office area of jurisdiction.	Designation in place.
CRMP	ROW-1	2001	Designate 686 miles of rights-of-way which include existing transmission lines and identify 218 miles of planning corridors, as shown on the Corridor map. All corridors are two miles in width. Private lands are not included in these corridors.	Designation in place.

Table 3-24
Current Management Direction for Land Use Authorizations: Rights of Ways

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	ROW-1-3	2001	<p>In the Reno CCDPA: Designate right-of-way corridors along existing transportation and utility facilities, where there is potential for future expansion, with a width of 1.5 miles on each side of the existing transportation/utility facility. Exceptions to this width requirement will be made on a case-by-case basis following a multiple use analysis of a specific proposal. The corridors are:</p> <p><u>Lahontan Resource Area</u></p> <ul style="list-style-type: none"> A. A-J. A corridor running from Fernley to the Fort Churchill Power Plant. The corridor follows US Highway Alternate 95. It contains a railroad, phoneline, secondary powerlines, and pipelines. B. A-B-G. A corridor running from Fernley to southern California and southern Nevada. This corridor does not contain any utility transmission facilities; however, it contains an existing right-of-way held by Western Area Power Administration. The present right-of-way is the eastern boundary of the corridor from B to G. C. A-B-I. A corridor running north south through the Field Office area which contains a major powerline from Oregon to southern California. D. P-Q-D-F-W-S-G. A planning corridor, running from Dixie Valley to southern California. It is expected to provide an outlet for geothermal power to be produced in Dixie Valley. A portion of this corridor follows the existing gravel road up the Dixie Valley. E. Q-E. A planning corridor, running from the Dixie Valley toward Austin. This corridor passes north 	Designation in place.

Table 3-24
Current Management Direction for Land Use Authorizations: Rights of Ways

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			of the Clan Alpine Mountains WSA and south of the Augusta Mountains WSA.	
			F. I-W-F-R-E. A corridor running from the Fort Churchill Power Plant to Utah. It contains a major powerline, supplying much of the electricity for northern Nevada. This right-of-way provides the northern boundary of the Desatoya Mountains WSA. The corridor does not include any portion of the WSA.	
			G. S-R. A planning corridor, running to the south of the proposed US Navy withdrawal.	
			H. C-B. A corridor from Valmy to the Lahontan substation.	
			<u>Reno CCDPA of Lahontan Resource Area</u>	
			A. L-J. A corridor supplying power to the South Lake Tahoe area from the Fort Churchill Power Plant.	
			B. A-H-M. The I-80 corridor system containing a highway, railroad and two major power lines.	
			C. H-O. A corridor used for transmission of power from Tracy to Fort Churchill.	
			D. M-W-K-J. A corridor to bring power to the Reno area from the Fort Churchill Power Plant.	
			E. H-T. The Valmy-Tracy Corridor containing a 345 KV powerline.	
			F. H-V. The Tracy-Brunswick Corridor containing a 120 KV powerline.	
			G. H-K. The Tracy-Steamboat Corridor containing two major powerlines.	
			H. M-U. The Mount Rose-Brunswick Corridor containing a 120 KV powerline.	

Table 3-24
Current Management Direction for Land Use Authorizations: Rights of Ways

Decision/Guidance Document	Page No.	Year	Management Decision	Status
<u>Walker Resource Area</u>				
			<ul style="list-style-type: none"> A. C-A. A right-of-way corridor, containing a major powerline from the Fort Churchill Power Plant to the South Lake Tahoe area. B. D-H. A right-of-way corridor following the existing major powerline from Bonneville to Los Angeles. Another major powerline is being planned for this route. C. C-F. A right-of-way corridor following the existing major powerline from the Fort Churchill Power Plant to southern Nevada. Portions of this route also contain US Highway 95, a railroad, telephone, and other powerlines. D. E-G. A right-of-way corridor following the existing Western Area Power Administration right-of-way. The existing right-of-way is the eastern boundary of this corridor. While it does not contain a powerline, a major powerline from Bonneville to southern Nevada and California is planned for this route. E. I-J. A planning corridor for a powerline between Austin and the Los Angeles area. A portion of this route borders US Highway 6 and contains telephone and secondary powerlines. It may be considered for power transmission to southern California from Dixie Valley. F. E-M. A planning corridor for a proposed powerline from Dixie Valley connecting to a Forest Service corridor. G. D-L. A planning corridor for a potential major gas pipeline to the west coast. A portion of this route follows an existing powerline corridor route. 	

Table 3-24
Current Management Direction for Land Use Authorizations: Rights of Ways

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			H. C-B. A right-of-way corridor following the existing major powerline from the Fort Churchill Power Plant to Reno and Carson City.	
			<u>Reno CCDPA of Walker Resource Area</u>	
			A. C-Y. A right-of-way corridor containing a major powerline from the Fort Churchill Power Plant to Reno.	
			B. Z-Y. A right-of-way corridor containing a major powerline from the Valmy Power Plant to Reno.	
			C. Z-A. A right-of-way corridor containing major powerlines from the Tracy Power Plant to Carson City and Gardnerville.	
			D. Portions of planning corridors CAW and CB are in the Reno CCDPA and are governed by decisions regarding corridors and rights-of-way for the area.	
CRMP	ROW-3	2001	The separation of rights-of-way within the designated corridors will be limited to the minimum spacing required by technology, topography, reliability, visual impacts, etc.	Ongoing
CRMP	ROW-3	2001	All new powerline rights-of-way grants within raptor areas will contain raptor protection stipulations as means of mitigation.	Ongoing
CRMP	ROW-3	2001	Future rights-of-way corridors will be evaluated on a case-by-case basis, but should be as consistent as possible with the Western Regional Corridor Study.	Ongoing
Final Southern Washoe County Urban Interface Plan	5	2001	Provide for legal public access to public lands by retaining significant existing access and acquiring additional public access. Access acquisition opportunities to the Pah Rah Range, Petersen Mountain area, and the Jumbo area will be given priority.	Ongoing
Final Southern Washoe County Urban Interface Plan	5	2001	Retain legal public access to public lands across lands that are transferred from BLM to private or other ownership.	Ongoing

Table 3-24
Current Management Direction for Land Use Authorizations: Rights of Ways

Decision/Guidance Document	Page No.	Year	Management Decision	Status
Final Southern Washoe County Urban Interface Plan	6	2001	The Regional Utility Corridor Report, adopted for inclusion in the Truckee Meadows Regional Plan will be utilized as a guideline for future utility corridor and facility proposals on public lands for the southern portion of Washoe County. New overhead electrical transmission corridors and facilities (60 kilovolts or larger) proposed on public lands will be discouraged in favor of using existing corridors; routing on private land; or undergrounding in visually sensitive areas. Reno, Sparks, and Washoe County Master Plans and the Regional Open Space Plan designating natural, visual, and cultural resources important to the community will be major considerations in analyzing utility proposals.	Ongoing

3.3 SPECIAL DESIGNATIONS

3.3.1 Areas of Critical Environmental Concern

Table 3-25
Current Management Direction for Areas of Critical Environmental Concern

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	ACE-1	2001	Provide a high level of protection for Incandescent Rocks, Steamboat Hot Springs, and Soda Lake while recognizing other resource values.	Soda Lake ACEC Designation Abandoned Due to Lack of Public Lands
CRMP	ACE-1	2001	Provide protection and enhancement of natural and scientific values at Stewart Valley, while allowing public use and enjoyment and other resource uses.	Ongoing
CRMP	ACE-1-2	2001	Designate 1,075 acres in the Incandescent Rocks area as the Incandescent Rocks Natural Scenic Area of Critical Environmental Concern. This action is being taken in order to protect the scenic quality of the area (Class A), plus the	Completed January, 1984

Table 3-25
Current Management Direction for Areas of Critical Environmental Concern

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<p>unique geologic features. Incandescent Rocks is within the foreground - middle ground viewing zone from the Pyramid Lake Highway, and contains critical raptor nesting sites.</p>	
			<p>-Plans of Operation will be pursued with the mining industry to protect portions of the unit for recreation use and scenic quality. Heavy reliance will be placed upon 43 CFR 3809 to mitigate impacts.</p> <p>- Provide the public legal access to Incandescent Rocks by obtaining an easement across a 40 acre parcel of private land in T. 23 N., R. 20 E., Section 6, NE1/4 NE1/4.</p> <p>- Limit OHV use to designated roads and trails. Existing roads will be designated open to OHV use except where those roads and trails impact sensitive meadows, seeps, springs and other waters.</p> <p>- Manage the area as a VRM Class II Area</p>	<p>Completed 1994</p> <p>Completed in RMP Recreation Decision No. 10.</p> <p>Completed in RMP VRM Decision I</p>
CRMP	ACE-2	2001	<p>Designate 40 acres in the Steamboat Hot Springs Area as the Steamboat Hot Springs Area of Critical Environmental Concern. This action is being taken in order to protect, manage, develop and interpret the 40-acre geyser field and other thermal features in the area. Steamboat Hot Springs is near a large population center and has easy access. Other public agencies have expressed interest in protecting and developing the site.</p>	Completed January, 1984
			<p>-Acquire legal access to the Steamboat Hot Springs Area.</p> <p>-Acquire adjacent thermal features occurring on private land to the north and east of the geyser terrace, through voluntary exchange or purchase.</p> <p>-Complete the suspected occupancy and mining trespass proceedings, and rehabilitate degradation within the 40 acre Steamboat Springs ACEC.</p>	Completed

Table 3-25
Current Management Direction for Areas of Critical Environmental Concern

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<ul style="list-style-type: none"> - Classify 40 acres at Steamboat Springs for Recreation and Public Purposes. -Develop minimal recreational facilities within the area to protect the thermal features and the public and to allow for public enjoyment of the area. -Fence the 40 acre Steamboat ACEC. -Close to OHV use. -Develop an ACEC Management Plan for the Steamboat Hot Springs area. 	Completed by Washoe County
CRMP	ACE-2	2001	<p>Designate 16,000 acres in Stewart Valley as an Area of Critical Environmental Concern (ACEC), and withdraw 1,420 of those acres from mineral entry.</p> <ul style="list-style-type: none"> -Limit OHV use in the Stewart Valley ACEC to designated roads, trails and washes. -Manage the Stewart Valley ACEC as a Research Natural Area. Establish special rules and permits for scientific research and field schools. No commercial or private collection will be allowed. 	Stewart Valley Fossil Site ACEC Management Plan Completed September 1990
CRMP	ACE-3	2001	<p>Designate Soda Lake an Area of Critical Environmental Concern</p> <ul style="list-style-type: none"> -Support nomination of the Soda Lake factory site and buildings for the National Register of Historic Places. -Acquire via transfer, exchange, or fee title purchase, all land in T19N, R28E, Section 7, exclusive of the N1/2NW1/4 (TCID & Churchill County); Section 8, exclusive of the E1/2E1/2 and NW1/4 or NE1/4(TCID);Section 18, NE1/4 of NE1/4 (TCID); and Section 17, N1/2 of NW1/4 (BOR). These lands totaling 619 acres will be added to the ACEC when acquired. -Implement a minor level of facility development including signs, underwater markers, trails and other recreational facilities as needed. 	Soda Lake ACEC Designation Abandoned Due to Lack Of Public Lands

Table 3-25
Current Management Direction for Areas of Critical Environmental Concern

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			-Establish cooperative agreements with adjacent landowners for the protection and management of Soda Lake.	
Final Southern Washoe County Urban Interface Plan	8	2001	<p>Carson Wandering Skipper ACEC</p> <ul style="list-style-type: none"> • Designate the 243 acre Carson Wandering Skipper habitat site for the wandering skipper butterfly as an ACEC, to be effective upon approval of this plan amendment. • Within two years of approval of this plan amendment, a site-specific, detailed ACEC activity plan and environmental assessment will be completed, in coordination with the University of Nevada Reno, USFWS, and Nevada Division of Wildlife. • Restrictions described in this plan amendment (OHV limitations and mineral withdrawal) will be adequate to protect the site until completion of the activity plan. • Any non-federal lands in the area, identified as habitat for the Carson wandering skipper, will be considered for acquisition and will be included in the ACEC designation. 	Complete
Final Southern Washoe County Urban Interface Plan	8	2001	<p>Pah Rah High Basin (Dry Lakes) Petroglyph District ACEC</p> <ul style="list-style-type: none"> • Designate the 3,881 acre Pah Rah High Basin (Dry Lakes) Petroglyph District as an ACEC, to be effective upon approval of this plan amendment. • Within two years of approval of this plan amendment, a site-specific, detailed ACEC activity plan and environmental assessment will be completed, in coordination with the Nevada State Preservation Office, Washoe County, Washoe Tribal Council, Pyramid Lake Paiute Tribal Council, and Reno-Sparks Indian Colony. • Restrictions described in this plan amendment for OHV limitations and mineral withdrawal will support recommendations for special management of this ACEC and the above specified activity plan will include explicit protective and monitoring measures. 	Not Complete

Table 3-25
Current Management Direction for Areas of Critical Environmental Concern

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			<ul style="list-style-type: none"> • Any non-federal lands in the area, identified as important for petroglyph resources, will be considered for acquisition and will be included in the ACEC designation. 	
Final Southern Washoe County Urban Interface Plan	8	2001	<p>Virginia Range Williams Combleaf Habitat Area ACEC</p> <ul style="list-style-type: none"> • Designate the 473 acre Virginia Range Williams Combleaf Habitat Area as an ACEC, to be effective upon approval of this plan amendment. • The existing Conservation Agreement (March 24, 1997) between the BLM Nevada State Office and USFWS for conservation actions for the habitat area will continue to be implemented. As described in the agreement, actions may be revised to include other land management agencies, address current conditions and additional populations. • Restrictions described in this plan amendment for OHV limitations and mineral withdrawal will provide additional protection for this habitat area and an activity plan is not needed. • Any non-federal lands in the area, identified as habitat for the Virginia Range Williams Combleaf, will be considered for acquisition and will be included in the ACEC designation. 	Complete

3.3.2 Natural Areas

Table 3-26
Current Management Direction for Natural Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	Rec-5	2001	Designate 10,000 acres of the Petersen Ridge Area as Recreation Lands.	Was designated as Petersen Mountain Natural Area instead.

Table 3-26
Current Management Direction for Natural Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
Final Southern Washoe County Urban Interface Plan	6	2001	A master plan is being developed, with Washoe County, Nevada National Guard, Audubon Society, City of Reno, and Nevada Division of Wildlife, for the Swan Lake Nature Study Area in Lemmon Valley (Map 5). The 160 acres of public land, located in this area, will be withdrawn from locatable mineral entry; motorized vehicle use will be restricted to "designated" roads only. Any non-federal lands within the Swan Lake Nature Study Area will be considered for acquisition by BLM and these lands will be managed consistent with this plan amendment.	In progress. Master Plan Draft Update completed in January 2012.
Unknown			Designation of the Ambrose Carson River Natural Area	Appears to have been designated but no documentation can be found.

3.3.3 Scenic Areas

Table 3-27
Current Management Direction for Scenic Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	SAR-I	2001	Protect and enhance the visual qualities of areas with outstanding scenic values.	
CRMP	SAR-I	2001	Red Rocks Area -Designate the Red Rocks Area (700 acres) as a Scenic Area. -Manage the area under an agreement with mining claimants to protect the geologic features. -Develop a day-use picnic area, with 2-wheel vehicle access and interpretation of geologic features in the Red Rocks Scenic Area. -Restrict OHV use to designated roads and trails. -Ensure Mining Plans of Operations within the Red Rocks Scenic Area would	Completed November, 1984. Not Completed Completed

Table 3-27
Current Management Direction for Scenic Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			protect the area's scenic quality and not impair recreation use.	
CRMP	SAR-1	2001	<p>East Walker Scenic Area</p> <ul style="list-style-type: none"> -Expand the Scenic Area from 3,889 acres to 4,173 acres -Adjust the Scenic Area boundary in T. 8 N., R. 27 E., Sec. 34 by deleting lots 6 and 7 and adding lots 8 and 9 to correct an error in the legal description. -Manage the Scenic Area as a Class II Visual Resource Management Zone, where management actions can be evident but should not detract from the scenic quality of the area. -The exclusion from oil, gas and geothermal leasing in the East Walker Scenic Area will be adjusted to conform with the segregation from mineral entry. This will result in a net reduction of 334 acres in the exclusion area. -Limit vehicles to designated roads. 	East Walker Scenic Area Transferred to USFS in 1988
CRMP	SAR-2	2001	<p>Burbank Canyons</p> <ul style="list-style-type: none"> -Designate 13,395 acres in the eastern Pine Nut Mountain Range as the Burbank Canyons Scenic Area. -Motor vehicles will be limited to designated roads in this area. 	Completed June, 1986.
CRMP	SAR-2	2001	<p>East Fork of the Carson River</p> <ul style="list-style-type: none"> -Designate the East Fork of the Carson River as a Scenic Area and develop specific management directives. 	Nevada Part Transferred to USFS in 1988. California Part Remains Under CCFO Administration.

3.3.4 National Backcountry Byways

The CCD CRMP and subsequent amendments did not address any National Backcountry Byways.

3.3.5 National Historic Trails

Table 3-28
Current Management Direction for National Historic Trails

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC 4	2001	Maintain nationally important historic sites in public ownership. Provide for public interpretation of the following major historic trails: A. Pony Express B. Butterfield Overland Stage C. Transcontinental Telegraph D. California Emigrant Route E. John Fremont Trail F. Jumbo Water System Pipeline G. V&T Railroad H. Nevada-California-Oregon Railroad	Ongoing

3.3.6 National Recreation Trail

The CCD CRMP and subsequent amendments did not address any National Recreation Trails.

3.3.7 Wild and Scenic Rivers

Table 3-29
Current Management Direction for Wild and Scenic Rivers

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-8	2001	River segments eligible for Wild and Scenic designation shall be accorded protective management, as necessary, to ensure that the qualities upon which eligibility is based are not degraded. A river's outstanding remarkable values shall be afforded adequate protection, subject to valid existing rights. Until the eligibility determination is superseded, management activities and authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification (43 CFR 8351). These requirements apply to Field Office lands in California along the East Fork of the Carson River.	Ongoing

3.3.8 Wilderness Study Areas

Table 3-30
Current Management Direction for Wilderness Study Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WSA-1	2001	Wilderness designation is recommended for those study areas where wilderness values are capable of balancing other resource values and uses which would be foregone due to wilderness designation. Manage as wilderness those areas for which wilderness values are higher than other values and which have no existing or potential manageability problems. Whether or not an area can be effectively managed as wilderness over the long-term has also been considered.	Ongoing
CRMP	WSA-1	2001	Acreage with high quality wilderness characteristics and no major resource conflicts, major manageability problems, or significant combination of lesser conflicts or problems will be included in areas recommended as suitable. Manage any lands designated by Congress under the Wilderness Act of 1964 as provided for in enabling legislation and the BLM's wilderness Management Policy.	Ongoing
CRMP	WSA-1	2001	Designated wilderness areas would be closed to off-highway vehicle use unless it takes place as part of a valid existing right or is authorized in the wilderness management plan. Separate management plans tailored to the characteristics of each area would be developed through consultation with interested parties. They would be coordinated with other activity plans for their areas. Specific management objectives, requirements and decisions implementing administrative practices and visitor activities would be developed in each plan.	Not applicable since CCD does not have designated WA.
CRMP	WSA-2	2001	Designated wilderness areas would be segregated against appropriation	Not applicable since CCD does

Table 3-30
Current Management Direction for Wilderness Study Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			and operation under the mining laws, mineral leasing laws, and other mineral disposal authorities subject to valid existing rights. These areas will also be closed to appropriations under the existing land disposal laws.	not have designated WA.
CRMP	WSA-2	2001	Designation would allow for continuation of livestock grazing permits.	Ongoing
CRMP	WSA-2	2001	Burbank Canyons: Recommended as non-suitable for designation as wilderness. The entire area (13,395 acres) will be designated as a Scenic Area. The Scenic Area would be closed to OHV use except on designated existing roads.	Completed June, 1986
CRMP	WSA-2	2001	Carson Iceberg: The entire 550 acres are recommended as suitable for designation as wilderness.	Completed
CRMP	WSA-2	2001	Gabbs Valley Range: Manage the 79,600 acres in the Gabbs Valley Range WSA not suitable for wilderness designation under multiple use guidelines as outlined in the Management Decisions Summary. If this recommendation is accepted by Congress, this area will be managed for other multiple uses.	Ongoing
CRMP	WSA-2	2001	Slinkard: Entire area under CCFO jurisdiction (2,830 acres) recommended as non-suitable for wilderness designation. If this recommendation is accepted by Congress, this area will be managed for other multiple uses except that vehicles will be limited to existing roads and trails.	Ongoing
CRMP	WSA-2	2001	Clan Alpine Mountains: A portion (68,458 acres) of this unit is recommended preliminarily suitable. Wilderness values are high, the area can be managed as wilderness over the long term, and the great majority of resource conflicts have been eliminated.	Ongoing

Table 3-30
Current Management Direction for Wilderness Study Areas

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	WSA-2	2001	Stillwater Range: This entire unit (94,607 acres) is recommended non-suitable. Wilderness values are not of sufficient quality to warrant designation. Major resource conflicts and manageability problems exist. The Geology, Energy, and Mineral (GEM) report evaluation finds it to be one of the best "...potential areas for future metallic mineral finds of all the WSAs studied in the Basin and Range province..."	Ongoing
CRMP	WSA-2	2001	Desatoya Mountains: A portion of this unit (43,053 acres) is recommended preliminarily suitable. Wilderness values are high and outweigh the relatively minor resource conflicts which remain. Fifty-one acres were added to the WSA to enhance manageability of the area. Further field analysis resulted in a boundary adjustment in response to the Governor's consistency review.	Ongoing
CRMP	WSA-2	2001	Job Peak: This entire unit (90,209 acres) is recommended non-suitable. Wilderness values are moderate to good in portions of the WSA, however; they are not sufficiently high to either outweigh resource conflicts and manageability problems or warrant designation.	Ongoing

Table 3-31
Suitable and Non-suitable Acres in WSAs

WSA Name	Suitable Acres	Non-suitable Acres
Burbank Canyons (NV-030-525a)	0	13395
Carson Iceberg (NV-030-532)	550	0
Gabbs Valley Range (NV-030-407)	0	79600
Slinkard (NV-030-531)	0	2830
Clan Alpine Mountains (NV-030-110)	68458	127670
Stillwater Range (NV-030-104)	0	94607

Table 3-31
Suitable and Non-suitable Acres in WSAs

WSA Name	Suitable Acres	Non-suitable Acres
Desatoya Mountains (NV-030-110)	43053	8260
Job Peak (NV-030-127)	0	90209
Total	112061 (21%)	416571 (79%)

Until Congress designates these study areas as wilderness or releases them for other multiple uses, the lands are managed under Handbook 8550-1 *Interim Management Policy for Lands under Wilderness Review* and H-1601-1, *Land Use Planning Handbook*, Appendix C, III. Special Designations, Part B—Administrative Designations. This applies to the six areas designated as Wilderness Study Areas (WSA) within the CCDPA and two additional WSAs in California that the CCD manages due to travel logistics. The Augusta Mountains WSA is located within the CCDPA but is managed by the Humboldt River Field Office.

3.4 SUPPORT

3.4.1 Cadastral

Cadastral Survey is one of the BLM's basic responsibilities as the keeper of over 200 years of federal survey records and plats. In addition, the cadastral program supports all other functions by conducting land surveys and resurveys to identify public/private land boundaries. These surveys are often needed where there are unauthorized uses, land tenure adjustments, or BLM projects near a public/private land boundary. The costs of cadastral surveys are borne by the federal program or private interest that benefit from the boundary identification.

3.4.2 Interpretation and Environmental Education

Table 3-32
Current Management Direction for Interpretation and Environmental Education

Decision/Guidance Document	Page No.	Year	Management Decision	Status
CRMP	REC-4	2001	Maintain nationally important historic sites in public ownership. Provide for public interpretation of the following major historic trails: A. Pony Express B. Butterfield Overland Stage C. Transcontinental Telegraph D. California Emigrant Route E. John Fremont Trail F. Jumbo Water System Pipeline	Unknown

Table 3-32
Current Management Direction for Interpretation and Environmental Education

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			G. V&T Railroad H. Nevada-California-Oregon Railroad	
CRMP	REC-5	2001	Identify the Jumbo Postpile on maps and construct an interpretive trail.	Ongoing
CRMP	REC-6	2001	Revise existing management plan for Indian Creek Reservoir to meet new public demands for use of the recreation lands. Specifically evaluate methods to improve access and use of the picnic area, bring the hiking trail system up to standards by relocating steep sections, develop a group vehicle camping area, improve parking at the access to Summit Lake and the interpretative area, and improve interpretation of the area's values for the developed campground users.	Ongoing
CRMP	CUL-1	2001	The Sand Springs and Cold Springs Pony Express Stations have been scientifically excavated, stabilized and developed as public interpretive sites.	Completed
CRMP	SAR-1	2001	Develop a day-use picnic area, with 2-wheel vehicle access and interpretation geologic features in the Red Rocks Scenic Area.	Ongoing
CRMP	ACE-2	2001	Designate 40 acres in the Steamboat Hot Springs Area as the Steamboat Hot Springs Area of Critical Environmental Concern. This action is being taken in order to protect, manage, develop and interpret the 40-acre geyser field and other thermal features in the area. Steamboat Hot Springs is near a large population center	Completed

Table 3-32
Current Management Direction for Interpretation and Environmental Education

Decision/Guidance Document	Page No.	Year	Management Decision	Status
			and has easy access. Other public agencies have expressed interest in protecting and developing the site.	

3.4.3 Transportation Systems and Facilities

There are no specific changes to the existing transportation system and facility objectives or planned actions in the 2001 CCD CRMP and subsequent amendments.

3.5 SOCIAL AND ECONOMIC CONDITIONS

There are no specific socio-economic condition objectives or planned actions in the 2001 CCD CRMP and subsequent amendments.

CHAPTER 4

ADEQUACY OF CURRENT MANAGEMENT AND MANAGEMENT OPPORTUNITIES

This chapter describes resource management activities under current management that may, or may not, be meeting the goals specified in the 2001 Carson City CRMP. Therefore, these goals may be adjusted accordingly in the RMP revision. This chapter also discusses management issues that have arisen since completion of the 2001 CRMP, which have created the need for new management objectives.

This chapter is divided into five sections: Resources, Resource Uses, Special Designations, Support, and Social and Economic Conditions.

Section 4.1 Resources: Describes the current management decisions, rational, and options for change for the natural, biological, and cultural components that make up the Carson City CCDPA. These resources include air and climate change, soil, water, vegetation, special status species, fish and wildlife, wild horse and burros, wildland fire ecology management, cultural resources, paleontological resources, visual resources, wilderness characteristics, and cave and karst: **Table 4-1**, Air and Climate Change: Management Decisions, Rationale, and Options for Change, through **Table 4-13**, Cave and Karst Resources: Management Decisions, Rationale, and Options for Change.

Section 4.2 Resource Uses: Describes the current management decisions, rational, and options for change for activities that use the natural, biological, and cultural components of the CCDPA. Resource uses include forestry and woodland products, livestock grazing, geology and minerals, recreation and visitor services, comprehensive trail and travel management, renewable energy, and lands and realty (including: land use allocations and tenure adjustments, communication sites, and right-of-ways: **Table 4-14**, Forestry and Woodland Products: Management Decisions, Rationale, and Options for Change, through

Table 4-20, Lands and Realty: Management Decisions, Rationale, and Options for Change.

Section 4.3 Special Designations: Describes management decisions, rational, and options for change areas of critical environmental concern, natural areas, scenic areas, national backcountry byways, national historic and recreation trails, wild and scenic rivers and wilderness study areas within the CCDPA: **Table 4-21**, ACECs: Management Decisions, Rationale, and Options for Change, through **Table 4-28**, Wilderness Study Areas: Management Decisions, Rationale, and Options for Change.

Section 4.4 Support: Describes the current management decisions, rational, and options for change for cadastral resources, and interpretation and environmental education (**Table 4-29**, Cadastral: Management Decisions, Rationale, and Options for Change, and **Table 4-30**, Interpretation and Environmental Education: Management Decisions, Rationale, and Options for Change); along with transportation systems and facilities used in the CCDPA.

Section 4.5 Social and Economic Conditions: Describes management decisions, rational, and options for change for the social and economic condition of the CCDPA, including tribal interests (**Table 4-31**, Tribal Interests: Management Decisions, Rationale, and Options for Change), public safety, and socio-economic conditions.

4.1 RESOURCE ADEQUACY AND OPPORTUNITIES

4.1.1 Air and Climate Change

Table 4-1
Air and Climate Change: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Maintain air quality standards through case by case review of activities on public lands.	Yes	Air quality in the district is generally good and most public land uses do not have a significant effect on air quality.	Evaluate air quality impacts on a regional level, with particular consideration of the non-attainment area in southern Washoe County.
Authorized activities will be reviewed to determine appropriate measures or stipulations to enhance positive or reduce negative air quality impacts.	Yes	This decision addresses the potential affects of each specific activity, so mitigation is prescribed on a case by case basis.	No change is needed.
Air quality will be protected through compliance with the Clean	No	This states that CCD will comply with federal	

Table 4-1
Air and Climate Change: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Air Act of 1990 and all federal, state and local emission standards for air quality. Section 176(c) of the Clean Air Act 42 (USC 7506 states that “No department, agency or instrumentality of the federal Government shall engage in, support in any way, or provide federal assistance for, license or permit, or approve any activity which does not conform to an implementation plan after it has been promulgated under section 110 of the Clean Air Act.”		law. This is non-discretionary therefore no decision is necessary.	
N/A	No	Land managers must be able to account and accommodate for short-term local changes, natural fluctuations, as well as long-term systematic trends due to climate change in land health assessments.	The RMP revision needs to provide a thorough analysis of the district’s climate change feedbacks on resources and impacts on public lands.

4.1.2 Soil Resources

Table 4-2
Soil Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Reduce soil loss and associated flood and sediment damage on public lands caused by accelerated wind and water erosion due to man’s actions.	Yes	This goal statement provides broad guidance in managing soil resources.	Identify areas at risk and propose specific management to reduce risk.
Limit any Bureau development, authorized activity, or land treatment so not to exceed a 50% reduction in ground cover in High	No	Fifty percent exceedance threshold appears high and arbitrary. The	Establish clear goals for establishing and maintaining vegetative ground cover. Develop

Table 4-2
Soil Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Erosion Susceptibility Areas (HESA). Exceptions include water stabilization projects designed to promote vegetative cover, "open" OHV designations on Prison Hill, North Flannigan, Pah Rah Mountains, McClellan Peak, and East Churchill Canyon, non-discretionary mining and prospecting activities, lands disposal in HESAs, green firewood cutting in Bailey Canyon HESA and Christmas tree cutting in the Brunswick Canyon		exceptions are specific but are not comprehensive.	criteria for exceptions.
Limit off-highway vehicle use to designated roads and trails in areas of severe erosion hazard susceptibility and in watersheds where OHV use is causing flood and sediment problems. The areas to be limited, include: Peterson Mountain Warm Springs/Hungry Valley Sun Valley Jumbo/Geiger Grade Portions of Prison and C Hill Mullen Pass.	Yes	OHV can directly erode soils and channelize run-off.	Consider other possible OHV designations including open, closed, and limited to existing roads and trails. Include other areas besides those specifically mentioned in previous decisions.
Develop or adopt biological soil crust monitoring protocols.	Yes	There are none. Assessments of rangeland condition should include some recorded condition of biological soil crusts since there is a link between rangeland health and soil stability, erosion, and nutrient status of soil surfaces and potential productivity independent of vascular vegetation.	Incorporate biological soil crusts into frequency trend plots. Develop partnerships for data collection and/or interpretation.

4.1.3 Water Resources

Table 4-3
Water Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Protect, maintain, restore and/or enhance the quality of water on public lands so that its utility for other dependent ecosystems will be maintained equally or above legal water quality criteria.	Yes	This goal statement provides broad guidance in managing water quality.	Provide guidance for establishing water quality criteria on case by case basis to manage aquatic resources that do not have specific water quality standards.
Districts are responsible for maintaining up-to-date water use inventory data and water rights records, including identifying locations that have springs which may qualify as a Public Water Reserve No. 107.	Yes	FLPMA directs BLM to conduct inventories of public land resources.	Make use of existing databases (e.g. Nevada Division of Water Resource database and the National Hydrographic Dataset) and augment these data with BLM data.
The Navy and BLM will not allow access to the subsurface by drilling or any other means and/or removal of any subsurface material from the Shoal Site	Yes	N/A	N/A

**Table 4-3
Water Resources: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
without thorough evaluation and coordination with Department of Energy.			
N/A	N/A	Develop indicators for water supply.	<p>Possibly:</p> <ul style="list-style-type: none"> • Healthy riparian vegetation conditions • Stable banks, no signs of trampling or headcuts • No visible signs of sedimentation • Develop specific quantitative datasets to determine water quantity condition trends (Follow USGS field measurements and surface water sampling methods: on-site measurements (stream flow, barometric pressure, temperature, dissolved oxygen, pH, specific conductivity), using a depth- and width-integrated method, and chemical and bacterial samples analyzed in the laboratory; USGS National Field Manual 1999 for QA/QC and SOPs (defendable data) • The state of NV has no water quality standards for seeps and springs, how will BLM-Nevada address this? (cooperators, collaborators, GBC) • Remove strict adherence to the 'grazing lens'- Standards and Guidelines are for grazing impacts, what about impacts from road densities, invasive plant species?? Take a big picture approach • Supplement State water quality standards with indicators; consider Tech Ref 1734-6 "Interpreting Indicators of Rangeland Health" • Develop/Adopt/join working group- indices of biological integrity (IBIs) for streams and springs based on instream benthic macro invertebrate and periphyton assemblages.
N/A	N/A	Missing and needed	Develop a directives flow-chart based on indicator findings (if, then statements).

Table 4-3
Water Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
N/A	N/A	Missing and needed	Clearly state desired conditions and objectives for water resources on CCD addressing local/current and future/potential issues.
N/A	N/A	Missing and needed	Develop effective monitoring strategies of source areas as part of the adaptive management process and cooperative programs (Great Basin Consortium).
Interpretive trail at Curtz Lake, and along Truckee River corridor (102, Mustang, and McCarran).		Currently minimal and needs expanding	Utilize and expand interpretive / environmental education / outreach opportunities to gain public support for management decisions. Build off of what BLM has in order to highlight water resources and issues on CCD. Documente impacts on water resources and inform the public.
N/A	N/A	Missing and needed	Define critical watersheds as a planning designation; highly erodible soils. These watersheds would then get special management prescriptions to protect resources at risk.
N/A	N/A	Spearhead	From a community perspective, how will CCD promote flexibility and streamline approval for projects? How can BLM help public land users and neighbors overcome obstacles of sharing water?
N/A	N/A	Missing and needed	Identify watersheds that need special protection to ensure the continued existence of federally listed, candidate, or BLM sensitive aquatic species, ensure public health and safety, and facilitate other public uses.
N/A	N/A	Missing and needed	Define 'priority' and 'critical' with criteria, in order to focus efforts.
N/A	N/A	Missing and needed	Move towards site capability rather than returning to past potential.

4.1.4 Vegetation

Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values.	No	Vague. Maintain or improve, but what about when there are conflicting values? What values are there?	Be specific, and define vegetation goals. Set goals to improve the RHA findings.
Manage livestock use at existing levels.	No	Existing levels may not always be appropriate.	Adjust levels up or down, depending on conditions.
Provide adequate, high quality forage for livestock by improving rangeland condition.	No	It addresses it from the grazing perspective; however it should address it from the ecological integrity and sustainability perspective.	Improve rangeland condition so that biotic components are present and functioning. (with a healthy vegetation community, certain grazing practices would be sustainable without upsetting the system).
Improve overall range administration.	No	Improve the overall BLM range program, or the implementation of it.	What exactly needs to be improved? Can areas be pinpointed that have the ability to be improved?
Within ten years the objective of the proposed action is to cause an overall shift in ecological condition of the native ranges follows: (1) increase excellent condition by 3,017 acres, (2) increase good condition by 28,448 acres, (3) reduce fair condition by 12,687 acres and poor condition by 18,778 acres.	No	Do not use these qualitative descriptive terms.	It would be more appropriate to focus restoration efforts in areas that are not meeting Land Health Standards, but have the potential to meet them with minimal input. Or perhaps to restore the resiliency of XX acres of rangeland.
Maintain a sufficient quality and diversity of habitat and forage for livestock, wildlife, and wild horses through natural regeneration and/or vegetation manipulation methods.	No	It's about system integrity and resiliency, not about forage. If the system is intact and healthy, the forage will be at suitable levels.	Consider switching the approach to say that CCD is going to allocate only what is currently out there, and that more will be allocated as vegetation systems regain their potential production levels (through whatever process).

**Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Improve the vegetation resource and range condition by providing for the physiological needs of key plant species.	Yes	This focuses on the vegetation resource as an entity with needs of its own.	This should be retained.
Reduce soil erosion and enhance watershed values by increasing ground cover and litter.	No	Ground cover and litter are important, but perennial root structures are equally important for these functions, and more.	Reduce soil erosion by increasing ground cover and litter, and promoting the structural/functional groups suitable for the site.
Improve and maintain the condition of the riparian habitat.	No	The statement is too vague and needs more direction of what to do and how to measure success. The goal is to strive for PFC ratings on the riparian systems.	Define targets and goals that are realistic for each location. Realize that disturbances must be restored in order for improvements to be meaningful and lasting. To improve and maintain the condition of the riparian habitat, as depicted by continually increasing the amount of PFC rated systems within the CCDPA.
Protect and maintain existing and potential fisheries and riparian areas in good or better condition (proper functioning condition).	No	The statement is too vague and needs more direction of what to do and how to measure success.	Define targets and goals that are realistic for each location. Realize that disturbances must be restored in order for improvements to be meaningful and lasting.
Allow commercial timber sales (Markleeville and Long Valley Planning Units) consistent with VRM class designations and objectives for scenic value management.	Yes	It is a valuable tool to accomplish treatments.	Retain this idea.
Commercial sales will not be allowed in the Class II VRM area (Indian Creek Recreation Lands) that is highly visible from recreation developments unless needed for disease or hazard reduction.	Yes and No	Forest health is the goal of treatment. (Disease and hazard reduction are components of forest health).	Develop criteria to allow removal while protecting forest health.

**Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Salvage and sanitation cutting of commercial timber and other cutting consistent with VRM and wildlife guidelines will be provided for in the Long Valley and Markleeville Planning Units.	Yes	N/A	Develop criteria to allow removal while protecting forest health.
Sell green pinyon and juniper for fuelwood and fence posts, for personal use, at the rate of up to 5,000 cords and 1,000 posts annually. These sales would take place only in areas where there would be no conflicts, or in areas where the conflicts could be mitigated.	Yes and No	This statement is fine; however CCD does not have any wood cutting areas designated for people to do this for reasons explained in narrative.	Designate areas for the public as part of a BLM landscape scale vegetation treatment program.
The sale of dead standing and down fuelwoods, for personal use, with the exception of standing cottonwood or aspen, will continue in the Reno CCDPA outside of deer migration corridors and identified critical watersheds. Any sales within identified high erosion areas must not reduce ground cover more than 50 percent.	Yes	This works only when there are large amounts of dead trees to meet the demand.	Provide designated 'green' wood cutting areas, which meet the public demand and produces treatment results.
The J.W. Ranch area will be open to woodcutting for a one-year period to improve forage for wintering mule deer.	No	This could be expanded to designate areas for public wood cutting (as described above).	Expand to designate areas for public wood cutting.
Pinyon pine nuts may be harvested throughout the Field Office area of jurisdiction. The first 25 pounds are free and do not require a permit. After the initial 25 pounds the harvester is considered a commercial user and will be required to get a permit and pay fair market value. Commercial use is subject to Field Office Manager approval.	Yes	Standard Bureau Policy statewide.	Commercial use has not been allowed recently due to tribal concerns. Tribal issues could be resolved to meet the need for a valuable public commodity.

**Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Protect the five-acre stand of western white pine located in T11N. , R 22E. , Sec. 16, from damage or destruction.	Yes	N/A	Threats of fire and forest health need to be clearly defined if CCD is to ensure protection.
Limit logging in the East Fork of the Carson River Canyon to Class II VRM recommendations. Logging would be allowed if the visual quality of the canyon will be maintained. Salvage logging will be allowed if the Watashema Dam is constructed.	Yes and No	This was written prior to the land transfer to the forest service in Nevada. The Watashemu Dam is no longer a consideration.	This should only be written to address the lands CCD still manages.
Protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.	Yes	PFC is a great goal for riparian areas.	Consider ways to inventory riparian areas.
Maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses.	Yes and No	The goal is intact ecosystems, which then provide habitat.	Look at the integrity of the ecosystem as a whole, which will then provide for all the different habitat components.
Maintain or improve the habitat condition of meadow and aquatic areas. Habitat condition for any wildlife species can be defined as the ability of a specific area to supply the forage, cover, water, and space requirements of an animal. Habitat condition, therefore, is a measure of habitat quality, and is determined by assessments, surveys and studies.	Yes	Specific goal.	Retain this idea.
Maintain or improve the condition of the public rangelands so as to enhance productivity for all rangeland values (including wildlife).	No	Not specific enough, and somewhat idealistic.	Maintain or improve the condition of public rangelands so as to enhance ecosystem functionality so that uses are sustainable.
Dead-standing or live cottonwood or aspen trees will remain. Any dead or live trees in identified deer migration corridors will be left for wildlife use.	Yes	Wildlife snags are still appropriate to leave.	Retain this idea.

**Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
In order to insure watershed health, control or elimination of noxious weeds on both upland and riparian areas will be in cooperation with local, state, and other federal agencies, as well private groups or other interested parties.	Yes	This is important, since weeds don't know jurisdictional boundaries.	Retain idea and incorporate integrated pest management strategies and techniques.
Prescribed burns will be reseeded, using native species to the extent practical, wherever residual vegetation is not adequately abundant to revegetate the sites naturally, prevent domination by invasive weed species, and meet ecosystem restoration objectives.	Yes and No	Clear direction is needed.	Develop measures or criteria to minimize invasive species and promote native vegetation.
Navy and BLM will coordinate with appropriate agencies and will implement approved integrated pest management plans to control and remove undesirable vegetation.	Yes	Coordination and implementation have been ongoing, and method seems to be meeting needs.	Navy, BLM and the Churchill County Weed Coalition, as well as other agencies are actively coordinating and addressing weed concerns.
The Navy and BLM, in coordination with NDOW, will determine if additional management is required for the riparian area at Horse Creek.	No	MOU has expired, however the coordination is still needed to continue.	Create another MOU; ensure continued BLM/public access to Clan Alpine WSA.
The Navy and BLM will delineate existing vegetation areas that depend on water from existing flowing wells (e.g., in Settlement Area), which support both military training and wildlife habitat.	No	These areas are already delineated by now. They have been actively plugging old wells. Some artesian ponds are being retained and they now only require management.	This management decision has been accomplished. Coordinate with Military to meet shared management objectives.
Management of delineated areas will require a new water right filing with the State of Nevada for a new beneficial use for wildlife. Management of these areas will include fencing.	No	Fencing is an option, but isn't necessarily vital. It depends on the situation.	Management of these areas may include fencing.

**Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Provide direction in establishing priority public wood cutting areas.
			Develop/establish intervals and standards for monitoring and conducting evaluations.
		An objective identification of the goal, value(s) at risk and potential of positive results from treatment should be established and used.	Restoration of damaged vegetation communities should be addressed, with priorities and feasibility being discussed. This would include methods and priorities for fire rehab as well as rehab for other degraded vegetation communities.
		As an example, currently, there is just a two growing season wait for livestock operators, however there may be more useful results from a defined measurable result having to be attained prior to use being re-instated.	A definition of measurable success for a rehab project/effort. Uses post treatment should be tied to these measurements of success.
		Evaluate the goal of a treatment (is it stabilization or habitat?) and use non-natives. Stabilizing the soil resource is a priority.	Type of seed used in rehabilitation/revegetation needs to be addressed.
		Management should be based whenever possible from results of treatments.	Direction on the results of monitoring. These results would be things such as; tracking trends, detecting vegetation changes that will result in a management change/response, etc.

**Table 4-4
Vegetation: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Establish goals for riparian systems.
			Establish goals for the Land Health Assessments.
			Establish goals for Integrated Pest Management and Noxious Weed Program.

4.1.5 Special Status Species

**Table 4-5
Special Status Species: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Support reintroduction of Lahontan cutthroat trout, bighorn sheep and other endemic species into suitable, potential and historic habit. Specifically, the Stillwater, Clan Alpine, and Desatoya mountains for desert bighorn sheep and streams and springs identified by NDOW as potential habitat for Lahontan cutthroat trout and other T & E fish.	Yes	N/A	N/A
Use fencing, emergency OHV closure, no disposal of public lands, minerals' coordination, or any other legal means necessary to protect identified T/E plant populations. Work with applicants who present mining plans to avoid destruction of T/E plant populations, following guidance in the 43 CFR 3802 and 3809 regulations.	Yes	Section-7 consultation would be required for mining plans encompassing T&E plant or animal populations.	Maybe reword to outline process or it may be unnecessary.
Eliminate OHV use where T&E plants are located.	No	OHV use may not be an issue anymore?	Two 20 acre? BLM parcels surrounded by private. Potential opportunities?

**Table 4-5
Special Status Species: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
N/A	N/A	BLM special status plant species management document is lacking.	Create conservation plans/strategies for all BLM special status species.
Designate proposed Carson Wandering Skipper and Virginia Range Williams Combleaf ACECs.	No and Yes respectively	SEE rationale under ACEC section.	See options for change under ACEC section.

4.1.6 Fish and Wildlife

**Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Protect important natural, recreation, wilderness, wildlife , watershed, visual, and Native American values by prohibiting future communication and electronic warfare sites of all types in the most sensitive areas. These include portions of the Clan Alpine, Desatoya, Stillwater, Gabbs Valley and Simpson Park Mountain Ranges, Bald Mountain and the Sand Mountain and Hickison Petroglyph recreation areas.	No	No specific criteria defined for what is sensitive.	Develop criteria for what is sensitive.
Areas Where Existing Withdrawals and Segregation from Mineral Entry Will be Maintained (22,500 acres): <ul style="list-style-type: none"> • Key Watershed and Wildlife Areas • Alkali Lake • Antelope Valley • Pine Nut Mountains • Topaz Lake 	No	No specific criteria defined for what are key watershed and wildlife areas.	Develop criteria for what is sensitive and map the 22,500 acres.

Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Critical or at-risk watersheds will be delineated as necessary in order to give these areas special consideration in activity plan development, with the goal of preventing accelerated soil loss and watershed degradation, associated flood and sediment damage to private property or adjacent lands, or to prevent destruction of important wildlife habitat . Delineate high erosion hazard and/or flood-prone areas within the urban interface areas.	No	No specific criteria defined for what is important wildlife habitat (or critical or at-risk watersheds).	Develop or outline standards criteria for what is important wildlife habitat and/or develop what criteria/mechanisms would be used to identify critical or at-risk watersheds.
Eliminate OHV use in the following locations; <ul style="list-style-type: none"> • Through or in the immediate vicinity (near enough to the water source that its water quality or water quantity may be affected) of any surface water source, such as a spring or seep. • Any riparian area associated with meadows, marshes, springs, seeps, ponds, lakes, reservoirs or streams. • Any channel bank, or streambed of a perennial stream. 	No	OHV use is currently open in most of the CCDPA.	Analyze alternatives with different degrees of OHV use limitations in these habitats. Develop criteria leading to options for protection.
Riparian protection measures would involve implementation and evaluation of grazing management systems and techniques which have been designed to enhance riparian habitats before initiating extensive fencing of specific areas to exclude wild horses and livestock. Riparian and fisheries habitat protection measures will involve fencing of some specific	No	Inconsistent evaluation across the district because PFC is qualitative not quantitative. A change in grazing instead of fencing has not been historically used to full potential.	Outline a consistent District process to be used at the EA level.

Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
areas to prevent over-utilization and trampling. Some grazing uses by livestock and wild horses could occur on those riparian areas where monitoring studies indicate the area has recovered to a good or better condition class. The degree and season of grazing use will be determined through consultation and coordination with affected livestock permittees and other interested parties.			
Initially, manage habitats for existing numbers of big game.	No	Outdated and meaningless.	Come up with better desired outcomes in consultation with NDOW.
Manage wildlife habitat for a long-term goal of providing forage for reasonable numbers of big game as displayed in Table 3-1	No	Outdated. AUMS are not allocated for wildlife because of the impracticality of establishing and monitoring them.	Come up with better desired outcomes in consultation with NDOW.
Protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.	No	PFC is only qualitative, this goal/objective is too broad, and no structured monitoring plan exists.	Develop threshold criteria to establish a monitoring plan that would identify mechanisms for establishing protections. For instance, use MIM protocol on so many miles of stream per year or PFC on so many miles of stream even if the allotment is not under review.
Maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses.	Yes	This can be used as a broad goal.	Specific objectives need to be tied to this by developing more quantitative threshold criteria.
Maintain or improve the habitat condition of meadow and aquatic areas. Habitat condition for any	Yes, but not fully.	Criteria lacking	Develop better goals and quantifiable objectives where possible.

Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
wildlife species can be defined as the ability of a specific area to supply the forage, cover, water, and space requirements of an animal. Habitat condition, therefore, is a measure of habitat quality, and is determined by assessments, surveys, and studies.			
Maintain or improve the condition of the public rangelands so as to enhance productivity for all rangeland values (including wildlife).	Yes, but not fully.	Criteria lacking	Develop better goals and quantifiable objectives where possible.
Intensive grazing systems will be implemented on the category I allotments within mule deer habitat areas which have cattle, and will recognize bitter-brush as a key species on these allotments.	Unknown	This was for the Reno Planning area. It is unknown if this occurred.	RMP should define intensive or set criteria for grazing systems that benefit wildlife along with desired future conditions.
The Faye Canyon, Spratt Creek and Hangman allotments will continue as areas set aside for wildlife use.	Yes	There is still no grazing.	Outline a process in the RMP to assess the effectiveness of decisions such as this.
Limit OHV use to designated roads and trails in the Petersen Mountain and Sand Hills crucial deer areas.	Unknown	No data.	Travel and transportation plan should address wildlife issues in general.
Limit vehicle traffic to designated roads and trails in the higher elevations of the Pine Nut Mountains. All existing roads and trails will be designated open to OHV use except where roads or trails impact sensitive meadows, seeps, springs and other waters as identified in the watershed decisions.	No	Watershed assessments and subsequent decisions never completed.	Need district-wide vegetation management or restoration approach that is coupled with a travel and transportation plan.
Carson City District's Normal Year Fire Plan will provide for maximum protection of Sand Hills deer winter range from wildfires.	Yes	Fire plan takes into account big game species habitat needs.	Outline a process in the RMP to assess the effectiveness of decisions such as this or if it is impractical, get rid of it or consolidate within other objectives.

**Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
The JW Ranch area will be open to commercial or noncommercial wood cutting for a one year period to improve forage for wintering mule deer. If this practice does not accomplish the desired objective, chaining and reseeded will be allowed.	Yes	Site-specific and not an RMP level decision.	Outline a process in the RMP to assess the effectiveness of decisions such as this.
Dead-standing or live cottonwood or aspen trees will remain. Any dead or live trees in identified deer migration corridors will be left for wildlife use.	Yes	This is done at the site-specific NEPA level but may not be consistent across the District.	Outline a process in the RMP to assess the effectiveness of decisions such as this. This actually seems like it should be an SOP or design feature that would be used in an alternative.
All riparian areas will be given special management consideration through the consultation and coordination process to provide for adequate protection.	No	This is redundant with other decisions/goals/objectives.	Consolidate within other objectives.
Acquire private lands in the following areas for wildlife: Lassen-Washoe deer winter range and migration corridor. About 7,400 acres. Pine Nut Mountains for wildlife habitat management, about 35,000 acres. Acquire legal access to Faye Canyon, Bagley Valley and the Hangman's Bridge area near Markleeville. Legal access will be acquired in coordination with the USFS. Acquire or provide legal access through or around Big Canyon, Cottonwood Canyon and Hardscrabble Canyon to provide vehicular access into the Virginia Mountains. Legal access will be provided for administration of BLM lands.	Unknown	No monitoring data to assess effectiveness of acquisitions.	Outline a process in the RMP to assess the effectiveness of decisions such as this and also lay out a process for identifying lands where conservation easements for wildlife would be beneficial.

Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Implement range improvement projects to protect and improve (big game) mule deer, bighorn sheep, sage grouse, fisheries, and riparian habitat and to improve livestock and wild horse distribution and vegetation utilization. This includes the following 13 improvements or category of improvements.	No	Monitoring data insufficient to assess effectiveness and lack of funding for maintenance monitoring.	Develop or outline process and criteria to assess effectiveness of current range improvements. Develop District database to help effort.
Protection of 10.7 miles of fishable rivers and creeks.	No	Location of the 10.7 miles of stream was/is unknown.	Consolidate within other objectives.
Rehabilitation of meadow habitats in the McBride Flat allotment.	No	Site-specific and not an RMP level decision.	Need district-wide vegetation management or restoration approach.
Removal of 600 acres of pinyon-juniper overstory on selected sites in the Pine Nut Mountains, Excelsior Mountains, Wassuk Range, and the McBride Flat area through fuelwood harvest.	No	Site-specific and not an RMP level decision.	Need district-wide vegetation management or restoration approach.
Installation of 10 guzzlers.	Yes	Many more that 10 guzzlers have been installed. Site-specific and not an RMP level decision.	Lay out criteria for identifying the efficacy of establishing new guzzlers with NDOW.
Development of water for wildlife at six spring development and 5 undeveloped riparian areas.	No	No specifics identified.	Avoid site-specific actions so just need to establish an overall process and direction along with criteria for authorizing.
Removal of 250 acres of pinyon-juniper and potential chaining and seeding in the J-W ranch area.	No	Site-specific and not an RMP level decision.	Need district-wide vegetation management or restoration approach.
Rehabilitate 6,000 acres of burned deer winter range (Petersen Mountain).	No	Site-specific and not an RMP level decision.	Need district-wide vegetation management or restoration approach.
Rehabilitate 6,000 acres of burned critical deer winter range. The specific locations and types of rehabilitation will be determined by consultation and coordination through a public process. CRMP is the preferred process.	Yes	Site-specific and not an RMP level decision.	Need district-wide vegetation management or restoration approach.

**Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Fencing of small habitats will be accomplished through the Activity Planning process and will include public participation and collaboration.	Yes	Site-specific and not an RMP level decision.	Need district-wide vegetation management or restoration approach.
Wildlife habitat improvement projects will be guided, in the most part, by provisions in activity level plans such as habitat management plans (See Table 3-4.), or interdisciplinary activity plans. These plans will be developed through consultation with interested parties and will be coordinated with livestock, wild horse, and wilderness plans. These plans will be focused on rehabilitation and improvement of wildlife habitat through protective fencing, water developments, grazing management, and vegetation treatments.	No	Site-specific projects go through the NEPA process.	Need district-wide vegetation management or restoration approach.
Riparian protection measures would involve implementation and evaluation of grazing management systems and techniques which have been designed to enhance riparian habitat before initiating extensive fencing of specific areas to exclude wild horses and livestock. Riparian and fisheries habitat protection measures will involve fencing of some specific areas to prevent over-utilization and trampling. Some grazing uses by livestock and wild horses could occur on those riparian areas where monitoring studies indicate the area has recovered to a good or better condition class. The degree and season of grazing use will be determined through consultation and coordination	No	Overutilization of riparian areas is occurring in some areas, maintenance of exclosures is not consistently occurring; grazing systems in some areas are not effective in protecting riparian.	Need to develop a more consistent approach to applying grazing management systems to protect riparian areas. Specific criteria and subsequent broad measures should be developed for riparian habitat protection.

**Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
with affected livestock permittees and other interested parties.			
Protection of 95 small wildlife habitat areas. This also includes protection of riparian/meadow habitat areas prioritized in Table 3-2 and protection of 65 spring sources with the top 20 prioritized in Table 3-3.	No	Consistent follow-up monitoring has not occurred and many protection measures such as fencing are in disrepair.	Develop database with all wildlife-specific improvements and develop monitoring and maintenance plan. Develop map of ecologically sensitive areas and corridors that warrant additional conservation/protection measures.
Petersen Mountains closed to OHV use year round.	Yes	Site-specific action that was implemented.	Need district-wide travel management plan.
Occupied Raptor Eyries are restricted March 1 to June 15 for OHV event and mining operations.	No	No definitions of what restrictions are.	Develop criteria for protection of all raptors and habitat for multiple programs.
Sand Hill Critical Deer Range restrictions from December 1 to April 30.	No	No definitions of what restrictions are.	Need district-wide deer habitat conservation approach.
Restrictions in the spring for six sage-grouse strutting grounds for oil and gas leasing.	No	This is outdated and is site-specific to old leases.	Need overall sage-grouse conservation measures for multiple habitats and programs.
Restrictions from March 1 to July 30 for sage-grouse habitat for oil and gas leasing.	No	No definitions of what restrictions are.	Need to develop consistent sage-grouse habitat restrictions to protect multiple habitat use requirements based on specific criteria.
Restrictions in the spring for all sage-grouse strutting grounds for geothermal leasing.	No	No definitions of what restrictions are.	Develop protections based on current science.
Restrictions from March 1 to July 30 for sage-grouse habitat for geothermal leasing.	No	Too vague and no definitions of what restrictions are.	Need to develop consistent sage-grouse habitat restrictions to protect multiple habitat use requirements based on specific criteria.

Table 4-6
Fish and Wildlife: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Restrictions from March 1 to July 30 for Bedell Flat sage-grouse strutting ground.	No	Strutting ground is no longer active.	Need to develop consistent sage-grouse habitat restrictions to protect multiple habitat uses, not just leks.
Restrictions from February 1 to September 1 for prairie falcon habitat.	No	Too vague and no definition of habitat or what the restrictions are.	Develop criteria for protection of all raptors and habitat.
WILDLIFE • A master plan is being developed, with Washoe County, Nevada National Guard, Audubon Society, City of Reno, and Nevada Division of Wildlife, for the Swan Lake Nature Study Area in Lemmon Valley (Map 5). The 160 acres of public land, located in this area, will be withdrawn from locatable mineral entry; motorized vehicle use will be restricted to “designated” roads only. Any non-Federal lands within the Swan Lake Nature Study Area will be considered for acquisition by BLM and these lands will be managed consistent with this plan amendment.	Yes		Develop public outreach and environmental education of importance of area as an Audubon designated Important Bird Area.
BLM and Navy will jointly coordinate with Animal Plant Inspection Service (APHIS) for predator control, when needed.	Unknown	Issue has not arisen and no criteria.	Set criteria for predator control.
BLM and NDOW will coordinate to assess the potential for sage grouse habitat with in the Management Area.	Yes	Priority habitat has been developed in coordination with NDOW	Develop criteria for priority habitat restoration goals.
The Navy, BLM and NDOW will coordinate to develop a cooperative agreement to provide access to the six wildlife guzzlers located south of Fairview Peak.	Unknown	No agreement completed but issue has not arisen.	Could develop an agreement in the monitoring plan but may not be needed.

4.1.7 Wild Horse and Burros

**Table 4-7
Wild Horse and Burros: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Initially, manage for wild horses and their habitat in herd areas at current population levels, or at a level identified in an approved activity plan.	Yes	AMLs can be adjusted through activity plans as the situation changes.	AMLs can be adjusted through a Multiple Use Decision (MUD.)
Maintain sound thriving populations of wild horses within herd management areas.	Yes	The act directs the BLM to manage wild horses in a thriving natural ecological balance. By maintaining sound thriving populations of wild horses we are meeting part of the act.	Adjust the number of wild horses as resource needs vary.
Maintain or improve the condition of public rangelands to enhance productivity for wild horses and burros within herd management areas.	Yes	By maintaining or improving the condition of public rangelands a healthy population of wild horses can exist along with other multiple uses.	Gather wild horses when the population exceeds the maximum AML.
Totally remove wild horses from the following areas: Horse Springs WHA Completed 1983 Pah Rah WHA Completed 1984. Southern Pine Nut WHA Completed 1984.	Yes	These areas were intermixed with lands not managed by the BLM or FS. Due to complaints from private land owners the wild horses were removed.	If the BLM acquires substantial blocks of private land in these areas wild horse management could be considered in these areas.
Totally remove wild horses from the Jumbo area-Completed 1984.		Horses were never found in this area prior to 1971.	Since horses were not found in the Jumbo area prior to 1971 this area could never be designated a HA.
Propose an area of about 68,000 acres in the Marietta Land Area for designation as the Marietta National Wild Burro Range.	Yes	This area offered a unique area for observation of wild burros within a context of historic mining use.	The designation could be changed.
South Stillwater HMA is 9,940 acres with an AML of 16 horses and a current estimate of 9 head.	No	Accessibility to this HMA is limited, 16 horses is insufficient to avoid the deleterious	Change the HMA to an HA.

**Table 4-7
Wild Horse and Burros: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		effects of inbreeding without intensive augmentation, therefore, consideration should be given to changing the status to an HA.	
Garfield Flat HMA is 135,974 acres with an AML of 83-125 horses.	No	Only two permanent water sources exist within this HMA both of which are located on private land. Since the BLM does not control water consideration should be given to converting this HMA to an HA.	Change the HMA to an HA.
Horse Mountain is 52,222 acres with an AML of 60-118 horses.	No	The only water source for these horses was an irrigation return ditch outside of the HMA which dried up in July of 2000 due to changing irrigation practices, all of the horses were removed.	Change the HMA to HA as it can no longer support wild horses.
Lahontan HMA is 10,446 acres with an AML of 7 – 10 horses.	No	The sole source of water for this HMA is the Lahontan Reservoir within the Lahontan State Park. Additionally, 7 – 10 horses are insufficient to avoid the deleterious effects of inbreeding without intensive augmentation.	Change the HMA to an HA Or enter into an agreement with the Nevada State Parks to allow horses access to water and forage. If an agreement could be reached an AML of 25 to 40 would be a feasible management level if there were periodic genetic augmentation. Many members of the public enjoy viewing these horses which spend approximately half of

**Table 4-7
Wild Horse and Burros: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			the year on the State Park, therefore, more intensive management may be justified.
Dogskin Mountain HMA is 6,871 acres with an AML of 10 - 15.	No	The 6 horses originally identified within the HMA were very likely domestic given the relatively close proximity to ranches. Additionally, 10 – 15 horses are insufficient to avoid the deleterious effects of inbreeding without intensive augmentation. If these 6 horses were wild it would be difficult to explain the very low number, therefore, consideration should be given to changing the status to an HA.	Change the HMA to an HA.
Granite Peak HMA is 3,862 acres with an AML of 11 – 18.	No	The 6 horses originally identified within the HMA were very likely domestic given the relatively close proximity to ranches. Additionally, 11 – 18 horses are insufficient to avoid the deleterious effects of inbreeding without intensive augmentation. If these 6 horses were wild it would be difficult to explain the very low number, therefore, consideration should be given to changing the status to an HA.	Change the HMA to an HA.

Table 4-7
Wild Horse and Burros: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Pine Nut Mountains HMAs western edge encompasses the Deer Run road area of Carson City.	No	The western edge is an urban area with many homes and substantial traffic. Over the past several years an average of at least one horse has been struck and killed by vehicles per year and several have been removed as a result of complaints from property owners. Consideration should be given to adjust the western boundary of the HMA to Brunswick Canyon and an attempt made to keep the wild horses out of the neighbor hoods and off the paved roads.	Adjust the western edge of this HMA to Brunswick Canyon and remove the wild horses in the urban area.
Tule Ridge/Mahogany Flat	No	This HA was incorrectly designated as an HA, in 1972 seven horses were identified in this area and were latter determined to be domestic.	Remove Tule Ridge/Mahogany Flat as a HA.

4.1.8 Wildland Fire Ecology and Management

**Table 4-8
Wildland Fire Ecology and Management: Management Decisions, Rationale, and Options
for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Restore fire as an integral part of the ecosystem, improve the diversity of vegetation, and reduce fire hazard fuels.	Yes	Wildland fire is a natural disturbance and will always be in this ecosystem.	Continue to protect values at risk and develop management strategies that will modify fire behavior.
Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values.	No	Specifically address wildland fire management strategies to achieve resource management objectives.	Utilize prescribed fire, chemical, and mechanical treatments, as well as wildfires under appropriate conditions, to achieve resource objectives, including enhanced productivity for all rangeland and watershed values for livestock management.
Maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses.	No	Specifically address wildland fire management strategies to achieve resource management objectives.	Utilize prescribed fire, chemical, and mechanical treatments, as well as wildfires under appropriate conditions, to maintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resource uses. Protect important wildlife habitats from unusually severe and/or unusually large wildfires that may threaten long-term productivity and functionality.

**Table 4-8
Wildland Fire Ecology and Management: Management Decisions, Rationale, and Options
for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.	No	Specifically address wildland fire management strategies to achieve resource management objectives.	Utilize prescribed fire, chemical, and mechanical treatments, as well as wildfires under appropriate conditions, to protect and maintain existing and potential fisheries habitat and riparian habitats in a good or better condition.
Cultural and paleontological resources will be protected to the maximum extent practicable, consistent with other resource values.	No	Specifically address wildland fire management strategies to achieve resource management objectives.	Utilize prescribed fire, chemical, and mechanical treatments, as well as wildfires under appropriate conditions, to protect cultural and paleontological resources.
Provide a wide range of quality recreation opportunities on public lands under management by the Carson City Field Office.	No	Specifically address wildland fire management strategies to achieve resource management objectives.	Protect recreation infrastructure from wildfires through suppression of unwanted wildfires and through on-site fuels management. Include educational and interpretive elements to educate the public on fire management strategies to help achieve resource management objectives.
Forest and woodland management will be based on the principles of multiple use, sustained yield, and ecosystem management.	No	Specifically address wildland fire management strategies to achieve resource management objectives.	Utilize prescribed fire, chemical, and mechanical treatments, as well as wildfires under appropriate conditions, to manage forest and woodland resources.

Table 4-8
Wildland Fire Ecology and Management: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>The BLM will integrate all Navy closed and open lands, except Main Station, into the Fire Management Final Plan Amendment (BLM 1998). Currently fire management is handled by the NAS fire department. Due to the location and proximity to BLM lands, incorporation of Navy lands (not including the Main Station) into the Fire Management Final Plan Amendment is effective and efficient. The plan amendment assigns fire management categories to all public lands managed by the Carson City Field Office.</p> <ul style="list-style-type: none"> • Category A. Those areas where wildlife suppression is warranted, including threatened and endangered species habitat and urban/wildland interface. Full suppression of wildlife will be the objective. • Category B. Those areas where wildfire suppression is not warranted, but where, if fires occur and escape, management options on how to suppress the fire are available. Escaped fire will be closely analyzed to protect life, the property, then natural resources, and suppression strategies that will most effectively meet these goals will be used. • Category C. Those areas where fire has a significant role in the environment and where wildfire should be 	Yes		Retain idea

**Table 4-8
Wildland Fire Ecology and Management: Management Decisions, Rationale, and Options
for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>used to accomplish resource management foals. Constraints exist but are generally localized (e.g., small towns, ranches, riparian sites), and will require buffer zones of full protection and fuels treatments; but as a whole, the areas are delineated for the beneficial effects of fire.</p> <ul style="list-style-type: none"> • Category D. Those areas where wildfire should be allowed to burn in a mostly unrestricted fashion to achieve resource objectives. All fires receive a response and will be evaluated for potential threats or negative impacts. Fire suppression will be limited to protecting small sites with constraints (such as ranches, improvements). 			

4.1.9 Cultural Resources

**Table 4-9
Cultural Resources: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Scientifically excavate, stabilize, and develop as public interpretive sites the Sand Springs and Cold Springs Pony Express Stations.	Yes	Excavations completed in 1979. Areas continue to be interpreted for public use.	Ongoing
For BLM withdrawal lands, BLM and Navy will preserve, protect, and interpret significant cultural	Yes	Document completed.	Ongoing

Table 4-9
Cultural Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
resources by preparing an agreement document between the Navy, BLM, and the Nevada State Historic Preservation Officer (SHPO), which defines how the Navy and BLM will implement the National Historic Preservation Act (NHPA).			
The Navy/BLM will coordinate with Native American Tribes and individuals in accordance with BLM policy.	Yes		This is a legal requirement.
Navy/BLM will prepare treatment options for contextual studies.	Yes		Retain
Navy/BLM will perform research projects to aid contextual studies.	Yes		Retain
Navy and BLM will share cultural information.	Yes		Retain
All proposed Navy/BLM activities will be subject to NHPA Section 106 review.	Yes		This is a legal requirement.
BLM will pursue withdrawal of locatable minerals from operation of the 1872 Mining Law at Grimes Point Archaeological Area, Sand Mountain Recreation Area and the Cold Springs Historical Site.	No	Not completed.	In areas of regionally or nationally significant historic properties, review existing mineral withdrawals in the CCDPA to determine if they should be retained, modified, or revoked.
Designate a representative sample of archaeological and historic-era sites for preservation for future scientific use.	Yes	Required by BLM Manual 8110.42 (B). Language needs updating to conform to manual.	Stabilize such sites if necessary, but avoid all other disturbances. Location of these sites should not be made public. Research should be permitted when new and significant data is likely to be generated, or when imminent destruction of the site makes immediate salvage necessary.

Table 4-9
Cultural Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Designate appropriate sites for public use and provide access and information. Promote visitation and interpretation of the resource: <ul style="list-style-type: none"> • Grimes Point • Hidden Cave • PX Stations at Sand Springs and Cold Springs • Cold Springs Telegraph and State Stations • New Pass Overland Stage Station 	Partially	Infrastructure is remote and improvements ad hoc	Potential for environmental education and interpretive services are high.
Monitoring of the “Trailer Park” site (CrNV-03-959) was previously identified in the CRMP.	No	Monitoring is not currently occurring	A segment of the Trailer Park Site was mitigated during <i>Data Recovery Excavations</i> (Young D. C., 2002). Ongoing monitoring should be part of a regional system, not site-specific.
Monitoring twice a year of the Tule Peak cultural resources.	No	Monitoring is not currently occurring.	The Tule Peak Complex was previously nominated to the NRHP as an archaeological district (Pendleton, McLane, & Thomas, 1982). Location should be monitored.
Post with protective signage a minimum of two “highly significant” historic sites per year.	No	Not currently occurring.	Identify specific areas of high public interest, and urban interface pressure.
Utilize State of Nevada historical signage on public lands.	Rarely	Program for signing historic sites exists, but not currently occurring.	There exists an opportunity for this existing signage program to be expanded and to promote heritage resources on public lands within a state-wide uniform signage program.

**Table 4-9
Cultural Resources: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
The view of Native Americans will be considered prior to BLM decisions or approvals that could result in changes in land use, physical changes to lands and resources, changes in access, or alienation of lands.	Partially	This captures some of the intent of current laws, regulations and policies; it does not describe the means for identifying and managing traditional and sacred sites, or for obtaining and utilizing the perspective of tribal people.	Develop program goal(s), objective(s), management actions to identify and manage traditional and sacred sites, or for obtaining and utilizing the perspective of tribal people.
		Impacts are increasing from population growth near urban areas in the proximity of the Pine Nut Mountains, Pah Rah Range, Virginia Mountains, Virginia Range, Grimes Point Archaeological Area, and in Alpine County, CA	Opportunities exist for monitoring numerous historic properties throughout the CCD utilizing an active and well-trained site stewardship program
Whenever possible, Native American human remains will be preserved in place, per CRMP.	Incomplete	Partially addressed in NAGPRA (43 CFR 10) and IM 2007-002 BLM Reburial Policy on BLM Lands; does not address historic period burials.	Clarify within the land use planning framework.
Consideration of the designation of traditional cultural properties.	Incomplete	Requests made by Tribes being processed by BLM and SHPO with other stakeholders.	Developing management actions to identify and protect TCPs will help alleviate damage to specific cultural resources and places of Native American concern.
Lahontan Dam and Power Station and Carson River Diversion Dam Heritage Areas.	No	These Heritage Areas are listed in the CRMP, but appear to be lands acquired BOR and managed by the State	Remove from RMP Alternatives.

Table 4-9
Cultural Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		of Nevada. They are not withdrawn as part of the Newlands Project. This should be updated in the revised RMP.	
Identify areas of significant heritage properties for protection, enhancement, complimentary use, and public enjoyment. The CRMP also states that BLM will designate high-value areas for special management action based upon criteria outlined in the resource protection planning process reports and cultural resource management guide for the resource area.	Partially	Partially addressed by NHPA (Section 110).	Develop management actions to identify and protect, and to use, high-value areas of special management potential.
Maintain nationally important historic sites in public ownership. Provide for public interpretation of the following major historic trails: Pony Express, Butterfield Overland Stage Transcontinental Telegraph, California Emigrant Route, John Freemont Trail, Jumber Water System Pipeline, V&T Railroad, Nevada-California-Oregon Railroad.	No	Management goals and objectives need to be developed to manage this resource.	National Historic Trail designations for trails within the CCD need to be verified and managed as such if authenticated. Distinguish between NHTs (congressionally designated) and other major transportation routes.

4.1.10 Paleontological Resources

Table 4-10
Paleontological Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Manage paleontological resources for preservation, protection, scientific use, recreational use, and educational use. The BLM must	Partially	Regulations to interpret the Paleontological Resource Protection Act of 2009 are	Develop management actions to identify and protect, and to use, high-value areas of

Table 4-10
Paleontological Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
insure that authorized land uses do not inadvertently damage or destroy important paleontological resources on public land.		forthcoming. Interim guidance applies.	special management potential.
		Developing management actions to identify and protect resources will help alleviate damage to specific paleontological resources and localities.	Designate a representative sample of paleontological sites for preservation for future scientific use.
		Impacts are increasing from population growth near the urban areas.	Opportunities exist for monitoring paleontological resources near the urban interface or throughout the CCD utilizing an active and well-trained site stewardship program.
The Stewart Valley Area of Critical Environmental Concern currently is managed without mineral entry withdrawal.	No	Mineral withdrawal created in 1990 expired in 2010.	Reviewing the location of a potential mineral entry withdrawal and updating it for at least the original 1,420 acres of the most sensitive portion of the 16,000-acre ACEC if the ACEC is continued.
Designate appropriate sites for public use and provide access and information. Promote visitation and interpretation of the resource: <ul style="list-style-type: none"> • Ruhenstroth • Stewart Valley 	Partially	Infrastructure is outdated and minimally present.	High Potential for environmental education and interpretive services. Identify specific areas of high public interest.

4.1.11 Visual Resources

Table 4-11
Visual Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Manage the following areas to achieve VRM Class II standards. Changes in the landscape caused by management activities should not be evident or attract attention. A. Incandescent Rocks B. Red Rocks C. Mount Siegel D. Burbank Canyons E. East Fork of the Carson River F. Indian Creek G. Walker Lake H. East Walker River	Yes	This is still the current management SOP.	These areas will be re-assessed during the RMP process for current relevancy and accuracy of designations.
Manage the following areas to achieve VRM Class III standards. Activities may be evident in the landscape, but should remain subordinate to the existing landscape characteristics. A. Virginia Mountains B. Palomino Valley C. Spanish Springs Valley D. Winnemucca Ranch Valley E. Pah Rah North F. Truckee River G. Fort Sage H. Long Valley I. Red Rock Road J. Peavine Transferred to USFS K. Mount Rose. Transferred to USFS L. Huffaker Hills M. Orlean Hills N. Virginia City O. Flowery Ridge P. Lower Carson River Q. Carson City R. Prison Hill S. Rawe Peak T. Pine Nut Mountains Crest U. Highway 395 South	No	Current classification for these areas should be re-evaluated using the new VRI inventory. Areas no longer under BLM jurisdiction should be removed. Current resource issues and demands need to be considered in updating the classification.	Using the recently completed VRI inventory, the entire CCDPA should be reviewed for appropriate classification levels so the designations are consistent.

Table 4-11
Visual Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
V. Markleeville W. Bagley Valley			
Manage the following areas to achieve VRM Class IV standards. Development may attract attention and even dominate the landscape as long as the changes repeat the basic elements found in the landscape character. A. Common hills and valleys north of Reno B. Urban and congested lands around Reno C. Pah Rah South	No	Current classification for these areas should be re-evaluated using the new VRI inventory. Areas no longer under BLM jurisdiction should be removed. Current resource issues and demands need to be considered in updating the classification.	Using the recently completed VRI inventory, the entire CCDPA should be reviewed for appropriate classification levels so the designations are consistent.
Areas having outstanding (Class A) scenery will be protected if the Clan Alpine and Desatoya WSAs are designated as wilderness as recommended in this document.	No	This should apply to all areas if they are designated as wilderness.	Areas should be re-evaluated using new VRI inventory.
Other areas in the Clan Alpine, Desatoya, Stillwater, and New Pass Ranges as well as Sand Mountain and the Carson River are ranked as having above average (Class B) scenery.	No	This decision should be based upon review of the recent VRI inventory data. This list may change.	Areas should be re-evaluated using new VRI inventory.
The Field Office Manager may allow temporary projects to exceed VRM standards if the project will terminate within two years of initiation and be in compliance with VRM objectives immediately upon removal and initial rehabilitation efforts.	No	Although Interior Board of Land Appeals has determined that standards can be exceeded if the RMP allows exceptions for non-conformance, BLM policy does not have allowance for temporary exceedance of VRM objectives. Policy states project must meet objectives, have further mitigation, be moved or be denied.	Update management objectives and SOP regarding exceeding VRM standards. Guidelines should follow BLM policy.
Disposals along the V&T railroad corridor would be limited to those	No	Confusing management decision. Disposal	Review current land status and work with

Table 4-11
Visual Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
that fully protect the corridors historic and scenic values.		should require mitigation for scenic value, not to get rid of areas needing protection. Ownership may have changed in this corridor so the decision needs to be re-evaluated.	appropriate agencies to determine where visual corridors need protection based upon V&T direction and agency land use plans.
Lands retained in public ownership would be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources would be given priority over other land uses.	No	This decision does not consider mineral, energy development or other resource uses as being the best use of an area.	Review lands to determine management objectives and highest resource value or use. VRM objectives need to be considered along with other management priorities.
<ul style="list-style-type: none"> • Designate 160,020 acres for retention in public ownership under the administration of the BLM (Map 2). • Lands retained in public ownership will be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources will be given priority over other land uses. 	No	This area will need to have the VRM updated during the RMP process. This decision is very generic and does not provide justification.	Visual protection should be based upon a VRM Classification. This is a blanket statement that does not provide adequate guidance or rationale.

4.1.12 Wilderness Characteristics

Table 4-12

Wilderness Characteristics: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
There are no management decisions on lands with wilderness characteristics in the CCD.	No	Management goals and objectives need to be developed to manage this resource.	The RMP needs to address the current policy and guidelines for lands with wilderness characteristics.

4.1.13 Cave and Karst Resources

Table 4-13

Cave and Karst Resources: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
There are no management decisions on Caves and Karsts in the CCD.	No	Management goals and objectives need to be developed to manage this resource.	Address caves and karsts in the RMP revision. Address cultural and biotic cave resources.

4.2 RESOURCE USE ADEQUACY AND OPPORTUNITIES

4.2.1 Forestry and Woodland Products

Table 4-14

Forestry and Woodland Products: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Forest and woodland management will be based on the principles of multiple use, sustained yield, and ecosystem management.	No	Required by FLPMA; not a management decision point.	Management decisions will be consistent with this objective.

**Table 4-14
Forestry and Woodland Products: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Allow commercial timber sales (Markleeville and Long Valley Planning Units) consistent with VRM class designations and objectives for scenic value management.	Yes	The issues of VRM and scenic quality are still relevant.	Recommend changing language to commercial forest product sales and making it applicable to the entire planning area.
Commercial sales will not be allowed in the Class II VRM area (Indian Creek Recreation Lands) that is highly visible from recreation developments unless needed for disease or hazard reduction.	Yes and No	VRM designations are currently being updated – may become a different class in this planning effort.	Recommend defining the amount of visual change allowed in each VRM class to achieve forest health objectives.
Salvage and sanitation cutting of commercial timber and other cutting consistent with VRM and wildlife guidelines will be provided for in the Long Valley and Markleeville Planning Units.	No	Redundant with the previous two management decisions.	Combine all three management decisions into one management guideline applicable to a wider area.
Sell green pinyon and juniper for fuelwood and fence posts, for personal use, at the rate of up to 5,000 cords and 1,000 posts annually. These sales would take place only in areas where there would be no conflicts, or in areas where the conflicts could be mitigated.	Yes and No	This amount is adequate for meeting current demand for these products but doesn't address emerging biomass issues; needs to address forest health objectives.	Consider changing the amounts to reflect maximum acres available for this use to achieve forest health objectives consistent with wildlife, visuals, fuels reduction, and watershed protection
The sale of dead standing and down fuelwoods, for personal use, with the exception of standing cottonwood or aspen will continue in the Reno CCDPA outside of deer migration corridors and identified critical watersheds. Any sales within identified high erosion areas must not reduce ground cover more than 50 percent.	Yes and No	Erosion objectives should be maintained but harvest of dead and down should be done in concert with forest health thinning or fuels hazard reduction.	Have a separate management decision on high erosion areas and combine the rest of this with the management decision tied to acres available for commercial use to achieve multiple benefits.
The J.W. Ranch area will be open to woodcutting for a one-year period to improve forage for wintering mule deer.	No	Project was mostly completed.	To site specific for this planning effort – combine with other management decision(s)

**Table 4-14
Forestry and Woodland Products: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			for treatment acres of forest and woodlands.
Pinyon pine nuts may be harvested throughout the Field Office area of jurisdiction. The first 25 pounds are free and do not require a permit. After the initial 25 pounds the harvester is considered a commercial user and will be required to get a permit and pay fair market value. Commercial use is subject to Field Office Manager approval.	Yes	Consistent with use levels in other Nevada BLM Districts.	Commercial use has not been allowed recently due to tribal concerns. Tribal issues could be resolved to meet the need for a valuable public commodity. Need to identify pine nut groves that can be managed sustainable for harvest.
Protect the five-acre stand of western white pine located in T 11N. , R 22E. , Sec. 16, from damage or destruction.	Yes		Threats of fire and forest health need to be clearly defined if CCD is to ensure protection.
Limit logging in the East Fork of the Carson River Canyon to Class II VRM recommendations. Logging would be allowed if the visual quality of the canyon will be maintained. Salvage logging will be allowed if the Watashema Dam is constructed.	Yes and No	This was written prior to the land transfer to the forest service in Nevada. The Watashemu Dam is no longer a consideration.	This should only be written to address the lands CCD still manages.
Commercial sales may be either negotiated or competitive bid depending on the size of the sale and local demand. Sales of 250,000 board feet or more will be competitive bid.	No	Standard Bureau Policy	All commercial sales have to follow this policy – not needed as a management decision.
Maximum Field Office-wide harvest rates are currently 5,000 cords and 16,000 Christmas trees annually.	No	Previous RMP management decision.	Redundant and addressed above.

4.2.2 Livestock Grazing

**Table 4-15
Livestock Grazing: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values	Yes	Real general, but still applicable.	Retain
Initially, manage livestock use at existing levels.	No	Existing levels may not be appropriate in all locations, some may need to be decreased, and others increased.	Addressed at a project specific level during the permit renewal process, and not at the RMP level.
Provide adequate, high quality forage for livestock by improving rangeland condition.	No	Look at the ecosystem functionality, and improving the ecosystem may not mean there is any more forage, perhaps increase unpalatable shrubs for their contribution to the ecosystem function, it may not help the forage condition initially.	Improve rangeland condition so that functioning ecosystems will be able to provide a sustainable high quality forage base where appropriate. This needs to be reworded.
Improve overall range administration.	No	The statement is too general.	Determine what needs to be improved and refine the decision.
Reno CCDPA-Within ten years the objective of the proposed action is to cause an overall shift in ecological condition of the native ranges follows: (1) increase excellent condition by 3,017 acres, (2) increase good condition by 28,448 acres, (3) reduce fair condition by 12,687 acres and poor condition by 18,778 acres.	No	Fair, poor, etc., are not descriptive conditions that are used any longer. It doesn't address what is lacking or what improvement would mean.	LHAs, when coupled with quantitative data, can be helpful at identifying the condition of the ecological system, as well as what portion of that system may need the most help.
Walker and Lahontan Rangeland Program Summary (RPS)-The long range objectives of the grazing management program are to manage, maintain, and improve the rangeland conditions on the public lands through the following:	Yes	These are specific, desirable goals.	Retain

Table 4-15
Livestock Grazing: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>A. Maintain a sufficient quality, and diversity of habitat and forage for livestock, wildlife, and wild horses through natural regeneration and/or vegetation manipulation methods.</p> <p>B. Improve the vegetation resource and range condition by providing for the physiological needs of key plant species.</p> <p>C. Reduce soil erosion and enhance watershed values by increasing ground cover and litter.</p> <p>D. Improve and maintain the condition of the riparian habitat. (Reno RPS 1984).</p>			
<p>Lahontan Resource Area- Initially, authorize livestock use at the three-year average use level of (94,481 AUMs 1987 LMDS) (64,239 AUMs 1985 LMDS). There would be no initial decisions to adjust active preference.</p>	Yes	<p>Although the level of livestock use is pertinent to continue for the time being, permitted use on an allotment should have monitoring that depicts whether the land is receiving too much use or not.</p>	<p>Stick with this amount of AUMs for now, but the RMP should just say if the allotment is open or closed, and the permit renewal describes whether current levels are creating resource damages.</p>
<p>Discontinue livestock grazing in allotments where grazing is no longer practical due to land ownership patterns, real estate development, and disposal of the connected base properties. (1). Dry Lake, (2). Pah Rah Mountains, (3). Peavine Watershed, (4). Haskell Peak.</p>	Yes	<p>Although the level of livestock use is pertinent to continue for the time being, permitted use on an allotment should have monitoring that depicts whether the land is receiving too much use or not.</p>	<p>Stick with this amount of AUMs for now, but the RMP should just say if the allotment is open or closed, and the permit renewal describes whether current levels are creating resource damages.</p>
<p>Walker Resource Area -Initially authorize livestock use at the three-year average licensed use level of 36,962 AUMs. There would be no initial change in active preference.</p>	Yes	<p>Although the level of livestock use is pertinent to continue for the time being, permitted use on an allotment should have monitoring that</p>	<p>Stick with this amount of AUMs for now, but the RMP should just say if the allotment is open or closed, and the permit renewal describes whether</p>

Table 4-15
Livestock Grazing: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		depicts whether the land is receiving too much use or not.	current levels are creating resource damages.
The Black Canyon Road will not be used for public access.	Yes	There does not seem to be problems with this.	Retain
The Faye Canyon, Spratt Creek and Hangman allotments will continue as areas set aside for wildlife use.	Yes	It seems to be achieving its objective.	Retain
Pine Nut-Markleeville Planning Units-Initially authorizes livestock's use at the three-year average licensed use level of 11,536 AUMs. There would be no initial change in active preference.	Yes	Although the level of livestock use is pertinent to continue for the time being, permitted use on an allotment should have monitoring that depicts whether the land is receiving too much use or not.	Stick with this amount of AUMs for now, but the RMP should just say if the allotment is open or closed, and the permit renewal describes whether current levels are creating resource damages.
Exclude livestock grazing from the Prison Hill, Diamond Valley, Spratt Creek, Hangman, Faye Canyon, and Luther Creek allotments as grazing administration is no-longer practical.	No	Some allotments have already been closed, etc., so those need to be updated.	Update which allotments are active, which are not and which have changed ownership.
Initiate land exchanges with the Southern Pacific Railroad and the private owners in the Spanish Springs to block up public lands in the White Hills and Olinghouse allotments.	Yes	Consolidation of land enhances management opportunities.	Retain
Initiate land exchanges in the Jumbo Allotment to block in the higher country and to release lands in the low country next to residential zones.	No	There are recreational potentials adjacent to the residential. These acres could be used differently, perhaps, but should be retained.	Perhaps the perimeter of the Jumbo Allotment would change, and the BLM lands surrounding the residential land would be designated for recreational purposes?
Harvey Flat, Indian Creek (California portion only) and Millberry Canyon Grazing Allotments – BLM managed lands in	No	Although there doesn't seem to be a problem with this, does CCD want to	Why are they closed, and what criteria would allow them to reopen.

Table 4-15
Livestock Grazing: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
these allotments will be closed to livestock grazing.		retain them as allotments? Does CCD want to look at reopening them if certain vegetative criteria are met?	
Sheep grazing will continue to be permitted on the Bagley Valley Allotment.	Yes	Not currently a problem.	Retain
BLM will manage livestock grazing on the open withdrawn lands at B19 in a manner consistent with adjacent lands.	Yes	This seems to work.	Retain
BLM will amend the existing permits for livestock grazing on lands closed to public access by the Military Lands Withdrawal Act of 1999. This amendment will consist of a livestock management decision to reduce AUMs as a percentage of the allotment converted to closed status.	Yes	Incomplete	Retain
The BLM will manage livestock on Navy-owned and withdrawn lands in a manner consistent with grazing practices on adjacent public lands and as per amended BLM AMP.	Yes	BLM and Navy share management plans for these allotments.	Currently there is an MOU; however MOU may need to be updated upon completion of NAS Fallon's INRMP process. Consult with NAS Fallon.
The existing BLM AMPs for the three allotments adjacent to Navy lands will be amended to include management of the Navy lands.	No	Clarify	Develop an MOU.
The BLM will consult with the navy prior to construction or removal of range improvements on Navy-owned and withdrawn lands.	Yes	This is currently working.	Retain
BLM will manage livestock grazing on the open withdrawn land at Shoal Site in a manner consistent with grazing practices on adjacent public lands.	Yes	This is working.	Retain

**Table 4-15
Livestock Grazing: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Considering closing certain livestock allotments in the Pine Nut HMA to livestock grazing and manage portions of the Pine Nut HMA exclusively for wild horses.
			When allotments are without a permittee, consider offering them for a new permittee, or create grass banks?
			Increase use of livestock as a vegetation management tool? Livestock can be used for fuel breaks, weed management, etc.
			Consider ecological function when renewing grazing permits (is the timing based on ecological system needs, or convenience)?
			Permit renewal EAs should consider the impact of drought and possible management changes to address that.
			Address any potential for decrease or increase of AUM availability in the Permit Renewal. Vegetation changes may indicate serious changes in forage amount available.

Table 4-15
Livestock Grazing: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Clarify how administrative of other BLM districts (Battle Mountain/Winnemucca) allotments should be managed. MOUs should be clear on expectations and responsibilities.

4.2.3 Geology and Minerals (Locatable, Saleable and Leasable Excluding Geothermal)

Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Encourage development of energy and mineral resources in a timely manner to meet national, regional and local needs consistent with the objectives for other public land uses.	No	The landscape within the CCDPA has changed substantially over the last 20 years since previous management decisions were established. Populations have increased as has the urban interface. Mineral potential has changed as deposits of known salable, leasable and locatable minerals have been developed and new deposits discovered.	The updated RMP should address these changes by evaluating the updated status of mineral potential relative to urban and rural development, as well as new protections proposed for other resources, and establishing new management strategies that ensure energy and mineral

**Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		Other resource uses/values have been proposed for protection from minerals development.	resources continue to be developed in a timely manner to meet national, regional and local needs consistent with other public land use objectives.
<p>Areas Closed to Mineral Entry and Energy development:</p> <ol style="list-style-type: none"> 1. Lands Classified under the Classification and Multiple Use Act. (Approximately 8,000 acres in Sun Valley, Washoe Valley, Steamboat and Peavine Mountain). Peavine Mountain Transferred to USFS. 2. Within the Walker CCDPA about 11,000 acres is either segregated against mineral entry under the Classification and Multiple Use Act or withdrawn from mineral by through formal withdrawal processes. 3. The Carson City Urban Interface Plan Amendment states: <ol style="list-style-type: none"> a. Withdraw 17,892 acres from operation of the locatable mining laws and close these lands to mineral exploration and leasing to protect open space and other public land values. These are discretionary actions. 	No	Some of these closures may not be consistent with current public land use objectives. Others may have changed.	The updated RMP should address these changes.
<p>Areas Closed to Mineral Entry (22,672 Acres)</p> <ol style="list-style-type: none"> 1. Grimes Point Archaeological Area 400 acres 2. Cold Springs Historic Area 200 acres 3. Sand Mountain Recreation Area 2,760 acres 4. Stewart Valley ACEC (sensitive areas) 1,420 acres 5. Carson City Urban Interface 17,892 acres 	Yes	This is still needed.	Retain

Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>Areas Where Mineral Entry and Development is Restricted to Valid Existing Rights (582,191 Acres) The following areas are Wilderness Study Areas (WSA) and are subject to the provisions of the Wilderness Interim Management Policy. These provisions restrict mining and energy development activities to those that are allowed under valid existing rights and do not impair wilderness quality. WSA designated as wilderness by Congress will be closed to mineral entry.</p> <ol style="list-style-type: none"> 1. Clan Alpine WSA 196,128 acres 2. Stillwater WSA 94,607 acres 3. Job Peak WSA 90,209 acres 4. Desatoya WSA 51,262 acres 5. Augusta Mtns. WSA 51,000 acres 6. Gabbs Valley Range WSA 79,600 acres 7. Burbank Canyons WSA 13,395 acres 8. Slinkard WSA 5,440 acres 9. Carson-Iceberg WSA 550 acres 	Yes	These restrictions appear to be consistent with current public land use objectives.	The updated RMP should confirm consistency.
<p>Areas Where Existing Withdrawals and Segregation from Mineral Entry Will be maintained (22,500 acres)</p> <ol style="list-style-type: none"> 1. Key Watershed and Wildlife Areas <ol style="list-style-type: none"> e. Alkali Lake f. Antelope Valley g. Pine Nut Mountains h. Topaz Lake 2. Major Recreation and Scenic Areas <ol style="list-style-type: none"> e. East Walker River f. Wilson Canyon g. Walker Lake h. Prison Hill 	No	Some of these withdrawals and segregations may not be current or active.	The updated RMP should address any changes.
<p>Areas Closed to Oil, Gas and Geothermal Leasing (45,392 acres)</p> <ol style="list-style-type: none"> 1. Key Scenic, Wildlife, Recreation, and Historic Areas <ol style="list-style-type: none"> l. Jack's Valley - Transferred to USFS, 1988. m. East Walker River - Transferred to USFS, 1988. n. Walker Lake o. Indian Creek p. Virginia City 	No	Some of these closures may not be current or active.	The updated RMP should address any changes.

Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<ul style="list-style-type: none"> q. Aurora (680 acres) - Transferred to USFS, 1988. r. Prison Hill s. Alkali Lake t. Wilson Canyon - South of River Transferred to USFS, 1988. u. Sand Mountain 1,960 acres v. Carson City Urban Interface 17,892 acres 			
<p>Areas Closed to Oil, Gas, Sodium and Potassium Leasing</p> <ul style="list-style-type: none"> 1. Key Areas In the Reno CCDPA <ul style="list-style-type: none"> h. Galena Creek i. Whites Creek j. Jumbo Reservoir k. Truckee River l. E. Fork Carson River m. Carson River n. Jones Canyon Reservoir 	No	Some of these closures may not be current or active.	The updated RMP should address any changes.
<p>Areas Where Some Restrictions Apply to Oil and Gas Leasing</p> <ul style="list-style-type: none"> 1. No Surface Occupancy (NSO) <ul style="list-style-type: none"> e. Within 500 feet of any water (Lahontan MDS) f. Within 300 feet of any water (Walker MDS) g. Cold Springs Pony Express Station 40 acres h. Grimes Point 960 acres 2. Seasonal Restrictions on Activities <ul style="list-style-type: none"> d. Spring Restrictions <ul style="list-style-type: none"> i. Six Sage Grouse Strutting Grounds 56,320 acres (Fort Churchill/Clan Alpine Geothermal EAR 1975) ii. All Occupied Raptor Eyries e. March 1 to July 30 Restrictions <ul style="list-style-type: none"> iii. Sage Grouse Habitat 85,300 acres iv. East Walker River Area v. Pine Nut Mountains 	No	Some of these restrictions may not be current, consistent, appropriate or necessary (i.e. the inconsistent NSO setback [300 feet in Lahontan MDS and 500 feet in Walker MDS] for any water).	The updated RMP should address any changes.

**Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>f. February 1 to September 1 10,240 acres</p> <p>vi. Prairie Falcon Habitat</p> <p>vii. Excelsior Mountains</p>			
No mineral material sales or disposal will be authorized within the 40 acre Jumbo Postpile area.	No	As the sale of mineral materials is already discretionary. Hence, this restriction may not be necessary. The Southern Washoe Plan also includes restrictions relating to material sales that may be duplicative.	The updated RMP should address any changes.
The Navy has proposed to withdraw an additional 181,323 acres in Churchill County. These areas are segregated from operations under the mining law, mineral leasing laws, and the Material Sales Act pending a decision on the proposed withdrawal.	No	This withdrawal and segregation may not be pending and active, respectively.	The updated RMP should address any changes.
In the Reno CCDPA, Keep 46 mineral material sites open for sales and free use, restructure use of the sites to accommodate Visual Resource Management (VRM) and monitor to insure compliance.	No	Some of these material sites may not be current or active.	The updated RMP should address any changes.
Withdraw 17,892 acres from the operation of the locatable mining laws and close these lands to mineral exploration and leasing to protect open space and other public land values. These are discretionary actions.	No	Some of these withdrawals and segregations may not be current or active.	The updated RMP should address any changes.
Management of mineral materials in the CCDPA would be determined through a joint aggregate resources plan to be developed with Carson City.	No	The joint aggregate resources plan was never developed and the OMNIBUS Public Lands Management Act affects some of the areas surrounding Carson City.	The updated RMP should address any changes.

**Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Withdraw 160,530 acres of public land and 15,800 acres of federally owned minerals from the operation of the locatable mining laws.	No	Some of these withdrawals may not be current or active.	The updated RMP should address any changes.
Portions of the Olinghouse and Pyramid mining districts are excluded from the mineral withdrawal (Map 3). Lands withdrawn from mineral entry recognize the rights of mining claims existing at the date of the mineral segregation order, published in the Federal Register on July 8, 1998. Such lands are withdrawn, but subject to the valid existing rights of the claimants.	No	The exclusion of this area from the withdrawals should be reevaluated.	The updated RMP should address any changes.
Operators of existing mining claims within the plan boundaries would be required to file a “plan of operations” with the BLM prior to any mining activity proposed within the “Closed” travel designation areas, regardless of the size of the proposed disturbance.	No	Some of these closures may not be current or active.	The updated RMP should address any changes.
Existing aggregate facilities on public land will continue to operate. Expansion of existing operations will require standard approval through a joint permitting process with the BLM (Mineral Materials Sale Contract) and Washoe County (Special Use Permit).	No	There is no established joint permitting process between BLM and Washoe County.	The updated RMP should address any changes.
New permanent aggregate facilities will be restricted to locations that are topographically screened or concealed from sight of existing or planned residential areas and major transportation corridors.	Yes	This condition is implemented with any new or expanded aggregate operation on public land.	The updated RMP could evaluate the effectiveness and address any changes.
New temporary aggregate facilities will be available to government entities only. Proposed sites will be restricted to locations that are topographically screened or concealed from sight or visually unobtrusive to existing or planned residential areas and major transportation corridors.	Yes	This condition is implemented with any new or expanded aggregate operation on public land.	The updated RMP could evaluate the effectiveness and address any changes.
BLM will manage leasable and saleable minerals on Navy-owned and withdrawn lands in coordination with the Navy.	Yes	This condition is implemented with any leasable and saleable minerals operation on	The updated RMP could evaluate the effectiveness and address

**Table 4-16
Geology and Minerals: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		Navy-owned and withdrawn lands.	any changes.
BLM will pursue withdrawal of locatable minerals from operation of the 1872 Mining Law at Grimes Point Archaeological Area, Sand Mountain Recreation Area and the Cold Springs Historical Site.	No	Some of these withdrawals may not be current or active.	The updated RMP should address any changes.

4.2.4 Recreation and Visitor Services

**Table 4-17
Recreation and Visitor Services: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
All organized recreation activities will be managed by BLM in consultation with the Navy.	Yes	Continue consultation with Navy on activities that could affect Navy operations.	Retain
The Navy and BLM will assess improving recreation facilities at Horse Creek and establishing a trailhead to the Clan Alpine Wilderness Study Area.	Unknown	This decision needs to be reviewed and updated before being implemented.	SOPs and guidelines for WSA's should be updated and any potential facility development needs to be evaluated and prioritized.
BLM will pursue withdrawal of locatable minerals from operation of the 1872 Mining Law at Grimes Point Archaeological Area, Sand Mountain Recreation Area and the Cold Springs Historical Site.	Yes	Actions would help protect the recreation and cultural resources in these areas.	Review status of actions and follow up. This action should be applied to other special designation areas depending on activity level or area management plan.
			Develop recreation and EE/I opportunities at Mustang and 102 Ranch.

**Table 4-17
Recreation and Visitor Services: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Develop management objectives and guidelines for SRP's.
			Address SRMA alternative for Hungry Valley north including fee site.
			Address SRMA designation alternative for urban interface.
			SRMA alternative for Wilson Canyon
			Designate Sand Mountain Recreation Area as a SRMA and expand boundary to include all of the trail system.
			Provide guidelines for dispersed camping in the CCDPA and designate areas as ERMA's
			Develop guidelines for streamlines SRP issuance in designated recreation areas.
			Complete Recreation Setting Characteristics (new ROS) for CCDPA for use in alternatives development.
			Designate and provide clearance for several areas for large group events such as outdoor concerts or rally's.
			Develop carrying capacity or threshold levels for areas by event type

**Table 4-17
Recreation and Visitor Services: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Address additional opportunities for backcountry touring potential for commercial and non-commercial users.
			Address potential areas for heritage destination travel
			Address Outfitter and Guide Use of WSAs including NEPA analysis.
			Under TTM, address military use of roads and trails for training
			Establish goals and objectives for CCDPA recreation program that do not focus on SRP as driving force for program. Limit focus on special interest groups and address general recreation opportunities.
			Address impacts to Nevada BLM resources caused by recreational users from California
			Address emerging social media technology as method to both manage and provide recreational opportunities within the CCDPA

4.2.5 Comprehensive Trails and Travel Management

**Table 4-18
Comprehensive Trails and Travel Management: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Designate 5,521 acres of public lands as limited to designated roads and trails.	Yes	This decision will be reviewed in the travel management planning phase but it does follow current BLM policy.	Road and trail inventory completed in 2007 but there is a need to complete the designations of preliminary travel management network of road and trails.
Designate 894 acres in the Fay-Luther Canyon area as closed to motorized vehicle travel. Administrative access will be authorized when necessary.	Yes	This decision allows for management of the resources in this area.	Continue working with USFS for management of the area, improve travel management signage.
Designate 268 acres within the Indian Creek Recreation Withdrawal area as closed to motorized vehicle travel and public access. This proposed closure specifically pertains to South Tahoe Public Utility District existing right-of-way, CA-13255. This closure will prevent unauthorized access or contact with the discharged filtered-secondary treated wastewater (California Title 22, Sec. 603010(g) prohibits human contact with recycled wastewater).	Yes	Required for public health and safety.	None Indian Creek Recreation Withdrawal (PLO 7122 CA-940-1430-01, CACA -24052) Fed Reg Notice Vol.60, No. 11, Pg 3555, January 18 th , 1995 is set to expire in January 2015. This issue will need to be addressed in the RMP revision.
Designate 5,143 acres in Bagley Valley as limited to designated roads and trails.	Yes	Consistency with surrounding USFS designations.	Review designated roads in the travel management plan and route inventory.

**Table 4-18
Comprehensive Trails and Travel Management: Management Decisions, Rationale, and
Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Road and trail inventory completed in 2007 but need to complete the designations of preliminary travel management network of road and trails.
Roads, primitive roads, and/or trails designated within the network may be altered through adaptive management with segments closed, realigned, or added when conditions warrant.	Yes	Adaptive Management is current guidelines for management decisions.	The RMP needs to provide clear guidance on the decision making process for travel networks and establish planning procedures for future modifications.
Designate a preliminary network of roads, primitive roads, and trail network(s) on approximately 4 miles of non-motorized and 6.8 miles of motorized linear miles.	Yes	Road network designation is still valid.	Existing data can be updated the rest of the network needs to be completed.
Roads needed for administrative purposes such as, but not limited to, fuel wood sales, traditional cultural uses, search and rescue, fire suppression, and livestock grazing will be allowable.	No	Administrative use definition really applies to agency use, not public use.	Public use of normally closed roads could be done through permitted use: grazing permits, wood cutting permits etc.
An inventory and assessment of roads, primitive roads, and trails not identified in the preliminary network will be completed by 2009. Any new roads or trails constructed will require further environmental analysis.	Yes	Deadline met	
A completed roads, primitive roads, and trails network will be established through travel management planning by 2010.	No	Deadline passed	Will be completed at the end of the travel management planning process.
Factors to consider in further documenting and designating the roads, primitive roads, and trails network may include, but are not limited to:	Yes	This is close to current guidelines.	Update criteria to meet new guidelines established in Manual M-1626 and Handbook H-8342-1. Identify

**Table 4-18
Comprehensive Trails and Travel Management: Management Decisions, Rationale, and
Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
-Road, primitive road, or trail densities; -Soil erosion -Water quality -Existing and proposed utility and access rights-of-way -Cultural resources -Threatened & endangered plants and animals -Invasive non-native plants and noxious weeds; -Priority species and habitats			criteria in RMP.

4.2.6 Renewable Energy

**Table 4-19
Renewable Energy: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Keep areas with geothermal potential (in the Reno CCDPA) open to leasing, exploration, development and production through applicable law, policy and procedure.	Yes and No	Some resource interest exists in areas that are currently closed. Exploration and development near existing facilities or in areas of high potential is delayed, often to the point of reducing the economic viability of such expansion or development.	Designate geothermal priority areas to acknowledge regions with existing or high geothermal resource values in order to facilitate future expansion or development. These areas would have geothermal resources as a priority, not to the exclusion of other resources, but BLM would recognize that geothermal resources do not exist everywhere and where they do exist their development should be facilitated by BLM.

**Table 4-19
Renewable Energy: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>Areas Closed to Oil, Gas and Geothermal Leasing (45,392 acres)</p> <p>Key Scenic, Wildlife, Recreation, and Historic Areas: Jack's Valley - Transferred to USFS, 1988. East Walker River - Transferred to USFS, 1988. Walker Lake Indian Creek Virginia City Aurora (680 acres) - Transferred to USFS, 1988. Prison Hill Alkali Lake Wilson Canyon - South of River Transferred to USFS, 1988. Sand Mountain 1,960 acres Carson City Urban Interface 17,892 acres</p>	Yes and No	Not current	Revisit and update and necessary.
<p>Areas Closed to Geothermal Leasing Only</p> <p>Key Areas</p> <ul style="list-style-type: none"> a. Cold Springs Pony Express Station 40 acres b. Grimes Point 640 acres <p>Areas Where Some Restrictions Apply to Geothermal Leasing</p> <ul style="list-style-type: none"> a. No Surface Occupancy (NSO) <ul style="list-style-type: none"> i. Within 500 feet of any water b. Seasonal Restrictions on Activities <ul style="list-style-type: none"> i. Spring Restrictions <ul style="list-style-type: none"> l. Sage Grouse 	Other resources, yes. Geothermal no. At least as far as wildlife goes.	Restrictions from other resources limit the availability of land for leasing and/or timing of exploration/development.	

Table 4-19
Renewable Energy: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<ul style="list-style-type: none"> Strutting Grounds 9,920 acres 2. North of Cold Springs (Fort Churchill/Clan Alpine Geothermal EAR 1975) c. March 1 to July 30 Restrictions <ul style="list-style-type: none"> i. Sage Grouse Habitat 85,300 acres ii. East Walker River Area iii. Pine Nut Mountains d. February 1 to September 1 10,200 acres <ul style="list-style-type: none"> i. Prairie Falcon Habitat ii. Excelsior Mountains 			
The plan amendment decision is to close all areas to mineral leasing except: Geothermal leasing on 1,933 acres in and adjacent to the Steamboat Known Geothermal Resource Area (KGRA).	Yes	Planning has indicated most of Southern Washoe Public Lands to remain open space; this known resource area already has geothermal production in place.	None
BLM will manage leasable and saleable minerals on Navy-owned and withdrawn lands in coordination with the Navy.	Unsure	Discussions higher than the State Office level on how/if Navy should manage leasable minerals such as geothermal resources on Navy withdrawn land (with leasing proceeds going to the DoD instead of the general fund). At	Establish an MOU or some sort of guidance on DoD leasable minerals exploration and development on withdrawn lands. Withdrawal revocation and disposal to DoD, or amending the withdrawal to allow DoD to lease fluid

Table 4-19
Renewable Energy: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		the time of this writing, the issue has not been resolved.	minerals, would be other options for change.
			No planning level document has discussed solar rights-of-way. RMP revision should include solar ROWs discussion in the renewables section. Maps – BMPs – GIS etc.
			No planning level document has discussed wind testing and development rights-of-way. RMP revision should include wind ROWs discussion in the renewables section. Maps – BMPs – GIS etc.

4.2.7 Lands and Realty

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Transfer lands out of federal ownership that is uneconomic to manage or have been identified for community expansion or agricultural development and have little value for other resource uses.	Yes	Decision reflects current law, guidance, and policy.	Set further criteria for making these decisions: what, exactly, makes a tract of land uneconomic or difficult to manage, for example? Should we have thresholds/criteria? Would thresholds help or hinder?
Designate for potential future disposal approximately 185,000	Yes	Designations listed are in place.	CRMP does a poor job of identifying the

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>acres in of BLM managed public lands, under jurisdiction of the CCFO, as a pool of lands which meet preliminary criteria for transfer from federal ownership. In general these lands are those where BLM management is not cost effective. To determine the land tenure designation applicable to specific parcels of BLM managed public lands refer to map LND-1, Land Status, Disposal, Acquisition, and Retention. For specific parcels in the Pyramid and Pine Nut Planning Units review decision 5 and 6 in this section.</p>			<p>parcels for disposal, either with maps or with legal descriptions. Moreover, planning unit designations used are no longer in use. Thus, options for change include GIS layers/corporate data, legal land descriptions, and/or use of more current descriptions of the subject lands identified for disposal. Incorporate modifications from subsequent amendments as well as data from disposals that have occurred for comparison to what was designated. Consider designating current R&PP Patented lands for disposal where sale of reversionary interests may be appropriate.</p>
<p>A. These include lands that are difficult and uneconomic to manage because of the location and other characteristics; (e.g. Scattered parcels south of Hawthorne and in Smith and Mason Valleys, checkerboard lands near Fernley, Silver Springs and the Carson Sink).</p>			
<p>B. Land that would support community expansion (e.g. land west of Yerington, land surrounding the towns of Luning, Mina, Sodaville, Fallon, Gabbs, Reno, Verdi, and lands east of Montgomery Pass, near Honey Lake Valley, and Dixie Valley).</p>			<p>Consider removing all or most lands from agricultural entry (Desert Land Act/Carey Act) based on inappropriateness of encouraging conversion of desert land to irrigated agricultural land.</p>
<p>C. Lands with possible agricultural potential (e.g. Smith Valley, Mason Valley, Honey Lake Valley, and Edwards Creek).</p>			
<p>D. Lands along the East Walker River identified for exchange to benefit Bureau programs.</p>			<p>Reconsider use of specific land transfer method (exchange,</p>

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Identify as potentially suitable for disposal 5,100 acres for community expansion and 7,700 acres as suitable for disposal for recreation and public purposes in the Pine Nut/Markleeville Planning Units.	Yes	Designations in place; modifications from subsequent amendments.	sale, etc.) when a more general disposal designation may be used. CRMP does a poor job of identifying the parcels for disposal, either with maps or with legal descriptions. Moreover, planning unit designations used are no longer in use. Thus, options for change include GIS layers/corporate data, legal land descriptions, and/or use of more current descriptions of the subject lands identified for disposal. Incorporate modifications from subsequent amendments as well as data from disposals that have occurred for comparison to what was designated.
The objective of the City of Fallon Landfill Final Plan Amendment (BLM, City of Fallon Landfill Final Plan Amendment, 1997)) is to allow for the transfer of 240 acres of public land to the City of Fallon under the Recreation and Public Purposes Act and to make 600 acres of adjacent land available for disposal for expansion of the landfill or other compatible uses in the future. The amendment includes the following management prescription: The land tenure designation on the public land shown in Figure 2	Yes	Designation and transfer have already occurred.	GIS layer/corporate data identifying recreation and public purposes patent parcels on the district including this one. All R&PP patents have some form of reverter. Thus, inspection of the uses on R&PP patents can result in land tenure adjustments.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>(within T. 16 N., R. 29 E., sections 20 and 21) is changed from retention to disposal.</p>			
<p>Following the change in land tenure designation, BLM will offer 240 acres of public land for sale at \$10/acre to the City of Fallon for use as a landfill. In addition a 30-year FLPMA Title V right-of-way will be issued to the City of Fallon across public land for access to the landfill.</p>			
<p>Within the Carson City Urban Interface Plan Amendment Area:</p> <p>A. Designate 15,690 acres for retention in public ownership under the administration of the BLM (Map LND-3).</p> <p>B. Designate 2,049 acres for potential disposal to state and local government through Recreation and Public Purposes Act.</p> <p>C. Designate 153 acres for potential disposal through exchange for other lands in Carson City.</p> <p>D. Disposals along the V&T railroad corridor would be limited to those that fully protect the corridor's historic and scenic values</p> <p>E. Withdraw 17,892 acres from the operation of the locatable mining laws and close these lands to mineral exploration and leasing to protect open space and other public land values.</p> <p>F. Lands retained in public ownership would be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources would be given priority over other land uses.</p>	Yes	<p>Planning has continued to identify these types of actions as important for the planning area; indeed, public law superseded most of these designations.</p>	<p>Implement changes so RMP is not inconsistent with special legislation (PL 111-11)</p> <p>E – all withdrawals should be identified in the RMP by type/serial number/PLO or other enacting order, etc. GIS/corporate data should include withdrawals as well, especially “split estate” withdrawals such as the Newlands withdrawal that keep subsurface minerals in the public domain, or, Navy withdrawals that keep BLM jurisdiction for natural resources and subsurface minerals, while the surface is for DoD training, etc.</p> <p>G – should cross-reference to minerals section if appropriate.</p>

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
G. Management of mineral materials in the CCDPA would be determined through a joint aggregate resource plan to be developed with Carson City.			
<p>Within the Reno CCDPA covered by the Management Framework Plan - Identify the following tracts as suitable for disposal for urban or suburban purposes, consistent with the local comprehensive plans or the views of local governmental authorities.</p> <p><u>Pyramid Planning Unit Acres Public Land</u></p> <p>D1 Red Rock Valley 80 D5 Cold Springs Valley 370 D6 Lemmon Valley 3840 D7 Spanish Springs Valley 1870 D9 Reno & US 385 North 660 D10 Mustang Interchange 40 D11 US 395 South 480 D13 Washoe Valley 400 D14 Patrick 580 Total 8400</p> <p><u>Pine Nut Planning Unit Acres Public Land</u></p> <p>D3 Carson Plains 860 D6 Carson Valley 40 D7 Indian Hill Area 320 D8 Johnson Lane 3120 D11 US Route 395 40 D12 US Route 50 (SR 17) 240 Total 4640</p>	Yes and No	Designations are in place including modifications from subsequent plan amendment / public law; tenure designations have changed due to plan amendment.	CRMP does a poor job of identifying the parcels for disposal, either with maps or with legal descriptions. Moreover, planning unit designations used are no longer in use. Thus, options for change include GIS layers/corporate data, legal land descriptions, and/or use of more current descriptions of the subject lands identified for disposal. Incorporate modifications from subsequent amendments as well as data from disposals that have occurred for comparison to what was designated.
Identify the following tracts as available for transfer out of federal ownership to state, county, or local government agencies, or to non-profit corporations and associations, for recreation and public purposes.	Yes	Designations are in place including modifications from subsequent plan amendments / public law.	CRMP does a poor job of identifying the parcels for disposal, either with maps or with legal descriptions. Moreover, planning unit designations used

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<u>Pyramid Planning Unit Acres Public Land</u> P1 & P2 Lemmon Valley 2050 P4 Honey Lake Valley 4270 P5 Sun Valley East 920 P6 Sun Valley West 240 P9 Huffaker Hills 210 P 12 Steamboat Hot Springs 40 P16 School Site 390 P17 Galena, Thomas, Whites Circle 30 Total 8150			are no longer in use. Thus, options for change include GIS layers/corporate data, legal land descriptions, and/or use of more current descriptions of the subject lands identified for disposal. Incorporate modifications from subsequent amendments as well as data from disposals that have occurred for comparison to what was designated.
<u>Pine Nut Planning Unit Acres Public Land</u> P3 Carson Valley 3920 P5 Indian Hill 160 P6 Carson Plains 160 P7 & P8 Moundhouse 160 P10 Carson River Canyon 210 P11 Six Mile Canyon 320 P12 Mud Lake 80 P13 Diamond Valley 40 P15 Airport 100 Total 5150			All recreation and public purposes patents should be identified on the district – all R&PP patents have reverter language of some sort; inspection infractions may result in land tenure adjustments due to reversion language.
Identify 6,760 acres in Honey Lake Valley as suitable for Desert Land Entry and subsequent agricultural development and disposal.	Yes and No	Designations are in place. Decision should not specify disposal method at the planning level.	GIS and/or legal land description to identify parcels more accurately. Identify acres that are left (GIS and/or LLD) from designation after disposal actions that have occurred. Consider removing all or most lands from agricultural entry (Desert Land

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Consolidate by land acquisition 66,970 acres of private land for crucial Lassen-Washoe deer winter range and migration corridors by acquiring about 7,400 acres of private lands in this area.	Yes	Some acquisition has occurred. Remains a desired tenure adjustment.	Act/Carey Act) based on inappropriateness of encouraging conversion of desert land to irrigated agricultural land Planning decisions should not be so specific in their disposal language. Manager should be given more latitude for disposal than only DLEs.
Consolidate by land acquisition 34,880 acres of private land that is important as wildlife habitat in the Pine Nut-Markleeville Planning Units (Pine Nut Mountains).	Yes	Ongoing project	Secure means to continue acquisition of these lands. Use GIS/LLD to more accurately identify parcels. Identify through the same (GIS/LLD) acquisitions that have already occurred towards this decision for comparison to what remains to be completed.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Acquire private lands adjacent to Prison Hill and along the Carson River if Carson City and the state approve the acquisition.	Yes	Several acquisitions have been completed in the Prison Hill and Carson River area.	Identify if acquisitions would meet BLM objectives since most public lands in these areas are being transferred to Carson City Decision needs acreage/GIS/LLD, etc.
Land exchanges will be done to block in the higher country in the Pine Nut Range and Jumbo allotment and to release land next to residential zones.	Yes	Unknown as no parcel/acreage given.	Identify if more acquisitions are needed to accomplish. Decision needs acreage/GIS/LLD, etc.
Land exchanges will be initiated with Southern Pacific Railroad and private owners in the Spanish Springs and Mustang allotments to block in lands in the White Hills and Olinghouse allotments.	No	Mostly completed	Identify if more acquisitions are needed to accomplish. Decision needs acreage/GIS/LLD, etc. Language specific to exchanges should not be used in planning documents – decision should allow management latitude to acquire parcels through other means as well.
Acquire legal access in coordination with USFS to Faye Canyon, Bagley Valley and the Hangman's Bridge area near Markleeville. Leave primary roads open.	Yes and No	Partially implemented. Decision closed certain portions of these areas to non-motorized travel while also limiting numerous acres to existing roads and trails; however, decision also directed inventory and assessment, and a travel management plan, for all access issues to be completed by 2009 – this was not done. No	Travel management plan to be done in conjunction with RMP revision will address portion of decision that directed inventory, assessment, and a travel management plan for a road network. BLM should work with the forest service to see if legal access is still desirable as part of the travel management

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		acquisitions for legal access were completed.	plan. Use of common names such as this is much less desirable than GIS maps and legal descriptions for the purposes of clarification – even after reading the planning document it is difficult to discern exactly where the acquisitions are needed for legal access.
Acquire or provide legal access through or around Big Canyon, Black Canyon, Cottonwood Canyon, and Hardscrabble canyon to provide vehicular access for the administration of BLM lands in the Virginia Mountains.	Yes	Implemented / access acquired.	Cottonwood Canyon access acquired; do we still need Big Canyon, Black Canyon, and Hardscrabble, or is the Cottonwood access sufficient to call this decision.
Designate approximately 64 acres of public lands as available for potential disposal to the private sector or local government for recreation and public purposes under provisions of the Recreation and Public Purposes Act of 1954.	Yes	Designation was put in place; decision has been implemented. Land is either leased or patented under the provisions of the Act.	None
Designate approximately 346 acres of public lands as available for potential disposal to the private sector for development purposes.	Yes	Designation was put in place; decision has been implemented. Land was disposed to the private sector.	None
Designate approximately 30 acres of public lands for transfer to the Washoe Tribe or to another federal agency for management on behalf of the Tribe.	Yes	Designation is in place	Work in partnership with the Tribe to pursue tenure adjustment (if still desirable).
BLM will work in support of Douglas County's and other organization's efforts to acquire conservation easements in the	Yes	Over 1,700 acres acquired; decision remains desirable.	Continue to acquire easements based on criteria as opportunity arises.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>Carson Valley. The intent of this coordinated effort is to cooperatively acquire conservation easements on a sufficient number of acres in Carson Valley to protect existing agriculture operations and the important social and natural resource values associated with these lands (Figure 3a.). To this end, BLM will acquire conservation easements on private properties in the Carson Valley from willing sellers in accordance with the identified Acquisition Criteria for Conservation Easements. –</p>			
<p>-The land is an active agricultural operation.</p> <ul style="list-style-type: none"> · The land is subject to imminent threat from development, and protection is in conformance with the Douglas County Master Plan. · The land is within the 100-year floodplain. <p>The land contains important wetlands or riparian wildlife habitat.</p> <ul style="list-style-type: none"> · The agricultural character of the land enhances scenic values. · The landowner is willing to sell a recreational access easement on the property. <p>-The land is of sufficient parcel size to be considered farmland.</p> <ul style="list-style-type: none"> · The land contains important cultural or historic values that would be protected by the acquisition. · The landowner is willing to discount the sale of the conservation easement to BLM. <p>-The land has other unique values and acquisition would be in the public interest.</p>			

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>Acquire environmentally sensitive lands or interests in environmentally sensitive lands elsewhere in Douglas County from willing sellers after consultation and coordination with County government and local organizations and individuals. The Acquisition Criteria for Conservation Easements is –</p> <p>Lands or interests in lands will be acquired by BLM on a willing buyer/willing seller basis only.</p> <ul style="list-style-type: none"> · Private lands or interests in private lands to be acquired by BLM will be subject to consultation and coordination procedures with Douglas County officials prior to completion of the acquisition. · Private lands or interests in private lands to be considered for acquisition by BLM will serve purposes consistent with provisions in the Douglas County Master Plan. · Private lands or interests in private lands to be acquired by BLM will a) provide access to public lands, b) block up federal lands ownership patterns or otherwise serve to improve management of the public lands, c) contain important natural resources, cultural resources, or habitat, or d) serve other public purposes. 	Yes	Decision continues to be implemented as opportunity arises.	As parcels meeting the criteria become available, pursue acquisition. GIS/LLD of acquisitions already implemented? Are there partnerships that can be used to continue implementing this decision?
<p>Sell small parcels of BLM public lands on which portions of structures or facilities have been constructed in trespass. The Sale Criteria for Small Parcel Sales presented in section 2.6 will be used to determine whether or not the parcel should be sold to the</p>	No	Subsequent to plan approval, decision was determined to be inadequate.	Decision needs the lands meeting the criteria to be identified in a map/GIS or LLD.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>landowner whose property has been found to be in trespass. The Sale Criteria for Small Parcel Sales is:</p> <ul style="list-style-type: none"> -The trespass situation has been created in a clearly unintentional manner. · Portions of residential dwellings, commercial buildings, or other significant structures must have existed on the BLM public lands to be sold prior to approval of this Proposed Plan. · BLM has made the determination that unauthorized structures cannot be practically removed from public lands. · BLM public lands to be sold to resolve trespass violations with an individual landowner are very small and generally less than 1.0 acre in size. 	Yes	Designation is in place.	None
<p>Designate 160,020 acres for retention in public ownership under the administration of the BLM.</p> <p>Lands retained in public ownership will be managed to protect open space, visual, recreation, watershed, and wildlife resources. Protection of these resources will be given priority over other land uses.</p>	Yes	Ongoing; withdrawal implemented decision.	None
<p>Private lands in southern Washoe County that are designated as desired open space in the Reno, Sparks, and Washoe County Master Plans and the Washoe County Regional Open Space Plan would be considered for acquisition opportunities by the BLM. This includes the corridor of land on both sides of the Truckee River, east of Sparks. Acquisition</p>	Yes	Ongoing; acquisitions have occurred implementing this decision.	Continue to pursue acquisitions to implement. GIS/LLD of acquisitions that have occurred? Partnerships to assist with implementation?

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
opportunities may include acquisition of conservation easements or other interest in private lands.			
Future acquisitions will take into consideration the costs of management, restoration, and liability to the BLM.	Yes	Ongoing	Prioritize acquisitions with other workload.
Future acquisitions within the CCDPA, acquired by exchange, donation, or purchase that fall under BLM jurisdiction, will be managed the same as adjacent BLM lands. The BLM will examine the need to prepare activity level plans on all lands acquired.	Yes	Ongoing	Has BLM examined the need to prepare activity level plans on all lands acquired?
Acquisitions must meet one or more of the following criteria: -Facilitate access to public lands and resources -Provide resource protection -Facilitate implementation of the RMP -Provide for a more manageable land ownership pattern -Maintain or enhance public recreational uses and open space values; In addition, BLM will focus acquisition efforts on lands: -with few or no man-made improvements -not requiring substantial restoration efforts, except in certain circumstances when other entities can be involved as partners in the effort -with no known hazardous materials or contamination problems -with no noxious weed infestations that would present a long-term liability to the BLM.	Yes	Ongoing	Continue to pursue acquisitions under these criteria as budget, time, and opportunity allow.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Termination of BOR withdrawals along the Truckee River, that are no longer needed for Newlands Project purposes, will be pursued. Unless specifically identified for disposal, lands no longer under reclamation withdrawal will be managed by the BLM for access, recreation, and riparian restoration opportunities.	Yes	Remains a desirable decision	Need to pursue revocation application from Reclamation in order to implement. Work in partnership with Reclamation if revocation of these withdrawals is still desirable to that agency.
Designate 4,390 acres for use by State and local government for recreational purposes through the Recreation and Public Purposes Act (R&PP).	Yes	Remains a desirable decision. Plan amendment is still valid.	GIS/LLD of current leases and conveyances towards this decision. Use language such as “. . . use by State and local government for recreational purposes through authority such as the Recreation and Public Purposes Act.”
Designate 2,140 acres for potential disposal into private ownership. Exchange for other lands designated as desired open space in the Washoe County Regional Open Space Plan will be given priority over other disposal methods.	Yes and No	Exchanges have been successfully pursued	Stating the preferred method of disposal in a planning document may not be appropriate according to the planning handbook.
Pursue revocation and restoration to the operation of the public land laws and general mining laws, BOR and BLM land withdrawals located along the Snowshoe Thompson Ditch encumbering 80 acres located in the SE ¹ / ₄ NE ¹ / ₄ , NE ¹ / ₄ SE ¹ / ₄ , T. 11 N., R. 19 E. of Section 25, T. 11 N., R. 19 E. Land withdrawals are actions that generally preclude mining claim location and disposal of public lands. Upon completion of the revocation and restoration process, the land will be managed	Yes	Withdrawals remain inappropriate	Pursue application from Reclamation to revoke this and other BOR withdrawals no longer needed as time and budget allow; process BLM withdrawal revocation as time and budget allow. Are there other BLM withdrawals no longer appropriate? The district has expired

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
by BLM in a manner consistent with adjacent lands located within the Indian Creek Recreation Lands boundary.			withdrawals that have not been revoked / opening orders signed. An opening order can be done on multiple expired and revoked withdrawals at once.
Designate 17,725 acres for retention in public ownership under the administration of the BLM	Yes	Completed; designation in place	None
Designate 955 acres for conveyance to Alpine County for community expansion purposes under the Recreation and Public Purposes (R&PP) Act of 1926 (as amended); to meet the public needs in the local community. Alpine County will be required to obtain legal access to these parcels across adjacent private lands.	Yes	Completed; designation in place	None
Change the land tenure designation of selected parcels of public land from retention to disposal resulting in a BLM sale offer of the land to KRMC using direct (non-competitive) sale procedures. The area proposed in the Plan Amendment includes approximately 425 acres located in portions of Sections 4, 5, 8, and 9, Township 13 North, Range 32 East; Mineral County, Nevada.	Yes	Disposal has been completed.	None
Land use allocations-communication sites Reno CCDPA Allow new communication site development only when expansion of an existing site is not a reasonable alternative in the Reno CCDPA. <u>Pyramid Planning Unit</u> CSI Warm Springs Mountain CS2 Virginia Peak	Yes and No	Ongoing	These planning unit designations are no longer in place; need to update. Currently there are more areas with communication facilities than previously considered for “comm. site” designation – a

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
CS3 TV Peak (Red Hill) CS4 Peavine Mountain CS5 Beacon Peak CS6 McClellan Peak			comm. site being where communication facilities occur.
<u>Pine Nut Planning Unit</u> CS1 McClellan Peak CS2 Como Pass CS3 Rawe Peak CS4 Pinyon Hill			Establish criteria to allow new site development. Current planning documents to not take into account sage grouse/eagles/etc. A more detailed and useable map (GIS/corporate; map from) is desirable for communication facilities and current sites.
Applications for rights-of-way for communication sites, including all military electronic warfare sites, will be considered in the area identified as permitted on the map (page 4 of the BLM/Navy Amendment for certain Lands in Churchill County, Nevada [2001]). Any such applications for electronic warfare sites will be analyzed through the National Environmental Policy Act (NEPA) process, within the context of a comprehensive Electronic Warfare Range Plan to be prepared and updated as needed by the Navy. The plan will address the comprehensive management of all Navy facilities on public lands in central Nevada, with provisions for establishing possible thresholds on reasonable numbers of sites on public lands (as determined through the NEPA process), annual	Yes and No	Navy has been reducing the number of electronic warfare sites and is relinquishing many of them as of this writing. Unaware of a Plan that addresses annual assessments, alternative configurations, etc., as stated in this decision.	Work with the Navy to reach this decision. An Electronic Warfare Range Plan seems like a good plan to have for planning and management purposes. Navy is relinquishing TIS sites; no planning-level rehabilitation requirements are available.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>assessments of the continuing need for individual sites, including alternative configurations to reduce numbers of sites without sacrificing training quality, and eventual clean-up, rehabilitation and relinquishment of sites no longer required to meet the Navy's mission.</p>			
<p>Facilitate communication site processing and minimize surface disturbance by grouping future communication facilities at locations where existing facilities occur, access is reasonably available, terrain is appropriate for communication facility needs, and other resource values are limited. These preferred locations are Fairview Peak, New Pass, Mt. Moses, the north end of the Fish Creek Mountains, and Mt. Lewis. Communication site applicants will be encouraged to locate in these areas. These areas will be available for all civilian and military sites.</p>	Yes and No	Ongoing	<p>Only two of these preferred locations (Fairview and New Pass) are actually on the CCD. Numerous other locations exist that could be considered preferable. This decision was brought forward from a planning document that was specifically looking at military sites in central Nevada (Battle Mountain and Carson City) – yet was incorporated into the CRMP without any reference, so it can be a confusing, misleading decision.</p> <p>The concern for co-location of facilities at preferred locations, however, remains valid and should be brought forward for analysis in the revision.</p> <p>Criteria for the selection of new preferred sites/expansion of old</p>

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
With proper justification, continue to provide for the location of future civilian and military communication sites (including telemetry sites and threat emitters) on more than four million acres of central Nevada. Proper justification includes physical and economic factors.	No	Criteria would be a more effective management tool than what is stated in this decision; moreover, the decision does not take into account sage grouse and raptors.	should be considered for analysis. Based on current conditions that CCD can continue to see interest in new comm. sites and expansion of old ones. Priorities are changing. Criteria should be used for providing locations for future civilian and military communication sites. When sage grouse and raptor decisions become available, etc., these should also be integrated into what should be considered when siting communication facilities. Visual Resource Management factors should be taken into account as well.
Encourage additional Navy electronic warfare site development in the currently heavily used Dixie/Fairview Valleys Bell Flat/Midlegate area.	Yes	These uses are seen in these areas.	The Navy has large withdrawal areas for training in these areas; encourage electronic warfare site development on DoD withdrawn lands first?
Protect important natural, recreation, wilderness, wildlife, watershed, visual, and Native American values by prohibiting future communication and electronic warfare sites of all types in the most sensitive areas. These include portions of the Clan Alpine, Desatoya, Stillwater, Gabbs Valley and Simpson Park Mountain Ranges,	Yes	These protections remain important.	This sounds like proposed exclusion and/or avoidance areas. If designation of exclusion/avoidance areas continues, consider using GIS/LLD to specifically identify these areas.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Bald Mountain and the Sand Mountain and Hickison Petroglyph recreation areas.			
Provide for an east-west and north-south network of rights-of-way corridors in the Field Office area of jurisdiction.	Yes	Corridors were implemented.	Are current identified corridors based on current conditions, and foreseeable change?
Designate 686 miles of rights-of-way which include existing transmission lines and identify 218 miles of planning corridors, as shown on the Corridor map. All corridors are two miles in width. Private lands are not included in these corridors.	Yes	Designations are in place.	Retain idea
In the Reno RMPPA: Designate right-of-way corridors along existing transportation and utility facilities, where there is potential for future expansion, with a width of 1.5 miles on each side of the existing transportation/utility facility. Exceptions to this width requirement will be made on a case-by-case basis following a multiple use analysis of a specific proposal. The corridors are: <u>Lahontan Resource Area</u> I. A-J. A corridor running from Fernley to the Fort Churchill Power Plant. The corridor follows US Highway Alternate 95. It contains a railroad, phone line, secondary powerlines, and pipelines. J. A-B-G. A corridor running from Fernley to southern California and southern Nevada. This corridor does not contain any utility transmission facilities;	Yes	Designations are in place.	Identify other corridors that make sense and consider removing designated corridors are no longer useful. Criteria should be developed for identifying, designating, and removing ROW corridors in the planning document beyond the criteria in the current LUP of existing transportation and utility facilities where there is a potential for expansion.

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>however, it contains an existing right-of-way held by Western Area Power Administration. The present right-of-way is the eastern boundary of the corridor from B to G.</p> <p>K. A-B-I. A corridor running north south through the Field Office area which contains a major powerline from Oregon to southern California.</p> <p>L. P-Q-D-F-W-S-G. A planning corridor, running from Dixie Valley to southern California. It is expected to provide an outlet for geothermal power to be produced in Dixie Valley. A portion of this corridor follows the existing gravel road up the Dixie Valley.</p> <p>M. Q-E. A planning corridor, running from the Dixie Valley toward Austin. This corridor passes north of the Clan Alpine Mountains WSA and south of the Augusta Mountains WSA.</p> <p>N. I-W-F-R-E. A corridor running from the Fort Churchill Power Plant to Utah. It contains a major powerline, supplying much of the electricity for northern Nevada. This right-of-way provides the northern boundary of the Desatoya Mountains WSA. The corridor does not include any portion of the WSA.</p>			

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<ul style="list-style-type: none"> O. S-R. A planning corridor, running to the south of the proposed US Navy withdrawal. P. C-B. A corridor from Valmy to the Lahontan substation. 			
<u>Reno RMPPA of Lahontan Resource Area</u>			
<ul style="list-style-type: none"> I. L-J. A corridor supplying power to the South Lake Tahoe area from the Fort Churchill Power Plant. J. A-H-M. The I-80 corridor system containing a highway, railroad and two major power lines. K. H-O. A corridor used for transmission of power from Tracy to Fort Churchill. L. M-W-K-J. A corridor brings power to the Reno area from the Fort Churchill Power Plant. M. H-T. The Valmy-Tracy Corridor containing a 345 KV powerline. N. H-V. The Tracy-Brunswick Corridor containing a 120 KV powerline. O. H-K. The Tracy-Steamboat Corridor containing two major powerlines. P. M-U. The Mount Rose-Brunswick Corridor containing a 120 KV powerline. 			
<u>Walker Resource Area</u>			
<ul style="list-style-type: none"> I. C-A. A right-of-way corridor, containing a major powerline from the Fort Churchill Power Plant to the 			

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>J. South Lake Tahoe area. D-H. A right-of-way corridor following the existing major powerline from Bonneville to Los Angeles. Another major powerline is being planned for this route.</p> <p>K. C-F. A right-of-way corridor following the existing major powerline from the Fort Churchill Power Plant to southern Nevada. Portions of this route also contain US Highway 95, a railroad, telephone, and other powerlines.</p> <p>L. E-G. A right-of-way corridor following the existing Western Area Power Administration right-of-way. The existing right-of-way is the eastern boundary of this corridor. While it does not contain a powerline, a major powerline from Bonneville to southern Nevada and California is planned for this route.</p> <p>M. I-J. A planning corridor for a powerline between Austin and the Los Angeles area. A portion of this route borders US Highway 6 and contains telephone and secondary powerlines. It may be considered for power transmission to southern California from Dixie Valley.</p> <p>N. E-M. A planning corridor for a proposed powerline from Dixie Valley connecting to a</p>			

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>Forest Service corridor.</p> <p>O. D-L. A planning corridor for a potential major gas pipeline to the west coast. A portion of this route follows an existing powerline corridor route.</p> <p>P. C-B. A right-of-way corridor following the existing major powerline from the Fort Churchill Power Plant to Reno and Carson City.</p>			
<p><u>Reno RMPPA of Walker Resource Area</u></p>			
<p>E. C-Y. A right-of-way corridor containing a major powerline from the Fort Churchill Power Plant to Reno.</p> <p>F. Z-Y. A right-of-way corridor containing a major powerline from the Valmy Power Plant to Reno.</p> <p>G. Z-A. A right-of-way corridor containing major powerlines from the Tracy Power Plant to Carson City and Gardnerville.</p>			
<p>Portions of planning corridors CAW and CB are in the Reno RMPPA and are governed by decisions regarding corridors and rights-of-way for the area.</p>			
<p>The separation of rights-of-way within the designated corridors will be limited to the minimum spacing required by technology, topography, reliability, visual impacts, etc.</p>	Yes	<p>This decision reflects current policy, guidance, and regulation.</p>	None
<p>All new powerline rights-of-way grants within raptor areas will contain raptor protection stipulations as means of mitigation.</p>	Yes	<p>This decision reflects current policy and guidance.</p>	Retain idea

Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Future rights-of-way corridors will be evaluated on a case-by-case basis, but should be as consistent as possible with the Western Regional Corridor Study.	Yes	Corridor planning and evaluation decisions remain important for the district and the agency, especially in conjunction with sage grouse, raptors and other resource issues.	New corridor designation should reflect some sort of criteria analyzed and brought forward in this revision.
			Designation of lands listed for disposal around the glider port north of Reno.
			Designation of disposal lands in Carson 40 acres near Prison Hill.
			Allow for the development of a trail system on public lands along the Truckee River (Tahoe-Pyramid Bikeway and others).
			Transfer CCD CA managed lands to CA BLM.
			Transfer CCD BLM lands around Fernley to WDO.
			Consider a ROW decision addressing BLM-initiated ROW proposals.
			Designate ROW avoidance and/or exclusion areas in the revision.
			Criteria for siting of ROWs on the district, especially communication facilities at new sites, would be desirable in the revision.

**Table 4-20
Lands and Realty: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			The statement of conformance with the land use plan for ROW proposals is under administrative actions. We need an RMP decision addressing ROW proposals.
			The CRMP has no ROW decision addressing BLM-initiated ROW proposals.
			Move the administrative action we use for ROWs from Land Tenure to Land Use Authorizations. ROWs are not Land Tenure actions.
			Acquisition of private parcels on the east side of the Carson Wandering Skipper ACEC parcels, to consolidate and secure more habitat.

4.3 SPECIAL DESIGNATIONS ADEQUACY AND OPPORTUNITIES

4.3.1 Areas of Critical Environmental Concern

**Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Provide a high level of protection for Incandescent Rocks, Steamboat	Yes/No	Soda Lake was dropped as a potential ACEC.	Re-evaluate current condition of

Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Hot Springs, and Soda Lake while recognizing other resource values.		Steamboat Hot Springs needs to be re-evaluated and Incandescent Rock needs to have continued protection.	Steamboat Hot Springs and assess effectiveness of management for Incandescent Rocks.
Provide protection and enhancement of natural and scientific values at Stewart Valley, while allowing public use and enjoyment and other resource uses.	Yes	ACEC still requires protection and management while allowing recreational and scientific uses.	Update existing management plan for this ACEC. Mineral entry withdrawal may need to be renewed.
Designate 1,075 acres in the Incandescent Rocks area as the Incandescent Rocks Natural Scenic Area of Critical Environmental Concern. This action is being taken in order to protect the scenic quality of the area (Class A), plus the unique geologic features. Incandescent Rocks is within the foreground - middle ground viewing zone from the Pyramid Lake Highway, and contains critical raptor nesting sites.	Yes	This is a priority scenic area within the CCDPA. Area has been designated as an ACEC.	This site needs a management plan and updated assessment for impacts to visual resources.
-Plans of Operation will be pursued with the mining industry to protect portions of the unit for recreation use and scenic quality. Heavy reliance will be placed upon 43 CFR 3809 to mitigate impacts.	Yes	Mining regulations require the submittal of a Plan of Operation and EA development (in lieu of a Notice) once an area has been designated as an ACEC.	Continue monitoring mining activity in the area and any application for mining within the ACEC.
- Provide the public legal access to Incandescent Rocks by obtaining an easement across a 40 acre parcel of private land in T. 23 N., R. 20 E., Section 6, NE1/4NE1/4.	Yes	Access to site may have been routed around private parcel.	Further investigation needs to be conducted to see if route has been adjusted or if ROW needs to be pursued.
- Limit OHV use to designated roads and trails. Existing roads will be designated open to OHV use	Yes	Motorized access restrictions need to be in place to ensure	Continue to monitor and provide adaptive management of OHV

Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
except where those roads and trails impact sensitive meadows, seeps, springs and other waters. - Manage the area as a VRM Class II Area.		protection of scenic value.	use within the ACEC. Consider restricting non-motorized use to designated trail system.
Designate 40 acres in the Steamboat Hot Springs Area as the Steamboat Hot Springs Area of Critical Environmental Concern. This action is being taken in order to protect, manage, develop and interpret the 40-acre geyser field and other thermal features in the area. Steamboat Hot Springs is near a large population center and has easy access. Other public agencies have expressed interest in protecting and developing the site.	No	The ACEC was established for the protection of the geysers which may not be present any longer. However, ACEC designation may need to be changed to protect the ESA Buckwheat species in the same area.	This ACEC should be evaluated for purpose and need. Management Plan needs to be developed if it remains an ACEC.
-Acquire legal access to the Steamboat Hot Springs Area. -Acquire adjacent thermal features occurring on private land to the north and east of the geyser terrace, through voluntary exchange or purchase.	Yes	Access has not been acquired.	Currently Ormat Industries needs to be contacted to gain access to BLM parcel. Need ROW to facilitate access to property.
-Complete the suspected occupancy and mining trespass proceedings, and rehabilitate degradation within the 40 acre Steamboat Springs ACEC.	Yes	Never completed.	Needs to be completed.
- Classify 40 acres at Steamboat Springs for Recreation and Public Purposes.	No	No need to make an R&PP lease.	None
-Develop minimal recreational facilities within the area to protect the thermal features and the public and to allow for public enjoyment of the area.	No	Geyser feature may no longer exist. No ROW for public access exists.	None

Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
-Fence the 40 acre Steamboat ACEC.	Yes	Fencing is required for public safety.	Fence is in need of repair/replacement.
-Close to OHV use.	Yes	Required to protect sensitive resources.	None
-Develop an ACEC Management plan for the Steamboat Hot Springs area.	Yes	Management plan needs to be developed to identify goals and objectives.	Complete management plan.
Designate 16,000 acres in Stewart Valley as an Area of Critical Environmental Concern (ACEC), and withdraw 1,420 of those acres from mineral entry. -Limit OHV use in the Stewart Valley ACEC to designated roads, trails and washes.	No	Has been implemented.	ACEC should be reviewed for effectiveness and management plan should be updated. Withdrawal has expired and an evaluation needs to be conducted to see if it needs to be renewed.
-Manage the Stewart Valley ACEC as a Research Natural Area. Establish special rules and permits for scientific research and field schools. No commercial or private collection will be allowed.	Yes	This area still serves as an important study area for paleontology for schools and universities.	Update management plan and guidelines for scientific research.
Designate Soda Lake an Area of Critical Environmental Concern -Support nomination of the Soda Lake factory site and buildings for the National Register of Historic Places. -Acquire via transfer, exchange, or fee title purchase, all land in T19N, R28E, Section 7, exclusive of the N1/2NW1/4 (TCID & Churchill County); Section 8, exclusive of the E1/2E1/2 and NW1/4 or NE1/4(TCID);Section 18, NE1/4 of NE1/4 (TCID); and Section 17, N1/2 of NW1/4 (BOR). These lands totaling 619 acres will be added to the ACEC when acquired.	No	Mostly private property. Amended decision in CRMP discarded this previous decision.	Public lands in this area should be reassessed for another type of designation if deemed necessary.

Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<ul style="list-style-type: none"> -Implement a minor level of facility development including signs, underwater markers, trails and other recreational facilities as needed. -Establish cooperative agreements with adjacent landowners for the protection and management of Soda Lake. 			
Carson Wandering Skipper ACEC <ul style="list-style-type: none"> • Designate the 243 acre Carson Wandering Skipper habitat site for the wandering skipper butterfly as an ACEC (Map 5), to be effective upon approval of this plan amendment. 	No	Designation completed.	ACEC should be reviewed and management plan developed.
<ul style="list-style-type: none"> • Within two years of approval of this plan amendment, a site-specific, detailed ACEC activity plan and environmental assessment will be completed, in coordination with the University of Nevada Reno, USFWS, and Nevada Division of Wildlife. 	Yes	Management plan has not been completed.	Complete Management Plan.
<ul style="list-style-type: none"> • Restrictions described in this plan amendment (OHV limitations and mineral withdrawal) will be adequate to protect the site until completion of the activity plan. 	No	Management plan has never been completed.	Management plan needs to be completed.
<ul style="list-style-type: none"> • Any non-federal lands in the area, identified as habitat for the Carson wandering skipper, will be considered for acquisition and will be included in the ACEC designation. 	Yes	Newly acquired lands need to be addressed.	Lands adjacent to ACEC that were acquired for the Skipper after the ACEC designation need to be assessed for inclusion into the ACEC.
Pah Rah High Basin (Dry Lakes) Petroglyph District ACEC <ul style="list-style-type: none"> • Designate the 3,881 acre Pah Rah High Basin (Dry Lakes) Petroglyph District as an ACEC (Map 5), to be effective upon approval of this plan 	Yes	Designation has been made but activity plan has not been developed.	Develop activity plan and implement all management goals and objectives.

Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
<p>amendment.</p> <ul style="list-style-type: none"> • Within two years of approval of this plan amendment, a site-specific, detailed ACEC activity plan and environmental assessment will be completed, in coordination with the Nevada State Preservation Office, Washoe County, Washoe Tribal Council, Pyramid Lake Paiute Tribal Council, Reno-Sparks Indian Colony. • Restrictions described in this plan amendment for OHV limitations and mineral withdrawal will support recommendations for special management of this ACEC and the above specified activity plan will include explicit protective and monitoring measures. • Any non-federal lands in the area, identified as important for petroglyph resources, will be considered for acquisition and will be included in the ACEC designation. 	Yes	Development of a management plan is necessary.	Develop management plan and implement all management goals and objectives.
<p>Virginia Range Williams Combleaf Habitat Area ACEC</p> <ul style="list-style-type: none"> • Designate the 473 acre Virginia Range Williams Combleaf Habitat Area as an ACEC, to be effective upon approval of this plan amendment. • The existing Conservation Agreement (March 24, 1997) between the BLM Nevada State Office and USFWS for conservation actions for the habitat area will continue to be implemented. As described in the agreement, actions may be revised to include other land management agencies, address current conditions and additional 	Yes	Designation was completed in 2001 but activity plan has not been completed.	<p>Develop management plan and implement all management goals and objectives.</p> <p>Continue agency communication.</p>

Table 4-21
ACECs: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
populations. <ul style="list-style-type: none"> Restrictions described in this plan amendment for OHV limitations and mineral withdrawal will provide additional protection for this habitat area and an activity plan is not needed. Any non-federal lands in the area, identified as habitat for the Virginia Range Williams Combleaf, will be considered for acquisition and will be included in the ACEC designation. 	No	Management plan would provide better goals and objectives for management of this area.	Develop management plan.
	Yes	If it is determined that additional lands are required to protect this species then it should be pursued.	Pursue acquisition of private lands if that is management direction.

4.3.2 Natural Areas

Table 4-22
Natural Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Designate 10,000 acres of the Petersen Ridge Area as Recreation Lands.	Yes	The CRMP called for designation of recreation lands, but that designation was no longer a valid designation category. Because of this, the decision was changed to the designation of the Petersen Mountain Natural Area.	The term natural area, except as designated by a natural area ACEC, is not recommended in LUP guidance. This area should be evaluated as an ACEC or a SRMA during the RMP process.
A master plan is being developed, with Washoe County, Nevada National Guard, Audubon Society, City of Reno, and Nevada Division of Wildlife, for the Swan Lake Nature Study Area in Lemmon	No	The designation of a Natural Study Area is not defined in the LUP Handbook. Unknown how this designation came about or if it is	Review the designation of this are and assess if it should become a Natural Area ACEC or a SRMA. Determine how current

Table 4-22
Natural Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Valley (Map 5). The 160 acres of public land, located in this area, will be withdrawn from locatable mineral entry; motorized vehicle use will be restricted to "designated" roads only. Any non-Federal lands within the Swan Lake Nature Study Area will be considered for acquisition by BLM and these lands will be managed consistent with this plan amendment. (Wildlife Section)		official. If designation is made in LUP it only carries the authority of the LUP.	designation was authorized.
Designation of the Ambrose Carson River Natural Area.	No	Designation of areas as natural areas is not defined in the LUP Handbook unless it falls into the ACEC designation. Natural areas in the urban interface and open space area is current and legitimate land use.	Review area as a potential ACEC. This area will be turned over to Carson City in 2013 and will no longer be under BLM management.
			The lower Truckee River Natural Area consists of BLM parcels located along the Truckee River. The area is undergoing extensive restoration; including stream channel reconstruction, weed abatement and revegetation. This area is unique along the Truckee River which is mostly urban within Nevada. The Lower Truckee River Natural Area is suited for a variety of scientific investigations, environmental

Table 4-22
Natural Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			education and riparian wildlife habitat. The natural area also has high visual qualities.

4.3.3 Scenic Areas

Table 4-23
Scenic Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Protect and enhance the visual qualities of areas with outstanding scenic values.	Yes	Still valid management decision though it is a generic statement.	Provide more detailed information on the intent and purpose of this decision.
<p>Red Rocks Area</p> <ul style="list-style-type: none"> -Designate the Red Rocks Area (700 acres) as a Scenic Area. -Manage the area under an agreement with mining claimants to protect the geologic features. -Develop a day-use picnic area, with 2-wheel vehicle access and interpretation geologic features in the Red Rocks Scenic Area. -Restrict OHV use to designated roads and trails. -Ensure Mining Plans of Operations within the Red Rocks Scenic Area would protect the area's scenic quality and not impair recreation use. 	No	Incorrect designation. Scenic Area is an administrative level decision in the RMP process and does not have CFR protection as an ACEC or SRMA does.	This area will need to be reassessed and considered for designation as a Scenic Area ACEC or a SRMA. Consider restricting non-motorized access to designated trail system.
<p>East Walker Scenic Area</p> <ul style="list-style-type: none"> -Expand the Scenic Area from 3,889 acres to 4,173 acres -Adjust the Scenic Area boundary in T. 8 N., R. 27 E., Sec. 34 by deleting lots 6 and 7 and adding lots 8 and 9 to correct an error in the legal description. 	No	All but a few acres of this land has been transferred to the USFS.	Review remaining land and determine best resource use and visual classification.

Table 4-23
Scenic Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
-Manage the Scenic Area as a Class II Visual Resource Management Zone, where management actions can be evident but should not detract from the scenic quality of the area. -The exclusion from oil, gas and geothermal leasing in the East Walker Scenic Area will be adjusted to conform with the segregation from mineral entry. This will result in a net reduction of 334 acres in the exclusion area. -Limit vehicles to designated roads.			
Burbank Canyons -Designate 13,395 acres in the eastern Pine Nut Mountain Range as the Burbank Canyons Scenic Area. -Motor vehicles will be limited to designated roads in this area.	No	Incorrect designation. Scenic area is an administrative level decision and does not have CFR protection. Area is currently under review for wilderness designation.	This area will need to be reassessed and considered for designation as a Scenic Area ACEC or a SRMA.
East Fork of the Carson River -Designate the East Fork of the Carson River as a Scenic Area and develop specific management directives.	No	Incorrect designation. Scenic area is an administrative level decision and does not have CFR protection.	This area will need to be reassessed and considered for designation as a Scenic Area ACEC or continue as a SRMA.

4.3.4 National Backcountry Byways

Table 4-24
National Backcountry Byways: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for change
There are no management decisions on Backcountry Byways.	No	Management goals and objectives need to be developed to manage this resource.	Management goals and objectives for the Fort Churchill to Wellington Back Country Byway need to be addressed in the RMP.

4.3.5 National Historic Trails

Table 4-25

National Historic Trails: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Maintain nationally important historic sites in public ownership. Provide for public interpretation of the following major historic trails: Pony Express and California Emigrant Route.	No	Management goals and objectives need to be developed to manage this resource.	National Historic Trails are designations for trails within the CCD need to be verified and managed as such if authenticated.

4.3.6 National Recreation Trail

Table 4-26

National Recreation Trail: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
There are no management decisions on National Recreation Trails.	No	Management goals and objectives need to be developed to manage this resource.	Management goals and objectives for the Grimes Point Interpretive Trail need to be addressed in the RMP.

4.3.7 Wild and Scenic Rivers

Table 4-27

Wild and Scenic Rivers: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
River segments eligible for Wild and Scenic designation shall be accorded protective management, as necessary, to ensure that the qualities upon which eligibility is based are not degraded. A river's outstanding remarkable values shall be afforded adequate protection,	Yes	Current policy	Wild and Scenic River evaluations need to be completed for the CCD during the RMP revision.

Table 4-27
Wild and Scenic Rivers: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
subject to valid existing rights. Until the eligibility determination is superseded, management activities and authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification (43 CFR 8351). These requirements apply to Field Office lands in California along the East Fork of the Carson River.			

4.3.8 Wilderness Study Areas

Table 4-28
Wilderness Study Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Wilderness designation is recommended for those study areas where wilderness values are capable of balancing other resource values and uses which would be foregone due to wilderness designation. Manage as wilderness those areas for which wilderness values are higher than other values and which have no existing or potential manageability problems. Whether or not an area can be effectively managed as wilderness over the long-term has also been considered.	Yes	Current policy	Review language in Wilderness policy to see if decision needs to be updated during the planning process. Possibly develop goals and objectives for areas that do obtain wilderness designation.
Acreage with high quality wilderness characteristics and no major resource conflicts, major manageability problems, or significant combination of lesser conflicts or problems will be included in areas recommended as suitable. Manage any lands designated by Congress under the	No	Recommendation period for suitability as wilderness areas is past.	Areas outside of designated WSA's need to be assessed for wilderness characteristics and if applicable, managed to retain those characteristics. Wilderness

**Table 4-28
Wilderness Study Areas: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Wilderness Act of 1964 as provided for in enabling legislation and the BLM's wilderness Management Policy.			characteristics inventory for the CCD should be reevaluated during the RMP process.
Designated wilderness areas would be closed to off-highway vehicle use unless it takes place as part of a valid existing right or is authorized in the wilderness management plan. Separate management plans tailored to the characteristics of each area would be developed through consultation with interested parties. They would be coordinated with other activity plans for their areas. Specific management objectives, requirements and decisions implementing administrative practices and visitor activities would be developed in each plan.	No	There are no designated wilderness areas in the CCD.	Management decisions or guidance can be made in the RMP to manage areas per wilderness guidelines should an area be designated as wilderness by congress.
Designated wilderness areas would be segregated against appropriation and operation under the mining laws, mineral leasing laws, and other mineral disposal authorities subject to valid existing rights. These areas will also be closed to appropriations under the existing land disposal laws.	No	There are no designated wilderness areas in the CCD.	Management decisions or guidance can be made in the RMP to manage areas per wilderness guidelines should an area be designated as wilderness by congress.
Designation of wilderness areas would allow for continuation of livestock grazing permits.	No	There are no designated wilderness areas in the CCD.	Management decisions or guidance can be made in the RMP to manage areas per wilderness guidelines should an area be designated as wilderness by congress.
Burbank Canyons: Recommended as non-suitable for designation as wilderness. The entire area (13,395 acres) will be designated as a Scenic	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect	Develop alternative land use designations in the event WSA is released from

**Table 4-28
Wilderness Study Areas: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Area. The Scenic Area would be closed to OHV use except on designated existing roads.		wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	wilderness consideration.
Carson Iceberg: The entire 550 acres are recommended as suitable for designation as wilderness.	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	Develop alternative land use designations in the event WSA is released from wilderness consideration.
Gabbs Valley Range: Manage the 79,600 acres in the Gabbs Valley Range WSA not suitable for wilderness designation under multiple use guidelines as outlined in the Management Decisions Summary. If this recommendation is accepted by Congress, this area will be managed for other multiple uses.	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	Develop alternative land use designations in the event WSA is released from wilderness consideration.
Slinkard: Entire area under CCFO jurisdiction (2,830 acres) recommended as non-suitable for wilderness designation. If this recommendation is accepted by Congress, this area will be managed for other multiple uses except that vehicles will be limited to existing roads and trails.	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from	Develop alternative land use designations in the event WSA is released from wilderness consideration.

Table 4-28
Wilderness Study Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
		wilderness consideration. No further action is allowed at this time.	
Clan Alpine Mountains: A portion (68,458 acres) of this unit is recommended preliminarily suitable. Wilderness values are high, the area can be managed as wilderness over the long term, and the great majority of resource conflicts have been eliminated.	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	Develop alternative land use designations in the event WSA is released from wilderness consideration.
Stillwater Range: This entire unit (94,607 acres) is recommended non-suitable. Wilderness values are not of sufficient quality to warrant designation. Major resource conflicts and manageability problems exist. The Geology, Energy, and Mineral (GEM) report evaluation finds it to be one of the best "...potential areas for future metallic mineral finds of all the WSAs studied in the Basin and Range province..."	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	Develop alternative land use designations in the event WSA is released from wilderness consideration.
Desatoya Mountains: A portion of this unit (43,053 acres) is recommended preliminarily suitable. Wilderness values are high and outweigh the relatively minor resource conflicts which remain. Fifty-one acres were added to the WSA to enhance manageability of the area. Further field analysis resulted in a boundary adjustment in response to the Governor's consistency review.	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	Develop alternative land use designations in the event WSA is released from wilderness consideration.

Table 4-28
Wilderness Study Areas: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Job Peak: This entire unit (90,209 acres) is recommended non-suitable. Wilderness values are moderate to good in portions of the WSA, however; they are not sufficiently high to either outweigh resource conflicts and manageability problems or warrant designation.	Yes	Rationale for original decision should be the same. Current BLM Policy is to protect wilderness characteristics in WSA's until designated as Wilderness or released from wilderness consideration. No further action is allowed at this time.	Develop alternative land use designations in the event WSA is released from wilderness consideration.

4.4 SUPPORT ADEQUACY AND OPPORTUNITIES

4.4.1 Cadastral

Table 4-29
Cadastral: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			Development of urban areas adjacent to BLM lands increases the needs for cadastral efforts. The need for boundary surveys related to land tenure adjustments will also continue. The current capacity of Cadastral is not sufficient to meet the increasing survey needs in the CCDPA associated with development in the urban interface.

4.4.2 Interpretation and Environmental Education

**Table 4-30
Interpretation and Environmental Education: Management Decisions, Rationale, and Options for Change**

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
			<p>Develop CCD management goals and objectives for Environmental Education and Interpretation.</p> <p>Identify resources that will be made available for EE/I. Identify and develop sites and programs for inclusion in the Hands on the Land and Take It Outside initiatives. Possibilities include Mustang Ranch, Faye Luther, Indian Creek, Sand Mountain, River Fork Ranch and Hidden Cave.</p>

4.4.3 Transportation Facilities

Transportation linear features on BLM lands comprise one of the most significant issues facing the BLM and are the focus of a concentrated investment of BLM resources to adequately identify, categorize, designate, operate, and maintain.

The CCD will need to accomplish several tasks during the RMP revision related to meeting the objectives of the “The Roads and Trails Terminology Report. For example:

The CCD will need to amend our classification system to include “Maintenance Intensity.” The implementation of primary transportation asset categories provides an opportunity to review and enhance current standards for determining maintenance levels, managed use standards, and other descriptive information utilized to describe and report on the BLM’s assets. The new “Maintenance Intensity” levels include four primary “Maintenance Intensity” levels that allow for removal, low, medium, and high maintenance intensities irrespective of the type of route (road, primitive road, or trail) (BLM, 2006). Maintenance Intensities provide a range of objectives and standards, from “identification for removal” through frequent and intensive maintenance.

Maintenance Intensities provide consistent objectives and standards for the care and maintenance of BLM routes based on identified management objectives. Maintenance Intensities must be consistent with land-use planning management objectives (for example, natural, cultural, recreation setting and visual). Maintenance Intensities provide operational guidance to field personnel on the appropriate intensity, frequency, and type of maintenance activities that should be undertaken to keep the route in acceptable condition and provide guidance for the minimum standards of care for the annual maintenance of a route. Maintenance Intensities do not describe route geometry, route types, types of use or other physical or managerial characteristics of the route. Those items are addressed as other descriptive attributes to a route.

Level 0

Maintenance Description

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

Maintenance Objectives

- No planned annual maintenance
- Meet identified environmental needs
- No preventive maintenance or planned annual maintenance activities

Maintenance Funds

No annual maintenance funds.

Level 1

Maintenance Description

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

Maintenance Objectives

- Low (Minimal) maintenance intensity
- Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless route bed drainage is being adversely affected, causing erosion.
- Meet identified resource management objectives
- Perform maintenance as necessary to protect adjacent lands and resource values

- No preventive maintenance
- Planned maintenance activities limited to environmental and resource protection
- Route surface and other physical features are not maintained for regular traffic

Maintenance Funds

Maintenance funds provided to address environmental and resource protection requirements. No maintenance funds provided to perform preventive maintenance.

Level 2

BLM has reserved this level for possible future use; no current description or objective.

Level 3

Maintenance Description

Routes requiring moderate maintenance due to low volume use (e.g., seasonally or year-round for commercial, recreation, or administrative access). Maintenance Intensities may not provide year-round access but are intended to generally provide resources appropriate to keep the route in use for the majority of the year.

Maintenance Objectives

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

Maintenance Funds

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

Level 4

BLM has reserved this level for possible future use; no current description or objective.

Level 5

Maintenance Description

Routes for high (Maximum) maintenance due to year-round needs, high volume traffic, or significant use. Also may include routes identified through management objectives as requiring high Intensities of maintenance or to be maintained open on a year-round basis.

Maintenance Objectives

- High (Maximum) maintenance intensity.
- The entire route will be maintained at least annually. Problems will be repaired as discovered. These routes may be closed or have limited access due to weather conditions but are generally intended for year-round use.
- Meet identified environmental needs.
- Generally maintained for year-round traffic.
- Perform annual maintenance necessary to protect adjacent lands and resource values.
- Perform preventive maintenance as required to generally keep the route in acceptable condition.
- Planned maintenance activities should include environmental and resource protection efforts, annual route surface.
- Route surface and other physical features are maintained for regular traffic.

4.5 SOCIAL AND ECONOMIC ADEQUACY AND OPPORTUNITIES

4.5.1 Tribal Interests

Table 4-31
Tribal Interests: Management Decisions, Rationale, and Options for Change

Management Decision	Is Decision Responsive to current issues?	Rationale	Options for Change
Plant management	Partially	Access to previously collected materials is no longer available or other impacts (environmental effects/chemicals, etc., water and variety of grazing animals) have reduced availability.	Work to restore locations identified as gathering locations (Truckee River Restoration) that would benefit both Tribes and the BLM.
Pine nut management (see Forestry section)	No	Competition for access to pinyon nut crops from non-traditional commercial and public users.	Re-evaluate policy on commercial, tribal, and public nut collection, and review law enforcement and volunteer monitoring policy of the resource.
Tribal-identified issues	Unknown	Based on other planning considerations, issues of interest to Native Americans have been stated.	Identify ingress and egress points from tribal/trust lands in Pine Nut Mountain. Identification and access to ethno-botanic resources (medicinal and food plants, including pinyon nuts).
Acquisition of public lands via conveyance to Tribes or into tribal trust.	Unknown	Requests have been made to CCD and to congressional and local representatives.	Identify lands for possible disposal.

4.5.2 Public Safety

Roads Maintenance

Maintenance will continue to be performed following BLM Manual 9113 in keeping with safety standards for road designs.

Abandoned Mines

Several abandoned mine sites within the CCDPA continue to pose a physical safety hazard.

The Nevada Division of Minerals, a part of the Commission on Mineral Resources, is responsible for administering programs and activities to promote, advance, and protect mining and the development and production of petroleum and geothermal resources in Nevada. In March 1999, the BLM initiated the formation of a Nevada Abandoned Mine Land Environmental Task Force to begin remediating environmental problems associated with abandoned and inactive mines. In certain mining districts, the CCDPAs has numerous abandoned mine workings. Structures such as shafts, adits, winzes, tunnels, and pits pose safety hazards to the public. Hazardous materials and dynamite are also safety hazards at abandoned mine sites. It is expected that identifying and sealing, fencing, and signing unsafe abandoned mine sites and openings will continue at approximately the same rate as in recent years. Contaminated site remediation will occur based on hazard ranking and available funding. Abandoned mine closure may increase with the assistance of the mining industry, particularly in areas where renewed activity in former mining areas becomes economical.

Petroleum Waste and Hazardous Substances

Unauthorized disposal of petroleum waste and releases of hazardous substances continually occurs on public land throughout the CCDPA. The term “petroleum wastes” are those substances included within the meaning of the petroleum exclusion to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 42 USC 9601). This is petroleum which is not specifically listed or designated as a hazardous substance. The term “hazardous substance” is defined by CERCLA. There are thousands of hazardous substances, but they can generally be categorized as ignitable, corrosive, reactive, or toxic materials. “Release” as defined by CERCLA means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing (including abandonment) of a hazardous substance.

In the CCDPA, releases of hazardous substances and dumping of petroleum products usually occur as a result of unauthorized dumping (also known as midnight dumping) or in association with active or abandoned mining or mill site claims. The Carson City District Office follows the National Contingency Plan (40 CFR 300) in dealing with releases of hazardous substances which generally involves the timely removal of the hazardous substance. Removal of petroleum waste is performed in accordance with State and local laws and regulations which also generally involves the timely removal of petroleum waste. A release could require a “removal” action for one drum of liquids which could cost a few hundred dollars up to a “remedial” action which could involve extensive studying and cost thousands (or millions) of dollars.

Because releases are not authorized on public land and generally removed upon discovery, an inventory of sites where hazardous substances and petroleum waste have been released is not maintained in the land use plan. If a parcel of land is to be disposed of, an evaluation pursuant to section 120(h) of CERCLA is

prepared. If a parcel of land is to be acquired, an evaluation is conducted in order to comply with the standards and practices for “all appropriate inquiry” pursuant to sections 101(35) (B) (i) (I) and 101(35) (B) (ii) of CERCLA is prepared.

Solid Waste

Unauthorized disposal of solid waste continually occurs on public land throughout the CCDPA. The term “solid waste” is defined by the Resource Conservation and Recovery Act (42 USC 6901) and includes any solid, liquid, semi-solid, or contained gaseous material that is deemed to be a waste. Solid waste is further defined as abandoned piles of household garbage, bags of yard waste, discarded appliances, old barrels, used tires and demolition debris that can threaten the health of humans, wildlife and the environment. A few commonly found illegally dumped items such as vehicles, boats, trailers and motor-homes can fit into either solid waste or hazardous waste dependent on the timeliness of the item being found, reported and subsequently being cleaned up. For example, rubber car tires or an intact fiberglass boat found in the desert does not pose much of a threat as a “solid waste,” but once the rubber tires or fiberglass has been set on fire and burned, it becomes a “hazardous waste.”

The number of solid waste illegal dump sites has not been quantified across the CCDPA. The majority of illegal solid waste dumping occurs on public land in close proximity to the urban interface but is also common along transportation corridors and in non-designated camping areas which are dispersed throughout the CCDPA.

Recreational Shooting

Recreational shooting is common place throughout the CCDPA especially near areas of high population density. Currently there are no designated shooting areas on public lands and only a handful of public shooting areas managed by local agencies. Recreational shooting is a legitimate activity on public land, but does pose a significant risk if not managed correctly. Conflicts arise regularly between shooting and other activities on public land and with nearby private and tribal lands. These conflicts include shooting over roads or trails, not having a backstop, shooting too close to homes/buildings, shooting on grazing leases around water tanks and troughs, shooting in areas where there are high levels of other recreation activities, and shooting in sensitive areas like ACECs.

Most shooting areas are littered with garbage and tend to be an attractive nuisance. Shooting areas tend to attract illegal dumping. In these areas, it is common to find shot up TVs, appliances, furniture etc. There are no BLM policies in place regulating shooting or setting a standard for acceptable responsibility while shooting. Most of the counties in the CCDPA have limited ordinances regulating shooting activities. Washoe County has the most restrictive regulations by not allowing shooting within 5000 feet of an occupied dwelling. Other examples of standards set for shooting could include but not

be limited to requiring shooters to having a back stop to stop bullets from traveling outside the immediate area, not shooting into vegetation, not shooting at trash, TVs, appliances, or glass containers, and requiring shooters to remove shooting related materials i.e. shell casing, targets etc.

Another significant risk associated with recreation shooting is wildland fire. Between 2000 and 2010, about 34% of human caused fires started on BLM lands in Nevada were found to be caused by shooting. There have been numerous witnessed fires starts immediately after shooting. The BLM has had numerous witnessed fire starts due to shooting with copper jacketed lead and other ammunition. Due the large amount of urban interface in the CCDPA and the amount of recreation shooting happening near this urban interface, wildland fires pose a significant threat to communities, recreational areas, grazing areas, and wildlife habitat. Possible solutions would be to have multiple designated shooting areas near the urban interface. These areas could be mitigated to help prevent fire starts and potential spread if a fire started. Additionally, limitations could be imposed that would restrict shooting during times of extreme fire danger or times during red flag warnings.

4.5.3 Socio-Economic Conditions

Since the 2001 CRMP, both the BLM and the public have developed a greater awareness of the relationship between BLM land management decisions and their impacts on the socioeconomic conditions of the surrounding communities. Whereas the 2001 CRMP does not mention socioeconomic impacts, the RMP revision will provide a thorough analysis of the area's current socioeconomic conditions. It will provide sufficient data to allow future BLM decisions to take into consideration the well-being of local communities.

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CHAPTER 5

CONSISTENCY/COORDINATION WITH OTHER PLANS

According to the BLM RMP guidance found in 43 CFR 1610, BLM RMPs and amendments must be consistent, to the extent practical, with officially approved or adopted resource-related plans of state and local governments, other federal agencies, and tribal governments so long as the guidance and RMPs are also consistent. BLM RMPs must also be consistent with the purposes, policies, and programs of FLPMA and other federal laws and regulations applicable to public lands, including federal and state pollution control laws (see 43 CFR 1610.3-2 (a)). If these other entities do not have officially approved or adopted resource-related plans, then BLM RMPs must, to the extent practical, be consistent with their officially approved and adopted resource-related policies and programs. This consistency will be accomplished so long as BLM RMPs incorporate the policies, programs, and provisions of public land laws and regulations and federal and state pollution control laws (see 43 CFR 1610.3-2 (b)).

Before BLM approves proposed RMP decisions, the Governor(s) has 60 days to identify inconsistencies between the proposed plan and state plans and programs and to provide written comments to the BLM State Director. The BLM and the state may mutually agree on a shorter review period satisfactory to both. If the Governor does not respond within this period, it is assumed that the proposed RMP decisions are consistent. If the Governor recommends changes in the proposed plan or amendment that were not raised during the public participation process, the State Director shall provide the public with an opportunity to comment on the recommendations (see 43 CFR 1610.3-2 (e)). This public comment opportunity will be offered for 30 days and may coincide with the 30-day comment period for the Notice of Significant Change. If the State Director does not accept the Governor's recommendations, the Governor has 30 days to appeal in writing to the BLM Director (see 43 CFR 1610.3-2(e)).

County and town, state agency, and other federal agency plans for neighboring areas or cross jurisdictional purposes are further discussed in the following sections. The plans discussed in the following sections should be consulted as applicable during the development of the RMP.

5.1 CITY AND COUNTY PLANS

Alpine County, California

- Alpine County General Plan (2009)

Carson City, Nevada

- Carson City Master Plan (2006)

Churchill County, Nevada

- Churchill County Master Plan (2010)

Douglas County, Nevada

- Douglas County Master Plan (2011)

Lassen County, California

- Lassen County General Plan (2000)

Lyon County, Nevada

- Lyon County Comprehensive Master Plan (2010)

Nye County, Nevada

- Nye County Comprehensive Master Plan (2011)

Plumas County, California

- Plumas County General Plan (2011)

Storey County, Nevada

- Storey County Master Plan (1994)

Washoe County, Nevada

- Washoe County Master Plan (2010)

City of Reno, Nevada

- City of Reno Master Plan – Land Use Plan (2010)

City of Sparks, Nevada

- City of Sparks Master Plan (1991) (currently undergoing a comprehensive update.)

City of Yerington, Nevada

- City of Yerington Master Plan (2005)

5.2 STATE AGENCY PLANS

- State of Nevada Hazardous Materials Emergency Response Plan (May 25, 2005)

5.3 OTHER FEDERAL AGENCY PLANS

5.3.1 Department of Defense

- BLM/Navy Amendment for Certain Federal Lands in Churchill County, Nevada (2001)
- Naval Air Station Fallon Integrated Natural Resource Plan (currently under revision)
- Hawthorne Army Depot Integrated Natural Resource Plan (currently under revision)
- USMC Mountain Warfare Training Center (currently under revision)

5.3.2 US Bureau of Reclamation

- Lahontan Area Office Resource Management Plan (in progress)

5.3.3 US Fish and Wildlife Service, Nevada and California – Region 8

- Habitat Conservation Plans
- Candidate Conservation Agreements
- Recovery Plans

5.3.4 US Forest Service

- Humboldt-Toiyabe National Forest Land and Resource Management Plan (1986)
- Plumas National Forest Land and Resource Management Plan (1988) as amended by the Sierra Nevada Forest Plan Amendment (2004)

5.3.5 Neighboring Bureau of Land Management Field Offices

- Eagle Lake Field Office RMP (2008)
- Mother Lode Field Office RMP (2008)
- Bishop Field Office RMP (1993)
- Winnemucca District RMP revision (currently under revision)
- Battle Mountain District RMP revision (currently under revision)

5.4 NATION TO NATION CONSULTATION

On February 29, 2012, the CCD invited the Bridgeport Paiute Indian Colony, Fallon Paiute-Shoshone Tribe, Lovelock Indian Colony, Pyramid Lake Paiute Tribe, Reno-Sparks Indian Colony, Susanville Indian Rancheria, Walker River Paiute Tribe, Washoe Tribe of Nevada and California, Yerington Paiute Tribe,

and the Yomba Shoshone Tribe to become a Cooperating Agency for the RMP revision process. Several Tribes have signed a memorandum of understanding (MOU) with the BLM to become a Cooperating Agency.

Presentations were made to tribal councils and representatives:

- April 24, 2012 Bridgeport Indian Colony Tribal Council
- April 25, 2012 Susanville Indian Rancheria
- April 27, 2012 Lovelock Indian Colony
- May 7, 2012 Reno-Sparks Indian Colony Tribal Council
- May 9, 2012 Yerington Paiute Tribal Council
- May 10, 2012 Walker River Paiute Tribal Council
- May 11, 2012 Yomba Shoshone Tribal Council
- May 11, 2012 Washoe Tribe of NV and CA Tribal Council
- May 22, 2012 Fallon Paiute-Shoshone Tribal Council
- August 3, 2012 Pyramid Lake Paiute Tribal Council

CHAPTER 6

SPECIFIC MANDATES AND AUTHORITY

The foundations of public land management are located in the mandates and authorities provided in laws, regulations, and executive orders. These statements of federal policy direct BLM concerning management of public lands and resources. The US Congress has acknowledged that the appropriate use of these resources requires proper planning. BLM's planning process (as described in 43 CFR 1600) is authorized and mandated through two important laws.

FLPMA states that BLM "shall, with public involvement...develop, maintain, and when appropriate, revise land use plans" (43 USC 35 Section 1712 (a)). In addition to federal direction for planning, FLPMA declares the policy of the US concerning the management of federally owned land administered by BLM. Key to this management policy is the direction that BLM "shall manage the public lands under principles of multiple use and sustained yield, in accordance with the [developed] land use plans" (43 USC 35 Section 1732 (a)). The commitment to multiple-use will not mean that all land will be open for all uses. Some uses may be excluded on some land to protect specific resource values or uses, as directed by FLPMA (43 USC 35 Sections 1712 (c) (3)). Any such exclusion, however, will be based on laws or regulations or be determined through a planning process subject to public involvement. In writing and revising LUPs, FLPMA also directs BLM to coordinate land use activities with the planning and management of other federal departments and agencies, state and local governments, and Indian Tribes. This coordination, however, is limited "to the extent [the planning and management of other organizations remains] consistent with the laws governing the administration of the public lands" (43 USC 35 Section 1712 (c) (9)). In NEPA, the Congress directs "all agencies of the Federal Government...[to]...utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment" (42 USC 55 Section 4332 (2A)). Because the development of a new RMP may cause impacts on the environment, NEPA

regulations require the analysis and disclosure of potential environmental impacts in the form of an EIS. The EIS will examine a range of alternatives, including a No Action Alternative, to resolve the issues in question. Alternatives should represent complete, but alternate means of satisfying the identified purpose and need of the EIS and of resolving the issues. The Carson City District RMP/EIS is being prepared using the best available information. In addition to these acts, management of public land and resources is authorized and directed through several resource and resource use specific laws, regulations, and executive orders. The direction from these sources is refined and made department- and bureau-specific through agency documents such as IMs, Information Bulletins (IB), and manuals and handbooks. Following are some of the documents that direct the management of public land and resources.

6.1 MANDATES AND AUTHORITIES PERTAINING TO ALL RESOURCES

6.1.1 Federal Laws, Statutes, Mandates and Authorities

- The National Environmental Policy Act of 1969
- The Federal Land Policy Management Act of 1976
- Clean Air Act of 1990, as amended (42 USC 7418)
- Clean Water Act of 1987
- Pollution Prevention Act of 1990
- Environmental Quality Improvement Act, as amended (42 USC 4371et seq.)
- New Source Review (40 CFR Part 51.307)
- Executive Order (E.O.) 12088, Federal Compliance with Pollution Control Standards, October 13, 1978 (43 FR 47707)
- E.O. 13148, Leadership in Environmental Management, April 21, 2000
- Classification and Multiple Use Act of September 1964, in accordance with 43 CFR 2400
- E.O. 11514, Protection and Enhancement of Environmental Quality, March 5, 1970 (35 FR 4247), as amended by E.O. 11991, May 24, 1977
- E.O. 11752, Prevention, control, and abatement of environmental pollution at Federal facilities, December 19, 1973
- E.O. 11738, Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, September 10, 1973
- Secretarial Order 3226A1, Climate Change Impacts, January 16, 2009

6.1.2 Regulations

- Code of Federal Regulations (CFR), Title 43, Public Lands, Department of the Interior
- 29 CFR 1910 Occupational Safety and Health Standards, Special provisions for air contaminants
- 40 CFR 50 National Primary and Secondary Ambient Air Quality Standards

6.1.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- BLM Manual 7000 Series: Soil, Water, and Air Management (various release dates)
- BLM Manual 7200 Series: Water Resources (various release dates)
- BLM Technical Reference 17347: Ecological Site Inventory (2001)
- BLM-M-1601 (Land Use Planning)
- BLM-H-1790 (NEPA Handbook)

6.2 AIR AND CLIMATE CHANGE**6.2.1 Federal Laws, Statutes, Mandates and Authorities**

- The National Environmental Policy Act of 1969 section 102
- Clean Air Act Amendments of 1990 (104 Stat. 2468, P.L. 101-549)

6.2.2 Regulations

- N/A

6.2.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- N/A

6.3 SOIL RESOURCES**6.3.1 Federal Laws, Statutes, Mandates and Authorities**

- Desert Land Entry Act, as amended (43 USC 321 et seq.)
- Soil Conservation and Domestic Allotment Act of 1935, as amended
- Soil Info. Assistance for Community Planning and Resource Development Act of 1996 (42 USC 3271 et seq.)
- Soil and Water Resources Conservation Act of 1977 (16 USC 1901 et seq.)

6.3.2 Regulations

- 43 CFR 3809 Surface Management Regulations

- 43 CFR 3715 and 3800 Mining Regulations
- 43 CFR 3600 Mineral Material Regulations
- 43 CFR 3802 Exploration & Mining, wilderness review program
- 43 CFR 3715 Use and Occupancy under the mining laws
- 43 CFR 6300 and 8560 Wilderness Management
- Nevada Administrative Code (NAC) Chapter 555, Control of Insects, Pests, and Noxious Weeds

6.3.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- BLM-M-7150 (Provides guidance in the conduct and maintenance of water utilization and development, water quality, water yield and timing, and water rights)
- BLM-M-7100 (Defines the policy of BLM's Soil Resource Management Program)
- BLM-M-7160 (Provides general guidance for preventing water and wind erosion)
- BLM-M-7180 (Relates the restoration of disturbed areas directly to policy on erosion control, protection, maintenance of environmental quality, rehabilitation of mined lands [BLM 3509 and 3605], and prevention of erosion in road construction, etc.)
- BLM-M-7210 (Provides the basic framework for soil and watershed activities)
- BLM Technical Notes 371: Determining hydrologic properties of soil
- BLM Technical Reference I73719: Riparian Wetland Soils (2003)

6.4 WATER RESOURCES

6.4.1 Federal Laws, Statutes, Mandates and Authorities

- Appropriations Act of 1952, McCarran Amendment
- Federal Water Pollution Control Act [commonly referred to as the Clean Water Act], as amended (33 USC 1251–1387)
- Safe Drinking Water Act of 1974 (42 USC 201)
- Economy Act of 1932, as amended
- Watershed Protection and Flood Control Act of 1954 as amended August 2, 1954
- Water Resources Development Act of 1974
- Water Resources Planning Act of 1965, as amended

- Water Resources Research Act of 1954, as amended
- E. O. 11288, Prevention, control and abatement of water pollution by Federal activities, July 2, 1966
- E. O. 11507, Prevention, control, and abatement of air and water pollution at Federal facilities, February 4, 1970
- E. O. 11514 as amended by Executive Order 11991, Protection and enhancement of environmental quality, March 5, 1970
- E. O. 11988 as amended by Executive Order 12148, Floodplain Management, May 24, 1977
- E. O. 11990, Protection of Wetlands, May 24, 1977
- E. O. 12088, Federal Compliance with Pollution Control Standards, October 13, 1978
- E. O. 12322, Water resources projects, September, 17, 1981
- President's Letter of May 26, 1974 (Creates the Interagency Committee on Water Resources and establishes interagency participation in river basin planning)
- The Unified Federal Policy for a Watershed Approach to Federal Land and Resource Management (Federal Register, October 18, 2000)

6.4.2 Regulations

- 43 CFR 3809 Surface Management Regulations
- 43 CFR 6300 and 8560 Wilderness Management

6.4.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2000-179 (Funding of Water-Related Restoration and Cleanup Projects on Private and Other Non-BLM Lands)
- IM 99-085 (Federal Multi-Agency Source Water Agreement)
- IB 98-116 (Clean Water Action)
- IM 87-261 (Implementation of the Riparian Area Management Policy)
- IM 78-410 (Protection of Wetlands and Riparian Areas)
- BLM-M-6740 (Establishes policy and procedures for the identification, protection, maintenance, and management of fresh, brackish, and saline waters and wetland areas)
- BLM-M-7120 (Provides guidelines for maintaining Bureau watershed improvements constructed on public lands)

- BLM-M-7221 (Describes the policies, responsibilities, and procedures used to incorporate floodplain management into BLM activities)
- BLM-M-7240 (Describes BLM policy to protect, maintain, restore, and enhance the quality of water on public lands so that its utility for other dependent ecosystems will be maintained equal to or above legal water quality criteria)
- BLM-M-7250 (Establishes policy and guidance to acquire, perfect, and protect water rights necessary for multiple use management)
- BLM-M-7315-7317 (Provides procedures for inventory and analysis of ground and surface water inventories and of erosion and sediment reduction)
- BLM-M-7322 (Provides procedures for analyzing watershed problems and developing plans for improving watershed conditions)
- BLM-H-85501 (Interim Management Policy and Guidelines for Lands under Wilderness Review)
- BLM-H-8560-1 (Management of Designated Wilderness Areas)
- BLM Technical Notes 372: Stream discharge measurement using a modified technique
- BLM Technical Notes 405: A framework for analyzing the hydrologic conditions of watersheds

6.5 VEGETATION

6.5.1 Federal Laws, Statutes, Mandates and Authorities

- Carlson-Foley Act of 1968
- Federal Noxious Weed Act of 1974, as amended by Sec. 15-Management of Undesirable Plants on Federal Lands, 1990
- Healthy Forests Restoration Act of 2003
- The Federal Noxious Weed Act of 1974
- The Public Rangelands Improvement Act of 1978
- Nevada Administrative Code Chapter 555, Control of Insects, Pests & Noxious Weeds
- Plant Protection Act of 2000
- Executive Order 13112, Invasive Species, February 3, 1999

6.5.2 Regulations

- N/A

6.5.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2003-158 (Memorandum of Understanding (MOU) between BLM and the Animal and Plant Health Inspection Service (APHIS) Addressing the Management of Grasshoppers and Mormon Crickets)
- BLM M-9220 – Integrated Pest Management
- BLM M-9015 – Integrated Weed Management
- BLM M-9011 – Chemical Pest Control
- BLM-M-4180 (Rangeland Health Standards)
- BLM-M-7410 (Provides criteria, standards, and techniques for land treatment)

6.6 FISH AND WILDLIFE AND SPECIAL STATUS SPECIES

6.6.1 Federal Laws, Statutes, Mandates and Authorities

- Endangered Species Act of 1973, as amended (16 USC 1531 et seq.)
- Sikes Act September 15, 1960 (16 USC 670 et seq.)
- Migratory Bird Conservation Act of 1929 (16 USC 715)
- Migratory Bird Treaty Act (16 USC §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989)
- Neotropical Migratory Bird Conservation Act of 2000 (P.L. 106-247)
- Bald and Golden Eagle Protection Act of 1940, as amended (16 USC 668-668d, 54 Stat. 250)
- Fish and Wildlife Coordination Act March 10, 1934 (16 USC 661 et seq.)
- Executive Order 11987, Exotic organisms, May 24, 1977
- Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, January 10, 2001
- Executive Order 13443, Facilitation of Hunting Heritage and Wildlife Conservation, August 16, 2007
- Executive Order 13112, Invasive Species, February 3, 1999

6.6.2 Regulations

- N/A

6.6.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2012-044 BLM National Greater Sage-Grouse Land Use Planning Strategy
- IM 2012-043 Greater Sage-Grouse Interim Management Policies and Procedures
- IM 2012-039 Identification and Uniform Mapping of Wildlife Corridors and Crucial Habitat Pursuant to a Memorandum of Understanding with the Western Governors' Association
- IM 2011-138 Sage-grouse Conservation Related to Wildland Fire and Fuels Management
- IM 2010-181 White-nose Syndrome
- IM 2010-156 Bald and Golden Eagle Protection Act – Golden Eagle National Environmental Policy Act and Avian Protection Plan Guidance for Renewable Energy
- IM 2010-084 Grasshopper and Mormon Cricket Treatments within Sage-grouse Habitat
- IM 2010-071 Gunnison and Greater Sage-grouse Management Considerations for Energy Development (Supplement to *National Sage-Grouse Habitat Conservation Strategy*)
- IM 2010-022 Managing Structures for the Safety of Sage-grouse, Sharp-tailed grouse, and Lesser Prairie-chicken
- IM 2006-114 State Wildlife Action Plans
- IM 2005-008 (Black-tailed, White-tailed, and Gunnison Prairie Dog Conservation Update)
- IM 2008-050 (Migratory Bird Treaty Act – Interim Management Guidance)
- IM 2005-024 National Sage-Grouse Habitat Conservation Strategy
- IM 2008-044 Implementing BLM Manual Section 1745 (Introductions and Transplants) Delegation of Authority for Approvals
- IM NV-2011-059 Updated Bureau of Land Management (BLM) Sensitive Species List for Nevada
- IM NV-2010-063 Guidance for the Development of Project-specific Avian and Bat Protection Plans for Renewable Energy Facilities
- IM NV-2010-024 General Wildlife Guidance for Authorization of Meteorological Tower (MET) Right-of-Way Applications and Wildlife Monitoring Protocols for Wind Energy Development
- BLM M-6840 Special Status Species Management

- BLM M-6500 Wildlife and Fisheries Management
- BLM M-1745 Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants
- BLM National Sage Grouse Habitat Conservation Strategy

6.7 WILD HORSE AND BURROS

6.7.1 Federal Laws, Statutes, Mandates and Authorities

- Public Rangelands Improvement Act of 1978 (43 USC 1901)
- Wild Free-Roaming Horses and Burros Act of 1971 (16 USC 30)
- Wild Horse Annie Act of 1959 (PL 86-234)

6.7.2 Regulations

- 43 CFR 4700 Protection, Management, and Control of Wild Free-Roaming Horses and Burros

6.7.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- BLM M-4700 Wild Horse and Burro Management in land use planning

6.8 WILDLAND FIRE ECOLOGY AND MANAGEMENT

6.8.1 Federal Laws, Statutes, Mandates and Authorities

- Protection Act of September 20, 1922 (42 Stat. 857; USC 594)
- Reciprocal Fire Protection Act of May 27, 1955 (69 Stat. 66; 42 USC 1856, 1856a)
- Economy Act of June 30, 1932 (47 Stat. 417; 31 USC 686)
- Disaster Relief Act of 1974, Section 417 (PL 93-288)
- Annual Appropriations Acts for the Department of the Interior
- The Multiple-Use Sustained-Yield Act of June 12, 1960
- The Forest and Rangeland Renewable Resources Planning Act of August 17, 1974
- Healthy Forests Restoration Act, December 2003 (PL 108-148)

6.8.2 Regulations

- N/A

6.8.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2003-226 (Fire Program Analysis System—Development of Fire Management Objectives)

- IM 2004-007 (Land Use Plan and Implementation Plan Guidance for Wildland Fire Management)
- BLM-M-9210 (Fire Management Policy)
- BLM-H-9214-1 (Prescribed Fire Management)
- 2012 Interagency Standards for Fire and Fire Aviation Operations
- 2008 Interagency Prescribed Fire Planning and Implementation Procedures Guide
- 2004 Carson City Field Office Fire Management Plan
- 2007 Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States PEIS
- 1997 Carson City Interim Fire Management Plan Wilderness Study Areas

6.9 CULTURAL RESOURCES

6.9.1 Federal Laws, Statutes, Mandates and Authorities

- American Indian Religious Freedom Act of 1978 as amended 1994 (42 USC 1996)
- Antiquities Act of 1906 (16 USC 431–433)
- Historic Sites Act of 1935 (16 USC 461)
- National Historic Preservation Act of 1966, as amended (16 USC 470)
- Archeological and Historic Preservation Act of 1974 (16 USC 469-469C)
- Archaeological Resources Protection Act of 1979, as amended (16 USC 470aa et seq.)
- Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)
- Historical and Archaeological Data-Preservation Act of 1974 (16 USC 469)
- Reservoir Salvage Act of 1960 (16 USC 469)
- E.O. 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971
- E.O. 13007, Indian Sacred Sites, May 24, 1996
- Executive Order 13287, Preserve America, March 3, 2003
- Secretarial Order 3175 (incorporated into the Departmental Manual at 512 DM 2)

6.9.2 Regulations

- 36 CFR 60 National Register of Historic Places
- 36 CFR 62 National Natural Landmarks Program
- 36 CFR 63 Eligibility for Inclusion in the National Register
- 36 CFR 68 The Secretary of the Interiors Standards for the treatment of historic properties
- 36 CFR 800 Protection of Historic Properties
- 43 CFR 3 Preservation of American Antiquities
- 43 CFR 7 Protection of Archaeological Resources
- 43 CFR 3809 Surface Management
- 40 CFR 71 Federal Operating Permit Programs

6.9.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2012-032 (Native American Consultation and Section 106)
- IB-2009-027 (Cultural Resources Requirements on Private Surface/Federal Minerals for Oil and Gas Development)
- IM 2007-002 (Bureau of Land Management (BLM) Reburial Policy on BLM Lands)
- IM 2006-026 (Cultural Resource Standards and Guidelines for Renewal of Right-of-Way grants and Temporary Use Permits under Section 106 of the National Historic Preservation Act)
- IM 2005-003 (Cultural Resources and Tribal Consultation for Fluid Minerals Leasing)
- IM 2005-227 (National Historic Preservation Act (NHPA) Section 106 and Oil and Gas Permitting)
- IM 1998-052 (Clarification of Cultural Resource Clearance Responsibilities and Maintenance on On-Going Projects)
- IB 2002-101 (Cultural Resource Information)
- IM-NV 2010-071 (Revised Instruction to District Offices to Notify Indian Tribes Regarding Issuance of ARPA)
- BLM M-8100 (Foundations for Managing Cultural Resources)
- BLM M-8110 (Identifying Cultural Resources)
- BLM M-8120 (Native American Coordination and Consultation)
- BLM M-8130 (Planning for Uses of Cultural Resources)
- BLM M-8140 (Protecting Cultural Resources)
- BLM M-8170 (Interpreting Cultural Resources for the Public)

6.10 PALEONTOLOGICAL RESOURCES

6.10.1 Federal Laws, Statutes, Mandates and Authorities

- Antiquities Act of 1906 (16 USC 431–433)
- Federal Cave Resources Protection Act of 1988 (PL 100-691)
- Omnibus Public Land Management Act of 2009, PL 111-011, Subtitle D on Paleontological Resources Preservation (16 USC 470aaa)

6.10.2 Regulations

- 43 CFR 8365 (Addresses the collection of invertebrate fossils and, by administrative extension, fossil plants)
- 43 CFR 3622 Free use of Petrified Wood
- 43 CFR 3802 Exploration and Mining, Wilderness Review Program
- 43 CFR 3809 Surface Management
- 43 CFR 8200 Natural History Resource Management
- 43 CFR 1610 Resource Management Planning
- 43 CFR 8364 Closures and Restrictions
- 43 CFR 37 Cave Management
- 36 CFR 62 National Natural Landmarks Program
- Secretarial Order 3104 (Grants BLM authority to issue paleontological use permits for lands under its jurisdiction)
- 18 USC Section 641 (Addresses the unauthorized collection of fossils as a type of government property)

6.10.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2012-140 (Collecting and Permits for Collecting Paleontological Resources Under the Paleontological Resources Protection Act of 2009)
- IM 2012-141 (Confidentiality of Paleontological Localities)
- IM 2009-011 (Assessment and Mitigation of Potential Impacts To Paleontological Resources)
- BLM M-8270 (Paleontological Resource Management)
- BLM H-8270-1 (Paleontological Resource Management)

6.11 VISUAL RESOURCES

6.11.1 Federal Laws, Statutes, Mandates and Authorities

- N/A

6.11.2 Regulations

- N/A

6.11.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- BLM H-8410-1 (Visual Resource Inventory)
- BLM H-8431-1 (Visual Resource Contrast Rating)
- BLM H-1601-1 (Land Use Planning Handbook)
- BLM MS-8400 (Visual Resource Management)
- IM 2012-055 (Visual Resource Inventory Data Standards)

6.12 WILDERNESS CHARACTERISTICS**6.12.1 Federal Laws, Statutes, Mandates and Authorities**

- Wilderness Act of 1964, U.S.C 1131, et seq
- Omnibus Public Land Management Act of 2009 (16 U.S.C. 7202)

6.12.2 Regulations

- 43 CFR Part 1600
- 43 CFR Part 2360
- 43 CFR Part 46, Department of the Interior NEPA Regulations

6.12.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2003-195 (Rescission of National Level Policy Guidance on Wilderness Review and Land Use Planning)
- IM 2003-275 (Consideration of Wilderness Characteristics in Land Use Planning [Excluding Alaska])
- IM 2011-154 (Requirement to conduct and maintain inventory information for wilderness characteristics and to consider lands with wilderness characteristics in land use plans) July, 2011
- IM 2011-147 (Identification of areas with public support for wilderness designation)
- BLM MS-6310 (Conducting Wilderness Characteristics Inventory on BLM Lands)
- BLM MS-6320 (Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process)
- BLM MS-6330 (Management of Wilderness Study Areas)

6.13 CAVE AND KARST RESOURCES

6.13.1 Federal Laws, Statutes, Mandates and Authorities

- Federal Cave Resources Protection Act of 1988, 16 USC 4301
- National Cave and Karst Research Institute Act of 1988

6.13.2 Regulations

- 43 CFR 37 Cave Management

6.13.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2008-105 (Cave safety standards)
- BLM MOU WO-250-2007-01 (Facilitate cooperation and enhance management of cave and karst resources on BLM lands.)
- Interagency Cave and Karst Management Agreement 2003

6.14 LIVESTOCK GRAZING

6.14.1 Federal Laws, Statutes, Mandates and Authorities

- Taylor Grazing Act of 1934 (43 USC 315)
- General Allotment Act of 1887
- The Public Rangelands Improvement Act of 1978
- E.O. 10046, Transferring Certain Lands From the Department of Agriculture to the Department of the Interior and Withdrawing of Public Lands for the Use of the Department of Agriculture, March 24, 1949
- E.O. 10175, Amending Executive Order No. 7908 of June 9, 1938, and Executive Order No. 10046 of March 24, 1949
- E.O. 10234, Transferring Certain Lands From the Department of Agriculture to the Department of the Interior and Withdrawing Certain Public Lands for the Use of the Department of Agriculture, April 23, 1951
- E.O. 10322, Amendment of Section I of Executive Order No. 10046 of March 24, 1949, as Amended, Transferring Certain Lands From the Department of Agriculture to the Department of the Interior, January 26, 1952
- E.O. 10787, Transferring Jurisdiction Over Certain Lands From the Department of Agriculture to the Department of the Interior, for Use, Administration, or Exchange Under the Taylor Grazing Act and Other Statutes, November 6, 1958

- E.O.10890 Including Certain Lands in the Dixie National Forest and Transferring Certain Lands From the Department of Agriculture to the Department of the Interior, October 27,1960
- E.O. 12548, Grazing Fee, February 14, 1986

6.14.2 Regulations

- 43 CFR 4100 Grazing Regulations

6.14.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM-NV-2012-058 (Revised Direction for Proposed Activities within Greater Sage-grouse Habitat)
- IM-NV-2011-075 (Directions for using the Sage-grouse Form for Proposed Activities within 75% Greater Sage-grouse Breeding Areas)
- IM-NV-2011-034 (Transmittal of Bureau of Land Management (BLM) Nevada manual Handbook H-1730-1: Resource management During Drought)
- IM-NV-2008-059 (Development of a Nevada Drought Policy)
- IM-NV-2005-040 (2005 WO Range Technical Program Review)
- IM 2002-029 (Interim Historic Preservation Guidelines and Procedures for Evaluating the Effect of Rangeland Management Activities on Historic Properties)
- IM-NV-2002-040 (Nonrenewable Grazing Permits, Processing, Consultation, Requirements, and Time Frames)
- Sierra Front/Northwestern RAC-Standards and Guidelines for Livestock Grazing
- TR 1737-16 1999, Revised 2003 (A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lentic Areas)
- TR 1737-15, 1998, (A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas)
- TR 1734-6 (Interpreting Indicators of Rangeland Health)
- Interagency Technical Reference: Sampling Vegetation Attributes
- Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems, 2005, USDA-ARS Jornada Experimental Range

6.15 GEOLOGY AND MINERALS (LOCATABLE, SALABLE, AND LEASABLE [EXCLUDING GEOTHERMAL])

6.15.1 Federal Laws, Statutes, Mandates and Authorities

- Mineral Leasing Act of 1920, as amended (30 USC 181 et seq.)
- Mining and Mineral Policy Act of 1970 (30 USC 21a)
- General Mining Law of 1872, as amended (30 USC 21 et seq.)
- Onshore Oil and Gas Leasing Reform Act of 1987 (30 USC 181 et seq.)
- Federal Cave Resources Protection Act of 1988 (16 USC 4301 et seq.)
- Mining Leasing Act for Acquired Lands of 1947
- Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.)
- Mineral Sites Rights-of-Way are granted to State Departments' of Transportation (23 USC 317)

6.15.2 Regulations

- 43 CFR 37 Cave Management
- 43 CFR 3100 Oil and Gas Leasing
- 43 CFR 3200 Geothermal Resources Leasing
- 43 CFR 3500 Saleable Minerals Leasing Regulations
- 43 CFR 3600 Mineral Material Regulations
- 43 CFR 3622 Free Use of Petrified Wood
- 43 CFR 3715 Use and Occupancy under the mining laws
- 43 CFR 3800 Mining Regulations
- 43 CFR 3802 Exploration and mining, wilderness review program
- 43 CFR 3809 Surface Management Regulations
- 43 CFR 8200 (addresses procedures and practices for managing lands that have outstanding natural history values, such as fossils, which are of scientific interest)
- 43 CFR 8365 (addresses the collection of invertebrate fossils and, by administrative extension, fossil plants)
- Secretarial Order 3104 (grants to the BLM the authority to issue paleontological resource use permits for lands under its jurisdiction)
- NAC 445A-350 – NAC 445A.447 and NAC 519A.010 – 415

- California Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796)

6.15.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IB 2012-048 Revised MOU with the U.S. Department of Labor Mine Safety and Health Administration
- IB 2011-072 Establishment of the National Renewable Energy Coordination Office
- IB 2008-107 Bureau of Land Management Energy and Mineral Policy
- IB 2007-119 Existing Surface Management Authority for Oil and Gas Leases
- IB 2007-073 Energy Policy Act Section 390 Categorical Exclusions
- IM NV-2010-014 Rock Characterization & Water Resources Analysis Guidance for Mining Activities
- IM NV-2010-030 ERA Guidelines for Open Pit Mine Lakes in Nevada
- IM 2009-078 (Processing Oil and Gas Applications for Permit to Drill for Directional Drilling into Federal Mineral Estate)
- IM NV-2008-022 Geothermal Drilling Permit Processing
- IM NV-2008-030 3809 Reclamation Bonding Guidance
- IM NV-2008-032 Water Resource Data and Analysis Policy for Mining Activities
- IM NV-2008-033 Reclamation/Closure Policy for Mining
- IM NV-2008-035 Groundwater Modeling Guidance for Mining Activities
- IM NV-2007-002 Nevada Data Standards for LR2000 3809 Notices and Plans of Operation
- IM NV-2007-002a1 New 3809 Case Type Notices
- IM NV-2006-006 Nevada Reclamation Performance Bond Pool Coverage for Notice-Level Operations
- IM NV-2006-068 Appeal Statements for Decisions Issued Pursuant to BLM Surface Management Regulations at 43 CFR 3809/3715
- IM NV-2006-072 Drill Hole and Well Abandonment Policy for Activities Approved Under 43 CFR 3809
- IM NV-2005-008 Clarification of Native American Consultation Responsibilities

- IM NV-2005-021 Drill Hole and Well Abandonment Policy in Nevada for Activities Approved Under 43 CFR 3809
- IM NV-2005-032 Guiding Principles for Long-Term (Post Mining) Trusts under 43 CFR 3809
- IM NV-2005-063 Nevada BLM 3809 Reclamation Bonding Guidance Update
- IM NV-2005-063a Nevada BLM 3809 Reclamation Bonding Guidelines
- IM NV-2004-035 Signing of Geothermal Hazards
- IM 2003-233 (Integration of the EPCA Inventory Results into the Land Use Planning Process)
- IM 2003-234 (Integration of the Energy Policy and Conservation Act (EPCA) Inventory Results into Oil and Gas Exploration and Development Use Authorizations)
- IM NV-2002-036 Updating Reclamation Bonds in the Mining Law Surface Management Program
- IM NV-2002-038 Revised Surface Management Bond Forms and Transfer of Operator Forms
- IM NV-2002-042 Identifying Physical Safety Hazardous at Abandoned Mine Land Sites Adjacent to Areas of High Public Use
- IM NV-2002-049 Preparation of Statement of Adverse Energy Impact
- IM NV-2000-066 Nevada BLM Reclamation/Closure Policy for Water Management For Hardrock Mining Activities
- IM NV-1999-043 Interim Guidance on Mine "Closures" and Request for "Closure" Workshop Participants
- IM 2003-137 (Integration of the Energy Policy and Conservation Act [EPCA] Inventory Results into Land Use Planning and Energy Use Authorizations)
- IM 2002-174 (Oil and Gas Leasing Stipulations)
- BLM M-3021 (Lands Prospectively Valuable for Leasable Minerals)
- BLM M-3031 (Energy and Mineral Resource Assessment)
- BLM M-3060 (Mineral Reports- Preparation and Review)
- BLM M-3891 (Validity Examinations)
- BLM H-3890-1 (Handbook for Mineral Examiners)

6.16 RECREATION AND VISITOR SERVICES

6.16.1 Federal Laws, Statutes, Mandates and Authorities

- Recreation and Public Purposes Act of 1926, as amended (43 USC 869 et seq.)
- Federal Lands Recreation Enhancement Act 2004
- Recreation and Public Purpose Act of 1988
- E.O. 11644 as amended by Executive Order 11989 (Use of Off-Road Vehicles on the Public Lands)

6.16.2 Regulations

- OHV Administration Guidelines for Nevada Public Lands established by the Nevada Northeastern Great Basin RAC, the Sierra Front Northwestern RAC, and the Mojave-Southern Great Basin RAC, as chartered by the Department of the Interior
- 43 CFR Part 2930 (permits for recreation on public lands)
- 43 CFR Part 8340 (Off-Road Vehicles)
- 43 CFR Part 8350 (Management Areas)
- 43 CFR Part 8360 (Visitor Services)
- 43 CFR Part 8370 (Use Authorizations)
- 43 CFR Parts 6300 and 8560 Wilderness Management
- Nevada Administrative Code (NAC) Chapter 555, Control of Insects, Pests, and Noxious Weeds

6.16.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- BLM M-8340 (OHV Management)
- BLM M-1616 (Prescribed Resource Management Planning Actions)
- BLM M-9140 (Facilities Maintenance) IM 2003-182 (Geocaching Activities on BLM Public Lands)
- IM 2004-005 (Clarification of OHV Designations and Travel Management in the BLM Land Use Planning Process)
- BLM National Management Strategy for OHV Use (January 19, 2001)
- National Mountain Bike Strategic Action Plan (BLM 2002)
- BLM H-2740-1 (Recreation and Public Purposes Handbook)
- BLM M-8300 (Recreation Management)
- BLM M-1270-2 (Cost Recovery)

- BLM MS-1323 (Cost Recovery for Reimbursable Projects/Activities)
- BLM MS-1601 (Land Use Planning)
- BLM MS-2930 (Recreation Permits and Fees)IM 2011-019 (Special Recreation Permit Administration)
- IM 2011-106 (Recreational Shooting on Public Lands)
- IM 2011-041 (Minimum SRP fees)
- IM 2011-004 (Recreation and Visitor Services Planning Guidance)
- IM 2010-010 (BLM Participation in Partners Outdoor)
- IM 2008-090 (Checklist for recreation program considerations for inclusion in RMP revisions)

6.17 COMPREHENSIVE TRAILS AND TRAVEL MANAGEMENT

6.17.1 Federal Laws, Statutes, Mandates and Authorities

- Federal-Aid Highway Act of 1958, 1962, 1966, 1968, and 1973 as amended
- Highway Safety Act of 1966 as amended
- Architectural Barriers Act of 1968, as amended
- Surface Transportation Act of 1978 and 1982 as amended
- Executive Order 11644 as amended by Executive Order 11989 (Require federal agencies to adopt rules regarding OHV use on public lands and to adopt a designation process and a designation criteria to protect lands resources and to promote public safety)

6.17.2 Regulations

- 43 CFR 2100 (Acquisitions)

6.17.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- BLM M-8342 (OHV Designation Guidelines)
- The Goldbook 1997
- BLM M-9113 (Roads)
- BLM H-8342 (Travel and Transportation Handbook)
- BLM H-9113-1 (Road Design)
- BLM H-9113-2 (Roads National Inventory & Condition Assessment Guidance & Instructions)
- BLM H-9115-1 (Primitive Roads Design)
- BLM H-9115-2 ((Roads Natural Inventory & Condition Assessment Guidance & Instructions)

- BLM MS-1626 (Travel and Transportation Manual)
- BLM MS-9130 (Sign Manual)
- IM 2010-167 (Travel and Transportation Management Performance Measures and Planning updates)
- BLM Technical Note 422 (Roads and Trails Terminology)
- BLM Roads and Trails Terminology Report 2006)
- BLM Technical Reference 9113-1 (Planning and Conducting Route Inventories)
- IM 2008-091 (Guidance for signing when implementing travel management planning)
- IM 2008-069 (Addressing National Recreation Trails in the Land Use Planning Process)
- IM 2008-014 (Clarification of Guidance and Integration of Comprehensive Travel and Transportation Management Planning into the Land Use Planning process.
- IM 2012-067 (Clarification of Cultural Resource Considerations for Off-Highway Vehicle Designations and Travel Management)

6.18 RENEWABLE ENERGY

6.18.1 Federal Laws, Statutes, Mandates and Authorities

- Geothermal Steam Act of 1970
- Combined Hydrocarbon Leasing Act of 1981
- E.O. 13212, Actions to Expedite Energy-Related Projects, May 18, 2001

6.18.2 Regulations

- N/A

6.18.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2005-006 (Solar Energy Development Policy)

6.19 LANDS AND REALTY

6.19.1 Federal Laws, Statutes, Mandates and Authorities

- Mineral Leasing Act of 1920, as amended
- Farmland Protection Policy Act of 1984 (7 USC 4201–4209)
- The Recreation and Public Purposes Act of 1926, as amended

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1971; Land and Water Conservation Fund Act of 1965, as amended
- Federal Land Transaction Facilitation Act of 2000
- The Declaration of Taking Act of 1931
- The Condemnation Act of 1888, as amended
- The Engle Act of 1958
- The Federal Power Act of 1920, as amended
- The Act of May 24, 1928, as amended
- The Desert Land Act of 1877, as amended
- The Carey Act of 1894, as amended
- Unlawful Enclosures Act of 1885
- The Act of December 22, 1928, as amended
- Sections 2275 and 2276 of the Revised Statutes, as amended
- Southern Nevada Public Lands Management Act
- Federal Land and Policy Management Act of 1976
- Homestead Act of 1862 (Although repealed in 1976, the effects of this act are visible and impact some management decisions)
- Act of May 24, 1928 (airport leases)
- Airport and Airway Improvement Act of 1982, (49 USC 2215)
- Federal Aid Highway Act of 1958, 1962, 1966, 1968 and 1973, as amended

6.19.2 Regulations

- 43 CFR 2100 (Acquisitions)
- 43 CFR 2200 (Exchanges)
- 43 CFR 2300 (Withdrawals)
- 43 CFR 2400 (Land Classification)
- 43 CFR 2500 (Disposition: Occupancy and Use)
- 43 CFR 2600 (Disposition: Grants)
- 43 CFR 2700 (Disposition: Sales)
- 43 CFR 2800 (Use: Rights-of-Way)
- 43 CFR 2900 (Uses: Leases and Permits)
- 43 CFR 9230 (Trespass)

6.19.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2003-020 (Interim Wind Energy Development Policy)
- BLM H- 2740-I Handbook (Recreation & Public Purpose)
- BLM H-2100-I Handbook (Acquisitions)
- BLM H-2200-I Handbook (Land Exchanges)
- BLM H-2800-I Handbook (Rights-of-way)
- IM 2002-196 (Right of way Management Land Use Plan Directive)
- IM 2003-197 (Right-of-Way management, Interstate Natural Gas Pipeline)
- IM 2006-216 (Right of way Management Wind Energy Land Use Plan Amendments)
- IM 2007-097 (Solar Energy Policy)
- IM 2008-074 (Authorizing Shooting Ranges on Public Lands)
- IM 2009-043 (Wind Energy Development)
- IM 2010-169 (Implementation Guidance for the Interagency Transmission MOU)
- IM 2011-003 (Solar and Wind Development Policy)
- IM 2011-059 (NEPA Compliance for Utility Scale Renewable Energy ROW Authorization)
- IM 2011-060 (Solar and Wind Energy Application – Due Diligence)
- IM 2011-061 (Solar and Wind Energy Applications)
- IM 2011-110 (Conveyance of Reversionary Interests)
- IM 2011-181 (Implementation of Grazing Permittee/Lessee with Solar and Wind Energy ROW Applications)
- IM 2011-183 (Interim Temporary Final Rule for Segregation Renewable Energy ROW Applications)
- IM 2012-043 (Sage Grouse Interim Policy and Procedures)
- IM 2012-044 (Planning Strategy – Sage Grouse)
- BLM-M-2640 (Airport Patents)
- BLM-M-2710 (Public Sales)
- BLM-M-2711 (Public Sales Procedures)
- BLM-M-2740 (Recreation and Public Purposes)
- BLM-M-2911 (Airport Leases)
- BLM-M-9232 (Realty Trespass Abatement)

- BLM-H-2100-1 (Acquisition Handbook)

6.20 SPECIAL DESIGNATIONS ALL SUBUNITS

6.20.1 Federal Laws, Statutes, Mandates and Authorities

- Wild and Scenic Rivers Act, as amended (16 USC 1271 et seq.)
- Wilderness Act, as amended (16 USC 1131 et seq.)
- National Trails System Act (16 USC 1241-1251)
- Omnibus Public Land Management Act of 2009 (16 U.S.C. 7202)

6.20.2 Regulations

- N/A

6.20.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2003-275 (Consideration of Wilderness Characteristics in Land Use Planning [Excluding Alaska])
- IM 2003-274 (BLM Implementation of the Settlement of Utah v. Norton Regarding Wilderness Study)
- IM 2003-195 (Rescission of National Level Policy Guidance on Wilderness Review and Land Use Planning)
- BLM M-1616 (Prescribes Resource Management Planning Actions)
- BLM H-8550-1 (Interim Management Policy for Lands under Wilderness Review) (Superseded by BLM MS-6330 (Management of Wilderness Study Areas in July, 2012))
- BLM H-8560-1 (BLM Management of Designated Wilderness Areas)
- BLM M-1613 (Areas of Critical Environmental Concerns)
- BLM M-8531 (Wild and Scenic Rivers)
- BLM H-8357 (Byways)
- BLM MS-6250 (National Scenic and Historic Trail Administration)
- BLM MS-6400 (Wild and Scenic Rivers)
- BLM MS-8351 (Wild and Scenic Rivers Policy and Program Direction for Identification, Evaluation and Management)
- IM 2010-113 (ACEC Boundary Data Standards)

6.21 TRIBAL INTERESTS

6.21.1 Federal Laws, Statutes, Mandates and Authorities

- American Indian Religious Freedom Act of 1978 as amended 1994 (42 USC 1996)

- National Historic Preservation Act of 1966, as amended (16 USC 470)
- Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)
- E.O. 13007, Indian Sacred Sites, May 24, 1996
- E.O. 13084, Consultation and Coordination with Indian Tribal Governments, May 14, 1998
- E.O. 13175, Consultation and Coordination with Indian Tribal Governments, November 6, 2000
- E.O. 13592, Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities, December 2, 2011
- Secretarial Order 3206 (American Indian Tribal Rights, Federal–Tribal Trust Responsibilities, and the Endangered Species Act)
- Signed Secretarial Order 3317 (Department of the Interior Policy on Consultation with Indian Tribes)
- Secretarial Order 3206 (American Indian Tribal Rights, Federal–Tribal Trust Responsibilities, and the Endangered Species Act)
- Executive Memorandum of April 29, 1994 (Government-to-Government relations with Native American Tribal Governments)

6.21.2 Regulations

- 36 CFR 800 Protection of Historic Properties
- 43 CFR 7 Protection of Archaeological Resources
- 40 CFR 71 Federal Operating Permit Programs

6.21.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2012-032 (Native American Consultation and Section 106)
- IM 2010-037 (Tribal Consultation Outreach Update and Next Steps)
- IM 2007-002 (BLM Reburial Policy on BLM Lands)
- IM 2005-003 (Discusses the cultural review and tribal consultation process during fluid mineral leasing)
- IM-NV 2010-071 (Revised Instruction to District Offices to Notify Indian Tribes Regarding Issuance of ARPA)
- BLM-M-8120 (Tribal Consultation under Cultural Resource Authorities)
- BLM M-8120-1 (Guidelines for Conducting Tribal Consultation)

6.22 PUBLIC SAFETY

6.22.1 Federal Laws, Statutes, Mandates and Authorities

- National Ambient Air Quality Standards (40 CFR Parts 50.4–50.12)
- National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC 9601 et seq.)
- Occupational Safety and Health Act of 1970, as amended
- Lead-based Paint Poisoning Prevention Act, as amended
- Federal Insecticide, Fungicide, and Rodenticide Act of 1947, as amended in 1972 (FIFRA)

6.22.2 Regulations

- 43 CFR 300 (National Oil and Hazardous Substances Pollution Contingency Plan)
- 43 CFR 3809 (Surface Management)

6.22.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- Department Manual Part 602 Chapter 2 (Land acquisitions, exchanges, and disposals hazardous substance determination procedures)
- Department Manual Part 910 (National oil and hazardous substances contingency plan procedures)
- BLM M-1703 (Objectives, policies, responsibilities, and authorities for hazardous material management)
- BLM M-9113 Roads
- BLM H-1703-1 (CERCLA Response Actions Handbook)
- WO IM-2003-008 (Policy for Entry of BLM Personnel onto Sites with Potential of Known Hazardous Substance Releases)
- WO IM-2002-138 (Hazardous Substance Discovery Policy for BLM Personnel)
- WO IB-2001-071 (BLM Safety and Health Policy)
- WO IB-2004-209 (Deployment and Population of the Site Cleanup System)

6.23 SOCIAL ECONOMICS

6.23.1 Federal Laws, Statutes, Mandates and Authorities

- E.O. 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)

6.23.2 Regulations

- N/A

6.23.3 Instruction Memoranda, Information Bulletins, Manual Sections, Handbooks, and Technical Notes

- IM 2003-169 (Use of the Economic Profile System in Planning and Collaboration)

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CHAPTER 7

GLOSSARY

Actual Use. The amount of animal unit months consumed by livestock based on the numbers of livestock and grazing dates submitted by the livestock operator and confirmed by periodic field checks by the BLM.

Air Pollution. The contamination of the atmosphere by any toxic or radioactive gases and particulate matter as a result of human activity.

Allotment. An area of land in which one or more livestock operators graze their livestock. Allotments generally consist of BLM lands but may also include other federally managed, state owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

Alternative. A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis as expressed in goals and objectives. One of several policies, plans, or projects proposed for decision-making. An alternative need not substitute for another in all respects.

Alternative. No Action. An alternative that maintains established trends or management direction and implements those actions previously analyzed and/or approved.

Allotment Management Plan (AMP). A concisely written program of livestock grazing management, including supportive measures, if required, designed to attain specific management goals in a grazing allotment. An AMP is prepared in consultation with the permittee(s), lessee(s), and other affected interests. Livestock grazing is considered in relation to other uses of the range and to renewable resources, such as watershed, vegetation, and wildlife. An AMP establishes seasons of use, the number of livestock to be permitted, the range improvements needed, and the grazing system.

Analysis of the Management Situation (AMS). Assessment of the current management direction. It includes a consolidation of existing data needed to analyze and resolve identified issues, a description of current BLM management guidance, and a discussion of existing problems and opportunities for solving them.

Areas of Critical Environmental Concern (ACEC). Areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards (H-6310-1, Wilderness Inventory and Study Procedures).

Atmospheric Deposition. Air pollution produced when acid chemicals are incorporated into rain, snow, fog or mist and fall to the earth. Sometimes referred to as "acid rain" and comes from sulfur oxides and nitrogen oxides, products of burning coal and other fuels and from certain industrial processes. If the acid chemicals in the air are blown into areas where the weather is wet, the acids can fall to Earth in the rain, snow, fog or mist. In areas where the weather is dry, the acid chemicals may become incorporated into dusts or smokes.

AUM (Animal Unit Month). The amount of forage needed by an "animal unit" (AU) grazing for one month. The animal unit in turn is defined as one mature 1,000-pound cow and her suckling calf; one horse; five goats; or five sheep.

Back Country Byways. Vehicle routes that traverse scenic corridors utilizing secondary or back country road systems. National back country byways are designated by the type of road and vehicle needed to travel the byway.

Best management practices (BMPs). A suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a land use plan decision unless the land use plan specifies that they are mandatory. They may be updated or modified without a plan amendment if they are not mandatory.

Big Game. Indigenous ungulate wildlife species that are hunted, such as elk, deer, bison, bighorn sheep, and pronghorn antelope.

Candidate species. Taxa for which the FWS has sufficient information on their status and threats to support proposing the species for listing as endangered or threatened under the ESA but for which issuance of a proposed rule is currently precluded by higher priority listing actions. Separate lists for plants, vertebrate animals, and invertebrate animals are published periodically in

the Federal Register (M-6840, Special Status Species Manual) (from M6840, Special Status Species Manual).

Casual Use. Means activities that involve practices which do not ordinarily cause any appreciable disturbance or damage to the public lands, resources or improvements and, therefore, does not require a right-of-way grant or temporary use permit (43 CFR 2800). Also means any short term non-commercial activity which does not cause appreciable damage or disturbance to the public lands, their resources or improvements, and which is not prohibited by closure of the lands to such activities (43 CFR 2920). Casual use generally includes the collecting of geochemical, rock, soil, or mineral specimens using hand tools, hand panning, and non-motorized sluicing. It also generally includes use of metal detectors, gold spears, and other battery-operated devices for sensing the presence of minerals, and hand battery-operated dry washers. Casual use does not include use of mechanized earth-moving equipment, truck-mounted drilling equipment, suction dredges, motorized vehicles in areas designated as closed to off-road vehicles, chemicals, or explosives. It also does not include occupancy or operations where the cumulative effects of the activities result in more than negligible disturbance.

Clean Air Act (CAA) of 1963 and Amendments. Federal legislation governing air pollution control.

Closed. Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 CFR 8340.0-5 sets forth the specific meaning of “closed” as it relates to off-highway vehicle use, and 43 CFR 8364 defines “closed” as it relates to closure and restriction orders (H-1601-1, BLM Land Use Planning Handbook).

Condition Class (Fire Regimes). Fire Regime Condition Classes are a measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other management activities.

Conditions of Approval. Conditions or provisions (requirements) under which an Application for a Permit to Drill or a Sundry Notice is approved.

Cooperating Agency. Assists the lead federal agency in developing an EA or EIS. The Council on Environmental Quality regulations implementing NEPA define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA (40 CFR 1501.6). Any federal, state,

local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

Council on Environmental Quality. An advisory council to the President of the US established by the National Environmental Policy Act of 1969. It reviews federal programs to analyze and interpret environmental trends and information.

Critical Habitat. An area occupied by a threatened or endangered species “on which are found those physical and biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection.”

Deferred Rotation. Rotation grazing with regard to deferring pastures beyond the growing season, if they were used early the prior year, or that have been identified as needing deferment for resource reasons.

Designated Roads and Trails. Specific roads and trails identified by the BLM (or other agencies) where some type of motorized vehicle use is appropriate and allowed either seasonally or year-long. (H-1601-1, BLM Land Use Planning Handbook).

Disposal. Transfer of public land out of federal ownership to another party through sale, exchange, Recreation and Public Purposes Act, Desert Land Entry or other land law statutes.

Easement. A right afforded a person or agency to make limited use of another’s real property for other purposes.

Eligibility. Qualification of a river for inclusion into the National Wild and Scenic Rivers System through the determination (professional judgment) that it is free-flowing and, with its adjacent land area, possesses at least one river-related value considered to be outstandingly remarkable (M-8351, BLM WSR Policy and Program).

Endangered Species. Any species which is in danger of extinction throughout all or a significant portion of its range (M-6840, Special Status Species Manual).

Environmental Education. A learning process that increases people’s knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.

Environmental Impact Statement (EIS). A detailed statement prepared by the responsible official in which a major federal action which significantly affects the quality of the human environment is described, alternatives to the proposed

action provided, and effects analyzed (from BLM National Management Strategy for OHV Use on Public Lands).

Environmental Justice. The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and Tribal programs and policies (see Executive Order 12898).

Evaluation (Plan Evaluation). The process of reviewing the land use plan and the periodic plan monitoring reports to determine whether the land use plan decisions and NEPA analysis are still valid and whether the plan is being implemented.

Extensive Recreation Management Area (ERMA). Areas in which significant recreation opportunities and problems are limited and explicit recreation management is not required. Minimal management actions related to the Bureau's stewardship responsibilities are adequate in these areas.

Federal Land Policy and Management Act of 1976 (FLPMA). Public Law 94-579, October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction policy and basic management guidance.

Fire Suppression. All work activities connected with fire extinguishing operations, beginning with discovery of a fire and continuing until the fire is completely out.

Fluid Minerals. Oil, gas, coal bed natural gas, and geothermal resources.

Functioning at Risk. (1) Condition in which vegetation and soil are susceptible to losing their ability to sustain naturally functioning biotic communities. Human activities, past or present, may increase the risks. Rangeland Reform Final EIS at 26. (2) Uplands or riparian-wetland areas that are properly functioning, but a soil, water, or vegetation attribute makes them susceptible to degradation and lessens their ability to sustain natural biotic communities. Uplands are particularly at risk if their soils are susceptible to degradation. Human activities, past or present, may increase the risks (Rangeland Reform Draft EIS Glossary). Also see Properly Functioning Condition and Nonfunctioning Condition (H-4180-1, BLM Rangeland Health Standards Manual).

Grazing Preference. A superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by a permittee or lessee.

Geographic Information System. A system of computer hardware, software, data, people and applications that capture, store, edit, analyze, and graphically display a potentially wide array of geospatial information.

Goal. A broad statement of a desired outcome; usually not quantifiable and may not have established timeframes for achievement.

Guidelines. Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory.

Geologic Province. A USGS-defined area having characteristic dimensions of perhaps hundreds to thousands of kilometers encompassing a natural geologic entity (for example, a sedimentary basin, thrust belt, or delta) or some combination of contiguous geologic entities.

Governor's Consistency Review. A 60-day review period of a proposed RMP/Final EIS provided to a State Governor. The Governor identifies any inconsistencies with State or local plans, policies or programs and provides written recommendations to the BLM State Director as to how to address the identified inconsistencies.

Habitat. An environment which meets a specific set of physical, biological, temporal or spatial characteristics that satisfy the requirements of a plant or animal species or group of species for part or all of their life cycle.

Herd Management Area (HMA). Public land under the jurisdiction of the BLM that has been designated for special management emphasizing the maintenance of an established wild horse or burro herd.

Indian Tribe (or Tribe). Any Indian group in the conterminous United States that the Secretary of the Interior recognizes as possessing Tribal status (listed periodically in the Federal Register).

Information Bulletins (IBs). Are temporary directives that supplement the Bureau Manual Sections. They disseminate information of interest to BLM employees. They do not contain new BLM policy, procedures, or instructional material. They may call attention to existing policies or procedures, transmit material such as publications and announcements, require an action or response from BLM officials such as confirming attendance at meetings, commenting on draft documents, or providing requested information. There are two kinds of

IBs -- WO (National) which apply to all of BLM and Director's Office (DO) which apply only to Washington Office employees.

Interpretation. A mission based communication process that forges emotional and intellectual connections between the interests of the audience and meanings inherent in the resource.

Instruction Memoranda. They are temporary directives that supplement the Bureau Manual Sections. They contain new policy or procedures that must reach BLM employees quickly, interpret existing policies or provide one-time instructions. They are issued only when urgency compels release of a directive before the information can be incorporated into a Manual Section or when the issue treated is a one-time occurrence.

Intermittent Stream. An intermittent stream is a flowing system under normal weather conditions. During the dry season and throughout minor drought periods, these streams will not exhibit flow. Geomorphological characteristics are not well defined and are often inconspicuous. In the absence of external limiting factors (pollution, thermal modifications, etc.), biology is scarce and adapted to the wet and dry conditions of the fluctuating water level.

K factor. A soil erodibility factor used in the universal soil loss equation that is a measure of the susceptibility of soil particles to detachment and transport by rainfall and runoff. Estimation of the factor takes several soil parameters into account, including: soil texture, percent of sand greater than 0.10 mm, soil organic matter content, soil structure, soil permeability, clay mineralogy, and coarse fragments. K factor values range from .02 to .64, the greater values indicating the highest susceptibilities to erosion.

Late Season. Fall or late summer grazing.

Land Classification. When, under criteria of 43 CFR 2400, a tract of land has potential for either retention for multiple use management or for some form of disposal, or for more than one form of disposal, the relative scarcity of the values involved and the availability of alternative means and sites for realization of those values will be considered. Long-term public benefits will be weighed against more immediate or local benefits. The tract will then be classified in a manner which will best promote the public interest.

Land Tenure. Land tenure refers to ownership of a parcel of land. BLM-managed lands public lands owned by the United States Government for the citizens of the United States

Land Tenure Adjustments. Ownership or jurisdictional changes are referred as "Land Tenure Adjustments". To improve the manageability of the BLM lands and improve their usefulness to the public, BLM has numerous authorities for "repositioning" lands into a more consolidated pattern, disposing of lands, and

entering into cooperative management agreements. These land pattern improvements are completed primarily through the use of land exchanges, but also through land sales, jurisdictional transfers to other agencies, and through the use of cooperative management agreements and leases.

Land Use Allocation. The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the CCDPA, based on desired future conditions. (H-1601-I, BLM Land Use Planning Handbook).

Land Use Plan. A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land-use-plan level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed. The term includes both RMPs and MFPs. (H-1601-I, BLM Land Use Planning Handbook).

Land Use Plan Boundary. A BLM land use plan boundary is defined as the geographic extent of a RMP or MFP.

Land Use Plan Decision. Establishes desired outcomes and actions needed to achieve them. Decisions are reached using the planning process in 43 CFR 1600. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They are not appealable to IBLA.

Land Utilization Project Lands. Privately owned sub-marginal farmlands incapable of producing sufficient income to support the family of a farm owner and purchased under Title III of the Bankhead-Jones Farm Tenant Act of July 22, 1937. These acquired lands became known as "Land Utilization Projects" and were subsequently transferred from jurisdiction of the USDA to the DOI. They are now administered by the BLM.

Lease. Section 302 of the FLPMA provides the BLM's authority to issue leases for the use, occupancy, and development of the public lands. Leases are issued for purposes such as a commercial filming, advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, harvesting of native or introduced species, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and non-irrigation facilities. The regulations establishing procedures for the processing of these leases and permits are found in 43 CFR 2920.

Leasable Minerals. Minerals subject to lease by the federal government under the Mineral Leasing Act of 1920, including coal, oil, gas, phosphate, sodium, potassium, oil shale, sulphur, and geothermal steam.

Lek. An assembly area where birds, especially sage-grouse, carry on display and courtship behavior.

Limited. Designated areas and trails where the use of off-road vehicles is subject to restrictions, such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year (BLM National Management Strategy for OHV Use on Public Lands).

Locatable Minerals. Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale.

Mineral. Any naturally formed inorganic material, solid or fluid inorganic substance that can be extracted from the earth, any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained for man's use, usually from the ground. Under federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to the Materials Act of 1947).

Mineral Entry. The filing of a claim on public land to obtain the right to any locatable minerals it may contain.

Mineral Estate. The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

Mineral Materials. Materials such as sand and gravel and common varieties of stone, pumice, pumicite, and clay that is not obtainable under the mining or leasing laws. but that can be acquired under the Materials Act of 1947, as amended.

Mineral Withdrawal. Closure of public land to specific mineral development laws, such as the Mining Law of 1872 and the Mineral Leasing Act of 1920. Withdrawal of public lands is subject to valid existing rights, such as valid mining claims and mineral leases, which precede the withdrawal.

Mining Claim. A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, mill site, and tunnel site.

Mitigation. Includes the following. (1) Avoiding an impact altogether by not taking a certain action or parts of an action. (2) Minimizing impacts by limiting the degree of magnitude of the action and its implementation. (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment. (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action. (5) Compensating for the impact by replacing or providing substitute resources or environments.

Multijurisdictional planning. Collaborative planning in which the purpose is to address land use planning issues for an area, such as an entire watershed or other landscape unit, in which there is a mix of public and/or private land ownerships and adjoining or overlapping Tribal, state, local government, or other federal agency authorities.

Multiple Use. The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (FLPMA) (M-6840, Special Status Species Manual).

National Wild and Scenic Rivers System (NWSRS). A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: (1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past, (2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped

but accessible in places by roads, and (3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

Nonfunctioning Condition. (1) Condition in which vegetation and ground cover are not maintaining soil conditions that can sustain natural biotic communities. FEIS at 25. (2) Riparian-wetland areas are considered to be in nonfunctioning condition when they don't provide adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, or other normal characteristics of riparian areas. The absence of a floodplain may be an indicator of nonfunctioning condition (DEIS Glossary). Also see Properly Functioning Condition and Functioning at Risk (H-4180-1, BLM Rangeland Health Standards Manual).

No Surface Occupancy (NSO). A fluid minerals leasing constraint that prohibits occupancy or disturbance on all or part of the lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the leases restricted by this constraint through use of directional drilling from sites outside the NSO area.

Off-highway Vehicle (OHV). Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) any non-amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used for national defense. (H-1601-1, BLM Land Use Planning Handbook).

Open. Designated areas and trails where off-road vehicles may be operated, subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343; or an area where all types of vehicle use is permitted at all times, subject to the standards in BLM Manuals 8341 and 8343 (BLM National Management Strategy for OHV Use on Public Lands).

Outstandingly Remarkable Values. Values among those listed in Section 1(b) of the Act: "scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values...." Other similar values which may be considered include ecological, biological or botanical, paleontological, hydrological, scientific or research values (M-8351, BLM WSR Policy and Program).

Ozone. A faint blue gas produced in the atmosphere from chemical reactions of such sources as burning coal, gasoline and other fuels, and chemicals found in products including solvents, paints, hairsprays, etc.

Paleontological Resource. Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth.

Perennial Stream. Perennial streams carry flowing water continuously throughout the year, regardless of weather conditions. It exhibits well-defined geomorphological characteristics and in the absence of pollution, thermal modifications, or other man-made disturbances has the ability to support aquatic life. During hydrological drought conditions, the flow may be impaired.

Permit Long. Grazing for the duration of the permitted time with care taken not to overuse the resource.

Permitted Use. The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease, and is expressed in Animal Unit Months (AUMs) (43 CFR § 4100.0-5) (H-4180-1, BLM Rangeland Health Standards Manual).

Planning Issues. Defined by BLM Manual 1601 as a matter of controversy or dispute regarding a resource management activity or land uses that is well defined and/or topically discrete and involves alternatives among which to choose or decide.

Prevention of Significant Deterioration (PSD). An air pollution permitting program intended to ensure that air quality does not diminish in attainment areas.

Primitive and Unconfined Recreation. Non-motorized, non-mechanized (except as provided by law) and undeveloped types of recreational activities. Bicycles are considered mechanical transport (H-6310-1, Wilderness Inventory and Study Procedures).

Properly Functioning Condition. (1) An element of the Fundamental of Rangeland Health for watersheds, and therefore a required element of State or regional standard and guidelines under 43 CFR § 4180.2(b). (2) Condition in which vegetation and ground cover maintain soil conditions that can sustain natural biotic communities. For riparian areas, the process of determining function is described in the BLM Technical Reference TR 1737-9. FEIS at 26, 72. (3) Riparian wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve floodwater retention and groundwater recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland

areas is influenced by geomorphic features, soil, water, and vegetation (DEIS Glossary). (4) Uplands function properly when the existing vegetation and ground cover maintain soil conditions capable of sustaining natural biotic communities. The functioning condition of uplands is influenced by geomorphic features, soil, water, and vegetation (DEIS Glossary). Also see Nonfunctioning Condition and Functioning at Risk (H-4180-1, BLM Rangeland Health Standards Manual).

Public Land. Land or interest in land owned by the US and administered by the Secretary of the Interior through the BLM without regard to how the US acquired ownership, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos. (H-1601-1, BLM Land Use Planning Handbook).

Reasonable Foreseeable Development (RFD) Scenario. The prediction of the type and amount of oil and gas activity that would occur in a given area. The prediction is based on geologic factors, past history of drilling, projected demand for oil and gas, and industry interest.

Recreation and Public Purposes (R&PP) Act (of 1926). Recreation and Public Purposes Act provided for the lease and sale of public lands determined valuable for public purposes. The objective of the R&PP Act is to meet the needs of State and local government agencies and non-profit organizations by leasing or conveying public land required for recreation and public purpose uses. Examples of uses made of R&PP lands are parks and greenbelts, sanitary landfills, schools, religious facilities, and camps for youth groups. The act provides substantial cost-benefits for land acquisition and provides for recreation facilities or historical monuments at no cost.

Recreation Opportunity Spectrum (ROS). A continuum used to characterize recreation opportunities in terms of setting, activity and experience opportunities. The spectrum covers a range of recreation opportunities from primitive to urban. With respect to river management planning, ROS represents one possible method for delineating management units or zones. See BLM Manual Section 8320 for more detailed discussion (M-8351, BLM WSR Policy and Program).

Rehabilitation. The activities necessary to repair damage or disturbance. Most of the re- habilitation efforts are the same as the Emergency Stabilization treatments. The primary difference between the two is the urgency of Emergency Stabilization as opposed to Rehabilitation and the timeline for implementation. Rehabilitation actions can occur up to 3 years after control of a fire to: 1) repair or improve land damaged by wildfire that is unlikely to recover to a pre-fire condition, 2) repair or replace minor facilities damaged or destroyed by fire, or 3) re-treat areas that were treated under an ESR plan that failed due to factors such as flooding or drought.

Resource Management Plan (RMP). A land use plan as prescribed by the FLPMA that establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, objectives, and actions to be achieved.

Resource Advisory Council (RAC). A council established by the Secretary of the Interior to provide advice or recommendations to BLM management. In some states, Provincial Advisory Councils (PACs) are functional equivalents of RACs.

Restoration. Activities used to restore the structure and function of desired plant communities for wildlife habitat.

Rest Rotation. Grazing rotation that rests pastures that have been grazed early the prior year or that have been identified as needing rest for resource reasons.

Revision. The process of completely rewriting the land use plan due to changes in the CCDPA affecting major portions of the plan or the entire plan.

Right-of-Way (ROW). Means the public lands authorized to be used or occupied for specific purposes pursuant to a right-of-way grant, which are in the public interest and which require rights-of-way over, upon, under, or through such lands.

Right-of-Way Corridor. A linear parcel of land that has been identified by law, by Secretarial Order through the land use planning process, or by other management decision as being a preferred location for existing and future right-of-way grants that are similar or compatible.

Riparian Area. A form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

Road. A vehicle route, which has been improved and maintained by mechanical means to ensure relatively regular and continuous use.

Rock Art. Various forms of artistic expression by humans by incising, etching, or pecking (petroglyphs); painting (pictographs); or otherwise physically changing the faces of stone outcrops or the walls of caves; or moving or piling rocks on the landscape to form a design or pattern (geoglyphs).

Rotation. Grazing rotation between pastures in the allotment for the permitted time.

Saleable Minerals. High volume, low value mineral resources, including common varieties of rock, clay, decorative stone, sand, and gravel. Specifically, mineral materials made available for sale under provisions of the Mineral Materials Act of 1947, as amended.

Scenic Byways. Highway routes, which have roadsides or corridors of special aesthetic, cultural, or historic value. An essential part of the highway is its scenic corridor. The corridor may contain outstanding scenic vistas, unusual geologic features, or other natural elements.

Season of Use. The time during which livestock grazing is permitted on a given range area, as specified in the grazing lease or permit.

Secretary. The Secretary of Interior or the individual to whom the authority and responsibility have been delegated.

Section 106 Consultation. Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in the regulations, "Protection of Historic Properties" (36 CFR Part 800).

Special Recreation Management Area (SRMA). A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities). The BLM recognizes three distinct types of SRMAs: community-based; intensive; and undeveloped big open. (H-1601-1, BLM Land Use Planning Handbook).

Split Season. Removing livestock from the allotment and returning them later in the year within the permitted time.

Standard Lease Terms and Conditions. Areas that are open to leasing with no specific management decisions defined in a Resource Management Plan are subject only to lease terms and conditions that are set out on standard lease forms (Form 3100-11, Offer to Lease and Lease for Oil and Gas; and Form 3200-24, Offer to Lease and Lease for Geothermal Resources).

State Implementation Plan (SIP). A detailed description of the programs a state will use to carry out its responsibilities under the Clean Air Act. State implementation plans are collections of the regulations used by a state to reduce air pollution.

Stipulations. Conditions, promises, or demands added to a lease when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations, as such, are neither “standard” nor “special”; they are a necessary modification of the terms of the lease. In order to accommodate the variety of resources encountered on federal lands, stipulations are categorized as to how the stipulation modifies the lease rights, not by the resource(s) to be protected. What, why, and how this mitigation/protection is to be accomplished is determined by the land management agency through land use planning and NEPA analysis. If, upon weighing the relative resource values, uses, and/or users, conflict with oil, gas, and geothermal operations is identified that cannot be adequately managed and/or accommodated on other lands, then a lease stipulation is necessary. Land use plans serve as the primary vehicle for determining the necessity for lease stipulations. Documentation of the necessity for a stipulation is disclosed in planning documents or through site-specific analysis. Land use plans and/or NEPA documents also establish the guidelines under which future waivers, exceptions, or modifications may be granted. Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, or orders. An authorized federal officer has the authority to modify the site location and design of facilities, control the rate of development and timing of activities, and require other mitigation under standard lease terms. The necessity for individual lease stipulations is documented in the lease-file record with reference to the appropriate land use plan or other leasing analysis document. The necessity for exceptions, waivers, or modifications is documented in the lease-file record through reference to the appropriate plan or other analysis.

Threatened Species. Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (M-6840, Special Status Species Manual).

Total Maximum Daily Load (TMDL). An estimate of the total quantity of pollutants (from all sources: point, nonpoint, and natural) that may be allowed into waters without exceeding applicable water quality criteria.

Traditional Cultural Property. a property that derives significance from traditional values associated with it by a social and/or cultural group such as an Indian Tribe or local community. A traditional cultural property may qualify for the National Register if it meets the criteria and criteria exceptions at 36 CFR 60.4. See National Register Bulletin 38.

Travel Management Areas. Polygons or delineated areas where a rational approach has been taken to classify areas open, closed, or limited, and have identified and/or designated network of roads, trails, ways, and other routes that provide for public access and travel across the CCDPA. All designated travel routes within travel management areas should have a clearly identified

need and purpose as well as clearly defined activity types, modes of travel, and seasons or timeframes for allowable access or other limitations.

Valid Existing Rights. Any lease established (and valid) prior to a new authorization, change in land designation, or in regulation.

Visibility (Air Quality). A measurement of the ability to see and identify objects at different distances.

Visitor Day. Twelve visitor hours that may be aggregated by one or more persons in single or multiple visits.

Visitor Use. Visitor use of a resource for inspiration, stimulation, solitude, relaxation, education, pleasure, or satisfaction.

Visual Resource Management (VRM) Classes. Visual resource management classes define the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. Categories assigned to public lands based on scenic quality, sensitivity level, and distance zones. Each class has an objective which prescribes the amount of change allowed in the characteristic landscape (H-1601-1, BLM Land Use Planning Handbook). The four classes are described below:

Class I provides for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar areas where landscape modification activities should be restricted.

Class II areas are those areas where changes in any of the basic elements (form, line, color, or texture) caused by management activity should not be evident in the characteristic landscape.

Class III includes areas where changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.

Class IV applies to areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape.

Volatile Organic Compounds (VOCs). Volatile organic chemicals that produce vapors readily; at room temperature and normal atmospheric pressure. Volatile organic chemicals include gasoline, industrial chemicals such as benzene, solvents such as toluene and xylene, and tetrachloroethylene (perchloroethylene, the principal dry cleaning solvent).

Watershed Approach. A framework to guide watershed management that: (1) uses watershed assessments to determine existing and reference conditions; (2) incorporates assessment results into resource management planning; and (3) fosters collaboration with all landowners in the watershed. The framework considers both ground and surface water flow within a hydrologically defined geographical area.

Wild, Scenic, and/or Recreational. The term used in this Manual Section for what is traditionally shortened to "Wild and Scenic" rivers. Designated river segments are classified, i.e., wild, scenic, and/or recreational, but cannot overlap (M-835 I, BLM WSR Policy and Program).

Wild River. Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Scenic River. A river or section of a river that is free of impoundments and whose shorelines are largely undeveloped but accessible in places by roads.

Recreational River. Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Wild and Scenic Study River. Rivers identified in Section 5 of the Wild and Scenic Rivers Act for study as potential additions to the National Wild and Scenic Rivers System. The rivers shall be studied under the provisions of Section 4 of the Act (M-835 I, BLM WSR Policy and Program).

Wilderness. A congressionally designated area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value. The definition contained in Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891) (H-6310-1, Wilderness Inventory and Study Procedures).

Wilderness Characteristics. Wilderness characteristics include size, the appearance of naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include ecological, geological, or other features of scientific, educational, scenic, or historical value. However Section 2(c) of the Wilderness Act of 1964 has been updated by IM- 2003-195,

dated June 20, 2003. Indicators of an area's naturalness include the extent of landscape modifications; the presence of native vegetation communities; and the connectivity of habitats. Outstanding opportunities for solitude or primitive and unconfined types of recreation may be experienced when the sights, sounds, and evidence of other people are rare or infrequent, in locations where visitors can be isolated, alone or secluded from others, where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered.

Wilderness Study Area (WSA). A designation made through the land use planning process of a roadless area found to have wilderness characteristics as described in Section 2(c) of the Wilderness Act of 1964 (H-6310-1, Wilderness Inventory and Study Procedures).

Wildland Fire. Any fire, regardless of ignition source, that is burning outside of a prescribed fire and any fire burning on public lands or threatening public land resources, where no fire prescription standards have been prepared (H-1742-1, BLM Emergency Fire Rehabilitation Handbook).

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CHAPTER 8

LIST OF PREPARERS

Table 8-1
List of Preparers

Name	Role/ Responsibility
<i>Bureau of Land Management – Carson City District</i>	
Colleen Sievers	RMP/EIS Project Manager, Social and Economic Conditions
Dan Westermeyer	Visual Resources, Wilderness Characteristics, Cave and Karst Resources, Recreation and Visitor Services, Comprehensive Trails and Travel Management, Special Designations
Nicole Cutler	Air and Climate Change, Soils and Water Resources
Ed Klimasauskas	Fluid Minerals including Oil, Gas, and Geothermal
Cheryl Davis	GIS
Kathryn Dyer	Vegetation, Livestock Grazing
John Axtell	Wild Horse and Burro
Keith Barker	Wildland Fire Ecology and Management
Coreen Francis	Forestry and Woodland Products
Dan Erbes	Geology and Minerals (excluding geothermal and oil & gas), Public Safety
Jim Carter	Cultural Resources, Paleontological Resources, National Historic Trails, Tribal Interests
Erik Pignata	Lands and Realty, Renewable Energy
John Wilson	Fish and Wildlife, Special Status Species
Mike Davis	Cadastral, Transportation Facilities
<i>Contractor – Environmental Management and Planning Solutions, Inc.</i>	
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Doug Rogness	Physical Resources Lead
Holly Prohaska	Resource Uses Lead
Meredith Zaccherio	Biological Resources Lead

Table 8-1
List of Preparers

Name	Role/ Responsibility
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Zoe Ghali	Forestry Lead
Vickie Clay	Cultural Resources, Tribal Interests, Ethnography
Drew Vankat	Recreation, Visitor Services, Trails, Interpretation
Carol-Anne Murray	Paleontology
Jennifer Whittetaker	Solid minerals, Mineral materials, Fluid Minerals
John Martin	Socioeconomics and Environmental Justice

CHAPTER 9

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Appendix A

Nevada Class Waters Description; Beneficial Uses;
Quality Standards (NRS 445A.425, 445A.520)
covered by CCD Planning Area

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APPENDIX A

NEVADA CLASS WATERS DESCRIPTION; BENEFICIAL USES; QUALITY STANDARDS (NRS 445A.425, 445A.520) COVERED BY CCD PLANNING AREA

1. Class A waters include waters or portions of waters located in areas of little human habitation, no industrial development or intensive agriculture and where the watershed is relatively undisturbed by man's activity.
2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.
3. The quality standards for class A waters are:

Item	Specifications
Floating solids, sludge deposits, or taste- or odor-producing substances.	None attributable to man's activities.
Sewage, industrial wastes or other wastes.	None.
Toxic materials, oils, deleterious substances, colored or other wastes.	None.
Settleable solids.	Only amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
pH.	6.5 to 9.0 SU.
Dissolved oxygen.	≥6.0 mg/l.
Temperature: Maximum. ΔT.	≤20 C. =0°C.
Fecal coliform (No./100ml).	≤200/400. ^a

Item	Specifications
Total phosphorus (as P): In any stream at the point where it enters a reservoir or lake.	≤0.05 mg/l.
In any reservoir or lake.	≤0.025 mg/l.
In a stream or other flowing water.	≤0.10 mg/l.
Total dissolved solids.	≤500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

- a. The fecal coliform concentration, based on a minimum of five samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, and not more than 10 percent of total samples during any 30-day period may exceed 400 per 100 milliliters.

The waters classified as class A are:

CARSON CITY			
Water	HR	HA	Description of Area Classified
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City Water Department, near the west line of section 12, T. 15 N., R. 19 E., M.D.B. & M.
Clear Creek	8	104	From its origin to gaging station number 10-3105, located in the NE 1/4 of the NE 1/4 of section 1, T. 14 N., R. 19 E., M.D.B. & M.
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City Water Department, near the east line of section 23, T. 15 N., R. 19 E., M.D.B. & M.

DOUGLAS COUNTY			
Water	HR	HA	Description of Area Classified
Daggett Creek	8	105	From its origin to the Carson River.
Genoa Creek	8	105	From its origin to the first diversion box at the mouth of the canyon, near the east line of section 9, T. 13 N., R. 19 E., M.D.B. & M.
Sierra Canyon Creek	8	105	From its origin to the first diversion structure at the mouth of the canyon, near the east line of section 4, T. 13 N., R. 19 E., M.D.B. & M.

MINERAL COUNTY			
Water	HR	HA	Description of Area Classified
Corey Creek	9	110C	From its origin to the point of diversion of the town of Hawthorne, near the west line of section 3, T. 7 N., R. 29 E., M.D.B. & M.
Cottonwood Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 34, T. 9 N., R. 28 E., M.D.B. & M.
Rose Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 4, T. 8 N., R. 29 E., M.D.B. & M.
Squaw Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 33, T. 9 N., R. 29 E., M.D.B. & M.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
Boulder Reservoir	1	9	The entire reservoir.
Catnip Reservoir	1	6	The entire reservoir.
Franktown Creek	6	89	From its origin to the first irrigation diversion, near the north line of section 9, T. 16 N., R. 19 E., M.D.B. & M.
Galena Creek	6	88	From its origin to the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M.
Hunter Creek	6	91	From its origin to Hunter Lake.
Hunter Lake	6	87	The entire lake.
Negro Creek	2	24	From its origin to the first irrigation diversion, near the west line of section 28, T. 36 N., R. 23 E., M.D.B. & M.
Ophir Creek	6	89	From its origin to State Route 429 (old US Highway 395).
Price's Lakes	6	89	The entire lake.
White's Creek	6	87	From its origin to the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

4. Class B waters include waters or portions of waters which are located in areas of light or moderate human habitation, little industrial development, light-to-moderate agricultural development and where the watershed is only moderately influenced by man's activity.
5. The beneficial uses of class B water are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.
6. The quality standards for class B waters are:

Item	Specifications
Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or injurious to fish or wildlife, or will not impair the waters for any other beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the Department.
Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
pH.	6.5 to 9.0 SU.
Dissolved oxygen:	
Trout waters. ^a	≥6.0 mg/l.
All other waters.	≥5.0 mg/l.

Item	Specifications
Temperature:	
Maximum:	
Trout waters. ^a	≤20 C.
All other waters.	≤24 C.
ΔT.	=0°C.
Fecal coliform (No./100ml).	≤200/400. ^b
Total phosphorus (as P).	≤0.10 mg/l.
Total dissolved solids.	≤500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

- a. Trout waters are identified in subsection 4 by the symbol “(T).”
- b. The fecal coliform concentration, based on a minimum of five samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, and not more than 10 percent of total samples during any 30-day period may exceed 400 per 100 milliliters.

CARSON CITY			
Water	HR	HA	Description of Area Classified
Clear Creek (T)	8	104	From gaging station number 10-3105, located in the NE 1/4 of the NW 1/4 of section 1, T. 14 N., R. 19 E., M.D.B. & M., to the Carson River.

NYE COUNTY			
Water	HR	HA	Description of Area Classified
Adams McGill Reservoir	13	207	The entire reservoir.
Currant Creek	10	173	From the national forest boundary to Currant.
Dacey Reservoir	13	207	The entire reservoir.
Hay Meadow Reservoir (T)	13	207	The entire reservoir.
Reese River (T)	4	56	From its confluence with Indian Creek to State Route 722 (old US Highway 50).
Sunnyside Creek	13	207	From its origin to the Adams McGill Reservoir.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
Davis Lake (T)	6	89	The entire lake.
Franktown Creek (T)	6	89	From the first irrigation diversion, near the north line of section 9, T. 16 N., R. 19 E., M.D.B. & M., to Washoe Lake.
Galena Creek (T)	6	88	From the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M., to gaging station number 10-348900, located in the SW 1/4 of SW 1/4 of section 2, T. 17 N., R. 19 E., M.D.B. & M.
Hobart Reservoir and (T) tributaries	6	89	The entire system.
Hunter Creek (T)	6	87	From Hunter Lake to its confluence with the Truckee River.
Ophir Creek (T)	6	89	From State Route 429 (old US Highway 395) to Washoe Lake.
Squaw Creek Reservoir (T)	2	21	The entire reservoir.
Wall Canyon Reservoir (T)	1	16	The entire reservoir.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
White's Creek (T)	6	87	Below the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M to Steamboat Ditch.
White's Creek	6	87	Below Steamboat Ditch.

7. Class C waters include waters or portions of waters which are located in areas of moderate-to-urban human habitation, where industrial development is present in moderate amounts, agricultural practices are intensive and where the watershed is considerably altered by man's activity.
8. The beneficial uses of class C water are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.
9. The quality standards for class C waters are:

Item	Specifications
Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the Department.
Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
pH.	6.5 to 9.0 SU.
Dissolved oxygen: Trout waters. ^a All other waters.	≥ 6.0 mg/l. ≥ 5.0 mg/l.
Temperature: Maximum: Trout waters. ^a All other waters. ΔT.	≤ 20 C. ≤ 34 C. = 3 □C.
Fecal coliform (No./100ml).	The more stringent of the following apply: ≤ 1000/2400. ^b ≤ 200/400. ^c ≤ 200/400. ^d
Total phosphorus (as P).	≤ 0.33 mg/l.
Total dissolved solids.	≤ 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

- a. Trout waters are identified in subsection 4 by the symbol "(T)."
- b. The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters, and not more than 20 percent of total samples may exceed 2400 per 100 milliliters.

- c. The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters, and the number of fecal coliform in a single sample must not exceed that characteristic of natural conditions by more than 400 per 100 milliliters.
- d. The fecal coliform concentration, based on a minimum of five samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, and not more than 10 percent of total samples during any 30-day period may exceed 400 per 100 milliliters. This is applicable only to those waters used primarily for recreation involving contact with the water.

CHURCHILL COUNTY			
Water	HR	HA	Description of Area Classified
Diagonal Drain	8	101	Its entire length.
Harmon Reservoir	8	101	The entire reservoir.
Indian Lakes	8	101	All the lakes, including Upper Lake, Likes Lake, Papoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.
Lower Carson River	8	101	From Lahontan Reservoir to Carson Sink (the natural channel).
Rattlesnake Reservoir, also known as S-Line Reservoir	8	101	The entire reservoir.
South Carson Lake, also known as Government Pasture and the Greenhead Gun Club	8	101	The entire lake.
Stillwater Marsh	8	101	All that area of Stillwater Marsh east of Westside Road and north of the community of Stillwater.
V-Line Canal	8	101	From the Carson diversion dam to its division into the S & L Canals.

LYON COUNTY			
Water	HR	HA	Description of Area Classified
Mason Wildlife Area (T)	9	108	Hinkson Slough, Bass Pond, Crappie Pond and North Pond.
Mason Wildlife Area	9	108	All surface water impoundments except Hinkson Slough, Bass Pond, Crappie Pond and North Pond.

MINERAL COUNTY			
Water	HR	HA	Description of Area Classified
Weber Reservoir	9	110	Entire reservoir.

STOREY COUNTY			
Water	HR	HA	Description of Area Classified
Tracy Pond	6	83	The entire area.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
Galena Creek (T)	6	88	From gaging station number 10-348900, located in the SW 1/4 of the SW 1/4 of section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
Steamboat Creek	6	87, 88, 89	From Little Washoe Lake to gaging station number 10-349300, located in the S 1/2 of section 33, T. 18 N., R. 20 E., M.D.B. & M.
Washoe Lakes	6	89	The entire lakes.

10. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

11. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.

12. The quality standards for class D waters are:

Item	Specifications
Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the Department.
Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
pH.	6.0 to 9.0 SU.
Dissolved oxygen.	≥3.0 mg/l.

CHURCHILL COUNTY			
Water	HR	HA	Description of Area Classified
Stillwater Marsh	8	101	All that area of Stillwater Marsh not designated as class C.

STOREY COUNTY			
Water	HR	HA	Description of Area Classified
Lagomarsino Creek, also known as Long Valley Creek	6	83	The entire length.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
Steamboat Creek	6	87	From gaging station number 10-349300, located in the S 1/2 of section 33, T. 18 N., R. 20 E., M.D.B. & M., to its confluence with the Truckee River.

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Appendix B

BLM Standards for Public Land Health and
Guidelines for Livestock Grazing Management in
Nevada

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APPENDIX B

BLM STANDARDS FOR PUBLIC LAND HEALTH AND GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT IN NEVADA

STANDARDS FOR PUBLIC LAND HEALTH

Standards describe conditions needed to sustain public land health, and relate to all uses of the public lands. Standards are applied on a landscape scale and relate to the potential of the landscape.

Standard 1

Soil processes will be appropriate to soil types, climate and land form.

Indicators

- Surface litter is appropriate to the potential of the site
- Soil crusting formations in shrub interspaces, and soil compaction are minimal or not in evidence, allowing for appropriate infiltration of water
- Hydrologic cycle, nutrient cycle and energy flow are adequate for the vegetation communities
- Plant communities are diverse and vigorous, and there is evidence of recruitment
- Basal and canopy cover (vegetative) is appropriate for site potential

Standard 2

Riparian/Wetland systems are in proper functioning condition.

Indicators

- Sinuosity, width/depth ratio and gradient are adequate to dissipate stream flow without excessive erosion and deposition

- Riparian vegetation is adequate to dissipate high flow energy and protect banks from excessive erosion
- Plant species diversity is appropriate to riparian-wetland systems

Standard 3

Water quality criteria in Nevada or California State Law shall be achieved or maintained.

Indicators

- Chemical constituents do not exceed the water quality Standards
- Physical constituents do not exceed the water quality Standards
- Biological constituents do not exceed the water quality Standards
- The water quality of all water bodies, including ground water located on or influenced by BLM lands will meet or exceed the applicable Nevada or California water quality Standards. Water quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and antidegradation requirements set forth under State law, and as found in Section 303(c) of the Clean Water Act

Standard 4

Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

Indicators

- Good representation of life forms and numbers of species
- Good diversity of height, size, and distribution of plants
- Number of wood stalks, seed stalks, and seed production adequate for stand maintenance
- Vegetative mosaic, vegetation corridors for wildlife, and minimal habitat fragmentation

Standard 5

Habitat conditions meet the life cycle requirements of special status species.

Indicators

- Habitat areas are large enough to support viable populations of special status species
- Special status plant and animal numbers and ages appear to ensure stable populations
- Good diversity of height, size, and distribution of plants

- Number of wood stalks, seed stalks, and seed production adequate for stand maintenance
- Vegetative mosaic, vegetation corridors for wildlife, and minimal habitat fragmentation

GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT

Guidelines are the management tools, methods, strategies, and techniques (e.g., BMPs) designed to maintain or achieve healthy public lands as defined by the standards. Currently, the only guidelines for BLM Nevada that have been developed in concert with the RACs are livestock grazing management guidelines.

- Waters must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or industrial waste or other controllable sources at levels or combinations to interfere with any beneficial use of the water. Compliance with the provisions of this subsection may be determined in accordance with methods of testing prescribed by the State. If used as an Indicator, survival of test organisms must not be significantly less in test water than in control water.
- Grazing management practices should be planned and implemented to meet water quality provisions in either California State water law or NAC 445A.120-121 as applicable.
- Management practices within allotments will maintain or promote stream channel morphology, appropriate soil organisms; adequate amounts of ground cover to support infiltration, maintain soil moisture storage, and stabilize soils; and the hydrologic cycle, nutrient cycle and energy flow.
- After a range fire or other natural catastrophic event, vegetation should be returned to the native species as rapidly as possible, to afford forage and habitat for native animals. If a nurse crop is needed to protect the land from erosion, all native nurse crops should be used first.
- Treated areas will be rested from livestock grazing for two growing seasons or until seedlings are established or the vegetation response has achieved objective levels. Wild horse and burros removed from Herd Management Areas will be restored after rehabilitation objectives have been met.
- Alternative solutions (e.g., reseeding, funding, labor, equipment use or rental) to facilitate fire rehabilitation may be included in cooperative agreements involving qualified groups and individuals who want to participate.

- Appropriate livestock grazing treatments will be implemented to control the frequency, duration, and level of grazing use. Where livestock grazing is authorized, grazing systems will provide within any one grazing year one or more of the following treatments:
 - Rest or deferment from livestock grazing on a specified area as appropriate to meet Standards.
 - Systematic rotation of deferred use and/or rest from livestock grazing among two or more units.
 - Continuous, season-long use where it has been demonstrated to be consistent with achieving identified Standards. Once season long use is determined to be unacceptable, an alternative system will be developed and implemented before termination of season long use, prior to the next grazing season.
 - Excluding further livestock grazing within the affected use area through appropriate techniques when utilization objectives are reached.
- Conservation of federal threatened or endangered, proposed, species of concern (formally Category One and Two) and other special status species is promoted by the restoration and maintenance of their habitats.
- Salt and/or supplements will be placed at least ¼ mile from live waters (springs/streams) and outside of associated riparian areas, permanent livestock watering facilities, wet or dry meadows, and aspen stands. Also salt should not be placed in known historic properties.
- Night bedding of sheep will be located at least ¼ mile from live waters, streams, springs, seeps, associated riparian areas, wet or dry meadows, and aspen stands.
- Encourage the use of prescribed and natural fires, meeting prescription objectives, for the restoration and maintenance of healthy rangelands.
- Departure from traditional grazing management practices may be authorized by BLM to achieve Standards on a case by case experimental basis for rangeland restoration and rehabilitation.
- The best available science and technology will be utilized in monitoring and assessing the condition of rangelands from the pasture to the BLM District level.
- Recognizing State Water Law requirements, wildlife and wild horses/burros within their Herd Management Areas will have access to surface water they customarily use.

- Design of water facilities will incorporate features to ensure safe access and escape for small animals and birds.
- The development of springs and seeps or other projects affecting water and associated resources shall be designed to maintain the associated riparian area and assure the attainment of Standards.
- Grazing management practices shall be planned and implemented to allow for habitat requirements of wildlife and wild horses and burros within Herd Management Areas.
- Implement aggressive action to reduce the invasion of exotic plant species into native plant communities. Control the spread of noxious weeds through various methods such as, grazing management, fire management and other vegetation management practices.
- Riparian structural developments (i.e., gabions, dams, etc.) designed to achieve improvement in riparian and wetland conditions shall only be implemented in conjunction with changes in existing grazing management practices, where grazing is a significant factor contributing to a riparian condition needing such attention. Where grazing is not a significant factor causing a riparian condition needing attention, structural developments designed to achieve improvement in riparian and wetland conditions may be implemented independent of changes in existing grazing management practices.
- The utilization, monitoring and evaluation process will be used as a tool to promote healthy rangelands and achieve Standards.
- Implement grazing management practices that sustain biological diversity across the landscape.
- To prevent transmission of disease between domestic and bighorn sheep, adopt and implement the "Guidelines for Domestic Sheep Management in Bighorn Sheep Habitats" contained in Mountain Sheep Ecosystem Management Strategy in the 11 Western States and Alaska.
- Rangeland management plans will consider listings of known historic properties and new eligible properties as they become known.

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Appendix C

Carson City District Allotment Status

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APPENDIX C

CARSON CITY DISTRICT ALLOTMENT STATUS

Allotment Name	Allotment Number	Period Begin Date	Period End Date	Public Acres	AUMs	Livestock Kind Text	Auth No
Adriance Valley	3000	4/1	8/31	31790	337	cattle	2702889
Adriance Valley	3000	3/1	3/31	31790	188	cattle	2702889
Adriance Valley	3000	9/1	2/28	31790	1095	cattle	2702889
Antelope Mountain	3001	4/15	10/31	53755	6358	cattle	2703001
Artesia	3500	1/1	2/1	11365	736	cattle	2703614
Bagley Valley	3504	6/21	9/21	5768	131	sheep	2700069
Barney Riley	3506	6/1	9/30	1985	219	cattle	2703519
Bass Flat	3002	11/15	4/15	46789	1599	cattle	2703219
Belleville	3511	11/1	4/15	154491	300	cattle	2702877
Big Canyon	3004	5/1	5/31	14898	282	cattle	2703008
Big Canyon	3004	6/1	12/31	14898	2650	cattle	2703008
Big Canyon	3004	4/1	4/30	14898	63	cattle	2703008
Big Canyon	3004	5/1	11/30	14898	56	horse	2703008
Black Mountain	3507	10/1	2/28	14618	900	sheep	2703442
Boyer Ranch	3006	10/1	2/28	139627	889	cattle	2703018
Boyer Ranch	3006	5/1	6/30	139627	359	cattle	2703018
Boyer Ranch	3006	7/1	9/30	139627	541	cattle	2703018
Buckeye	3509	4/1	9/15	85141	1471	cattle	2703508
Bucky O' Neill	3007	11/15	2/28	39054	1045	cattle	2703503
Bucky O' Neill	3007	3/1	4/15	39054	454	cattle	2703503
Butler Mountain	3510	3/1	5/15	46916	1179	sheep	2703443
Butler Mountain	3510	11/1	2/28	46916	1861	sheep	2703443
Carson	3003	12/1	11/30/	3090	193	cattle	2703029
Carson Plains/Gold H	3513	4/1	5/31	23175	416	sheep	2702960
Carson Plains/Gold H	3513	4/1	4/30	23175	119	sheep	2702960
Cedar Mountain	3515	11/1	3/31	62611		cattle	2703554
Central	3516	10/2	10/31	240	29	cattle	2703614
Churchill Butte	3008	10/1	3/31	9843	934	cattle	2703030
Churchill Canyon	3518	11/1	11/30	46247	4	cattle	2703525
Churchill Canyon	3518	11/1	5/15	46247	1070	cattle	2703525
Clan Alpine	3009	12/1	2/28	367703	1028	sheep	2703210
Clan Alpine	3009	3/1	3/15	367703	172	sheep	2703210
Clan Alpine	3009	5/1	3/31	367703	10210	cattle	2703054

Allotment Name	Allotment Number	Period Begin Date	Period End Date	Public Acres	AUMs	Livestock Kind Text	Auth No
Cleaver Peak	3010	11/1	3/31	41229	1241	cattle	2703011
Clifton Flat	3011	3/1	3/31	7589	73	cattle	2700019
Clifton Flat	3011	11/1	2/28	7589	284	cattle	2700019
Constantia North	3427	6/15	9/15	8649	459	cattle	2703170
Constantia South	3012	4/15	8/31	10472	650	cattle	2703024
Copper Kettle	3013	3/1	2/28	74555	2339	cattle	2700176
Cow Canyon	3015	5/1	11/15	146179	2388	cattle	2703012
Desert Mountain	3017	11/1	3/31	22417	840	cattle	2703031
Dixie Valley	3018	3/1	3/31	282801	5	cattle	2703376
Dixie Valley	3018	3/1	2/28	282801	6336	cattle	2703376
Duck Hill	3530	11/16	12/15	3956	14	sheep	2702898
Duck Hill	3530	5/1	6/30	3956	172	sheep	2702898
East Walker	3531	12/1	2/28	26240	1471	cattle	2703518
East Walker	3531	3/1	3/31	26240	507	cattle	2703518
Eastgate	3020	4/16	10/31	306937	1564	cattle	2703603
Eastgate	3020	3/1	4/15	306937	2273	cattle	2703603
Eastgate	3020	11/1	2/28	306937	5930	cattle	2703603
Edwards Creek	3021	12/1	11/30	55730	3309	cattle	2703029
Flanigan	3022	4/16	6/15	56079	1352	cattle	2703431
Flanigan	3022	12/1	4/15	56079	1297	cattle	2703431
Flanigan	3022	6/16	9/30	56079	2367	cattle	2703431
Fort Churchill	3023	4/1	7/31	15059	541	cattle	2703011
Frenchman Flat	3024	10/15	2/28	67126	1815	cattle	2703058
Frenchman Flat	3024	3/1	3/15	67126	199	cattle	2703058
Garfield Flat	3535	10/25	2/28	218841	2579	cattle	2703439
Garfield Flat	3535	3/1	4/15	218841	934	cattle	2703439
Gillis Mountain	3536	11/15	4/30	160300	2331	cattle	2700175
Gray Hills	3539	6/5	8/4	100583	570	sheep	2703539
Gray Hills	3539	10/16	4/15	100583	3710	sheep	2703539
Hackett Canyon	3541	3/15	6/30	6644	146	sheep	2700158
Hackett Canyon	3541	3/15	6/30	6644	39	cattle	2700158
Hallelujah Junction	3026	4/15	5/15	12154	102	cattle	2703040
Hallelujah Junction	3026	4/15	11/30	12154	1074	cattle	2703040
Hardscrabble Canyon	3027	3/1	10/31	11575	1221	cattle	2703060
Hay Press	3544	6/16	9/30	1440	176	cattle	2703500
Horse Mt	3031	11/1	2/28	63043	2371	cattle	2703037
Horse Mt	3031	3/1	3/31	63043	613	cattle	2703037
Horse Spring	3032	11/1	3/31	14548	601	cattle	2703004
Hudson Hills	3545	2/2	3/15	42100	967	cattle	2703614
Hudson Hills	3545	4/16	5/25	42100	421	sheep	2703444
Hudson Hills	3545	12/16	2/28	42100	3088	sheep	2703444
Jumbo	3034	5/1	6/30	15229	755	sheep	2702898
Jumbo	3034	5/1	8/31	15229	643	cattle	2703006
La Beau Flat	3035	10/1	2/28	126732	2323	cattle	2703026
La Beau Flat	3035	3/1	4/15	126732	708	cattle	2703026
Lahontan	3036	3/1	3/31	52910	236	cattle	2702955
Lahontan	3036	11/1	2/28	52910	915	cattle	2702955
Lincoln Flat	3555	11/1	12/31	18440	1404	cattle	2703614
Little Huntoon	3546	11/1	4/15	13599	60	cattle	2703167
Lucky Boy	3557	6/1	10/5	19873	835	cattle	2703518
Mountain Well-Laplat	3039	3/1	2/28	137683	8004	cattle	2703288
New Pass	3038	3/1	11/30	4328	177	cattle	2706033

Allotment Name	Allotment Number	Period Begin Date	Period End Date	Public Acres	AUMs	Livestock Kind Text	Auth No
Nine Mile	3569	4/1	5/31	25665	1889	cattle	2703518
Nine Mile	3569	10/1	11/30	25665	401	cattle	2703518
Olinghouse	3041	10/1	2/28	23162	495	cattle	2703055
Olinghouse	3041	11/1	5/15	23162	97	cattle	2703065
Olinghouse	3041	3/1	3/31	23162	102	cattle	2703055
Pah Rah	3042	9/1	12/31	4504	180	cattle	2703015
Paiute Canyon	3043	3/1	2/28	71514	4800	cattle	2703199
Parker Butte	3572	11/21	5/20	30077	1666	cattle	2703279
Perry Springs-Deadman	3573	12/1	2/28	57885	1784	cattle	2703518
Perry Springs-Deadman	3573	3/1	3/31	57885	615	cattle	2703518
Phillips Well	3046	12/1	3/31	70431	1448	cattle	2703003
Pilot-Table Mountain	3574	11/1	3/31	512449	4468	cattle	2703557
Pilot-Table Mountain	3574	4/1	10/31	512449	1055	cattle	2703557
Pilot-Table Mountain	3574	3/1	2/28	512449	144	horse	2703557
Pinenut	3576	11/1	11/30	19379	126	sheep	2703505
Pinenut	3576	7/1	8/31	19379	261	sheep	2703505
Pinenut	3576	11/1	11/30	19379	447	sheep	2703505
Pinenut	3576	6/1	6/30	19379	316	sheep	2703505
Plumas Station	3047	4/1	9/30	5432	307	cattle	2703051
Porter Canyon	10013	12/1	11/30	125150	7256	cattle	2703029
Red Rock	3014	4/15	10/31	3560	454	cattle	2703001
River	3521	3/1	2/28	120	84	cattle	2703518
Rochester Common	10117	3/1	2/28	181907	777	cattle	2700176
Rock Springs	3049	11/1	4/15	28394	535	cattle	2703019
Salt Wells	3050	10/15	4/15	58611	1624	cattle	2703042
Spanish Spr/Mustang	3052	11/1	4/30	25521	708	cattle	2703386
Spanish Spr/Mustang	3052	3/1	2/28	25521	1068	cattle	2703093
Spring Gulch	3587	3/1	8/15	51276	2749	sheep	2703444
Spring Gulch	3587	4/1	5/25	51276	362	sheep	2703444
Spring Gulch	3587	12/16	2/28	51276	814	sheep	2703444
Sunrise	3590	3/15	6/15	17804	159	cattle	2700068
Truckee-Virginia	3054	3/1	4/15	21369	275	cattle	2702958
Truckee-Virginia	3054	11/1	2/28	21369	718	cattle	2702958
Wade Valley	3593	4/16	6/15	690	60	cattle	2703510
Wheeler Flat	3598	11/1	2/28	11102	693	cattle	2703708
White Cloud	3057	10/1	2/28	79663	571	cattle	2703056
White Cloud	3057	4/1	9/30	79663	1197	cattle	2703056
White Cloud	3057	3/1	3/31	79663	117	cattle	2703056
White Hills	3058	4/1	10/31	25875	1119	cattle	2703385
White Hills	3058	4/1	10/31	25875	84	cattle	2703065
Wilson Canyon	3600	10/1	2/28	2843	159	sheep	2703444
Winnemucca Ranch	3059	6/10	10/15	43457	944	cattle	2703487
Winnemucca Ranch	3059	5/20	5/31	43457	258	cattle	2703487
Winnemucca Ranch	3059	6/10	10/15	43457	1548	cattle	2703487
Winnemucca Ranch	3059	6/1	6/9	43457	175	cattle	2703487
Winnemucca Ranch	3059	6/1	10/31	43457	305	cattle	2703487

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Appendix D

Facility Asset Management System Road List

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APPENDIX D

FACILITY ASSET MANAGEMENT SYSTEM ROAD LIST

Location Number	Location Description	Eqnum (Segment)	Surface	Calc Mile
10428	272: SPORTSMANS BEACH	107433	Bituminous	0.8
10429	660: INDIAN CK CAMPGROUND	107528	Bituminous	1.5
10454	9326.001: Twenty Mile Beach Road	109038	Bituminous	0.5
10455	9325.001: Tamarack Beach Road	109039	Bituminous	0.3
10456	9318.001: Silver Saddle Ranch Road	109040	Aggregate	2.
20109	3000: SUNRISE PASS	107434	Natural (Graded & Drained)	23.2
20110	3000-A: SUNRISE SPUR	107435	Natural (Graded & Drained)	0.4
20111	3001: PINE NUT	107436	Natural (Graded & Drained)	22.6
20112	3002: SUNRISE CUTOFF	107437	Natural (Graded & Drained)	0.8
20113	3003: CHURCHILL CANYON	107438	Natural (Graded & Drained)	4.2
20114	3003: LOWER CHURCHILL CANYON	107439	Natural (Graded & Drained)	13.3
20115	3003-1: CHURCHILL CANYON	107440	Natural (Graded & Drained)	11.6
20116	3011: DELPHI WELL	107441	Natural (Graded & Drained)	7.1
20117	3012: MASON PASS	107442	Natural (Graded & Drained)	10.6
20118	3013: CARSON RIVER ROAD	107443	Natural (Graded & Drained)	16.3
20119	3013-1: DEAD CAMEL MTNS	107444	Natural (Graded & Drained)	9.3
20120	3017: GALLAGHER PASS	107445	Natural (Graded & Drained)	3.8
20121	3020: REESE RIVER	107446	Natural (Graded & Drained)	11.2
20122	3020-1: REESE RIVER	107447	Natural (Graded & Drained)	10.1
20123	3022: HOT SPRINGS	107448	Natural (Graded & Drained)	18.3
20124	3022-1: KELLYS WELL	107449	Natural (Graded & Drained)	7.9
20125	3023: POCO CANYON	107450	Natural (Graded & Drained)	5.2
20126	3024: BROKEN HILLS	107451	Natural (Graded & Drained)	7.
20127	3024-1: BROKEN HILLS	107452	Natural (Graded & Drained)	9.8
20128	3025: SUMMIT SPRING	107453	Natural (Graded & Drained)	32.
20129	3026: DEADHORSE WELL WEST	107454	Natural (Graded & Drained)	4.5
20130	3026: GILLIS	107455	Natural (Graded & Drained)	4.6
20131	3027: RABBIT SPRING	107456	Natural (Graded & Drained)	5.2

Location Number	Location Description	Eqnum (Segment)	Surface	Calc Mile
20132	3028: HOT SPRINGS NE	107457	Natural (Graded & Drained)	6.4
20133	3029: PEPPER SPRING	107458	Natural (Graded & Drained)	3.2
20134	3030: WILDHORSE CANYON	107459	Natural (Graded & Drained)	10.4
20135	3031: SAND SPRINGS MTN WEST	107460	Natural (Graded & Drained)	6.
20136	3032: RATTLESNAKE	107461	Natural (Graded & Drained)	13.4
20137	3033: GERMAN SPRINGS	107462	Natural (Graded & Drained)	15.2
20138	3034: MARIETTA	107463	Natural (Graded & Drained)	3.1
20139	3035: WHISKEY SPRING	107464	Natural (Graded & Drained)	7.2
20140	3036: COREY PEAK	107465	Aggregate	4.7
20141	3038: STONE HOUSE EAST	107466	Natural (Graded & Drained)	5.2
20142	3039: ADRIAN VALLEY	107467	Natural (Graded & Drained)	6.
20143	3041: LABOU	107468	Natural (Graded & Drained)	21.2
20144	3042: EDWARDS CREEK	107469	Natural (Graded & Drained)	15.5
20145	3043: SHOSHONE CREEK	107470	Natural (Graded & Drained)	7.5
20146	3044: WAR CANYON	107471	Natural (Graded & Drained)	12.
20147	3045: KASOCK	107472	Natural (Graded & Drained)	0.75
20148	3045-I: KASOCK	107473	Natural (Graded & Drained)	4.75
20149	3046: DIAMOND CANYON	107474	Natural (Graded & Drained)	15.4
20150	3047: ROCK CREEK	107475	Natural (Graded & Drained)	3.9
20151	3048: CAMP CREEK	107476	Natural (Graded & Drained)	10.3
20152	3048: CAMP CREEK	107477	Natural (Graded & Drained)	1.9
20153	3049: BIG DEN CREEK	107478	Natural (Graded & Drained)	4.8
20154	3050: DOGSKIN	107479	Natural (Graded & Drained)	12.8
20155	3051: NEW PASS	107480	Natural (Graded & Drained)	3.5
20156	3052: WHITNEY SPRINGS	107481	Natural (Graded & Drained)	6.45
20157	3053: SPANISH SPRINGS VALLEY	107482	Natural (Graded & Drained)	14.6
20158	3055: ELEVENMILE CANYON	107483	Natural (Graded & Drained)	9.5
20159	3056: EDWARDS CK VALLEY RD	107484	Natural (Graded & Drained)	6.
20160	3057: RAMSEY	107485	Natural (Graded & Drained)	3.5
20161	3061: MILL CANYON	107486	Natural (Graded & Drained)	4.5
20162	3062: LAPLATA CANYON	107487	Natural (Graded & Drained)	6.3
20163	3065: BRUNSWICK CANYON	107488	Aggregate	8.25
20164	3065-I: BRUNSWICK CANYON	107489	Aggregate	3.
20165	3069: GABBS VALLEY CUTOFF	107490	Natural (Graded & Drained)	2.1
20166	3070: BALD MTN	107491	Natural (Graded & Drained)	1.
20167	3070-I: BALD MTN	107492	Natural (Graded & Drained)	9.
20168	3073: CHIPMUNK SPRING	107493	Natural (Graded & Drained)	6.6
20169	3074: WICHMAN	107494	Natural (Graded & Drained)	3.6
20170	3075: COMO	107495	Natural (Graded & Drained)	19.6
20171	3075: COMO SPUR	107496	Natural (Graded & Drained)	1.5
20172	3078: PARK CANYON	107497	Natural (Graded & Drained)	3.4
20173	3079: BUFFALO CANYON	107498	Natural (Graded & Drained)	3.2
20174	3080: BUFFALO MTN	107499	Natural (Graded & Drained)	4.3
20175	3081: GERMAN MINE	107500	Natural (Graded & Drained)	2.9
20176	3082: HOLE IN THE WALL	107501	Natural (Graded & Drained)	19.
20177	3084: CINNEBAR	107502	Natural (Graded & Drained)	4.5
20178	3085: BENCH CREEK	107503	Natural (Graded & Drained)	14.3
20179	3088: SHEEP CANYON	107504	Natural (Graded & Drained)	7.

Location Number	Location Description	Eqnum (Segment)	Surface	Calc Mile
20180	3089: MUD WASH	107505	Natural (Graded & Drained)	14.5
20181	3089-I: MUD WASH	107506	Natural (Graded & Drained)	1.7
20182	3090: BELL FLAT	107507	Natural (Graded & Drained)	5.8
20183	3091: FOURMILE FLAT	107508	Natural (Graded & Drained)	17.5
20184	3093: FENCHMAN	107509	Natural (Graded & Drained)	8.7
20185	3095: KENT WELL	107510	Natural (Graded & Drained)	8.
20186	3098: DRY VALLEY	107511	Natural (Graded & Drained)	8.2
20187	3101: SILVER HILL CANYON	107512	Natural (Graded & Drained)	4.5
20188	3102: IXL CANYON	107513	Natural (Graded & Drained)	2.7
20189	3103: COYOTE CANYON	107514	Natural (Graded & Drained)	3.8
20190	3104: BERNICE CANYON	107515	Natural (Graded & Drained)	8.
20191	3105: COW CANYON	107516	Natural (Graded & Drained)	5.5
20192	3106: GROVER CANYON	107517	Natural (Graded & Drained)	4.3
20193	3110: HOOTEN WELL	107518	Natural (Graded & Drained)	4.6
20194	3110-I: HOOTEN WELL	107519	Natural (Graded & Drained)	2.6
20195	3111: RED MOUNTAIN	107520	Natural (Graded & Drained)	10.5
20196	3112: WILDHORSE BASIN	107521	Natural (Graded & Drained)	8.1
20197	3123: SAND SPRINGS	107522	Aggregate	0.75
20198	3126: SUNRISE BASIN	107523	Natural (Graded & Drained)	14.3
20199	3130: FORT SAGE	107524	Natural (Graded & Drained)	3.8
20200	3131: WILSON CANYON	107525	Natural (Graded & Drained)	0.75
20201	3132: COTTONWOOD STOCK TRAIL	107526	Natural Unimproved	11.2
20202	3133: SAND MOUNTAIN	107527	Bituminous	2.3

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