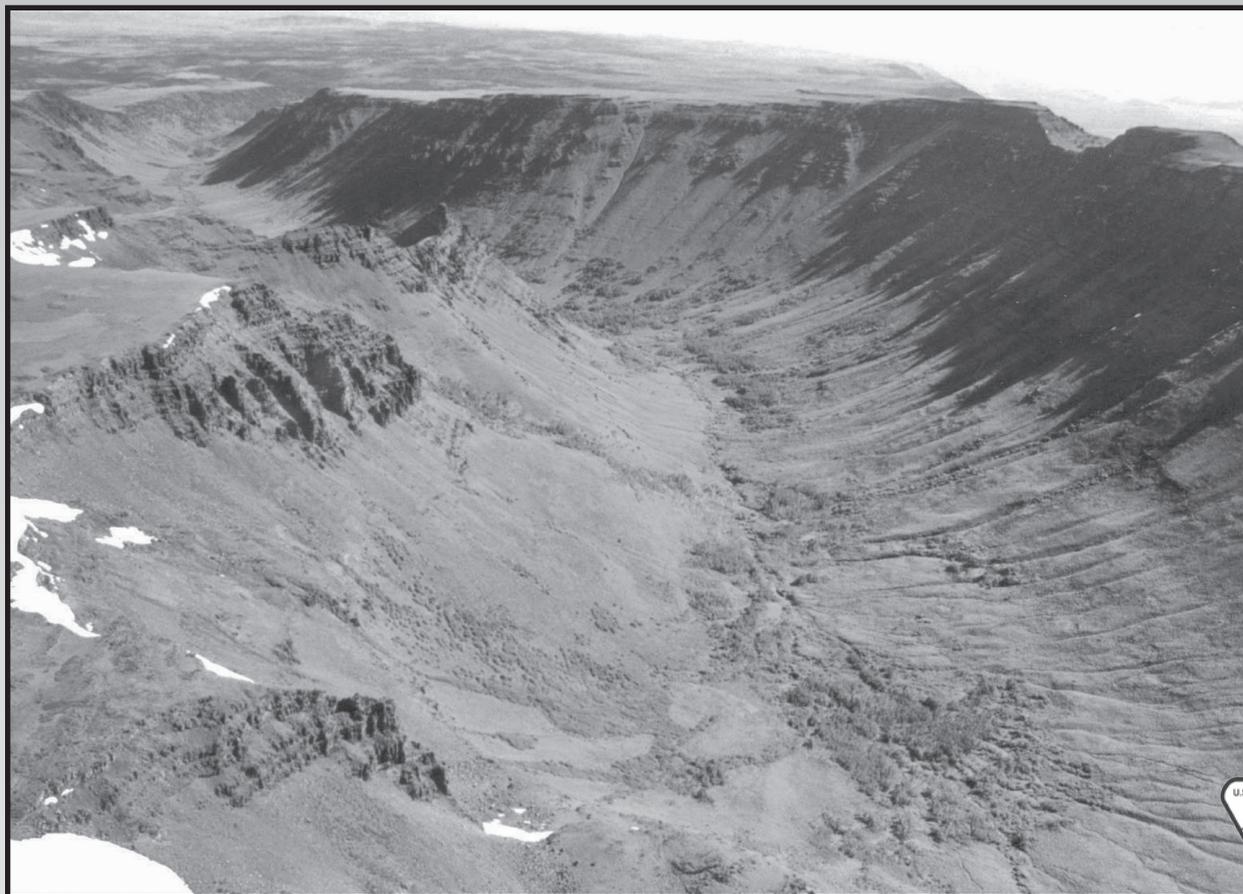


Steens Mountain Wilderness and Wild and Scenic Rivers Plan *Appendix P - Steens Mountain Cooperative Management and Protection Area Resource Management Plan*



August 2005



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Photo courtesy of John Craig.

Steens Mountain Wilderness and Wild and Scenic Rivers Plan

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Acronyms

Reader note: Please refer to the list below for acronyms that may be used in this document.

| <u>ACRONYM</u> | <u>DEFINITION</u> |
|----------------|--|
| ACEC | Area of Critical Environmental Concern |
| AML | Appropriate Management Level |
| AMP | Allotment Management Plan |
| AMS | Analysis of the Management Situation |
| AMU | Andrews Management Unit/Andrews Resource Area outside the CMPA |
| AUM | Animal Unit Month |
| BCB | Back Country Byway |
| BLM | Bureau of Land Management |
| BMPs | Best Management Practices |
| CAA | Clean Air Act |
| CCD | Census County Divisions |
| CD | Compact Disc |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| CMPA | Cooperative Management and Protection Area |
| CWA | Clean Water Act |
| DEQ | Oregon Department of Environmental Quality |
| DEIS | Draft Environmental Impact Statement |
| DO | District Office |
| DRC | Desired Range of Conditions |
| DRMP | Draft Resource Management Plan |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| ERMA | Extensive Recreation Management Area |
| ESA | Endangered Species Act |
| ESI | Ecological Site Inventory |
| FAR | Functional At Risk |
| FEIS | Final Environmental Impact Statement |
| FFR | Federal Fenced Range |
| FLPMA | Federal Land Policy and Management Act |
| FMP | Fire Management Plan |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| HMA | Herd Management Area |
| HUC | Hydrologic Unit Code |
| ICBEMP | Interior Columbia Basin Ecosystem Management Project |
| ID | Interdisciplinary |
| Malheur NWR | Malheur National Wildlife Refuge |
| MFP | Management Framework Plan |
| MOA | Memorandum of Agreement |
| MOU | Memorandum of Understanding |
| MRDG | Minimum Requirement Decision Guide |
| NAAQS | National Ambient Air Quality Standards |
| NEPA | National Environmental Policy Act |
| NSO | No Surface Occupancy |
| ODA | Oregon Department of Agriculture |
| ODF | Oregon Department of Forestry |
| ODFW | Oregon Department of Fish and Wildlife |

| | |
|---------|---|
| OHV | Off-Highway Vehicle |
| ONDA | Oregon Natural Desert Association |
| ONHP | Oregon Natural Heritage Program |
| ORS | Oregon Revised Statute |
| ORV | Outstandingly Remarkable Value |
| OWRD | Oregon Water Resources Department |
| PFC | Proper Functioning Condition |
| PILT | Payments In Lieu of Taxes |
| PL | Public Law |
| PM | Particulate Matter |
| PNC | Potential Natural Community |
| PRIA | Public Rangelands Improvement Act of 1978 |
| R&PP | Recreation & Public Purpose |
| RA | Resource Area |
| RAC | Southeast Oregon Resource Advisory Council |
| RMIS | Recreation Management Information System |
| RMP | Resource Management Plan |
| RNA | Research Natural Area |
| ROD | Record of Decision |
| ROW | Right-of-Way |
| RPS | Rangeland Program Summary |
| RTR | Redband Trout Reserve |
| S&Gs | Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington |
| SBR | Subbasin Review |
| SEORMP | Southeastern Oregon Resource Management Plan |
| SIP | State Implementation Plan |
| SMAC | Steens Mountain Advisory Council |
| SRMA | Special Recreation Management Area |
| SRP | Special Recreation Permit |
| T&E | Threatened and Endangered |
| TMDL | Total Maximum Daily Load |
| TNC | The Nature Conservancy |
| TNR | Temporary Non-Renewable |
| TP | Transportation Plan |
| TR | Technical Reference |
| USDA | United States Department of Agriculture |
| USDI | United States Department of the Interior |
| USFS | United States Forest Service |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| VRM | Visual Resource Management |
| WJMA | Wildlands Juniper Management Area |
| WQMP | Water Quality Management Plan |
| WQRP | Water Quality Restoration Plan |
| WSA IMP | Interim Management Policy for Lands under Wilderness Review |
| WSA | Wilderness Study Area |
| WSR | Wild and Scenic River |
| WUI | Wildland Urban Interface |
| ybp | years before present |

Introduction

The Bureau of Land Management (BLM) is the agency responsible for managing Steens Mountain Wilderness and three National Wild and Scenic Rivers (WSRs). The Donner und Blitzen WSR system has nine river segments, Wildhorse WSR system has two river segments, and Kiger WSR has one river segment. All 12 river segments fall within Steens Mountain Cooperative Management and Protection Area (CMPA). The CMPA is part of the BLM's Andrews and Three Rivers Resource Areas (RAs) in the Burns District and is located in Harney County, Oregon, approximately 70 miles south of Burns (Map W1).

Plan Organization

This document is presented in five sections:

- Introduction - provides background and public involvement information on Steens Mountain Wilderness and WSRs.
- Area Overview - provides an overview of Steens Mountain Wilderness and WSRs.
- Management Goals and Objectives - provides guidance on management goals for Steens Mountain Wilderness and WSRs.
- Management Strategy - provides management strategy for Steens Mountain Wilderness and WSRs.
- Monitoring Plan - provides monitoring strategy for Steens Mountain Wilderness and WSRs.

Background

On October 30, 2000, the Steens Mountain Cooperative Management and Protection Act of 2000 (Steens Act) designated the 428,156-acre CMPA. The Steens Act was the culmination of a cooperative effort among Oregon's Congressional delegation and Governor, the Secretary of the Interior, interest groups, and local government to forge legislation stipulating long-term management and protection of the cultural, economic, ecological, and social health of the Steens Mountain Area. The purpose of the Steens Act is "...to conserve, protect, and manage the long-term ecological integrity of Steens Mountain for future and present generations." Within this area, cooperative and innovative management projects are encouraged and implemented by BLM, private landowners, tribes, and other public interests. Sustainable grazing and recreational use, including fishing and hunting, will continue where consistent with the purpose of the Steens Act.

Within the CMPA, the Steens Act designated 170,084 acres as Steens Mountain Wilderness, whose primitive landscapes and wild natural resources cover the top, flanks, and gorges of the mountain (Map W2). Also established was a 97,229-acre No Livestock Grazing Area with 94,959 acres located within Steens Mountain Wilderness. This is the first Congressionally designated No Livestock Grazing Area in wilderness in the United States.

The Steens Act also designated Wildhorse and Kiger Creeks as WSRs and added Mud, Ankle, and South Fork of Ankle Creeks to the existing Donner und Blitzen WSR system, originally designated in 1988 by the Omnibus Oregon WSRs Act (Maps W2 and W3). Portions of Donner und Blitzen WSR were identified by the Steens Act as the Redband Trout Reserve (RTR). The RTR was created "to conserve, protect, and enhance the Donner und Blitzen River population of redband trout and the unique ecosystem of plants, fish, and wildlife of a river system; and to provide opportunities for scientific research, environmental education, and fish and wildlife oriented recreation and access to the extent compatible..." with the above purpose. Almost all these river segments fall within Steens Mountain Wilderness. The Steens Act states where management requirements for a stream segment differ between the WSRs Act (16 U.S.C. 1271 et seq.) and Steens Mountain Wilderness, the more restrictive requirements of the 1964 Wilderness Act shall apply.

Plan Purpose

The purpose of this management plan is to provide management guidance for Steens Mountain Wilderness and the WSRs within the CMPA. Since most of the designated WSRs fall within Steens Mountain Wilderness, both are managed under this integrated management plan. This management plan is designed to set guidelines for on-the-ground management and for future project planning efforts. Management actions may be modified or initiated as additional resource and visitor data become available.

Relationship to BLM Planning

This management plan is a component of the Resource Management Plan (RMP) written to provide management direction for the CMPA. The RMP addresses a spectrum of resource issues. Steens Mountain Wilderness and WSRs Management Plan (Wilderness/WSRs Plan) is an activity plan, which although an appendix to the CMPA RMP functions as an independent document.

Public Involvement

Public involvement for this management plan was completed as part of the RMP process. Public involvement activities included mass mailing a scoping brochure, holding public meetings, meeting with local governments and tribal government officials, and mailing the Summary of the Analysis of the Management Situation (United States Department of the Interior [USDI] 2002) and Draft RMP/Draft Environmental Impact Statement (EIS) to interested groups and individuals. When published with the Proposed RMP/Final EIS (FEIS), the Wilderness/WSRs Plan was available for a 30-day public comment period. The Wilderness/WSRs Plan became final with approval of the Record of Decision for the CMPA RMP.

Steens Mountain Advisory Council

As part of the Steens Act, the Secretary of the Interior established the 12-member Steens Mountain Advisory Council (SMAC) to advise the Secretary in managing the CMPA and in promoting cooperative management. The SMAC's purpose is to formulate recommendations regarding: (1) new and unique approaches to the management of lands within the boundaries of the CMPA; and (2) cooperative programs and incentives for seamless landscape management that meets human needs and maintains and improves the ecological and economic integrity of the CMPA. The SMAC also advised the BLM in the preparation of the CMPA RMP and the Wilderness/WSRs Plan.

The SMAC has met regularly since its creation in August 2001. Each meeting generally lasts two full days and is advertised in local and regional papers, on the internet, and through a *Federal Register* notice to ensure the public has an opportunity to participate. Meetings have been held in Bend, Burns, and Frenchglen to accommodate local and regional public involvement.

Area Overview

This section contains general background information about Steens Mountain Wilderness and WSRs. Included is information about boundaries, public access, land ownership, history, unique wilderness attributes, and Outstandingly Remarkable Values (ORVs) for the WSRs.

General Location and Boundaries

Steens Mountain Wilderness and WSR segments fall entirely within the 426,156-acre CMPA. Steens Mountain Wilderness is within an area generally bound on the west and south by State Highway 205 and Catlow Valley Road, on the east by East Steens Road, and on the north by part of the North Steens Loop Road (Map W2). Steens Mountain Wilderness lies in two segments. The larger eastern portion runs up the east slope of the mountain, starting from the south near Fields and continuing about 35 miles northeast. This section contains much of Kiger Gorge/Cold Springs area, Little Blitzen Gorge, Big and Little Indian Gorges, Wildhorse Canyon, Ankle Creek Basin, and the main stem of Donner und Blitzen River to Page Springs.

The separate and smaller western portion of Steens Mountain Wilderness contains Threemile and Home Creeks, Dry Creek Canyon, and a portion of the rims on the east side of Catlow Valley. The designated river segments fall generally within Steens Mountain Wilderness.

Where open roads bisect or run adjacent to Steens Mountain Wilderness, the Steens Act authorizes BLM to determine boundary setbacks for wilderness. The wilderness boundary along the well-traveled Steens Loop Road is set back 100 feet from road centerline. The boundary is set back 30 feet from road centerline along other open roads including Fish Creek, Grove Creek, Cold Springs, Dingle Creek, Wildhorse Lake Overlook, Big Alvord Creek, Newton Cabin, Indian Creek, Weston Basin, Lauserica, Bone Creek, Miners Cabin, Frazer Spring, Roaring Springs Creek Roads, and short sections of other roads. The wilderness boundary is set back 300 feet from road centerline along sections of Catlow Valley Road (Long Hollow) and East Steens Road (south of Indian Creek Road for approximately four miles).

Access

Highway 205 provides two access points to Steens Mountain Wilderness and the WSRs. The community of Frenchglen is the northwest access point, where Steens Loop Road, also known as Steens Mountain Backcountry Byway (BCB), heads east along the northern boundary of the larger eastern wilderness segment. Steens Loop Road passes through the narrow highlands of the mountain, descends over the steep and rough Rooster Comb section, then traverses west to the south entrance to the Steens Loop Road, about 11 miles south of Frenchglen. The Steens Loop Road may be driven in either direction, but drivers may wish to avoid hazards of the Rooster Comb section. Steens Loop Road also provides access to the Donner und Blitzen WSR system including parts of Donner und Blitzen River, Fish Creek, Little Blitzen River, Big Indian Creek, and Little Indian Creek. When traveling Steens Loop Road, there are several opportunities to park at established overlook points or campgrounds. Cold Springs Road offers high clearance four-wheel-drive access to the area south of Fish Creek, but is extremely rough and is not a through route. Wildhorse Lake Overlook Road leads south toward the peak of Steens Mountain and includes a parking area and trail to the overlook of Wildhorse Lake and Wildhorse WSR. Newton Cabin Road provides parking and hiking access into Ankle Creek Basin.

East Steens Road provides access to Big Alvord, Indian, and Bone Creek and Weston Basin Roads. Pike Creek Trail is also accessed from East Steens Road. Bone Creek Road passes through Steens Mountain Wilderness north of Alvord Peak. A parcel of public land near Penland, north of Andrews, allows public access for visitors wishing to hike or ride horseback into Wildhorse WSR from the south. No facilities or developed access presently exist at this site.

The western segment of Steens Mountain Wilderness may be accessed directly from points where public lands reach the Catlow Valley Road Right-Of-Way (ROW), or from Steens Loop Road near its south entrance via primitive open roads.

Hiking and horseback riding are unlimited within Steens Mountain Wilderness and WSRs, although trailhead facilities are limited and occur outside of wilderness. Trailheads include Blitzen River trailhead at Page Springs Campground, Little Blitzen trailhead just east of South Steens Campground, and Big Indian trailhead within South Steens Campground.

Land Ownership

Steens Mountain Wilderness includes 170,084 acres of public lands administered by the BLM and 4,668 acres of state and private inholdings. Approximately 94,959 acres of wilderness were designated as a No Livestock Grazing Area. There are 12 designated WSR segments with a total of 105 river miles, most of which fall within Steens Mountain Wilderness and the No Livestock Grazing Area. Approximately 27,324 acres of public land are administered by the BLM within the river corridor boundaries, along with approximately 4,022 acres of State and private land (Table 1).

History of Use for Steens Mountain Wilderness and Wild and Scenic Rivers

American Indians inhabited the Steens Mountain region from as early as 10,000 years ago through the late 19th century. The first recorded history of the area began with exploration between 1826 and 1829 by fur traders of the Snake Country expeditions. While exploring the region and trapping beaver on his third and fifth trips, Peter Skene Ogden entered Malheur Lake Basin north of Steens Mountain. In 1845, leading a wagon train, Steven Meeks mistook the snow-capped Steens for the Cascade Mountains.

In 1860, the Army sent Major Enoch Steen to protect settlers and determine feasibility of a road from southeastern Oregon to Willamette Valley. His party named many prominent topographic features including Steens Mountain. In 1864, during a thunderstorm, Captain George B. Curry and his command were forced to cross a river on the west slope of Steens. He named the river “Donder und Blitzen,” which in German means thunder and lightning. Later, the name became Donner und Blitzen River.

Cattle were driven into the area in 1872 and by the 1900s many cattle ranches had been established in valleys surrounding Steens. At one time, prior to passage of the Taylor Grazing Act of 1934, over 100,000 sheep and cattle grazed the mountain.

In the 1940s and 1950s, recreational use started to occur on Steens. In 1962, Steens Loop Road was completed allowing vehicle access to the mountaintop. Recreational use has since been a popular activity. In 1972, the BLM recognized the importance of the recreational opportunities and administratively designated part of Steens Mountain as a Recreation Lands area. In 1991, almost 50,000 visitors came to the area.

On October 28, 1988, Congress passed the Omnibus Oregon WSRs Act, which amended the WSRs Act of 1968 to add 40 new rivers to the National WSRs System. Included were six river segments of the Donner und Blitzen River system.

On October 30, 2000, Congress passed the Steens Act designating 428,156 acres as the CMPA including establishment of Steens Mountain Wilderness and designation of Wildhorse and Kiger WSRs. Three new river segments were also added to the Donner und Blitzen River system.

Steens Mountain Wilderness Overview

The Steens Act established the CMPA to conserve, protect, and manage the long-term ecological integrity of Steens Mountain for future and present generations. This included designation of Steens Mountain Wilderness. Section 201(a) of the Steens Act requires Steens Mountain Wilderness be managed in accordance with the Wilderness Act of 1964.

The Wilderness Act of 1964 was passed by Congress to establish a National Wilderness Preservation System. The primary purpose of the Wilderness Act is to protect a designated wilderness area’s naturalness and wildness, while providing for public use and enjoyment in a manner that will leave wilderness unimpaired for future use.

Unique Wilderness Attributes

Some of the most unique attributes of Steens Mountain Wilderness are scenic vistas and spectacular geology. Visitors can experience a diversity of habitats above tree line, where severe climate and thin soils result in a belt of grasses, low-growing plants, and stunted, wind-formed shrubs. At the base of the mountain where water is scarce, sagebrush is common. Stands of quaking aspen occur along streams while mountain mahogany occupies the drier ridge tops. Visitors may see large raptors such as golden eagles, mammals such as pronghorn antelope, or even a piece of living history, South Steens wild horses, which are descendants of horses escaped from early explorers, settlers, miners, Indians, and ranchers. Many other unique features within Steens Mountain Wilderness are described below as ORVs of the designated WSRs.

Wilderness Management Areas

A key premise in BLM management strategy is recognition all wilderness areas are not the same. Further, within any given wilderness, not all areas provide the same visitor experience or require the same management practices. There can be a variety of wilderness settings present based on physical layout, visitor use, patterns of use, degree of past human influences, and management issues. Within Steens Mountain Wilderness, two different settings or areas are identified – Gorges and Uplands. These are not rigid, on-the-ground allocations nor do they originate solely from specific conditions in these areas. They are theoretical descriptions of the range of resource, social, and managerial conditions BLM intends to maintain and restore in Steens Mountain Wilderness. Below is a description of each Management Area (Map W2). In this planning process, boundaries of these Management Areas are generally defined by patterns and types of historic use and physiography of the wilderness.

Gorges Management Area

There are five separate canyons within the Gorges Management Area: Little Blitzen, Big Indian, Little Indian, Wildhorse, and Kiger. Management actions can be initiated in each of the canyons separately to accommodate individual management situations of each canyon. This portion of Steens Mountain Wilderness is adjacent to primary access and popular destination points. Both overnight and day uses occur. Encounters with other users are moderate to frequent, due to popularity of the gorges. Areas are monitored to protect natural conditions while providing for use and enjoyment of recreational and natural features. Little Blitzen River, Big Indian Creek, Little Indian Creek, Wildhorse Creek, Little Wildhorse Creek, and Kiger Creek WSRs are in this management area.

Desired Conditions for the Natural Environment: Natural succession occurs in all existing vegetative communities and is influenced by natural processes and disturbances. Structure, composition, function, and spatial distribution of vegetation types are influenced and sustained by natural processes. Human influence on vegetation is minimal, except where prescribed fire or other treatments are needed to protect or restore wilderness resources. Plant species are predominately native and indigenous to the immediate area. There are no increases in nonindigenous species composition from an established baseline. Wildland fire is reestablished as a natural ecological force. Wildland fire management activities are designed to restore or retain natural characteristics of the ecosystem. Evidence of effects of fire, insects, or disease may be present. Appropriate air quality standards are met; however, periodic smoke could occur from wildland fire. Visibility is generally unimpaired.

Human influence on the composition, structure, and function of aquatic ecosystems is minimal in most areas, except where restoration is determined necessary to restore or facilitate natural processes. Fish and wildlife habitat management activities emphasize the protection of natural processes. A range of habitats is sustained for all naturally occurring species. Special Status Species abundance and distribution is maintained or increased. Human influence on physical features such as soils and geologic materials is minimal.

Desired Conditions for the Human Environment: In gorge areas, opportunity exists for a moderate level of risk and challenge. Contact with other users, recreational stock, or agency personnel can be relatively frequent. Encounters with large and small groups are likely. Day-use opportunities are more common within this management area. Campsites are dispersed, may be visible and activities in those sites may be audible from adjacent campsites. Signing to indicate trail routes is not currently planned, but may occur in the future at trail intersections and other areas as needed. Boundary signs, trailhead signs, trail junction signs, and other information are provided to educate and inform wilderness users. Signs may consist of unstained wood with incised letters mounted on unstained posts.

Except for commercial or organized groups, permits for day-use activities are not currently planned. Effects from camping meet Desired Conditions for the Natural Environment (see above). Permitted outfitters provide services to visitors for activities meeting identified public needs and which usually cannot be provided in nonwilderness settings. Permits for historic uses consistent with the Wilderness Act and recognized by the Steens Act may continue. Recreational stock grazing adheres to appropriate standards and guidelines.

Structures and facilities may be allowed for resource protection and administration of the area; however, they are allowed only when they are the minimum necessary to protect the wilderness resource and for health and safety concerns. No facilities or improvements within Steens Mountain Wilderness are provided for the comfort and convenience of the visitor. Evidence of historic and cultural sites may exist, but sites are not interpreted or signed within Steens Mountain Wilderness.

Uplands Management Area

This area of Steens Mountain Wilderness features natural environmental conditions and offers a moderate to high degree of solitude. Natural processes and conditions generally have not been and are not affected by human activity. Areas are monitored to protect ecological conditions with effects of human activities minimized. Fish Creek, Donner und Blitzen River, South Fork Donner und Blitzen River, Mud Creek, Ankle Creek, and South Fork Ankle Creek WSRs are in this Management Area.

Desired Conditions for the Natural Environment: Natural succession occurs in all existing vegetative communities and is influenced by natural processes and disturbances. Structure, composition, function, and spatial distribution of vegetative types are the result of natural successional processes. Human influence on vegetation is minimal, except where prescribed fire or other treatments are needed to restore or protect wilderness resources. Plant species are predominately native and indigenous to the immediate area. There are no increases in nonindigenous species composition from an established baseline. Wildland fire is reestablished as a natural ecological force. Wildland fire management activities are designed to restore or retain natural characteristics of the ecosystem. Evidence of effects of wildland fire, insects, or disease may be present. Appropriate air quality standards are met; however, periodic smoke could occur from wildland fire. Visibility is generally unimpaired.

Human influence on composition, structure, and function of aquatic ecosystems is unnoticeable in most areas, except where restoration is determined necessary to facilitate natural processes. Fish and wildlife habitat management activities emphasize protection of natural processes. A range of habitats is sustained for all naturally occurring species. Special Status Species abundance and distribution are maintained or increased. Human influence on physical features such as soils and geologic materials is unnoticeable in most areas.

Desired Conditions for the Human Environment: The opportunity exists for a moderate to high level of risk and challenge. Contact with individuals or groups occurs more frequently on trails than while traveling cross-country. Encounters with large groups will occur less often than with small groups or individuals. Domestic livestock and recreational stock may also be encountered. Campsites are dispersed; visitors at adjacent campsites are usually not seen or heard. Existing campsites are evident as are maintained and user-established trails.

Effects from camping are minimally noticeable. Permitted outfitters provide services to visitors for activities meeting identified public needs and which usually cannot be provided in nonwilderness settings. Permits for historic uses recognized by the Steens Act and consistent with the Wilderness Act may continue. Signing to indicate trail routes is not currently planned, but may occur at trail intersections and elsewhere as needed. Management information and administrative signing are provided at trailheads as appropriate for resource protection. Signs blend in with the natural setting. Livestock and recreational stock grazing adhere to appropriate standards and guidelines. Evidence of historic and cultural sites may exist, but is not interpreted or signed within the wilderness.

Wild and Scenic Rivers Overview

In 1968, Congress passed the WSRs Act establishing a nationwide system of outstandingly free-flowing rivers. The primary purpose of the WSRs Act is to balance river development with river protection and conservation.

Twelve designated WSR segments fall within the CMPA. Under the WSRs Act, rivers are classified by Congress as Recreational, Scenic or Wild usually depending on the extent of development and access along each river at time of designation. All of the designated river segments in the CMPA were classified as Wild by

Congress. River segments with a Wild classification are generally inaccessible except by trail, with watersheds and shorelines essentially primitive, and waters unpolluted. Several river segments within the CMPA have roads, recreation facilities, and historic structures that existed at time of designation. There is a concrete bridge spanning the Donner und Blitzen WSR along South Steens Loop Road. These facilities continue to be maintained and will be replaced as necessary to provide for public health and safety and resource protection. However, the large majority of river segments are primitive in character.

The WSRs Act (Section 3(b)) specifies that after a river is designated, the agency charged with its administration must establish a proposed administrative boundary delineating the land area within the corridor managed under the WSRs Act. The WSRs Act specifies the area within the corridor shall not average more than 320 acres per river mile. See Map W3 for the corridor boundaries of each river segment.

Public Lands in Wild and Scenic River Corridors Outside Steens Mountain Wilderness

There are 1,204 acres within the WSR corridors but outside of Steens Mountain Wilderness (See Table 1). No site-specific management concerns or required actions for protecting river-related ORVs are identified for these small parcels.

Table 1: Summary of Wild and Scenic Rivers Segments

| Segment | Description | ORVs ³ | Miles | Acres | In Wilderness |
|--|-------------------------------------|-------------------|-------------------------|--|---|
| Donner und Blitzen WSR Segments | | | | | |
| A ¹ | Donner und Blitzen River | S,G,R,F,W,V | 13.9 | 2540 | Except 19 acres in Page Springs Campground and 73 other acres |
| B ¹ | Little Blitzen River | S,G,R,F,W,V,C, H | 14.1 | 6206 | Except 850 acres of Riddle Ranch |
| C ¹ | South Fork Donner und Blitzen River | S,G,R,F,W,V | 14.9 BLM 3.0 Private | 2,730 BLM 758 Private | Except 67 acres in a WSA |
| D ¹ | Big Indian Creek | S,G,R,F,W,V | 12.2 | 5165 | Except 28 acres along Steens Loop Road |
| E ¹ | Little Indian Creek | S,G,R,F,W,V | 4.2 | 1362 | Yes |
| F ¹ | Fish Creek | S,G,R,F,W,V | 6.5 BLM 8.0 Private | 1,236 BLM 2,586 Private 40 State | Except 78 acres in Jackman Park Campground and 89 other acres |
| G ² | Mud Creek | S,R,F,W | 5.1 | 1515 | Yes |
| H ² | Ankle Creek | S,R,F,W | 6.0 BLM 2.1 Private | 1,656 BLM 638 Private | Yes |
| I ² | South Fork Ankle Creek | S,R,F,W | 1.6 | 476 | Yes |
| Wildhorse WSR Segments | | | | | |
| J ² | Little Wildhorse Creek | S,R,W,B | 2.6 | 922 | Yes |
| K ² | Wildhorse Creek | S,R,W,B | 7 | 2096 | Yes |
| Kiger WSR Segment | | | | | |
| L ² | Kiger Creek | S,F,W | 4.25 | 1420 | Yes |

¹Rivers Designated by the 1988 Omnibus Oregon WSRs Act. Note: River miles may vary slightly from the 1988 legislation due to improvements in mapping data.

²Rivers designated by the Steens Act.

³ORVs: S=Scenery, G=Geological, R=Recreational, F=Fish, W=Wildlife, V=Vegetation, B=Botanic, C=Cultural, H=Historic

Outstandingly Remarkable Values

The intent of the WSRs Act is to maintain the free-flowing character of designated rivers and to protect or enhance their values. Those values were termed ORVs by Congress. The ORVs are values or opportunities in a river corridor which are directly related to rivers and which are rare, unique, or exemplary from a regional or national perspective. Many ORVs described below for designated river segments also contribute to the unique character of Steens Mountain Wilderness.

Donner und Blitzen WSR System

The Donner und Blitzen River system includes Little Blitzen River, South Fork of Donner und Blitzen River, Big Indian Creek, Little Indian, Fish Creek, Mud Creek, Ankle Creek, and South Fork of Ankle Creek river segments. Table 1 shows the ORVs by river segment. Below is a summary description of ORVs for each segment of the Donner und Blitzen River system.

Scenic: Scenic values are ORVs for all nine segments in the Donner und Blitzen WSR system. Several river segments contain a diversity of landforms and vegetation capturing the attention of the viewer. The river and its tributaries pass through several vegetation zones, which are the result of climatic factors such as temperature and precipitation. Progression from the lower sagebrush/bunchgrass community to the upper subalpine zone gives depth and variety to different settings from which the observer experiences the scenery. It is one of the greatest qualities of this river system. Upper elevations offer river visitors an opportunity to view glaciated canyons and deep basalt formations of Donner und Blitzen River WSR. These viewsheds are largely untouched and are in natural condition.

Geologic: Geologic features are considered ORVs and rare, unusual, or unique in this geographic region are the westward-tilted Steens fault block, exposures of feeder dikes from Steens Basalt lava flows, glacial features from Fish Lake Advance ice cap such as kettle holes and glacial erratics, and glacial features from Blitzen Advance valley glaciers such as U-shaped gorges and cirques. The 9,700-foot elevation at the eastern edge of Steens Mountain allowed formation of alpine glaciers less than one million years ago. Gorges carved by glaciers are as much as 2,000 feet deep and expose layers of Steens Basalt. Little Blitzen River, Fish, Big Indian, and Little Indian Creeks are in deeply glaciated gorges and flow westward across the Steens fault block to Donner und Blitzen River. Unglaciated river segments generally have rimrock views of Steens Basalt nearly 100 feet above river level.

Recreational: Recreation is an ORV for all nine segments in the Donner und Blitzen WSR system. Existing recreation uses exceptional in quality include fishing, hunting, hiking, photography, wildlife, and scenic viewing. Many of these river segments are very natural in character and offer visitors many areas to experience solitude in a primitive setting. The river segments provide a rare two- to four-day backpack trip or horseback experience for individuals with moderate skill levels. Portions of the Oregon High Desert National Recreation Trail are within sections of the river canyons.

Fish: Fisheries resources are an ORV for all nine segments in the Donner und Blitzen WSR system. Fish species in Donner und Blitzen River above Page Springs Weir include redband trout, mountain whitefish, redband shiner, longnose dace, and Malheur mottled sculpin. The redband trout is the most common sport species found in the system. The Donner und Blitzen River system supports a wild, native redband trout population, recognized as an ORV by Congress in the Omnibus Oregon WSRs Act of 1988. Historically, Donner und Blitzen River and tributaries have provided excellent angling for native redband trout and are recognized by anglers as some of Oregon's finest wild trout streams. Redband trout and Malheur mottled sculpin are recognized by the BLM as Special Status Species.

Wildlife: Wildlife resources are an ORV for all nine segments in the Donner und Blitzen WSR system. The Donner und Blitzen drainage is highly valued for its abundant wildlife. The river area and adjacent uplands are used by many wildlife species. Currently, no known American Indian cultural use of wildlife has been identified. Mule deer winter along the lower four miles of Donner und Blitzen River and the lower four miles of Fish Creek. Deer summer in upper parts of the area. The ridge between Big Indian and Little Indian Gorges provides habitat for a high number of large bucks during summer months. Rocky Mountain elk occasionally use lower elevations of drainages during the summer and winter. Pronghorn antelope frequent

open terrain adjacent to the corridor in certain areas. Pikas are found in talus slopes near the head of Little Blitzen Gorge.

Raptors nest along canyon rims of Donner und Blitzen River and its tributaries. Common species are American kestrel and great horned owls. Turkey vultures and ravens also nest in these cliffs. One prairie falcon aerie has been located along Little Blitzen Gorge. Chukars and California quail are found along the river at lower elevations, while Greater sage-grouse summer in upper areas of the river in flatter terrain. Migratory birds use this corridor for nesting where willows and cottonwoods provide suitable habitat. Black rosy finches, rare in Oregon, nest in subalpine vegetation above Little Blitzen Gorge.

Vegetation: Within the Donner und Blitzen WSR system, Donner und Blitzen River, Little Blitzen River, South Fork of the Donner und Blitzen River, and Big Indian, Little Indian, and Fish Creeks have a diversity of plant communities considered an ORV. Vegetation includes riparian zones dominated by willows, western birch, mountain alder, black cottonwood, and quaking aspen, as well as other species. In addition, sedge and grass-dominated meadows, bog areas, springs, seeps, a variety of wetland communities, high elevation cirque communities, and numerous other alpine and subalpine communities are found within this system. The uplands include areas dominated by big sagebrush, western juniper, mountain mahogany, quaking aspen, and mountain snowberry with Idaho fescue, bluebunch wheatgrass, needlegrasses, and numerous other species in the understory.

Many sensitive plant species have been documented within the river corridors. These include species endemic to Steens Mountain, species occurring in Oregon only on the Steens, and other species of special interest.

Historic: The Little Blitzen River is the only river segment in Donner und Blitzen WSR system with cultural resources as an ORV. The Riddle Brothers Ranch is listed on the National Register of Historic Places. This district covers 1,120 acres of public land along Little Blitzen WSR of which approximately 850 acres lie within the WSR corridor. Three complexes of structures are included in the historic district. Structures at the main complex include a house, root cellar, bunkhouse, chicken house, storage building, tack room, barn, and corrals built of willows and juniper. Another complex includes a house, root cellar, and stone storage building, while the smallest complex has a log house and split rail fences. The Walter Riddle Ranch House was destroyed by wildland fire in 1996.

Cultural: The Mortar Riddle archaeological site is a regionally significant prehistoric/historic site that was occupied between 400 and 1840 AD. It is located within the Riddle Brothers Ranch National Historic District and possesses data-rich, buried deposits. It is a rare example of a summer-fall base camp that was occupied for root, seeds and fruit harvests, hunting and processing small and big game and fishing. This site meets the qualifications as an outstandingly remarkable value in the Little Blitzen River segment of the Donner und Blitzen WSR.

Wildhorse WSR System

The Wildhorse WSR system includes Wildhorse Creek and Little Wildhorse Creek river segments. The ORVs identified for Wildhorse and Little Wildhorse Creeks include Scenic, Recreational, Wildlife, and Botanic and are described below.

Scenic: Both river corridors offer outstanding opportunities to view glacier formed canyons and other significant geologic features. These include two glacial lakes formed in cirques. Another scenic quality is these are the only major canyons that drop off the east face of Steens Mountain, resulting in spectacular views of geology and extensive landscape vistas. Both creeks exhibit good examples of past glacial activity, erosional processes, and tilting action of a massive, fault-block mountain.

Recreational: These river corridors offer many opportunities for primitive recreation, as well as solitude, especially in upper pristine areas. Geologic formations and lakes present many scenic features. These opportunities, combined with similar opportunities in the area, are enough to attract visitors from outside the region. A portion of Oregon High Desert National Recreation Trail traverses Wildhorse and Little Wildhorse Canyons.

Wildlife: These river corridors provide habitat for California bighorn sheep and a variety of wildlife from headwaters to canyon mouths. Species such as pika can be found at upper elevations. Little Wildhorse Creek contains excellent riparian habitat at higher elevations. Wildhorse and Little Wildhorse Lakes provide vernal high elevation pools, talus and cliffs, willows, and adjacent upland vegetation, which together provide a diversity of wildlife habitats.

Botanic: The headwaters of Little Wildhorse Creek are designated as a Research Natural Area (RNA)/ Area of Critical Environmental Concern (ACEC) because of a mid- to high-elevation lake and associated ecosystem. This RNA/ACEC was designated to protect the area for scientific study opportunities. Wildhorse and Little Wildhorse Creeks, above their confluence, contain interesting and unique assemblages of vegetative communities.

Kiger WSR

The ORVs identified for Kiger Creek include Scenic, Wildlife, Fish, and Botanic and are described below.

Scenic: Kiger Creek flows through one of the most prominent canyons in the Steens Mountain area and offers a spectacular display of past glacial activity. The long corridor can be seen from miles away, and is identifiable by its own unique geologic feature - Kiger Notch. The U-shaped gorge is a classic example of a glaciated canyon. On a clear day, scenic vistas extend to the horizon.

Recreational: This remote river corridor offers outstanding opportunities for both primitive recreation and solitude. The area lies in rugged country with difficult and limited access. A high level of backcountry skill is required of visitors to this area.

Wildlife: Elevation gradient and canyon slopes provide highly diverse habitats associated with the riparian area. Pikas may be present in talus slopes near the canyon head. Bighorn sheep use the eastern slope of the gorge; elk and mule deer use this area extensively during summer months. Aspen, western juniper, cottonwood, beaver ponds, and large spring areas contribute to habitat diversity. Riparian dependent species may be present in riparian areas.

Fish: Kiger Creek provides habitat for wild, native redband trout. Additionally, Malheur mottled sculpin, mountain whitefish, and longnose dace have been observed in Kiger Creek downstream of the WSR segment. Redband trout and Malheur mottled sculpin are recognized by the BLM as Special Status Species.

Botanic: The west rim of Kiger WSR contains unique botanical sites. Wet meadows interspersed with willow hummocks are habitat for several Special Status plant species including pinnate grapefern, Cusick's draba, and foetid sedge. Drier, rocky areas adjacent to meadows contain Steens Mountain penstemon, weak-stemmed stonecrop, and sky pilot. Located above the meadows are cirque lakes perched on the side of the canyon wall at edges of lateral moraines. Areas around these lakes display vegetation that grows in other canyon sections but later in the season due to late-lying snowdrifts.

Management Goals and Objectives

General management of Steens Mountain Wilderness and WSR segments is guided by three pieces of Congressional legislation: the Steens Act of 2000, the Wilderness Act of 1964, and the WSRs Act of 1968. The Steens Act provides purposes and objectives for the CMPA including Steens Mountain Wilderness and WSR segments. The Steens Act mandated, where management requirements differ between the WSRs Act and Wilderness Act, more restrictive requirements shall apply.

Steens Mountain Cooperative Management and Protection Act

The Steens Act established the CMPA to “...conserve, protect, and manage the long term ecological integrity of Steens Mountain for present and future generations.” This included the designation of Steens Mountain Wilderness. Section 101(b) of the Steens Act also identified five specific objectives, which include the following:

1. To maintain and enhance cooperative and innovative management projects, programs and agreements between tribal, public, and private interests in the CMPA.
2. To promote grazing, recreation, historic, and other uses that are sustainable.
3. To conserve, protect, and ensure traditional access to cultural, gathering, religious and archaeological sites by the Burns Paiute Tribe on Federal lands and promote cooperation with private landowners.
4. To ensure the conservation, protection, and improved management of the ecological, social, and economic environment of the CMPA, including geological, biological, wildlife, riparian, and scenic resources.
5. To promote and foster cooperation, communication, and understanding and reduce conflict between Steens Mountain users and interests.

Steens Mountain Wilderness Guidance

The Steens Act requires Steens Mountain Wilderness be administered in accordance with the Steens Act and the Wilderness Act. The Wilderness Act provides four main goals guiding management of statutory wilderness. These goals are also reiterated as standard goals for BLM wilderness management plans as directed in BLM Manual 8561, Appendix 1. The goals are as follows:

1. Wilderness Character: To provide for long-term protection and preservation of the area’s wilderness character under a principle of nondegradation. The area’s natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so they will remain unimpaired.

2. Wilderness Use: To manage the wilderness area for use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource is dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.

3. Minimum Requirement Decision: To manage the area using the minimum tool, equipment, or structure necessary to successfully, safely and economically accomplish the objective. The chosen tool, equipment, or structure should least degrade wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible. The BLM will use the Minimum Requirement Decision Guide (MRDG) for all projects undertaken in the wilderness to determine the need and type of actions to be taken.

4. Nonconforming Uses: To manage nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area’s wilderness character. Nonconforming uses are exception rather than rule; therefore, emphasis is placed on maintaining wilderness character.

Wild and Scenic Rivers Guidance

The WSRs Act provides three main goals that guide management of designated river segments:

- 1. Free-Flowing Characteristics:** Free-flowing characteristics of all designated WSR segments shall be protected. The WSRs Act specifically prohibits hydropower development on designated river segments.
- 2. Outstandingly Remarkable Values:** The ORVs identified for each designated river segment shall be protected and enhanced.
- 3. Wild Classification:** River characteristics necessary to support the Wild classification of each designated river segment will be protected and improved. Several river segments have roads, recreation facilities, and historic structures that existed at time of designation. There is also a concrete bridge that crosses Donner und Blitzen WSR along the South Steens Loop Road. These facilities continue to be maintained and will be replaced as necessary to provide for public health and safety and resource protection; however, the majority of the river segments are still primitive in character.

Other Guidance

Additional guidance related to management of wilderness and WSRs is provided in BLM Manual 8560 for Management of Designated Wilderness Areas (April 1983), H-8560-1 Manual Handbook for Management of Designated Wilderness Areas (July 1988), 8561 Manual for Wilderness Management Plans, and the 8351 Manual for Wild and Scenic Rivers - Policy and Program Direction for Identification, Evaluation, and Management (May 1992). Other guidance for wilderness can be found at Title 43 Code of Federal Regulations (43 CFR) Part 6300 and for WSRs at 43 CFR Part 8351.2. This guidance will be incorporated into management activities that take place in Steens Mountain Wilderness or WSR corridors. New guidance will be incorporated into this management plan as manuals are periodically updated or new guidance becomes available.

Management Strategy

Most WSR corridors are located within Steens Mountain Wilderness. The Steens Act mandated where management requirements differ between the WSRs Act and the Wilderness Act, the more restrictive requirements shall apply. In recognition of overlap between Steens Mountain Wilderness and WSRs, this section of the management plan provides an integrated management strategy focusing on protecting and improving wilderness values, which inherently includes WSRs. However, information or actions with a WSR emphasis is specifically addressed where necessary. Guidance described under each of the four management elements is meant to provide overall guidance for Steens Mountain Wilderness and WSRs. As project implementation occurs, the MRDG is used as part of the project planning process. Management actions may be modified or initiated as additional resource and visitor data become available (See Monitoring Strategy).

Wild and Scenic Rivers Management Assumptions

1. In general, requirements associated with protection of wilderness resources are more restrictive than those for WSRs with a Wild River classification.
2. Unless otherwise addressed, the protection of wilderness resources and character will provide adequate protection for ORVs within WSR corridors. There are only 162 acres of BLM administered lands in WSR corridors that fall outside of Steens Mountain Wilderness, Riddle Brothers Ranch, Wilderness Study Areas (WSAs), developed recreation sites or existing roads (See Table 1).
3. Any management action or project proposed for Steens Mountain Wilderness that also falls within a designated WSR corridor is screened for compliance with requirements of the WSRs Act.

Wilderness Minimum Requirement Decision Guide

Development of the MRDG was an interagency effort among United States Forest Service (USFS), National Park Service, BLM, and United States Fish and Wildlife Service (USFWS) with assistance from Arthur Carhart National Wilderness Training Center. The guide was developed to provide consistency in evaluating project proposals in wilderness to help determine if decisions strive toward maintaining or improving wilderness character. There are two steps to the minimum requirements analysis: 1) to determine if the project or activity proposed is the minimum necessary for administration of the area for purposes of the Wilderness Act, and 2) to determine which tool(s) will have the least effect on the wilderness resource. Any analysis required by the National Environmental Policy Act (NEPA) for project implementation that falls within Steens Mountain Wilderness or WSRs is preceded by an MRDG evaluation.

The MRDG is meant to assist, not replace, analysis required by NEPA. Management direction described in the elements below is meant to provide overall guidance for Steens Mountain Wilderness and WSRs. As project implementation occurs, the MRDG is used as part of the project planning process.

The BLM will use the MRDG for all projects undertaken in Steens Mountain Wilderness to determine need and type, if any, of actions to be taken.

Wilderness Administrative Elements

Steens Mountain Wilderness falls within the CMPA in the Andrews RA of BLM's Burns District Office (DO). The BLM also actively manages other programs within these areas including recreation, range, wildlife habitat, soils, watershed, wild horses, and cultural resources.

Administrative responsibilities are vested with the Andrews Field Manager and are carried out by RA staff. On-the-ground management activities, such as visitor contact, visitor use data collection, monitoring, and informational signing are accomplished primarily by BLM staff and volunteers. Below are other administrative functions associated with managing Steens Mountain Wilderness and WSRs.

Aircraft Overflights

Current Management Situation

The BLM does not have jurisdiction to regulate aircraft flight paths, altitude parameters, or noise levels caused by civilian or military aircraft and overflights.

By agreement in 1992 between BLM and the Federal Aviation Administration, civilian aircraft are requested to maintain a minimum altitude of 2,000 feet above ground level or higher while in airspace over designated wilderness. This altitude advisory does not apply to military aircraft operating within an established military training corridor.

Steens Mountain Wilderness and WSRs lie within military training airspace designated as VR 1301 and managed by the Idaho Air National Guard in Boise, Idaho. This airspace is used by numerous military units in training and involves high- and low-elevation overflights of Steens Mountain Wilderness and the WSRs. The number and frequency of flights vary.

During wildlife management activities, Oregon Department of Fish and Wildlife (ODFW) uses aircraft over Steens Mountain Wilderness and WSRs to conduct aerial big game census activities and inspect wildlife water developments. During winter months, low-level helicopter and fixed-wing inventories are taken of mule deer, elk, pronghorn antelope, and bighorn sheep. Helicopters are used for transplanting wildlife, primarily bighorn sheep. Use of helicopters on these projects principally involves removal of animals from the area.

Historically, livestock grazing operations on allotments have been conducted with periodic use of helicopters to locate and monitor cattle, transport supplies and equipment, and manage fences and gates. Potential landing

and dropping of supplies by aircraft into Steens Mountain Wilderness will be analyzed in an environmental assessment (EA), prior to the landing of any aircraft or dropping of supplies.

Aircraft, both fixed-wing and helicopter, are used for emergency operations such as search and rescue. Use of aircraft within Steens Mountain Wilderness for such purposes is authorized at 43 CFR Part 6303.1. The BLM has a law enforcement agreement with Harney County identifying Harney County Sheriff's Office as responsible for search and rescue operations.

Use of aircraft by BLM personnel for administrative purposes includes use of fixed-wing aircraft and helicopters for reconnaissance and suppression of wildland fires. Aircraft are used in wildlife and wild horse monitoring and management programs. Analysis required by NEPA for use of administrative flights includes an MRDG evaluation. Fire suppression activities involving aircraft use are considered annually, prior to fire season. Aircraft activities are developed and considered through an MRDG evaluation. This consideration aids in decision making for potential initial attack activities during Wildland Fire Situation Analyses and other planning cycles. An emerging fire program for Steens Mountain Wilderness and WSRs will also be taken into consideration. The need for aircraft to participate in protection of human life is considered an emergency activity during fire suppression or prescribed fire activities.

Management Objectives

- Direct BLM personnel by education and policy to restrict overflights and landing of aircraft within Steens Mountain Wilderness and WSRs except as necessary for emergency situations or as otherwise approved by the authorized officer.

Management Direction

- Pursue development of agreements with cooperating agencies and permittees, which give concise direction for authorization and use of aircraft within Steens Mountain Wilderness and WSRs.
- Direct BLM personnel by education and policy to restrict overflights and landing of aircraft within Steens Mountain Wilderness and WSRs except as necessary for emergency situations or as otherwise approved by the authorized officer.

Lands and Realty

Current Management Situation

Land management requirements in the Steens Act regarding land exchanges, Steens Mountain Wilderness, and the WSR designations created inconsistencies between the current land tenure designations and legislative requirements. These inconsistencies were corrected in the CMPA RMP by adjusting land tenure zones to provide consistency with the Steens Act.

One specific purpose of the Steens Act (Section 1(b)(4)) is to provide for acquisition of private lands through exchange or purchase from a willing seller for inclusion in Steens Mountain Wilderness and the WSR corridors. In order to complete this, a number of specific land exchanges were outlined in the Steens Act and carried out by the BLM. Lands acquired within the boundary of Steens Mountain Wilderness and the WSR corridors came under those designations and are managed as such. The Steens Act also allows for additional future acquisitions of private lands in Steens Mountain Wilderness and the WSR corridors, which will be classified and managed accordingly. Acquired lands within the boundary of Steens Mountain Wilderness will become wilderness in accordance with the Steens Act (Section 114(b)(2)). The acquisition of lands inside an existing WSR lateral boundary (Section 3(b) of the WSR Act) will become part of the enacted WSR boundary.

Steens Mountain Wilderness and WSRs were not specifically designated as ROWs and realty use avoidance/exclusion areas prior to the RMP. Most of these types of land uses are prohibited under terms of the Wilderness Act and the WSRs Act. The RMP adjusts these zones to reflect ROWs and realty use exclusion zones.

Commercial activities including filming permits are generally prohibited in Steens Mountain Wilderness and WSRs. Commercial activities allowed in wilderness are addressed in this management plan under Special Recreation Permits (SRPs). Requests related to commercial activities outside of Steens Mountain Wilderness, but within a WSR corridor, such as Riddle Brothers Ranch, will be considered on a case-by-case basis.

Management Objectives

- To retain, consolidate, and acquire land or interest in land with high public resource values for effective administration and improvement of resource management.
- To acquire legal public or administrative access to public land where necessary.

Management Direction

- Public land holdings in Steens Mountain Wilderness and WSR corridors will be retained and increased. Public lands within Steens Mountain Wilderness and WSR corridors may not be disposed of under any circumstances.
- Private lands surrounded by Steens Mountain Wilderness or WSR corridors may be acquired from willing landowners by exchange, purchase, donation, or other authorized methods from willing landowners with the goal of ultimately achieving full fee title in Steens Mountain Wilderness and WSRs. Where fee acquisition is not possible, special emphasis is placed upon entering into conservation management agreements, acquiring conservation easements, or providing incentive payments for nondevelopment/conservation purposes (as funding is appropriated by Congress or otherwise made available in the BLM budget) to protect and manage these lands.
- Acquisition opportunities within or adjacent to special management areas including Steens Mountain Wilderness and WSRs are considered higher priority than acquisition of nonpublic lands elsewhere in the Andrews Management Unit (AMU)/CMPA. All forms of acquisition will be with willing landowners.
- Steens Mountain Wilderness and all WSRs are designated as ROWs, realty use, and renewable energy exclusion areas, except authorizations necessary to provide reasonable access to nonpublic lands and interests in land. In addition to the above exception, low-impact commercial activities such as filming permits may be considered on a case-by-case basis in the WSR portion of Riddle Brothers Ranch National Historic District.
- Valid existing rights within Steens Mountain Wilderness and WSRs not currently noted on the BLM's land status records will be adjudicated, acknowledged, and noted in accordance with applicable law.
- Legal public or administrative access within Steens Mountain Wilderness and WSRs, including conservation and scenic easements, will be acquired where public demand or an administrative need exists, including any rights necessary to control and minimize access to areas containing sensitive resource values. Emphasis is placed on providing access to areas containing high public values and the protection of natural values. Land tenure transactions are designed to maintain and improve public access.

Wildland Fire Management

Current Management Situation

Plant and animal communities throughout Steens Mountain Wilderness and WSRs have developed with some influence of wildland fire. The extent of the influence depends on many physical and biological factors. Steens Mountain Wilderness and WSRs experience an average of ten observed wildland fire starts during each annual wildland fire season. Many more wildland fires may be ignited, but are never discovered because they are extinguished by accompanying precipitation, or burn only for a short time because of limited quantities of fuel. The majority of these wildland fires are less than ten acres, but occasionally wildland fires will grow to over 1,000 acres if weather and fuel conditions permit.

The diversity of landscapes in Steens Mountain Wilderness and WSRs helps produce a wide spectrum of plant communities, and ultimately, fuel conditions. The different landscapes and plant communities also result in a variety of wildland fire regimes. Ten general vegetation types have been characterized and mapped within Steens Mountain Wilderness and WSRs. Vegetation types dominated by mountain big sagebrush, or have

a western juniper overstory and mountain big sagebrush understory, are placed in Fire Regime II, frequent stand replacing wildland fires. These vegetation types historically experience wildland fire once every one to 35 years. Quaking aspen vegetation types are classified as Fire Regime III, infrequent mixed severity wildland fires. This wildland fire regime could also be applied to most hardwood riparian communities within Steens Mountain Wilderness and WSRs. Low sagebrush and pre-settlement western juniper vegetation types are classified as Fire Regime V, rare (100-200 years between wildland fire events) stand replacing wildland fires. There are other specialized plant communities not classified as a general vegetation type. Mountain meadows and wet meadows have been mapped at less than 50 acres in Steens Mountain Wilderness and WSRs. These and other small specialized plant communities typically occur within major vegetation types referenced above and will operate at the wildland fire regime of adjacent vegetation types.

The Federal Wildland Fire Management Policy and Program Review (Policy) (United State Department of Agriculture [USDA]/USDI 1995) states wildland fire is a critical natural process and must be reintroduced into the ecosystem on a landscape scale. In many areas, wildland fire should occur at higher frequency (shorter return interval) than has been the case over the past 50 or more years. Wildland fire evaluations and management decisions are based upon approved wildland fire management and activity-level plans tiered to current and future RMPs. The Policy emphasizes that for all natural (e.g., lightning-caused) ignitions, the manager must be able to choose from the full spectrum of management actions from prompt and full suppression to allowing a wildland fire to burn freely and function in its natural ecological role. Wildland fire management strategies and suppression activities should minimize damage to long-term ecosystem function and emphasize protection, restoration, or maintenance of key habitat types.

Wilderness prescribed fire issues are addressed by subsequent NEPA analysis on a “project-level” basis. These documents analyze objectives of such actions. In addition, an MRDG will be developed for each action taken. BLM Manual 8560, Management of Designated Wilderness Areas, also allows for use of prescribed burning to achieve resource management goals and restoration of natural ecological processes.

Firefighter and public safety are the highest priorities during all wildland fire incidents. Once human safety has been secured, protection of private property and natural and cultural resources becomes the next priority in suppression actions.

Management Objectives

- To protect human life, private property, or areas that possess significant resource values that are threatened by wildfire.
- To restore and maintain the integrity of ecosystems by reestablishing appropriate wildland fire regimes.

Management Direction

- Develop guidance in the Burns District Fire Management Plan (FMP) that addresses management of wildland fire in Steens Mountain Wilderness and WSRs. Emphasis is given to restoring appropriate wildland fire regimes and ecosystem integrity, while still protecting human life, private property or other significant resource values. Appropriate rehabilitation guidelines associated with protecting wilderness resources will also be developed as needed.
- As part of the FMP, agreements with other land management agencies and private landowners to facilitate cooperative wildland fire management will be pursued.
- All wildland fires in Steens Mountain Wilderness and WSRs will be suppressed using appropriate management actions. To the extent possible, adverse effects on wilderness resources will be minimal.

Emergency Services and Law Enforcement

Current Management Situation

The BLM law enforcement rangers enforce Federal regulations on 3.36 million acres of BLM administered lands in the Burns District. Common law enforcement violations in Steens Mountain Wilderness and WSRs

include motorized vehicle travel in closed areas, illegal outfitters/guides, illegal wildlife hunting, vandalism, and theft of archaeological resources.

Under a law enforcement agreement between BLM and Harney County Sheriff's Office, a County deputy patrols areas in the vicinity of Steens Mountain Wilderness and WSRs during high recreation use periods from June through October. This agreement is funded by BLM and the deputy primarily enforces violations associated with Oregon State laws. Oregon State Police also conducts patrols focusing mainly on violations of State fish and game laws, although officers respond to other violations.

The Harney County Sheriff's Office is responsible for managing all search and rescue operations in Steens Mountain Wilderness and WSRs. The BLM assists the County in search and rescue operations as requested, generally providing personnel and, on occasion, aircraft.

The 43 CFR 6303.1 states, "As necessary to meet minimum requirements for the administration of the wilderness area, BLM may: (d) Prescribe measures that may be used in emergencies involving the health and safety of persons in the area including but not limited to, the conditions for use of motorized equipment, mechanical transport, aircraft, installations, structures, rock drills, and fixed anchors. BLM will require any restoration activities that we find necessary to be undertaken concurrently with the emergency activities or as soon as practicable when the emergency ends."

In addition, BLM Manual 8560 states mechanical transport and motorized equipment may be used for emergency situations involving human health and safety and for emergencies involving criminal law and pursuit of fugitives.

Management Objectives

- To increase BLM law enforcement capabilities to protect Steens Mountain Wilderness and WSR resources.
- To pursue coordination and cooperation with other law enforcement agencies and work to inform them about Steens Mountain Wilderness and WSR enforcement issues.

Management Direction

- As funding and a full-time position become available, consider hiring an additional BLM law enforcement officer responsible for the CMPA including Steens Mountain Wilderness and WSRs.
- Where needed, develop additional supplemental regulations governing public use in Steens Mountain Wilderness and WSRs as provided for in 43 CFR Part 8365.1-6.
- Continue and promote law enforcement and other cooperative agreements with Harney County Sheriff's Office and Oregon State Police for protection of Steens Mountain Wilderness and WSR resources.
- Develop written materials to help educate cooperating law enforcement and search and rescue agency personnel about protection of Steens Mountain Wilderness and WSR resources related to public use and appropriate use of motor vehicles, aircraft, and other motorized or mechanical equipment needs during emergency situations.

Partnerships and Volunteers

Current Management Situation

Partnerships and volunteers are vital parts of managing Steens Mountain Wilderness and WSRs. Beginning in 2002, volunteers began removal of fences in the Ankle Creek area no longer needed within the No Livestock Grazing Area. In 2003, volunteers removed an additional two miles of fence from the Little Blitzen Gorge area. The BLM entered into a Cooperative Conservation Initiative with a number of conservation organizations in Oregon to continue fence removal efforts in Steens Mountain Wilderness and WSRs. These groups work under direction and coordination of Oregon Natural Desert Association (ONDA) through a volunteer agreement with BLM. The BLM organizes work projects for volunteers and provides available funding for contracting with a packer and packstring to remove fencing materials after disassembly by volunteers. The

BLM is developing its own packstring to assist with these and other Steens Mountain Wilderness and WSRs management activities. Volunteer groups provided over 3,600 hours of volunteer labor to BLM during 2004 volunteer work projects. Oregon Archaeological Society volunteers worked with BLM to inventory Steens Mountain Wilderness in 2003 and 2004. These activities are planned annually through 2009. Additional Oregon Archaeological Society labor was donated at the Mortar Riddle Site excavations in Riddle Brothers Ranch National Historic District in 2003 and 2004.

Following discussions with the SMAC, BLM may consider establishing a nonprofit cooperating association. This organization could assist BLM in seeking funding opportunities for project work, recruiting volunteers, developing information and education programs, as well as other programs supporting the intent of the Steens Act.

Management Objectives

- To develop relationships and cooperative agreements with partners to benefit management of Steens Mountain Wilderness and WSRs.

Management Direction

- Continue ongoing efforts to recruit and utilize individual and group volunteers for work projects in Steens Mountain Wilderness and WSR corridors.
- Develop an inventory of work projects needed to improve or monitor Steens Mountain Wilderness and WSR resources and values, which can be used for recruiting volunteers.
- Pursue discussions with the SMAC on the possibility of establishing a nonprofit cooperating association.

Education and Outreach

Current Management Situation

At present there is little specific education information available to the public regarding Steens Mountain Wilderness and WSRs; however, BLM distributes materials regarding Steens Mountain Wilderness and WSRs use and ethics, including single sheet handouts and general Leave No Trace information.

Management Objectives

- To create a wilderness and WSR education program on Burns District which informs staff and public about unique aspects of Steens Mountain Wilderness and WSRs and wilderness management guidelines.

Management Direction

- Include wilderness and WSR ethics education in the CMPA brochure currently being developed. Include similar information on the Burns District/Steens Mountain website.
- Develop an outdoor ethics education program, possibly in cooperation with USFS and USFWS, which will be presented to BLM staff, local area schools, church and Scout groups, community service organizations, and hunting, fishing, and equestrian clubs.
- Post use ethics information about Steens Mountain Wilderness and WSRs in high use areas such as trailheads, developed recreation sites near Steens Mountain Wilderness and WSRs, and locations in nearby communities.

Research

Current Management Situation

At present, short-term research studies conducted in Steens Mountain Wilderness and WSRs include wildlife studies by ODFW and the Point Reyes Bird Observatory. A BLM partnership with the University of Wisconsin exists for archaeological research at the Mortar Riddle Site in Riddle Brothers Ranch National Historic District.

Management Objectives

- To work with other agencies, universities, and interested entities to conduct research activities in a manner that preserves the area's wilderness character and furthers management, scientific, educational, historical, and conservation purposes of Steens Mountain Wilderness and WSRs.

Management Direction

- Continue discussions with the SMAC on establishment of a Science Advisory Committee.
- Pursue cooperating partners for wilderness and river dependent research projects.
- Initiate cooperative management agreements between researchers and BLM.
- Use information gained through research for developing management projects and actions which promote wilderness and WSR character and values.

Visitor Use Elements

Recreation Facilities only in Wild and Scenic River Corridors Outside of Wilderness

Current Management Situation

There are two developed recreation sites that fall within WSR corridors but outside of Steens Mountain Wilderness. Page Springs Campground along the Donner und Blitzen WSR at 4,200 feet in elevation is open year-round and accessed from North Steens Loop Road. Located only four miles from the community of Frenchglen, Page Springs has 31 campsites and receives approximately 29,000 visits each year. Jackman Park Campground is open July through October and is located along Fish Creek off North Steens Loop Road in an aspen grove three miles from Fish Lake at 7,800 feet in elevation. Jackman Park has six campsites and receives approximately 2,200 visits each year. Both campgrounds offer picnic tables, drinking water, fire rings, and vault restrooms.

Developed recreation sites are not normally found along a river with a Wild classification. However, both recreation sites existed at the time the rivers were designated and continued use and maintenance of these facilities will be in accordance with the WSRs Act.

Riddle Brothers Ranch, located two miles north of the South Steens Loop Road, receives approximately 550 visits each year. The ranch is further described in the Historic ORV Section for the Donner und Blitzen WSR System.

Management Objectives

- To manage and maintain existing recreation facilities in a manner that provides for visitor safety and natural resource protection.
- To minimize the development of new facilities in natural areas to that which is necessary for public health and safety and resource protection.

Management Direction

- Develop a Comprehensive Recreation Plan to provide guidance for recreation facilities and management in the CMPA, including an evaluation and recommendation of facility needs in WSR corridors.

Wilderness Trails and Trailheads

Current Management Situation

There are no developed trailheads or other recreation facilities in Steens Mountain Wilderness or overlapping portions with WSR corridors; however, there are ten trails within Steens Mountain Wilderness and WSR corridors (Maps W2 and W3). Below is a summary of each trail and trailhead:

Oregon High Desert National Recreation Trail: Approximately 32.5 miles of Oregon High Desert National Recreation Trail traverse Steens Mountain Wilderness and WSRs. This route is not an actual trail but rather a corridor marked by occasional cairns. The trail provides great diversity of scenery, as well as outstanding opportunities for solitude and wildlife viewing.

Little Blitzen Trail: The Little Blitzen Trail is approximately nine miles long. It begins east of South Steens Campground, descends to Little Blitzen River, and heads up Little Blitzen Gorge. The trail parallels the river and passes through groves of large cottonwood trees and open meadows before terminating at the head of the canyon. One spur trail exits the canyon; Nye Trail is a constructed but primitive trail. Trailhead facilities outside Steens Mountain Wilderness include a small dirt parking area with limited parking and one bulletin board. In order to reach the trail, visitors must walk 0.25 mile farther east on the South Steens Loop Road.

Nye Trail: This primitive, narrow, and steep one-mile trail switchbacks 1,000 feet down the north wall of Little Blitzen Gorge to its junction with Little Blitzen Trail. The Nye Trail is located near the mid-point of the gorge. The top of the trail begins approximately 100 yards west of Nye Cabin. No formal trailhead exists, although parking is allowed within 30 feet of Cold Springs Road centerline, adjacent to the beginning of the trail.

Big Indian Trail: The Big Indian Trail is approximately nine miles long and begins at South Steens Campground. The portion of the trail to the first creek crossing is located on a closed two-track road presently being rehabilitated to a single-track trail. After crossing Big Indian Creek, the trail turns north and then east as it follows the creek for 9 miles to the head of the canyon. Along the way, the trail passes through numerous meadows and cottonwood groves and by a waterfall near the canyon head. Trailhead facilities outside Steens Mountain Wilderness include a small gravel parking lot and nearby vault toilet. The old road leading from the trailhead toward Big Indian Gorge is gated at the parking lot.

Wildhorse Lake Trail: This one-mile trail begins on a short section of closed dirt road that previously led to the old Wildhorse Lake overlook. The trail then drops down the north wall of the cirque at the head of Wildhorse Lake Basin and leads to the north shore of the lake through a sensitive alpine environment. The trail is exceedingly steep with several dropoffs. The trailhead provides limited parking at a wide-bladed area at the end of the Wildhorse Lake Overlook Road. No facilities are presently located at this trailhead.

Steens Summit Trail: This short 0.4-mile trail is gated and follows an old road that is closed to vehicle access by the general public. The trail reaches the 9,733-foot high summit of Steens Mountain and offers outstanding views of the surrounding countryside. The road accesses communication facilities operated under permit from the State of Oregon. Approximately half of the route is located within Steens Mountain Wilderness with the remainder on State lands. The trailhead provides limited parking at a wide-bladed area at the end of Wildhorse Lake Overlook Road. At present, no facilities are located at this trailhead.

Pike Creek Trail: This two-mile trail is located on the eastern slope of Steens Mountain and generally runs along the north side of Pike Creek and heads west up the canyon. Beginning on privately owned land, the trail immediately enters BLM administered lands and passes through a portion of High Steens WSA before

entering Steens Mountain Wilderness. The trailhead is a small wide area at the end of a dirt road and has very limited parking. No facilities are present at this parking area, which is located on privately owned land.

Mud/Ankle Creek Trail: This 7.4-mile trail follows an unmaintained two-track dirt road that is open to motor vehicle traffic for the first mile. At that point a small parking area is available as the road is closed to vehicle travel by the general public. However, at time of publication of this document, motor vehicle access is available to landowners and lessees who are permitted to access private land inholdings in the Ankle Creek area (See Roads Section). This route provides access to Mud Creek and Ankle Creek within Ankle Creek Basin, an area located south of Little Indian Gorge and west of Wildhorse Canyon. Visitors may park within 30 feet of the road centerline for the first mile of Newton Cabin Road, and are encouraged to park within existing disturbed parking spurs. For the first mile, visitors may also park at South Steens Campground and walk or ride horseback 0.25 mile west on South Steens Loop Road to reach Newton Cabin Road.

Blitzen River Trail: This four-mile trail begins at the trailhead at the south end of Page Springs Campground and travels its entire length along the Donner und Blitzen WSR. The trail offers outstanding opportunities for access to the river. The trailhead has a small bulletin board and trail registration box. Camping, toilets facilities and water are available immediately adjacent to the parking area at the campground.

Wilderness Trail: Developed as a nature trail, this one-mile trail begins at Page Springs Campground. The trailhead is a bladed dirt area providing limited parking. Facilities at this trailhead are limited to one brochure box. The entire trail length is marked with rock cairns.

At time of development of the Steens Mountain Wilderness/WSRs Plan BLM recognized ten system trails within the Wilderness. While other historic trails may exist within the Wilderness, no conclusive evidence has been presented to BLM regarding such trails and they are not currently recognized as part of the existing Steens Mountain Wilderness trail system. The Steens Act allows for construction of new nonmotorized trails and these may be authorized based on need. New trails may be constructed only if they are needed to preserve wilderness values and resources, and they will not significantly degrade the degree of naturalness or solitude in the area.

Nonmotorized/nonmechanized cross-country travel is not prohibited in Steens Mountain Wilderness and visitors may travel where they wish. Excessive or continual off-trail use, which creates permanent and long-lasting user trails not recognized as part of the established Steens Mountain Wilderness trail system listed above, may be obliterated and restored to a natural condition, especially where resource damage has occurred or is occurring or adverse effects to the wilderness experience are taking place. Continued or excessive use of such areas, which causes development or re-development of “user” trails, may trigger initiation of restrictive management actions to correct the situation. Occasional or incidental use and travel off the existing Steens Mountain Wilderness trail system is not normally expected to cause an undue or excessive amount of resource damage or a reduction of wilderness values.

Management Objectives

- To provide and manage a trail system that allows visitors to experience Steens Mountain Wilderness and WSRs while minimizing effects to wilderness resources and opportunities for solitude.
- Any new trail construction or maintenance of existing trails will meet wilderness trail design and safety standards for hiking and horseback riding use.
- Allow for nonmotorized/nonmechanized cross-country travel, but minimize the establishment of user-established trails from designated trails.

Management Direction

- Identify and implement any known trail construction or maintenance projects for Steens Mountain Wilderness and WSRs. To the extent possible, minimize stream crossings and limit signs to those needed for visitor safety and resource protection within Steens Mountain Wilderness and WSRs. Portal signs will be installed to clearly define the wilderness boundary on major trails.
- Obliterate and restore user-established trails that cause resource damage.

- Seek trail development opportunities outside Steens Mountain Wilderness and WSRs to reduce effects to wilderness and WSR resources when public demand for such trails is established.

Wilderness and Wild and Scenic River Use Guidelines

This section addresses guidelines associated with public use of Steens Mountain Wilderness and WSRs.

Recreational opportunities occurring in Steens Mountain Wilderness and WSRs include hiking, backpacking, equestrian activities, nature study, hunting, and fishing. Visitors participate in both day use and overnight activities. Traditional recreational stock use is a current and historic use and activity in Steens Mountain Wilderness.

Currently, the majority of recreation use in Steens Mountain Wilderness and WSRs takes place in Wildhorse Lake and Big Indian Gorge. Activities are mainly sightseeing, day hiking, backpacking, fishing, and day and overnight trips by equestrians. Little Blitzen Gorge is also a popular destination for both day hikers and backpackers. The east side of Steens Mountain Wilderness receives use from day users, primarily hikers in Pike Creek. This area of Steens Mountain Wilderness and the Alvord Peak area are also popular with hunters seeking big game and upland game birds. The area around Mud Creek and Ankle Creek WSRs has had light use due to its remoteness. Use within Ankle Creek Basin is beginning to increase from equestrians, especially those wanting to experience multi-day trips with solitude and big game hunting opportunities. Other portions of Steens Mountain Wilderness and WSRs such as Cold Springs and Fish Creek areas receive very little use.

Recreation use under SRPs amounted to 512 visits to Steens Mountain Wilderness and WSRs for fiscal year 2003. These included 55 visits from outfitter/guides offering both single-day and multi-day trips into the wilderness, 76 visits exclusively from single-day services, and 381 visits from a running camp.

Wilderness trail registration information recorded 2,475 visitors to Steens Mountain Wilderness and WSRs for fiscal year 2003 and 2,127 for 2004. These included both day-trip and multi-day trips visits. The actual number of visitors to Steens Mountain Wilderness and WSRs for the year is believed to be higher, due to the unknown rate of visitor compliance with voluntary wilderness registration.

Use of Steens Mountain Wilderness Boundary Roads

Section 112 (b) of the Steens Act prohibits off-road use by motorized or mechanized vehicles and limits such use to roads and trails as may be designated for their use as part of the management plan. Currently roads bound on both sides by Steens Mountain Wilderness and designated as open for public use include portions of Steens Loop Road, Fish Creek, Grove Creek, Cold Springs, Wildhorse Lake Overlook, Indian Creek, Newton Cabin, Bone Creek, and Big Alvord Creek Roads (Map W2).

During winter, snowmobile use is allowed under BLM use authorization, with access from the north entrance of Steens Loop Road. Snowmobiles may travel from snowline to Kiger Gorge Overlook. Snowmobile use is allowed along Cold Springs Road to Nye Cabin and along Dingle Creek Road only when accompanied by a commercial recreation permittee who is authorized to operate snowmobile trips, or by a member in good standing of the local snowmobile club. The route to Nye Cabin, North Steens Loop Road above Cold Springs Road turnoff, and the east side of Dingle Creek Road are bounded by Steens Mountain Wilderness.

There have been limited illegal intrusions into Steens Mountain Wilderness by motorized vehicles, primarily in areas near Weston Basin and Cold Springs Roads. Repetitive intrusions into Steens Mountain Wilderness may result in restriction of certain recreation activities or closure of access points (See Unauthorized Motor Vehicle and Mechanical Transport Intrusion Guideline, Table 8).

Prohibited Uses

Except as specifically stated in the Steens Act or the Wilderness Act, the following activities are currently prohibited in wilderness (43 CFR 6302.20):

- Operate a commercial enterprise.

- Build temporary or permanent roads.
- Build aircraft landing strips, heliports, or helispots.
- Use motorized equipment or motor vehicles, motorboats, or other forms of mechanical transport.
- Land aircraft, or drop or pick up any material, supplies or person by means of aircraft, including a helicopter, hang glider, hot air balloon, parasail, or parachute.
- Build, install, or erect structures or installations, including transmission lines, motels, vacation homes, sheds, stores, resorts, organization camps, hunting and fishing lodges, electronic installations, and similar structures, other than tents, tarpaulins, temporary corrals, and similar devices for overnight camping.
- Cut trees.
- Enter or use wilderness areas without authorization, where the BLM requires authorization.
- Engage or participate in competitive use, including those activities involving physical endurance of a person or animal, foot races, watercraft races, survival exercises, war games, or other similar exercises.
- Violate any BLM regulation, authorization, or order.

Specific Use Guidelines

Below are public use guidelines that were specifically developed for Steens Mountain Wilderness and WSRs:

- Management of party sizes will limit groups to a maximum of 12 individuals and 18 recreational stock, except for historic permitted and American Indian uses.
- Length-of-stay limited to 14 days.
- Dogs allowed in all areas, but are required to be under voice or physical control.
- Catholes for human waste are required and must be at least 150 feet (60 footsteps) from all water sources, campsites and trails. Packing out of human waste is strongly encouraged and may be required for certain permitted activities.
- Toilet paper is required to be packed out.
- Overnight camping is allowed in Rooster Comb and Little Blitzen RNAs in historically used areas when consistent with the purpose of the RNA and Steens Mountain Wilderness/WSRs Plan objectives.
- Camping is allowed at Wildhorse Lake in a defined area in designated campsites.
- No overnight recreational stock use at Wildhorse Lake is allowed. No camping is allowed in Little Wildhorse RNA.
- Grazing of recreational stock is allowed consistent with Standards and Guidelines for Rangeland Health (S&Gs).
- Recreational stock may graze freely in the No Livestock Grazing Area of Steens Mountain Wilderness, except Little Blitzen RNA where such use will be monitored.
- Pack goats will be highlined or picketed.
- Tying recreational stock to trees will only be allowed for loading and unloading. No tying of recreational stock to trees overnight is allowed.
- No permanent caches allowed by SRP holders or the general public in Steens Mountain Wilderness and WSRs.
- The installation, erection, or building of temporary or permanent structures is prohibited except for immediate use while camping or by authorized permit from BLM.

Recreation Use Levels and Indicators

The management of Steens Mountain Wilderness and WSRs considers level of use, or “Use Capacity”, of the area under management. A set of social and physical indicators has been developed to assess the health or condition of Steens Mountain Wilderness and WSRs, rather than establishment of specific levels of use. As described below, certain indicators will be monitored on a regular basis and results of monitoring will be used to adjust type or level of management actions needed to meet the guideline that has been set for each indicator. Two different management areas (see below) were identified for Steens Mountain Wilderness, each with its own desired conditions. The same indicators are used; however, the guidelines for the indicators are different for each management area.

Management Areas

The management areas defined for Steens Mountain Wilderness are Gorges Management Area and Uplands Management Area (Map W2). Boundaries of these management areas are generally defined by patterns and types of historic use and wilderness physiography. Within Gorges Management Area are five separate canyons: Little Blitzen, Big Indian, Little Indian, Wildhorse, and Kiger. Management actions can be initiated in each of the canyons separately to accommodate the individual management situation for each canyon. The desired condition associated with public use is summarized below to provide a sense of the visitor experience and wilderness setting that the indicators and guidelines were developed to meet.

Gorges Management Area Desired Condition: This portion of Steen Mountain Wilderness is adjacent to primary access and popular destination points. The opportunity exists for a moderate level of risk and challenge. Contact with other users, recreational stock, or agency personnel may be frequent. Encounters with large and small groups are more likely. Day-use opportunities are more common within this management area. Campsites are dispersed and may be visible or audible from adjacent campsites. Signing to indicate trail routes is not currently planned, but may occur in the future at trail intersections and other areas as needed. Boundary signs, trailhead signs, trail junction signs, and other information are provided to educate and inform wilderness users. Signs are on unstained wood with incised letters and mounted on unstained posts.

Effects from camping activity meet Desired Conditions for the Natural Environment. Permitted outfitters provide services to visitors for activities meeting identified public needs and cannot be provided in nonwilderness settings. Structures and facilities may be allowed for resource protection and administration of the area; however, they are allowed only when they are the minimum necessary to protect the wilderness resource and for the health and safety of persons within the area. No facilities or improvements within Steens Mountain Wilderness are provided for the comfort and convenience of the visitor. Evidence of historic and cultural sites may exist, but is not interpreted or signed within wilderness.

Uplands Management Area Desired Condition: The opportunity exists for a moderate to high level of risk and challenge. Contact with individuals or groups occurs more frequently on trails than while traveling cross-country. Encounters with large groups occur less often than with small groups or individuals. Domestic livestock and recreational stock may be encountered. Campsites are dispersed; visitors at adjacent campsites are usually not seen or heard. Existing campsites are evident as are maintained and user-established trails.

Effects from camping are minimally noticeable. Permitted outfitters provide services to visitors for activities that meet identified public needs and cannot be provided in nonwilderness settings. Permits for historic uses consistent with the Wilderness Act as recognized by the Steens Act may continue. Signing to indicate trail routes is not currently planned, but may occur at trail intersections and elsewhere as needed. Management information and administrative signing occur at trailheads as appropriate for resource protection. Signs blend in with the natural setting. Livestock and recreational stock grazing adhere to appropriate S&Gs. Evidence of historic and cultural sites may exist, but is not interpreted or signed within wilderness.

Steens Mountain Wilderness and WSR Condition Indicators

The following are indicators being monitored to assess baseline and ongoing Steens Mountain Wilderness and WSR conditions. Indicators are items or specific conditions which are monitored. Through use of indicators, wilderness conditions will be monitored to determine if desired conditions are being met.

1. Campsite Condition - campsite changes.
2. Campsite Density - number of campsites in a given area.
3. Perception of Solitude - trail register information, including length-of-stay, location of use, party size and makeup, and interviews including location of encounters.
4. Trail Condition - changes in trails, including width, depth, and number of social trails.
5. Length-of-Stay - trail register and interviews on length-of-stay.
6. Recreational Stock Use - root exposure, manure in campsites, and tree girdling.
7. Unauthorized Motorized Vehicle and Mechanical Transport Intrusions - vehicles driven on closed roads, unless authorized, or driven off roads into Steens Mountain Wilderness.

Baseline Data Gathering on Indicators: The BLM began collecting information on Steens Mountain Wilderness and WSRs use upon establishment of the area as wilderness. A program for collecting specific baseline monitoring data started in 2003 on the seven indicators described above to assess Steens Mountain Wilderness and WSR conditions related to recreational use and effects. Baseline data collection continued through 2004. Data will be analyzed to determine where the indicators fall with respect to the guidelines described below. Indicators will continue to be monitored on an annual basis.

Recreation Use Management Options and Condition Guidelines

The BLM has developed different management option levels describing management actions for attaining desired conditions and indicator guidelines. There are three general option levels associated with managing public use. Level I is the least restrictive, often involving voluntary compliance by improving visitor information and increasing visitor education efforts. Level II is more restrictive, stressing active discouragement of undesirable use practices through contact with visitors, increased signing, and written materials. Nonquota permit systems may also be implemented. Level III is the most restrictive, usually involving shorter stay limits, quota permit systems, and temporary or permanent closures. Detailed descriptions of each of the three management options levels have been developed for the seven monitoring categories (Attachment 1).

Baseline and annual monitoring data will be used to assess conditions of Steens Mountain Wilderness and WSRs and determine need for implementation of management action. Implementation of the appropriate level of management is based on exceeding the threshold. Thresholds are the upper limit in terms of time or percentage of the standard or guideline that is exceeded, at which point the next level of management options will be undertaken. Indicator guidelines and trigger thresholds used are described in Tables 2 through 8.

Management Objectives

- To manage recreation use in a manner that provides visitors with an opportunity to explore and experience the wildness and naturalness of Steens Mountain Wilderness and WSRs, while still protecting wilderness resources and WSR ORVs.

Management Direction

- Management actions associated with recreational use will remain at the lowest management option level needed to meet indicator guidelines described above.

Table 2: Campsite Condition Guideline

| Campsite Condition Guideline | |
|-------------------------------------|--|
| Management Area | Guideline |
| Gorges | - No greater than 30 percent of campsites within an individual canyon at Campsite Condition “heavy”, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - No campsites at Campsite Condition “extreme” in any monitoring year, unless the campsite is designated. |
| Uplands | - No greater than 20 percent of campsites within the Management Area at Campsite Condition “heavy”, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - No campsites at Campsite Condition “extreme” in any monitoring year, unless the campsite is designated. |

Note: A campsite at Campsite Condition “extreme” will allow the implementation of management options for that specific campsite.

Table 3: Campsite Density Guideline

| Campsite Density Guideline | |
|----------------------------|---|
| Management Area | Guideline |
| Gorges | - 5 campsites per linear mile, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |
| Uplands | - 6 campsites per square mile, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |

Table 4: Perception of Solitude Guideline

| Perception of Solitude Guideline | | | | |
|----------------------------------|---|---|---|---|
| Management Area | Guideline | | | |
| | Campsite Encounters | Trail/Route Encounters | Large Group Encounters | Crowding Perception |
| Gorges | 4 per 8-hour period, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. | 9 per 8-hour period, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. | 3 per 8-hour period, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. | 20 percent increase in visitors reporting to be moderately to extremely crowded, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |
| Uplands | 2 per 8-hour period, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. | 4 per 8-hour period, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. | 1 per 8-hour period, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. | 10 percent increase in visitors reporting to be moderately to extremely crowded, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |

Table 5: Trail Condition Guideline

| Trail Condition Guideline | |
|---------------------------|--|
| Management Area | Guideline |
| Gorges | - 35 percent increase in the density of trails per acre, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - 50 percent increase in the width or depth of trails in an individual canyon, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |
| Uplands | - 20 percent increase in the density of trails per acre, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - 35 percent increase in the width or depth of trails in the Management Area, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |

Table 6: Length-of-Stay Guideline

| Length-of-Stay Guideline | |
|---------------------------------|---|
| Management Area | Guideline |
| Gorges | - 50 percent increase in average length of stay for all parties in Steens Mountain Wilderness, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |
| Uplands | - 35 percent increase in average length of stay for all parties in Steens Mountain Wilderness, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |

Table 7: Recreational Stock Use Guideline

| Recreational Stock Use Guideline | |
|---|--|
| Management Area | Guideline |
| Gorges | - 50 percent increase in root exposure at campsites, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - 50 percent increase in tree girdling at campsites, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - 50 percent increase in manure present at campsites, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |
| Uplands | - 35 percent increase in root exposure at campsites, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - 35 percent increase in tree girdling at campsites, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. - 35 percent increase in manure present at campsites, in 2 of 3 consecutive monitoring years Level I, in 3 of 4 consecutive monitoring years Level II, and in 4 of 5 consecutive monitoring years Level III. |

Table 8: Unauthorized Motor Vehicle and Mechanical Transport Intrusions Guideline

| Unauthorized Motor Vehicle and Mechanical Transport Intrusions Guideline | |
|---|--|
| Management Area | Guideline |
| Gorges | - Unauthorized motor vehicle and mechanical transport intrusions are an illegal activity in Steens Mountain Wilderness and require immediate implementation of Level I management options. - Repeated, documented unauthorized intrusions into Steens Mountain Wilderness from any points of access will be assessed for implementation of Level II management options. |
| Uplands | - Unauthorized motor vehicle and mechanical transport intrusions are an illegal activity in Steens Mountain Wilderness and require immediate implementation of Level I management options. - Repeated, documented unauthorized intrusions into Steens Mountain Wilderness from any points of access will be assessed for implementation of Level II management options. |

Special Recreation Permits

Current Management Situation

Section 115(b) of the Steens Act states, “The Secretary may renew a special recreation use permit applicable to lands included in the Wilderness Area to the extent that the Secretary determines that the permit is consistent with the Wilderness Act (16 USC 1131 et seq.). If renewal is not consistent with the Wilderness Act, the Secretary shall seek other opportunities for the permit holder through modification of the permit to realize historic permit use to the extent that the use is consistent with the Wilderness Act and this Act, as determined by the Secretary.”

Section 4(d)(6) of the Wilderness Act states, “Commercial services may be performed within the wilderness areas designated by this Act to the extent necessary for activities that are proper for realizing the recreational or other wilderness purposes of the areas.” These activities are normally managed under SRPs issued and administered by BLM.

Current Permits: In 2003, 11 commercial permittees were authorized to operate in Steens Mountain Wilderness and WSR corridors, offering both single-day and multi-day trips. These included seven long-term permit holders and four permittees who offered one-time trips into Steens Mountain Wilderness and WSRs during 2003. Additional services, principally day hiking and nature study, were offered by four outfitters offering one-time permitted trips into Steens Mountain Wilderness and WSRs during 2003. Most SRPs are associated with commercial guiding for hunting, fishing, camping, llama pack trips, and trail rides. Four of the special recreation permittees operate hunting and fishing guide services and one offers llama pack trips plus guided fishing trips. Another operator offers a range of services including trail rides, overnight horseback trips, hunting and fishing trips, and a variety of winter recreation trips. A permittee with an historic use SRP currently conducts distance running day trips in Steens Mountain Wilderness and WSRs to provide endurance training for youth. The 2004 use included six short-term and four long-term permits. These permits included activities similar to those conducted in 2003.

Long-term permit holders reported a combined total of 436 visits to Steen Mountain Wilderness and WSRs for 2003. One-time outfitter/guide services reported a combined total of 76 visits to the wilderness for the same period.

Management Objectives

- To provide for the level and type of commercial services necessary, consistent with the Wilderness Act, WSRs Act and WSRs ORVs to enable the public to use, access, enjoy and experience recreational and other values of wilderness, emphasizing opportunities for primitive and unconfined types of recreation, inspiration, and solitude.
- To recognize the historic permitted activities and assure continuation of these activities is consistent with the Wilderness Act, Steens Act, and WSRs Act and the WSRs ORVs.

Management Direction

- New proposals for outfitters will be considered after preparing a needs assessment. No permanent caches are allowed for either outfitters/guides or the general public.
- Monitor historic, current, and future permitted activities to assure consistency with the Wilderness Act and WSRs Act and WSRs ORVs.

Natural and Cultural Resource Elements

Air Quality

Current Management Situation

The Clean Air Act (CAA) requires Federal agencies to comply with all Federal, State, and local air pollution requirements. Under criteria established through the CAA as amended in 1990, Steens Mountain Wilderness and the WSRs are designated as Class II.

Management Objectives

- To manage wildland fires to avoid degradation of Steens Mountain Wilderness and WSRs airshed.

Management Direction

- Utilize wildland fire to meet wilderness management objectives, while meeting Federal and State air quality and opacity standards.

Water Resources

Water Quality:

Current Management Situation

Most of the WSRs discussed in this management plan have been identified as water quality impaired on the Oregon Department of Environmental Quality (DEQ) 303(d) list for 2002 under the Clean Water Act (CWA) (see Table 9). Additionally, Home and Willow Creeks, located within wilderness, are listed on the 303(d) list as water quality impaired. The parameter warranting listing is stream temperature for the most sensitive beneficial use, salmonid (trout) fish rearing. The temperature standard applied to this listing criterion was 64 degrees Fahrenheit (°F). However, the Oregon Administrative Rule (OAR) for Water Quality Standards was amended in 2004 to specify 68°F as the temperature standard for redband trout and Lahontan cutthroat trout.

Water quality issues in wilderness and WSRs are associated with potential nonpoint source pollutants, such as reduced thermal buffering of stream temperatures and sediment input from runoff events and streambank erosion. The primary attribute and indicator for maintenance or restoration of water quality is riparian vegetation. Adequate composition, distribution, and abundance of appropriate riparian vegetation defined by site/reach capability and potential provide physical function such as bank stability, sediment trapping, shade, and flood flow detention.

Management Objectives

- To comply with State and Federal requirements to protect public waters.

Management Direction

- Develop Water Quality Restoration Plans (WQRP) for all streams within Steens Mountain Wilderness and WSR segments identified as water quality limited under the CWA 303(d) in coordination with DEQ.
- Develop and implement Best Management Practices (BMPs) for management and restoration activities to maintain or restore water quality, and to reasonably prevent, reduce, or mitigate localized or short-term effects to water quality through project specific planning.

Table 9: Summary of Oregon DEQ 2002 303(d) List for Streams within Wild River Segments

| Stream | River Mile | Parameter | Season | List Date | Status |
|-----------------------------|--------------|--------------------|--------|-----------|-------------|
| Donner und Blitzen Subbasin | | | | | |
| Ankle Creek ¹ | 0 to 7.6 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Big Indian Creek | 0 to 7.1 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Deep Creek | 0 to 7.2 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Donner und Blitzen River | 45.3 to 77.3 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Fish Creek | 0 to 7.5 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Indian Creek | 0 to 4.2 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Little Blitzen River | 0 to 3.6 | Temperature (64°F) | Summer | 2002 | 303(d) List |
| Little Blitzen River | 3.6 to 12.8 | Temperature (64°F) | Summer | 2002 | Attained |
| Little Indian Creek | 0 to 3.9 | Temperature (64°F) | Summer | 1998 | Attained |
| Mud Creek | 0 to 4.8 | Temperature (64°F) | Summer | 1998 | 303(d) List |
| Alvord Lake Subbasin | | | | | |
| Little Wildhorse Creek | 0 to 2.5 | Temperature (64°F) | Summer | 1998 | 303(d) List |

¹OAR 340-041-0028 (2004) revised the stream temperature standard (7-day average maximum) for Lahontan cutthroat trout and redband trout from 64°F to 68°F. Therefore, this stream meets the current stream temperature standard based on the supporting data used for listing.

Water Quantity:

Current Management Situation

The WSRs Act reserves the minimum quantity of water (flow) necessary to maintain ORVs for which the river was designated. A Federal reserve water right is authorized by the WSRs Act with the priority date assigned to the date of designation. However, a Federal reserve water right is not formally recognized by Oregon Water Resources Department (OWRD) until assigned through the State water rights adjudication process. The BLM policy is to use the State instream flow water right process to protect flow dependent ORVs for designated streams and rivers pursuant to the WSRs Act. In the event flow dependent ORVs are threatened, BLM will seek cooperative solutions to promote adequate flow to protect WSR ORVs prior to exercising a Federal reserved water right.

Little Blitzen River, Big Indian Creek, Little Indian Creek, Mud Creek, Little Wildhorse Creek, Wildhorse Creek, and Kiger Creek WSRs are contained entirely within Steens Mountain Wilderness on public lands from headwaters to the downstream WSR and wilderness boundary. Therefore, instream flows are inherently protected. Headwaters of the Donner und Blitzen WSR, including Deep Creek and Fish Creek WSR segments, are in private ownership. Portions of Ankle Creek contain private inholdings. However, these streams are within a portion of the Donner und Blitzen subbasin, which is considered fully appropriated by OWRD and will likely not be eligible for further allocation of water.

Several water developments, including small reservoirs and spring developments, occur within wilderness for livestock and wildlife water sources. Existing water developments for livestock management purposes are considered “grandfathered” uses, and serve to appropriately manage livestock in accordance with the Wilderness Act.

Management Objectives

- To maintain or improve ground water recharge and holding capacity of riparian/wetland areas to maintain or increase base flow conditions of water sources (streams and springs).

Management Direction

- Inventory and assess existing water developments for beneficial uses such as livestock, wildlife, or wild horse management, and sediment catchment facilities.

- Maintain existing water developments for protection and management of existing uses and wilderness resources in accordance with regulations, policies, and wilderness management objectives.
- Reclaim or restore existing water developments determined to not provide for protection or management of existing uses and wilderness resources through active or passive measures.
- Construct new water developments for protection and management of existing uses and wilderness resources in accordance with regulations, policies, and wilderness management objectives.
- Manage riparian/wetland areas through active or passive measures using the MRDG and methods compatible with wilderness and WSR designations to maintain or increase the distribution and abundance of riparian/wetland vegetation.

Soils and Biological Soil Crusts

Current Management Situation

The soils in the valley bottoms and drainages are generally deep (40 to 60 inches) to very deep (greater than 60 inches) over bedrock and somewhat poorly to well drained. The soils formed in alluvium and slopes range from two to ten percent. The surface textures are silt loams and loams about 30 inches thick over silty clay loams and silty clays. The water erosion hazard is slight to moderate and the wind erosion hazard is low to moderate.

The soils on canyon sides and hillsides are generally moderately deep (20 to 40 inches) to deep over bedrock, and are well drained. Slopes range from 20 to 60 percent and soils formed in colluvium. The surface textures are usually very gravelly loams or a very stony clay loam about ten inches thick, over clay loams and very stony loams. The water erosion hazard is moderate to severe and the wind erosion hazard is slight.

The upland soils are typically shallow (less than 20 inches deep) to moderately deep over bedrock, and well drained. The soils formed in place from basalt and slopes range from two to 30 percent. The surface textures range from very cobbly clay loams to extremely stony silt loams, about six to eight inches thick over clay loams or very stony clays. The water erosion hazard is moderate to high and the wind erosion hazard is slight to moderate.

Biological soil crusts are also known as cryptogamic, microbotic, cryptobiotic, and microphytic crusts, leading to some confusion. The names are all meant to indicate common features of organisms that compose crusts. The most inclusive term is probably biological soil crust, as this distinguishes them from physical crusts while not limiting crust components to plants. Whatever name is used, there remains an important distinction between these formations and physical or chemical crusts.

Biological soil crust data specific to the CMPA has not previously been collected. New monitoring studies may be proposed for the CMPA, including portions of Steens Mountain Wilderness and WSRs, to provide better data for future management actions.

Management Objectives

- To manage soils to maintain, restore, or improve soil erosion classes, watershed health, and areas of fragile soils.
- To increase understanding of the management of Northern Great Basin biological soil crusts.

Management Direction

- The BMPs (Appendix – of the RMP) will be implemented to protect and manage soils and biological soil crusts for all ground-disturbing activities including but not limited to livestock grazing, road maintenance, and trail maintenance and construction.
- Biological soil crust data within Steens Mountain Wilderness and WSRs are collected to inform future management decisions.

Vegetation

Current Management Situation

Steens Mountain Wilderness:

Steens Mountain Wilderness is located within the Basin and Range Physiographic Province in the northern part of the Great Basin. The lower elevations on the west side of Steens Mountain are dominated by Wyoming big sagebrush, mountain big sagebrush and low sagebrush, interspersed with western juniper. As the elevation increases eastward, juniper gradually decreases in abundance and snowberry and mountain mahogany start to appear with mountain big sagebrush on the mesic west and north facing slopes and ridge tops. Quaking aspen groves are abundant in all large canyons and gorges as well as the headwaters of some of the smaller streams above 6,000 feet in elevation. The riparian communities are dominated by black cottonwood, alder, willow, chokecherry, and birch. Above 8,500 feet in elevation, the mountain big sagebrush community gradually changes into subalpine communities dominated by grasslands, meadows, and snow accumulation areas.

The steep and rocky east face of Steens Mountain has patches of mountain mahogany, western juniper, and mountain big sagebrush. The lower ridge tops and slopes contain an overstory of mountain big sagebrush and rabbitbrush with an understory of bluebunch wheatgrass or Idaho fescue. The riparian areas flowing off the east rim are dominated by black cottonwood, narrow-leaf cottonwood, willow, dogwood, alder, rose, and aspen.

Quaking aspen and mountain mahogany communities comprise a relatively small percentage of the landscape, but contribute substantially to the biodiversity of plants and animals in the Great Basin. Quaking aspen plant communities, especially below 7,000 feet, were influenced by fire. These plant communities are often found in productive deep soil areas and in a complex mosaic of mountain big sagebrush, mountain shrub, and low sagebrush plant communities. These three plant communities share a dramatic increase in western juniper over the last 120 years.

From Serrano Point south to Alvord Peak, the vegetation in Steens Mountain Wilderness is characterized by Wyoming big sagebrush and bitterbrush at lower elevations and mountain big sagebrush and low sagebrush at higher elevations and on ridgetops. The headwaters of some streams in this area contain aspen groves, but dominant vegetation in most riparian areas is rose, willow, birch, chokecherry, and dogwood.

A total of 41 Special Status plant species is known or suspected to occur within Steens Mountain Wilderness. None of the plants on the Special Status Species list (Attachment 2) are listed as threatened or endangered. Plants with a BLM status of "S" are Bureau Sensitive species and are potentially eligible for Federal listing, Federal candidate status, State listing or State candidate status. Those species are also on list one of the Oregon Natural Heritage Program (ONHP) database, which are those species that are threatened with extinction or are presumed to be extinct throughout their range. Plants with a BLM status of "A" are Bureau Assessment species and are on ONHP list 2. Those species are threatened with extirpation or are presumed to be extirpated from the State of Oregon. Plants with a BLM status of "T" are Bureau Tracking species where more information is needed before status can be determined. These plants are not necessarily considered Special Status Species for management purposes, but they are of conservation concern. Bureau Tracking species are not currently in danger of being threatened or endangered.

Donner und Blitzen WSR System:

Donner und Blitzen River: The lower part of the main Donner und Blitzen River is wider than the upper part with riparian areas dominated by alder, willow, and dogwood. There are also many areas of spring fed marshes dominated by sedges. This area was assessed as having significant natural values. In the drier areas of the lower canyon, basin big sagebrush is the dominant overstory plant.

The canyon narrows significantly from the confluence with Fish Creek upstream to South Fork of Donner und Blitzen River. The riparian area contains alder, willow, dogwood, and chokecherry. Rocky slopes above the riparian area are dominated by basin big sagebrush and western juniper with an understory of bluebunch

wheatgrass. Above Blitzen Crossing, moist meadows containing meadow foxtail, Kentucky bluegrass, and sedges are interspersed with willows and alder along the river.

The Page Springs meadow area was assessed as having significant natural values. The meadow is a good representative of a low-elevation riparian community.

Little Blitzen River: The lower part of Little Blitzen River, below Riddle Brothers Ranch, is dominated by black cottonwood, willow, and alder. Meadows containing Kentucky bluegrass, sedges, rushes, and cheatgrass occur sporadically along the stream.

Vegetation within Riddle Brothers Ranch is mostly in the form of meadows, which have been altered by irrigation from a series of ditches. The meadows are made up of both native and cultivated nonnative species. Native species include redtop, tufted hairgrass, Cusick's bluegrass, and Nebraska sedge. Nonnative species include timothy and Kentucky bluegrass. The riparian area that runs through Riddle Brothers Ranch is dominated by black cottonwood, alder, and willow.

Upstream from Riddle Brothers Ranch in the steep lower part of Little Blitzen Gorge, the riparian area is still dominated by black cottonwood, alder, dogwood, willow, western juniper, chokecherry, and quaking aspen. In the drier areas above the riparian area, juniper, mountain mahogany, and big sagebrush are the dominant overstory species. The upper gorge contains large aspen groves in spring areas and along the stream with mountain big sagebrush communities on drier bottoms and on gorge walls. The north facing walls of the upper gorge contain gently sloping ledges with wet meadows. These meadows contain interesting plant communities as well as several Special Status plant species.

The areas in this segment assessed as having significant unique natural values include Rooster Comb RNA/ACEC, Little Blitzen RNA/ACEC, and the riparian/meadow complex at Riddle Brothers Ranch.

South Fork of the Donner und Blitzen River: Vegetation in the lower section of South Fork of Donner und Blitzen River is dominated by basin big sagebrush, juniper, and Idaho fescue on side slopes with alder, willow, chokecherry, and currant along the stream. This area is considered to have unique natural values because of the canyon riparian vegetation. Farther upstream, the canyon widens into a broad basin dominated by large meadows in the bottom and willows along the stream. Meadows are dominated by native species such as meadow barley, mannagrass, tufted hairgrass, Nebraska sedge, woolly sedge, and rushes. The headwaters area is privately owned but the springs and meadows are important because they represent a mix of low- and high-elevation springs and meadows.

Areas containing unique natural values include the river canyon between Blitzen Crossing and the confluence with Mud Creek; the small stream, aspen grove, and meadow at Huffman Camp; and the headwaters of South Fork of Donner und Blitzen River.

Big Indian Creek: The lower part of Big Indian Creek contains a narrow band of riparian area dominated by alder, dogwood, and willows. Upland areas contain juniper, mountain mahogany, and mountain big sagebrush with an understory of Idaho fescue and bluebunch wheatgrass. Mountain mahogany increases in the uplands of the lower part of Big Indian Gorge. As the riparian bottom becomes wider, black cottonwood, aspen, and willow are the dominant species. The uplands are still dominated by mountain big sagebrush with an understory of needlegrass and Idaho fescue.

Near the headwall, the riparian area is dominated by willows and wet meadows containing sedges, tufted hairgrass, alpine timothy, bistort, moonworts, owl clover, and gentians. The cirques at the head of the gorge contain alpine ponds and many Special Status plant species.

Within Big Indian Gorge, unique natural areas of particular interest include mountain mahogany stands near the bend in the gorge, headwater meadows, and the upper cirque.

Little Indian Creek: Little Indian Creek contains some of the most diverse riparian area in the entire river corridor. The narrow lower part of the canyon contains alder, birch, black cottonwood, chokecherry, dogwood, serviceberry, and hawthorn. As the canyon widens in the middle part of the segment, the riparian area is

dominated by willows, wet meadows, and active beaver ponds. The meadows in this area are dominated by many species of sedges in good ecological condition. Other species common in this area include monkshood, groundsel, false hellebore, and grapeferns. Aspen stands integrate with the willow riparian area on north facing slopes and contain vegetation such as blue wildrye, horsemint, and bearded wheatgrass. On drier uplands, mountain big sagebrush and snowberry are dominant overstory plants with needlegrass and sedges in the understory.

The headwaters and cirques contain many diverse and unusual alpine and subalpine communities. Sedges and willows dominate these areas and aspen stands are present on north facing slopes.

Within Little Indian Creek, vegetation communities assessed as having significant, unique natural values include the lower riparian area, beaver ponds, south facing canyon side slopes, and the headwaters area containing alpine, subalpine, and aspen communities.

Fish Creek: The lower part of Fish Creek Canyon is steep and rocky with a very narrow riparian area. The riparian area is dominated by dogwood and willows with an occasional black cottonwood. The steep upland slopes are dominated by juniper and big sagebrush, but mountain mahogany and aspen are present on the slopes as the elevation increases.

The middle part of Fish Creek is not as steep as the lower part, but the riparian area is still narrow. Black cottonwood, willows, and dogwood are the dominant species in this area. In the uplands, the major species include juniper, mountain mahogany, mountain big sagebrush, basin wildrye, and bluebunch wheatgrass. On north facing slopes, aspen groves are present on more mesic sites. The segment from this point to the headwaters is all private land, except for Jackman Park Campground.

The upper part of Fish Creek Canyon widens significantly into a basin containing large meadows, beaver ponds, and extensive aspen groves. The meadows contain large numbers of sedges and forbs and the riparian area is dominated by willows. The uplands contain mountain big sagebrush, snowberry, serviceberry, mountain brome, needlegrass, and paintbrush.

The headwaters of Fish Creek are dominated by meadows and low-growing willows. Other species present include tufted hairgrass, alpine timothy, sneezeweed, false hellebore, and many sedges and rushes. The areas with unique natural values include meadows and extensive aspen forests in the upper part of the canyon and meadows at the headwaters.

Mud Creek: The lower and middle parts of Mud Creek contain a somewhat narrow riparian area with patches of willows and meadows containing sedges, rushes, Kentucky bluegrass, and many species of forbs. The adjacent upland area is dominated by juniper and mountain big sagebrush. The upper part of Mud Creek opens up into extensive aspen groves and meadows at the headwaters with mountain big sagebrush in the uplands.

Ankle Creek: The lower parts of Ankle and Mud Creeks are similar. Willows and meadows dominate the riparian area and juniper and mountain big sagebrush dominate adjacent uplands. The middle part of Ankle Creek is also dominated by meadow areas, but there are fewer willows in the riparian area than in the lower part. The uplands are dominated by mountain big sagebrush. The headwaters contain extensive meadow areas dominated by sedges and rushes as well as large aspen groves.

South Fork Ankle Creek: The riparian vegetation on South Fork of Ankle Creek is primarily made up of meadows containing sedges, rushes, and forbs with occasional patches of willows. Mountain big sagebrush is the dominant vegetation on adjacent uplands.

Wildhorse WSR System

Wildhorse Creek: The vegetation in the upper portion of Wildhorse Creek from 7,600 feet to approximately 9,000 feet in elevation is mostly wet meadows containing sedges interspersed with dry rocky slopes, Steens Mountain thistle, arnicas, and scattered patches of mountain big sagebrush. Special Status plant species known to exist in this area are Steens Mountain paintbrush and Steens Mountain penstemon. From 6,000

feet in elevation to approximately 7,600 feet, the riparian area is dominated sparingly in some areas by black cottonwood and in other areas by quaking aspen. Willows are also present as well as western juniper in this part of the segment. Mountain big sagebrush is the dominant vegetation on dry slopes above the riparian area. From 6,000 feet down to the bottom of the segment at 5,000 feet in elevation, the riparian area consists mostly of willows with some western juniper and mountain big sagebrush. Mountain big sagebrush and western juniper are dominant vegetation types on dry slopes of the lowest part of Wildhorse Creek.

Little Wildhorse Creek: The vegetation in the upper portion of Little Wildhorse Creek from 9,000 feet down to 8,000 feet in elevation consists mostly of wet and dry meadows dominated by various species of sedges and arnicas. On the rocky slopes above Little Wildhorse Lake the dominant vegetation is mountain big sagebrush and wax currant. Special Status plant species that are known to exist in this area include Hayden's cymopterus, Steens Mountain draba, weak-stemmed stonecrop, foetid sedge, new sedge, teacher's sedge, Cusick's hyssop, Kruckberg's sword fern, Nevada spring beauty, Steens Mountain paintbrush, and Steens Mountain penstemon. The middle part of the segment from 8,000 feet in elevation down to 7,400 feet is characterized by narrow riparian areas with extensive wet meadows dominated by sedges. The dry, rocky slopes above the creek are dominated by sedges, Steens Mountain thistle and mountain big sagebrush. The lower portion of the drainage near the confluence with Wildhorse Creek is a narrow band of riparian area containing sedges and Steens Mountain thistle. Slopes above the lower riparian area are dominated by mountain big sagebrush.

Kiger WSR

Kiger Creek: The lower part of Kiger Creek contains large aspen groves on moist, gentle slopes above the creek and mountain big sagebrush mixed with western juniper on drier slopes. Willows are densely packed along the creek with sedge-dominated meadows in open areas. The upper portion of Kiger Creek consists of many riparian tributaries originating from large snowfields and springs. Streamside vegetation in the upper gorge is dominated by willow thickets surrounded by large groves of quaking aspen. Spring areas contain meadow vegetation such as sedges and forbs. High elevation vernal ponds perched on the west side of the upper gorge were formed when glaciers retreated at the end of the ice age. The dry, rocky slopes above the stream in the upper gorge are dominated by mountain big sagebrush.

Management Objectives

- Maintain or restore native vegetation communities through sound landscape management practices.
- Increase species and structural diversity at the plant community and landscape levels in the big sagebrush communities. Provide multiple successional stages within the landscape.
- Manage Special Status plant species and their habitats so management actions do not contribute to their decline or listing as T&E.

Management Direction

- Maintain or restore ecological status of native plant communities.
- Using the MRDG and methods compatible with wilderness and WSR designations create a mosaic of multiple successional stages, reduce the dominance of wood vegetation, and release suppressed desirable plant species.
- Special Status plant species will be intensively managed to maintain or restore habitats or populations where needed. Conservation Agreements and management plans will be completed for species considered to be at the highest risk for listing. Monitoring and inventory data will be collected for all Special Status Species.

Riparian Areas

Current Management Situation

Riparian vegetation communities are influenced by landform, stream gradient, water availability, soil, and elevation, as well as historic and recent disturbance factors including fire, flooding/erosion, grazing, and recreation. Riparian vegetation communities within the wilderness and WSR corridors generally consist of

trees, shrubs, and herbaceous vegetation. Woody vegetation (trees and shrubs) may include cottonwood, aspen, willow, alder, dogwood, and chokecherry. Herbaceous vegetation consists of a variety of sedges, rushes, or grasses. The general vegetation discussion includes a description of riparian vegetation for the WSRs. The observed expansion and competition of western juniper in riparian areas are of particular concern relative to maintenance and restoration of riparian vegetation communities and associated values such as fish and wildlife habitat and water quality and quantity.

The majority of public land perennial stream reaches and associated riparian areas in Steens Mountain Wilderness and WSRs were evaluated using Proper Functioning Condition (PFC) assessments. Table 10 summarizes PFC assessments conducted in the CMPA between 1997 and 2000, which includes the wilderness and WSRs. Table 11 indicates the WSR segments are properly functioning and contain the attributes necessary for riparian maintenance or recovery, or are in an upward trend. The BLM presents the concept of physical function of riparian areas, referred to as PFC, as a minimal threshold for managing associated values such as water quality, fish and wildlife habitat, aesthetics, and livestock forage. The PFC is a qualitative assessment that considers hydrology, vegetation, and soil/landform attributes and rates riparian function as follows:

- **Proper Functioning Condition:** Riparian/wetland areas are properly functioning when adequate vegetation, landform, or large woody debris are present to dissipate stream energy associated with high waterflows. This situation reduces erosion and improves water quality, filters sediment, captures bedload, aids in floodplain development, and improves floodwater retention and ground water recharge. Also, conditions occur which develop root masses that stabilize streambanks against cutting action and develop diverse ponding and channel characteristics to provide habitat and water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses resulting in support for greater biodiversity.
- **Functional At Risk (FAR):** Riparian/wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation are categorized as FAR. Stream reaches determined to be FAR are further assessed for Trend – “upward”, “not apparent”, or “downward”.
- **Non-Functioning (NF):** Nonfunctioning riparian/wetland areas clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows, and thus are not reducing erosion or improving water quality.

The PFC does not necessarily equate to Potential Natural Community (PNC), advanced ecological status, or desired future condition. Rather, PFC demonstrates the level of resilience required for a system to function and allow for maintenance and recovery of desired values such as water quality and fish habitat.

Management Objectives

- To maintain, restore, or improve riparian/wetland vegetation communities toward an advanced ecological status condition at the reach or area scale relative to wilderness management and other resource specific management objectives.

Management Direction

- Assess reach or area scale riparian/wetland vegetation community to evaluate site potential and capability, and evaluate opportunities and needs for maintenance, restoration, or improvement to maintain or progress toward an advanced ecological status or other defined ecological status in accordance with wilderness management and other resource specific management objectives.
- Collect and propagate native riparian vegetation for restoration purposes. Implement restoration or improvement of riparian vegetation communities through planting and protection, as necessary, based on watershed or project-level assessment and planning in accordance with wilderness management and other resource specific management objectives as determined through MRDG.

Human Altered Plant Communities

Western Juniper: Western juniper is a long-lived tree species capable of living 1,000 years or more. Old growth western juniper woodlands are best described on the basis of presence of trees greater than 120 years

Table 10: Proper Functioning Condition Assessment Summary for Public Land Stream Reaches within the CMPA Conducted Between 1998 and 2000

| Rating / Trend | Miles | Percent |
|---|-------|---------|
| Proper Functioning Condition | 185 | 75% |
| Functional - At Risk / Upward Trend | 33 | 13% |
| Functional - At Risk / Non-Apparent Trend | 21 | 9% |
| Functional - At Risk / Downward Trend | 4.5 | 2% |
| Non-Functioning | 3 | 1% |
| Total | 246.5 | 100% |

Table 11: Proper Functioning Condition Assessment Summary for Public Land WSR Segments

| Stream | Rating/Trend (miles) | | | Percent | | |
|-------------------------------------|----------------------|---------------|-----|---------|------|----|
| | PFC | FAR/Trend | NF | PFC | FAR | NF |
| Donner und Blitzen River | 9.25 | 4.25 / Upward | --- | 69% | 31% | 0% |
| Little Blitzen River | 13.75 | --- | --- | 100% | 0% | 0% |
| South Fork Donner und Blitzen River | 10 | 3.75 / Upward | --- | 73% | 27% | 0% |
| Big Indian Creek | 11.25 | --- | --- | 100% | 0% | 0% |
| Little Indian Creek | 4.25 | --- | --- | 100% | 0% | 0% |
| Fish Creek | 6.5 | --- | --- | 100% | 0% | 0% |
| Mud Creek | 3.5 | 1.75 / Upward | --- | 67% | 33% | 0% |
| Ankle Creek | 2.75 | 5.25 / Upward | --- | 34% | 66% | 0% |
| South Fork Ankle Creek | --- | 1.50 / Upward | --- | 0% | 100% | 0% |
| Little Wildhorse Creek | 2.5 | --- | --- | 100% | 0% | 0% |
| Wildhorse Creek | 7.25 | --- | --- | 100% | 0% | 0% |
| Kiger Creek | 4.25 | --- | --- | 100% | 0% | 0% |

Estimates to the 0.25 mile. PFC, FAR, and NF; Trend: Upward, Not Apparent or Downward.

before present (ybp) and structural characteristics such as standing and down dead trees, decadent living trees, bole cavities, stripbark, and branches covered with lichens. These stands account for less than three percent of western juniper woodlands across eastern Oregon. While special characteristics of old growth woodlands provide habitat for plant and wildlife species, encroachment of western juniper into mountain big sagebrush and quaking aspen plant communities is a major concern across large areas, both inside and outside of the CMPA.

Historically, western juniper was limited to rocky ridge tops and shallow soil areas where fires rarely occurred. Past livestock management practices and fire suppression have reduced the influence of fire in these areas. Subtle shifts in climate may have also helped western juniper expand its range over the last 120 years. Recent expansion of western juniper into mountain big sagebrush, riparian woodlands, and quaking aspen and mountain mahogany stands has been at the expense of associated vegetation. Western juniper has encroached into some stands to the point that all associated woody vegetation has been replaced. Sections of Donner und Blitzen WSR, Mud and Ankle Creek WSRs, and Kiger Creek WSR have been influenced by juniper. Large stands of quaking aspen and riparian woodlands along these creeks have been replaced by western juniper.

The uplands are also being converted to western juniper woodlands. This total type conversion alters habitat for many plant and animal species. There are also physical changes that occur to riparian areas and uplands. As western juniper trees approach maximum density, the amount of bare ground increases. This increases the amount of sediment moved down slope toward riparian areas. If the riparian area has also been converted to western juniper, there is a greater likelihood of sediment reaching the stream. Treatment of these stands, especially small isolated pockets, may require protection from wild and domestic large herbivores until new

suckers or plants can reach heights above the browse line. This kind of treatment also helps to increase ground cover and reduce movement of soil down slope.

Management Objectives

- To maintain or improve the ecological status of native plant communities, consistent with wilderness and WSRs guidance.
- To maintain or improve late seral stage ecological characteristics in old growth western juniper woodlands consistent with wilderness and WSRs guidance.
- To reduce the component of western juniper and other associated woody plant species in quaking aspen and mountain mahogany stands, consistent with wilderness and WSRs guidance.
- To reduce influence of western juniper trees less than 120 years old to restore riparian and sagebrush habitats, consistent with wilderness and WSRs guidance.

Management Direction

- Develop a restoration strategy for areas where western juniper encroachment is unnaturally threatening ecological function and species diversity using the MRDG and methods compatible with wilderness and WSRs designation.

Noxious Weeds

Current Management Situation

Noxious weeds are present in limited amounts within Steens Mountain Wilderness and WSRs. The Burns District has an ongoing weed management program, which involves education/awareness, prevention, inventory, treatment, and monitoring. Disturbance, especially along roads and other transportation corridors, is the primary contributor to introduction and spread of weeds. Biological spread through birds or mammals also plays a minor role. The Burns District weed management program incorporates a variety of treatment options including manual, chemical, mechanical, and biological methods of control.

Management Objectives

- To reduce existing and prevent new noxious weed infestations in wilderness and WSRs. Priority is given to lands with high-quality natural resource values or disturbed areas (roads, ROWs, waterholes, and recreation sites).
- To improve awareness in BLM staff, permittees, private land inholders, and the public about what they can do to help identify weed infestations and prevent the spread of noxious weeds in wilderness and WSRs.

Management Direction

- Identify and prioritize areas with noxious weed infestations in wilderness and WSRs and implement the treatment method(s) that best provides for weed management or eradication, while protecting wilderness character.
- Continue with current outreach activities, which include handouts, displays, and posting information on noxious weed identification, and preventing the spread of noxious weeds. Consider targeting key public use areas like developed recreation sites or trailheads where there is a specific noxious weed concern.
- Maintain partnerships with local groups and government agencies to combine efforts in the control and prevention of noxious weed infestations.
- Control new infestations in the first year of discovery whenever possible.

Fish

Current Management Situation

The BLM is responsible for managing a wide array of habitats used by native and introduced (Lahontan cutthroat trout) fish species. The ODFW is responsible for managing fish and wildlife populations. The BLM manages fish habitats in cooperation with ODFW. Management is directed toward maintenance, improvement, and expansion of habitat quality and quantity under multiple use considerations.

Ten species of native fish (Attachment 2) are likely to be found in Steens Mountain Wilderness and WSRs. Three species or populations (redband trout, Malheur mottled sculpin, and Catlow tui chub) are considered Special Status Species by BLM. Lahontan cutthroat trout is the only fish found in the wilderness or WSRs listed as threatened by both the State of Oregon and the Federal government. The ODFW does not currently stock any rivers in wilderness or WSRs with hatchery stock fish. At one time, a hatchery strain of Lahontan cutthroat trout was stocked in Wildhorse Lake. This has been discontinued, and there are no plans to restart this stocking. These fish seem to be self-sustaining in Wildhorse Lake. Fish and fish habitat are ORVs in all WSR segments except for Wildhorse and Little Wildhorse Creeks. The primary focus for managing fish habitat is on redband trout and populations of Lahontan cutthroat trout protected under the Endangered Species Act (ESA). Management of these species provides the necessary habitat for other co-existing native aquatic species.

Lahontan Cutthroat Trout: The Lahontan cutthroat trout is native to the Pleistocene Lake Lahontan Basin of northwestern Nevada, northeastern California, and a small adjacent portion of southeastern Oregon. It has been introduced elsewhere in southeastern Oregon and eastern Washington.

During the 1970s, Lahontan cutthroat trout from Willow and Whitehorse Creeks in the Trout Creek Mountains were introduced into Pike, Mosquito, Little McCoy, Big Alvord, Little Alvord, Cottonwood, and Willow Creeks on the east side of the Steens. Surveys conducted in 1991 confirmed many of the introduced Lahontan cutthroat trout still exist. A population of hatchery-produced Lahontan cutthroat trout also inhabits Wildhorse Lake and Wildhorse Creek. Since these fish originated from hatchery stock, they are not considered pure-strain Lahontan cutthroat trout and are not considered a protected species.

Pursuant to the ESA, Lahontan cutthroat trout is Federally listed as threatened throughout its range. The BLM and USFWS conduct interagency consultation under to Section 7 of the ESA regarding authorization of grazing permits where Lahontan cutthroat trout are present and may be affected, except for hatchery-produced populations. These consultations have concluded that current grazing practices are not likely to jeopardize the continued existence of the trout. The USFWS Biological Opinions (USDI 2001, 1999, and 1995) further recognize current livestock grazing practices associated with these permits allow for continued improvement of instream and riparian conditions. In 1995, the USFWS office in Reno, Nevada formalized a cooperative management agreement among ODFW, Nevada Division of Wildlife, U.S. Forest Service (USFS), and BLM for the coordination and performance of activities identified in the Lahontan Cutthroat Trout Recovery Plan. The primary purpose of the agreement is to provide specific direction to conserve the trout and reduce or remove threats that could prevent its recovery.

Habitat degradation, especially loss of riparian vegetation, is identified as a key factor in declining Oregon stream populations. Loss of vegetation has, in some cases, contributed to increases in stream temperatures that exceed those considered optimal for the subspecies. Drought conditions coupled with extremely low temperatures and limited riparian cover may cause stream segments to freeze completely during winter.

Redband Trout: Redband trout are a subspecies of rainbow trout, which have been segregated into three forms: 1) Coastal rainbow trout west of the Cascade/Sierra mountain divide; 2) Interior Columbia River redband trout upstream of Celilo Falls, including the Fraser and Athabasca rivers in Canada, Upper Klamath River Basin, and isolated interior basins of Oregon; and 3) the Sacramento-San Joaquin redband trout. The USFWS further recognizes the redband trout within the isolated interior basins of Oregon, including Steens Mountain Wilderness and WSRs, as Great Basin redband trout.

Redband trout occupy a wide array of habitats. Research suggests redband trout are found in a range of conditions, often more extreme than those associated with other species. Populations found in southern Oregon deserts inhabit turbid and alkaline waters ranging from near freezing to over 77° F. Redband trout tolerate warmer waters than many other salmonids; however, in warmer and drier environments the loss of riparian cover has been associated with reduced numbers and production of fish.

Relatively little work has been completed to define habitat use for this fish, but patterns are generally similar to other salmonids. Some researchers found redband trout most abundant in pool habitats and in association with cover components including undercut banks, large woody debris, and overhanging vegetation.

Redband trout are found in the Donner und Blitzen WSR system and Kiger Creek WSR as well as Home Creek and Threemile Creek in wilderness. In the Donner und Blitzen WSR, the gauging weir upstream from Page Springs Campground may limit upstream movement of redband trout and other native fish species. Nonnative fish species, such as carp and sunfish, which may compete for resources or prey upon redband trout, are present downstream of the gauging weir. The weir provides an effective barrier to prevent these nonnative fish species from migrating upstream and competing with native fish species present.

Redband Trout Reserve (RTR): Portions of the Donner und Blitzen WSR located in wilderness provide habitat for a population of redband trout. The RTR was created by the Steens Act to conserve, protect, and enhance the Donner und Blitzen River population of redband trout and the unique ecosystem and to provide opportunities for research, education, and fish- and wildlife-oriented recreation. The RTR consists of Donner und Blitzen WSR above its confluence with Fish Creek and adjacent riparian areas on public land within the wilderness.

The management of this area is guided by the Steens Act, the WSRs Act, and the Wilderness Act, in addition to required consultation with the SMAC and ODFW. Recreation is allowed in the RTR as long as it is consistent with previously mentioned acts and management guidelines as well as specific management criteria developed through the RMP/EIS process.

Catlow Tui Chub: The Catlow tui chub, a small- to medium-sized minnow, is a recognized, though undescribed, subspecies of the more widespread tui chub. Due to its restricted distributions and threats to remaining habitat, the subspecies is considered a species of special concern by the American Fisheries Society and is a BLM Tracking species.

Catlow tui chub occur in Home and Threemile Creeks that drain the west flank of Catlow Rim. The Catlow tui chub has a restricted range, but appears to be locally abundant in streams and in Threemile Reservoir. Threemile and Home Creeks are partially in Steens Mountain Wilderness.

Little is known about the habitat relationships of the Catlow tui chub. Their preference for low-gradient reaches of Threemile and Home Creeks suggests an affinity for low-velocity habitats, which is typical of most tui chubs. They also appear to be well adapted to Threemile Reservoir at the downstream end of Threemile Creek.

Malheur Mottled Sculpin: Malheur mottled sculpin is a recognized, though undescribed, subspecies of the more widespread mottled sculpin. The Malheur mottled sculpin is endemic to the Harney Basin of southeastern Oregon, including the Silvies and Blitzen River systems. It is listed as a Sensitive species by the State of Oregon and BLM.

Distribution includes Donner und Blitzen River and tributary streams on Steens Mountain. The sculpin in Harney Basin is considered to represent an undescribed relative of the mottled sculpin in the Snake River drainage. Malheur mottled sculpin historically inhabited Harney Basin (Malheur Lake Basin) when it was connected to the upper Snake River, and became isolated in small creeks when the basin dried up perhaps as recently as 8,000 years ago. Through more recent geologic events, mottled sculpin from the lower Columbia River drainage have entered the basin. This recent form of mottled sculpin has been hybridizing with the older, previously isolated form though hybridization seems to be occurring mainly in northern Harney Basin. Samples collected from the region mostly resemble preliminary descriptions of Malheur mottled sculpin.

Very little is known about the life history of the Malheur mottled sculpin, but it is assumed to be comparable to other mottled sculpins. According to some studies, the Malheur mottled sculpin requires cool-water streams with large gravel or rubble substrates for cover and spawning. It requires water temperatures below 79° F with high dissolved oxygen and very low turbidity. Given these characteristics, the Malheur mottled sculpin can occupy small headwater streams and larger rivers such as the lower Donner und Blitzen River.

Management Objectives

- To maintain, restore, or improve Special Status Species habitats.
- To conserve Special Status animal species and the ecosystems on which they depend. To the extent possible and practical, fish community connectivity and interrelationships are emphasized in most habitats.
- To maintain genetic integrity of redband trout in the RTR.
- To increase the distribution and abundance of redband trout in the RTR through maintenance or restoration of habitat quality and quantity.

Management Direction

- Management of Special Status Species habitat includes passive and active measures associated with development and implementation of other resource management actions to maintain, restore, or improve specific habitat attributes identified through watershed assessment and site specific activity plans to balance a variety of resource management and uses.
- The RTR consists of the public land portion of Donner und Blitzen River and tributaries upstream of its confluence with Fish Creek to the longitudinal extent of current and future redband trout distribution and of the flood prone area.
- Coordinate and cooperate with ODFW and Malheur National Wildlife Refuge (NWR) in developing and revising Native Fish Conservation Plan(s) for the Donner und Blitzen River subbasin in support of ODFW's Native Fish Conservation Policy.
- Riparian habitats are managed toward an advanced ecological status that provides a diversity of fish habitat values including spawning, rearing, cover, forage, and cold-water refuge, and in accordance with the Wilderness Act and the WSRs Act, as appropriate.
- Alternatives will be developed, evaluated, and implemented with USFWS, ODFW, SMAC, and local interests and organizations, for removal or modification of the Page Springs gauging weir to facilitate upstream migration of redband trout and other aquatic species while limiting the migration capabilities of nonnative fish. Any proposal for removal or modification of the Page Springs weir along Donner und Blitzen WSR needs to be evaluated for compliance with Section 7 of the WSRs Act.

Wildlife

Current Management Situation

The Steens Mountain Wilderness and the WSRs contain a wide diversity of wildlife habitat with many species of amphibians, reptiles, birds, and mammals found in the area. Parts of the wilderness and Donner und Blitzen WSR are adjacent to the extensive wetlands found on the nearby Malheur NWR. This accounts for some of the wetland Special Status Species that also occur along the WSR, as this corridor is used as a travel route. A summary of the Special Status Species in Steens Mountain Wilderness and WSR corridors is listed in Attachment 2.

The ODFW is responsible for managing wildlife species populations through management objectives specified in their respective management plans; the BLM is responsible for managing the habitat that supports these populations. The ODFW and BLM work cooperatively together on the management of wildlife and wildlife habitat under a statewide Memorandum of Understanding (MOU) signed by both agencies in 2001.

Special Status Species: The only Special Status Species in the area that is Federally listed is the bald eagle (listed as Threatened). Bald eagles are winter-spring residents having been sighted up the Donner und Blitzen River Canyon. A winter roost exists in this area. The Columbia spotted frog is a candidate for listing.

Populations have been found from Page Springs Campground up to Fish Lake, McCoy Creek, Little Fish Creek, and Grove Creek. Other areas are still being inventoried for the presence of this species. Several Greater sage-grouse leks are located in Steens Mountain Wilderness. Most of Steens Mountain Wilderness is sage-grouse nesting and early to late-brood rearing habitat with some areas along Catlow Rim and below Alvord Peak used as winter habitat. Black rosy finches, rare in Oregon, nest in the subalpine area.

Nesting waterfowl make light use of the lower Donner und Blitzen WSR with common mergansers and dabbling ducks the predominant nesting species. Some nesting by Canada geese occurs. Sub-zero temperatures freeze canals and ponds on the Malheur NWR, causing waterfowl using the Refuge to move onto the lower portion of the Donner und Blitzen WSR. Most of these birds are mallards, bufflehead, common goldeneye, and Canada geese.

Game birds include chukar, California quail, mourning dove, Greater sage-grouse, common snipe, and waterfowl. Pheasants occur near Page Springs Campground. Nesting raptors include golden eagle, prairie falcon, great-horned owl, long-eared owl, American kestrel, northern harrier, red-tailed hawk, and ferruginous hawk. Northern goshawk, sharp-shinned hawk, and Cooper's hawk are species that also nest in the area but are uncommon. Turkey vultures and ravens nest in cliffs along the deep canyons. American peregrine falcons are observed rarely as migrants. Nongame birds using the river corridor include yellow warbler, belted kingfisher, northern flicker, western wood peewee, western kingbird, and many other species.

Game mammals include mule deer, pronghorn antelope, Rocky Mountain elk, California bighorn sheep (a Special Status Species), and cougar. The ODFW believes many of the canyons are potential bighorn sheep summer and winter range. Future transplants may occur if domestic sheep are removed from private land around Fish Lake. Steens Mountain Wilderness and WSRs provide yearlong habitat for all of these species with seasonal elevational movements triggered by weather conditions.

Nongame mammals include golden-mantled ground squirrel, canyon mouse, deer mouse, harvest mouse, marmot, voles, several species of bats, coyotes, bobcat, and many other species. Beaver are found in many stream segments. Pika may be found at the head of the gorges, but are a rare sight.

Amphibians and reptiles include Pacific treefrog, western rattlesnake, gopher snake, sagebrush lizard, western fence lizard, and others.

Commercial trapping, which is not an individual's sole source of income, is prohibited by policy in BLM wilderness under direction stated in Manual 8560 – Management of Designated Wilderness – Section .34 F. Incidental trapping under the direction of State laws and regulations is allowed.

Management Objectives

- To the extent possible, wildlife species are allowed to maintain a natural balance with their habitat and each other. Depending on wilderness conditions, however, management actions may be necessary at times for the preservation of sensitive, rare, threatened or endangered species.
- To evaluate habitat requirements and conditions for the reintroduction of extirpated species into historic habitat in Steens Mountain Wilderness and WSR corridors.
- To continue cooperation and coordination with other State and Federal agencies on the management of wildlife, wildlife habitat, and protection of the character of the wilderness and WSRs.
- To manage forage production to support wildlife population levels identified by ODFW, while minimizing effects to wilderness resources.
- To manage quaking aspen and western juniper plant communities to meet habitat requirements for wildlife.
- To manage big sagebrush communities to meet life history habitat requirements of sagebrush dependent species and other wildlife.

Management Direction

- Identify site specific areas in Steens Mountain Wilderness and WSRs where naturally occurring critical habitat conditions required by sensitive, rare, threatened or endangered wildlife species are not being met.
- Develop and implement habitat management actions where necessary to preserve these wildlife species, while still protecting wilderness resources.
- Continue coordination with ODFW and other Federal and State agencies on wildlife habitat management and monitoring as appropriate. Where necessary, develop and implement habitat management actions necessary to provide critical habitat (e.g. deer winter range) for these populations, while still protecting wilderness resources.
- In wilderness, actions such as transplants, trapping, distribution of medicine, emergency situations, and maintenance of existing guzzlers may be authorized on a case-by-case basis in accordance with the Steens Act, the Wilderness Act, and Appendix B of House Report 101-405 of the 101st Congress.
- All new grazing applications for domestic sheep and goat permits, or proposed conversions of class of livestock from cattle to sheep or goats, will be evaluated for consistency with BLM “1998 Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitats.” These guidelines will be implemented where new permits or conversions could occur within wild sheep habitats.
- Initiate cooperative efforts with private landowners and current sheep (and goat if applicable) permittees to reduce the chance of mixing domestic and wild sheep.
- Predator control measures will only be initiated when necessary to protect Federally listed threatened and endangered species, prevent diseases or parasites from affecting other wildlife or humans, prevent serious losses of domestic livestock, or control non-indigenous species in order to reduce conflicts with indigenous species. Direction is provided by BLM Manual 8560, Section .34 H, Predators and in Section 12 of Appendix B of House Report 101-405. Any control activities undertaken on predator or nonnative wildlife will be the minimum necessary to effectively control the situation. An MRDG analysis will be conducted for each action on a case-by-case basis. Any predator control actions must be approved by the State Director on a case-by-case basis.

Paleontological Resources

Current Management Situation

Paleontological resources are defined as fossilized remains of plants and animals. Of particular interest and importance are vertebrate fossils such as those of camels, saber toothed cats, rhinos, mammoths, giant sloths, turtles, and horses. Fossil localities have been reported on public land in Steens Mountain Wilderness. Paleontological localities are not known nor are they likely to occur within WSR corridors.

Most of the finds in Steens Mountain Wilderness have been exposed by wind or water erosion, and are widely dispersed. Several are the subject of ongoing academic research. Exposures of Miocene sedimentary rocks are observable at the base of the east face of Steens Mountain, west of the East Steens Road. Known locations of plant fossils are on private and public land, as well as several unexplored exposures that are likely to contain animal fossils.

An assessment of known paleontological localities was conducted in May of 1999 within Steens Mountain Wilderness. Animal remains from sabertooth cats, mastodons, giant camels, small camels (llama-like), horses, and horned rodents were found. A plant locality within the area was reassessed and yielded a flora composed of the following plants: true fir, spruce, pine, Douglas fir, juniper, cottonwoods, willow, hornbeam, barberry, serviceberry, mountain mahogany, cherry, rose, mountain ash, indigo bush, sumac, maple, buckbrush, and madrona. This flora normally occurs in a lake environment in a slightly warmer, more temperate climate than exists in the area today.

These fossil localities, especially the known and potential localities, are significant because they are a window to an environment that existed millions of years ago. They are nonrenewable, extremely fragile, and usually small in area extent. The precise number of acres encompassed by these localities is unknown because they have not been completely described and mapped. Funding is currently being sought for challenge cost share

inventory and assessment for a portion of Steens Mountain Wilderness that has not been inventoried for paleontological resources.

Public education and interpretation have not been implemented on a large scale. No interpretive materials have been developed, except for a paleontological poster used for display at special events and in the public reception area at the Burns DO.

Management Objectives

- To preserve, protect, and manage vertebrate, noteworthy invertebrate, and plant paleontological resources in accordance with existing laws and regulations to make these resources available for appropriate uses by present and future generations.

Management Direction

- Use predictive modeling and sample inventory for identifying significant paleontological localities, which may be in conflict with other resource uses.
- Excavate significant paleontological localities in cooperation with universities, museums, and other Federal agencies in compliance with all laws, regulations or other requirements, if compatible with wilderness and WSRs designations and the MRDG.
- Record and salvage eroding paleontological material at localities in east-central and southeast part of Steens Mountain Wilderness once every five years in compliance with all laws, regulations, or other requirements.
- Law enforcement surveillance is focused on the east side of Steens Mountain Wilderness near the East Steens Road. Protective measures at significant localities are used as appropriate.
- Create paleontology interpretive opportunities for public education including but not limited to brochures and portable or static interpretive displays for local, regional, and national education, where applicable.
- Any permanent interpretive facilities will be constructed outside Steens Mountain Wilderness. Interpretation projects will be implemented only if they will not affect the paleontological values at the subject locality.
- Monitor known paleontological sites within Steens Mountain Wilderness and WSRs after wildland fire in order to study fire effects and to prevent post-fire looting.

Cultural Resources

Current Management Situation

Riddle Brothers Ranch National Historic District: None of the Riddle Brothers Ranch National Historic District falls within Steens Mountain Wilderness. A large portion of the Historic District does fall within the Little Blitzen River WSR corridor and has been identified as an ORV. In 1991 Riddle Brothers Ranch was designated a National Historic District. A Cultural Resource Management Plan was completed for the ranch in 1995. Since then, Frederick Riddle House, cookhouse, barn, and Benjamin Riddle House have been restored. Other historic structures in the Historic District such as the Frederick Riddle root cellar, blacksmith shop/tackroom, and Benjamin Riddle root cellar are being maintained in their current condition. The Walter Riddle House was destroyed by wildfire in 1994. All that remains is a stone fireplace. A number of detailed photos exist of the building that could guide any future reconstruction efforts.

Approximately 550 people visit the ranch each year. Due to snow and poor road conditions, access is normally limited to May through November. A volunteer caretaker stays onsite from June 1 through October 15 in a small cabin on the west side of the Little Blitzen River. The grey house, a BLM administrative building, and the corrals at the Frederick Riddle complex are used by the BLM employees and volunteers for administrative purposes. Three portable restrooms provide sanitation for the caretaker and the public. A well at the grey house provides potable water for the caretaker. When the caretaker is onsite, visitors are allowed to drive into the ranch two days a week (normally on one week and weekend day). Otherwise, visitors must park outside the ranch entrance gate and walk to the site. Only day use is allowed and the entrance gate is locked by the

caretaker each night at dusk. As an additional security measure, a gate on Cold Springs Road near Desert Meadows is locked. Motorized access past this gate is by permit only. Law enforcement personnel also patrol the ranch.

Current fire protection at the ranch headquarters complex is provided by a greenbelt of vegetation around most of the historic and caretaker structures. The greenbelt is maintained by watering and frequent mowing by the caretaker. The watering system is comprised of a large number of fire hoses arrayed throughout the complex with smaller garden hoses to various sprinklers. This system is cumbersome to manage, a safety hazard for visitors, and does not blend with the historic setting of the ranch.

Interpretation at Riddle Brothers Ranch National Historic District has been approved and funded and is to be completed in 2006. Interpretive panels will be installed at the south gate just outside the Historic District and Little Blitzen WSR corridor.

Other Cultural Resources: Approximately six percent of the designated Steens Mountain Wilderness has been inventoried for cultural resources. With the exception of Riddle Brothers Ranch, much inventory work is needed in the WSR corridors. Under current management, potential effects on sites in conflict with other resource uses are mitigated on a case-by-case basis. Funding for the creation of a predictive model to aid in locating significant sites in conflict with other resource uses is currently being sought. Inventories have been conducted atop Steens Mountain in recreation use areas and in Alvord Valley. Inventory data are used in site evaluation, effects assessment, interpretation, and public education.

Management Objectives

Riddle Brothers Ranch Historic District:

- To protect the cultural resources in Riddle Brothers Ranch National Historic District and to manage the ranch in compliance with the Cultural Resource Management Plan.
- To maintain, restore, or reconstruct historic structures in the existing Riddle Brothers National Historic District as identified in the Cultural Resource Management Plan.
- To provide adequate facilities to meet public health and safety needs, provide for resource protection, and for administrative needs. All facilities should be in character with the ranch setting.

Other Cultural Resources:

- To preserve, protect, and manage other cultural resources in accordance and in compliance with existing laws, regulations, and Executive Orders in coordination/consultation with the Burns Paiute Tribe, other American Indian tribes, Harney County Historical Society, and other heritage groups to make cultural resources available for appropriate uses by present and future generations.

Management Direction

Riddle Brothers Ranch Historic District:

- Continue to manage visitor use in the Historic District as described in the current management situation.
- Reduce wildland fire hazards around the main building complex and caretaker's cabin at the northwest end of the Historic District by watering and mowing lawns around the structures and keeping dried grasses cut down approximately 75 feet beyond the lawn perimeter. Encroaching juniper trees will be felled if within 75 feet of the historic or administrative buildings. Trees will be cut up for firewood and slash will be hand piled and burned during late fall.
- Reduce wildland fire hazards around Benjamin Riddle House complex by clearing brush and high grass in a 50-foot circle around the complex. A fireline will be dug to mineral soil and will be maintained on the perimeter of the cleared area. If reconstructed, Walter Riddle Cabin will be protected in a similar manner.
- Consider and analyze in a NEPA document the installation of an underground lawn watering system that will continue to provide fire protection, improve visitor safety, and are more in character with the historic structures and setting.

- Develop a self-guided tour brochure that could be distributed at Burns DO, Riddle Brothers Ranch National Historic District, and other appropriate outlets. No trail construction is necessary for the tour. Historic structures, features and equipment will be identified in the field by a number or letter incised into the side of a low juniper post. The access road into and through the Historic District will continue to be bladed once a year.
- Consider and analyze in a NEPA document the installation of a more permanent restroom that has an appearance more in character with the historic structures than the existing portable toilets.

Other Cultural Resources:

- Use predictive modeling and inventories and locate significant sites that may be in conflict with other resource uses. As funding allows, attempt to inventory 500 acres per year until Steens Mountain Wilderness and WSRs cultural resource inventories have been completed. High priority areas include the headwaters of Big Indian and Little Indian Creeks and the entire Little Blitzen WSR corridors.
- Use inventory data, site evaluations, condition assessments, site management plans, and interpretation in public education.
- Research significant cultural sites in cooperation with universities, Burns Paiute Tribe, other tribes, and other heritage partners in compliance with all laws, regulations, and other requirements.
- Utilize BLM law enforcement staff to monitor illegal collecting and excavation activities in Steens Mountain Wilderness and WSR corridors especially Little Blitzen River and Donner und Blitzen WSRs.
- As needed, implement physical, administrative, and data recovery measures where needed to mitigate effects in compliance with all laws regulations and other requirements.
- Monitor known cultural sites in Steens Mountain Wilderness and WSRs after wildland fire in order to study fire effects and to prevent post-fire looting.

American Indian Traditional Practices

Current Management Situation

Prior to establishment of a Euro-American population, the areas now designated as Steens Mountain Wilderness and WSRs were used by Northern Paiute bands. Many of their descendants now live on the Burns Paiute Reservation in Burns, Oregon; the Warm Springs Reservation in Warm Springs, Oregon; and the Fort McDermitt Reservation in McDermitt, Nevada.

No specific American Indian traditional practice areas have been identified to BLM staff in Steens Mountain Wilderness or WSRs. Evidence of prehistoric use of Steens Mountain is widespread and recent excavations at the Mortar Riddle Site reveal the use of the Little Blitzen WSR as early as 7,900 years ago. According to the Burns Paiute Tribal Cultural Resource Manager, traditional resource areas and spiritual locations are used by tribal members and known tribal historic sites do exist in the Steens Mountain area. In addition, Steens Mountain served as a hideout or refuge during and after the Bannock War of 1878. Some of the Burns Paiute elders refer to Steens Mountain as “Old Man” and consider it a sacred site. Specific traditional practice site-location information has not been released to BLM because the Burns Paiute Tribe is concerned about data security.

Traditionally used resources in Steens Mountain Wilderness and WSRs include a wide variety of plants and animals for food, as well as materials for making tools and shelter. Edible roots include biscuitroot, bitterroot, camas, carrots, and onions. Available in the area are seeds of goosefoot, Indian rice grass, Great Basin wildrye, and berries such as chokecherry, currants, and elderberry. Game animals include waterfowl, trout, marmots, pronghorn antelope, and bighorn sheep, which are found in specific habitats in the Steens Mountain area. Other game animals such as mule deer, waterfowl, Greater sage-grouse, rabbit, and ground squirrel have more widespread distribution. Plants such as red osier dogwood and willows are found in riparian settings, while grasses for basketry and food seeds are encountered in upland plant communities. The wide bands of quaking aspen on the mid-slopes of Steens Mountain are sources of posts for hide working, and mountain mahogany for bows and digging sticks grows on the rocky ridges at and above the juniper zone. Basalt toolstone sources are found in Steens Mountain Wilderness and WSR corridors.

The BLM has signed agreements with Burns Paiute Tribe, Confederated Tribes of Warm Springs, and Confederated Tribes of Umatilla. These memoranda have been established to formalize consultation and cooperation that include Steens Mountain Wilderness and the WSRs. The Burns Paiute Tribe and other tribes are consulted on various projects, especially those involving large-scale vegetation manipulation. Coordination and consultation with American Indian tribes are documented.

Management Objectives

- To monitor and protect traditional sites, landforms, burial sites, resources, and other areas of interest in consultation with the Burns Paiute Tribe and other tribes.

Management Direction

- The BLM staff continues to consult/coordinate with Burns Paiute Tribe and other tribes to identify and manage traditional practice areas in Steens Mountain Wilderness and WSRs. Traditional Cultural Properties will be nominated. Burial sites, if discovered, will be monitored. Coordination and consultation with American Indian tribes are documented.
- Integrate maintenance and protection of native subsistence species into vegetation management activities.
- The BLM will identify plants of cultural, traditional, and economic importance during botanical and cultural inventories, and will input information into the Freedom of Information Act-exempt Geographical Information System (GIS) layer.
- Monitor known traditional sites in Steens Mountain Wilderness and WSRs after wildland fire in order to study fire effects and to prevent post-fire looting.

Visual Resources

Current Management Situation

The Federal Land and Policy Management Act (FLPMA) of 1976 requires BLM to consider effects of management actions on the visual quality of the landscape. The BLM uses Visual Resource Management (VRM) classes, which are assigned site specifically through visual resource inventories. The VRM class objectives range from Class I, which requires the preservation of the existing character of the landscape, to Class IV, which provides for management activities that require major modifications to the landscape.

Class I is normally assigned to areas where a management decision has been made to preserve the natural landscape as in Congressionally-designated areas such as Steens Mountain Wilderness and WSRs with a Wild river classification. Class I provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Management Objectives

- To protect, maintain, enhance, or restore visual resource values by managing all BLM administered lands in Steens Mountain Wilderness and WSR corridors in accordance with VRM Class I objectives.

Management Direction

- Steens Mountain Wilderness and all WSRs corridors are designated as VRM Class I, which requires the preservation of the existing character of the landscape with very limited management activity.
- A Visual Contrast Rating Worksheet (BLM Form 8400-4) is used to assess visual changes from key observation points before implementing any project that may affect visual resources.

Energy and Minerals

Current Management Situation

The BLM administered land within WSRs and Steens Mountain Wilderness is withdrawn by the Steens Act from mineral exploration and development under terms of the WSRs Act and Wilderness Act. There are no pre-designation claims, leases, or permits with grandfathered or valid existing rights in the WSRs or Steens Mountain Wilderness.

Wild Horses

Current Management Situation

The South Steens Herd Management Area (HMA) is the only HMA that occurs in Steens Mountain Wilderness and the Donner und Blitzen WSR Corridor. It extends on the west side of Donner und Blitzen River from near Page Springs Campground south to private land. Due to legislated land exchanges in the Steens Act, the HMA presently includes the part of the WSR that extends onto private land. The HMA is on the east side of Donner und Blitzen River from a fenceline between Indian and Mud Creeks south onto private land, and out to the east rim overlooking Wildhorse Valley. The HMA also includes the portion of Steens Mountain Wilderness on North Catlow Rim. The current Appropriate Management Level (AML) range is 159 to 304 horses in this HMA with 3,648 animal unit months (AUMs) being allocated for this herd. Wild horses are not considered an ORV for any of the WSR corridors.

As a result of a lawsuit in 1996, BLM was ordered to fence the WSR corridors to restrict livestock entry. Fencing was completed in 1997. Due to fencing along the west boundary of the Donner und Blitzen WSR, South Steens wild horses were not able to access the river in as many areas as they did before 1997. Fencing has also reduced access to that part of the HMA on the east side of Donner und Blitzen River. While this portion of the HMA is probably not a yearlong use area for wild horses, recent surveys have found fewer than 20 wild horses using the area. Much of this area was private land prior to legislated land exchanges and many fences were constructed to control livestock, which may have also kept wild horses from using the area. Recent fence building near Bradeen Crossing and Burnt Car has reduced access for livestock and wild horses to the river and water. Reduced access to watering areas along the river systems puts more pressure on upland waterholes and springs. Monitoring needs to be conducted to determine ways to distribute horse use throughout the HMA to reduce overuse of spring areas.

Appropriate herd management activities include periodic census inventories and gathering of excess wild horses, as well as potential herd management projects such as fencing or water developments.

BLM direction for wild horse gather procedures are stated in BLM Manual 8560.37.C.4: "Use of equipment. - Use of motorized and mechanical equipment, including aircraft; use, maintenance and type of material, and equipment such as temporary corrals; and the location, frequency, and timing of such uses must be specified in the HMAPs [Herd Management Area Plans] and wilderness plans. Such uses are allowed when no other alternatives exist, they are the minimum to accomplish the task, and they are the least degrading to wilderness values temporarily or permanently. Use of these facilities and equipment require State Director approval."

Though the BLM Manual states use of motorized and mechanized equipment, location of horse gathering facilities, and timing of gathers are to be stated in wilderness plans, this can be done in only the most general sense. Contract stipulations between BLM and horse gathering contractors do not allow for such specific details of gathering operations until the contract has been awarded and the contractor reviews the gathering area. Such details as time of gather, facilities to be used, and equipment needs are subject to change and variation on each horse gathering operation and cannot be pre-planned in wilderness plans or HMAPs.

While final gathering trap sites, temporary corral locations, and use of motorized and mechanized equipment are the decision of the horse gathering contractor, per contract specifications, the BLM works with the contractor to help locate gathering operations areas which have been previously disturbed or have an existing use on that site, such as roads or grazing operation facilities. This is especially the case for wild horse

gathers which take place in wilderness. The BLM will attempt to keep gather sites and facility placement out of wilderness areas when possible. If not possible and horse gathers need to take place in wilderness, disturbance and facility and equipment use will be kept to the minimum possible. Disturbances and damage which occur will be restored and rehabilitated in a timely manner.

Management Objectives

- To designate/retain/adjust the HMA.
- To designate/retain/adjust Herd Areas in inactive status.
- To maintain/adjust AMLs and yearlong forage allocations for the HMA.
- To maintain a thriving natural ecological balance within the HMA.
- To maintain/improve year-round water sources to sustain the wild horse herd.

Management Direction

- The South Steens HMA is reduced in acreage and its boundary changed to reflect legislated Steens land exchanges.
- The South Steens Herd Area increased in size to reflect change in land ownership resulting from legislated Steens land exchanges.
- Current AMLs and wild horse forage allocations are maintained in all HMAs. Permanent increases or decreases in AML and forage allocations will be considered if monitoring data determine changes in long-term forage availability.
- Wild horse numbers are managed through gathering, removal, and other approved methods of population control. Initiation of gathering or other methods of population control will be based on census data, herd health, rangeland health, and productivity as determined by rangeland monitoring studies, climatic conditions, and occurrence of catastrophic events such as wildland fire and drought. Wild horse numbers are normally reduced to the low end of AML range when gatherings are conducted. An MRDG will be completed as part of this process.
- Perimeter fences will be maintained and any wild horses that stray outside HMA boundaries will be removed or returned to the HMA. Gates in interior pasture division fences will be managed to maximize horse access to the HMA.
- Management may maintain water sources critical to wild horses; develop additional water sources to improve animal distribution and provide more stable water sources during periods of drought if needed to protect wilderness resources and wilderness values; and seek cooperative management agreements for access to or acquire legal access to private water sources critical to wild horses.

Areas of Critical Environmental Concern

Current Management Situation

There are five existing RNA/ACECs and one newly designated RNA/ACEC that fall almost entirely within Steens Mountain Wilderness and portions of the WSR corridors. All portions of the RNA/ACECs falling within Steens Mountain Wilderness are exclusion areas for new ROWs and energy or mineral activities. The RNA/ACECs in wilderness provide for protection and study of ecological processes. Key elements in these areas are monitored for effects to the system from outside influences, such as recreation or grazing. Protection of these sensitive areas contributes to the naturalness of Steens Mountain Wilderness and understanding of natural processes. Below are a brief description and a summary of the management prescriptions for each RNA/ACEC.

East Kiger Plateau RNA/ACEC: At 1,216 acres, this RNA/ACEC is almost entirely within wilderness. This area was designated for protection of unique plant communities. There are no roads in this RNA/ACEC and the area is designated as closed to motorized and mechanized vehicle use. Collection of plant materials is allowed by permit only. In the portion of the RNA/ACEC that falls within High Steens WSA, new ROWs or other realty use authorizations will be avoided unless the activity is compatible with the purpose for which the area was designated. All but 40 acres of the RNA/ACEC is open to livestock grazing; however, topography limits access to the RNA/ACEC for most livestock.

Little Blitzen RNA/ACEC: At 2,255 acres, this RNA/ACEC is located entirely within wilderness and includes a portion of Little Blitzen River WSR. Steens Loop Road borders the RNA/ACEC on the south and east. There are no roads in the RNA/ACEC. This RNA/ACEC was designated for protection of unique plant communities and is located within the No Livestock Grazing Area. Collection of plant materials is allowed by permit only.

Little Wildhorse Lake RNA/ACEC: At 241 acres, this RNA/ACEC is located entirely within Steens Mountain Wilderness and includes a portion of Little Wildhorse Creek WSR. There are no roads in the RNA/ACEC. This RNA/ACEC was designated for protection of unique plant communities and is located within the No Livestock Grazing Area. Collection of plant materials is allowed by permit only.

Rooster Comb RNA/ACEC: At 683 acres, this RNA/ACEC is located entirely within wilderness and includes a portion of Little Blitzen River WSR. There are no roads in the RNA/ACEC. This RNA/ACEC was designated for protection of unique plant communities and is located within the No Livestock Grazing Area. Collection of plant materials is allowed by permit only. Overnight camping is allowed in historically used areas when consistent with the purpose of the RNA/ACEC and protection of wilderness resources.

South Fork Willow Creek RNA/ACEC: At 186 acres, this RNA/ACEC is located entirely within Steens Mountain Wilderness. There are no roads in the RNA/ACEC. This RNA/ACEC was designated for protection of unique plant communities and is located within the No Livestock Grazing Area. Collection of plant materials is allowed by permit only.

Big Alvord Creek RNA/ACEC: At 1,676 acres, this newly designated RNA/ACEC is located entirely within Steens Mountain Wilderness. There are no roads in this RNA/ACEC. This RNA/ACEC was designated for protection of unique plant communities and is located within the No Livestock Grazing Area. Collection of plant materials is allowed by permit only.

Management Objectives

- Maintain or improve the natural condition of unique plant communities or associations for which the RNAs/ACECs were designated.
- Retain and manage existing ACECs if they meet relevance and importance criteria and require special management or protection.
- Designate and manage new ACECs meeting relevance and importance criteria and need special management or protection.
- Encourage research and education opportunities within the RNA/ACECs that do not degrade natural ecological processes or conditions.

Management Direction

- Retain the designation for five existing RNA/ACECs and designate one new RNA/ACEC located within Steens Mountain Wilderness. The ACEC designations for two previously existing ACECs (Steens Mountain ACEC and Alvord Peak ACEC) are revoked.
- Continue to monitor RNA/ACEC conditions and take actions as necessary should any resource concerns be identified.

Permitted Use Elements for Steens Mountain Wilderness and WSRs

This section addresses permitted nonconforming uses in Steens Mountain Wilderness and WSRs and those roads bounded by wilderness, but not considered part of wilderness.

Roads

Current Management Situation

There are approximately 53 miles of roads in Steens Mountain Wilderness and 7.3 miles of roads in the WSR corridors that were closed to all forms of motorized and mechanized use by the Steens Act (Table 12 and Map W2). There are approximately 49 miles of road open to the public and bound on both sides by wilderness.

Steens Loop Road is the main arterial road providing access from Highway 205 at Frenchglen to the summit of Steens Mountain. Most of this road is maintained as a high-standard gravel road. Approximately 18 miles are bound on both sides by wilderness and approximately 2.75 miles run through WSR corridors. There is also an existing concrete bridge where the South Steens Loop Road crosses the Donner und Blitzen WSR. Portions of Steens Loop Road are typically open May through November and closed during winter months due to weather conditions, except for winter recreation permit holders. Steens Loop Road is also open to landowners accessing their private lands during periods when damage will not result to it or other roads in the area. Approximately 7.5 miles of roads running through WSR corridors are still open to the public (Table 12 and Map W2).

There are approximately 51 miles of routes in wilderness as well as 7.3 miles of routes in the WSR corridors classified as Service/Permit Use Routes and private property access routes. These routes may still be used by livestock operators to administer their BLM grazing permits and by private landowners to access their inholdings (Table 12 and Map W2). These routes may occasionally be used by BLM staff for administrative purposes, principally for emergency purposes. These routes are not open for use by the public. Grazing operators and private landowners must have individual authorizations describing the type of access allowed within Steens Mountain Wilderness. The various route management categories describing route uses are defined in the Transportation Section and Appendix M of the CMPA RMP.

Management Objectives

- Maintain existing public, private, and permittee routes and other related infrastructure provided for by Section 112 of the Steens Act in a manner that minimizes effects to wilderness resources.
- Manage routes within Steens Mountain Wilderness and WSR corridors consistent with identified Route Management Categories and Maintenance Levels in the Transportation Section of the CMPA RMP.

Table 12: Summary of Road Categories and Mileage

| Road Category | Miles |
|---|-------|
| Roads closed to motorized vehicles and mechanized transport in Steens Mountain Wilderness | 53 |
| Roads closed to motorized vehicles and mechanized transport in WSRs | 7.3 |
| Roads bound on both sides by Steens Mountain Wilderness and open to motorized vehicles and mechanized transport | 49 |
| Roads in WSR Corridors open to motorized vehicles and mechanized transport | 7.5 |
| Service/Permit Use Routes and private property access routes in Steens Mountain Wilderness* | 53.7 |
| Service/Permit Use Routes and private property access routes in WSRs* | 7.3 |

*Pending site-specific NEPA decisions. Permit use may be rescinded if private property is acquired by the BLM.

Management Direction

- Maintain the Steens Loop Road and other approved routes at their assigned condition and maintenance standards as described in the Transportation Section of the CMPA RMP.
- Close two roads identified by the CMPA RMP for protection of wilderness and WSR characteristics. These roads lead to Steens Mountain Wilderness and the WSR corridor boundary along the South Fork Donner und Blitzen River (Maps W2 and W3).

Grazing

Current Management Situation

Steens Mountain Wilderness: The Steens Act, Section 202 (d)(1), states, “Except as provided in section 113(e)(2), grazing of livestock shall be administered in accordance with the provision of section 4(d)(4) of the Wilderness Act . . . , in accordance with the provisions of this Act, and in accordance with the guidelines set forth in Appendix A and B of House Report 101-405 of the 101st Congress.” Within Steens Mountain Wilderness 94,959 acres of BLM administered lands fall within the No Livestock Grazing Area. The remaining acres continue to be open to livestock grazing. There are 13 grazing allotments in Steens Mountain Wilderness. The three allotments containing the most wilderness are Alvord Peak with 16,812 acres, South Steens with 16,497 acres, and Serrano Point with 11,020 acres. See Table 13 for a summary of existing allotments within Steens Mountain Wilderness.

Infrastructure associated with grazing management will continue to be visible, including but not limited to fencing, cattleguards, pipelines, reservoirs, waterholes, and spring developments.

Wild and Scenic River Corridors: The majority of BLM administered lands in the designated WSR corridors falls within the No Livestock Grazing Area or developed recreation site exclosures. The remaining BLM lands outside the No Livestock Grazing Area are two small parcels including 89 acres in the uplands of Fish Creek and 67 acres in the uplands of the South Fork Donner und Blitzen River. Some grazing may continue within the WSR corridors, but not generally in the active riparian zones.

Table 13: Summary of Grazing Allotments in Steens Mountain Wilderness

| Allotment | Acres of Allotment in Steens Mountain Wilderness | Percent of Allotment in Steens Mountain Wilderness |
|---------------------|--|--|
| Alvord | 5121 | 2 |
| Alvord Peak | 16812 | 69 |
| Carlson Creek | 8701 | 98 |
| Chimney | 373 | 3 |
| East Ridge | 474 | 9 |
| Frazier Field | 8732 | 43 |
| Hardie Summer | 40 | 2 |
| Mann Lake | 1145 | 3 |
| Mann Lake FFR | 814 | 50 |
| Roaring Springs FFR | 4794 | 75 |
| Scharff FFR | 40 | 15 |
| Serrano Point | 11020 | 79 |
| South Steens | 16497 | 19 |
| Total | 74563 | |

Management Objectives

- Provide for a sustained level of livestock grazing where allowed in Steens Mountain Wilderness, while meeting Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington (S&Gs) as described in the CMPA RMP.
- Implement administrative solutions and rangeland projects to provide proper management for livestock grazing while meeting resource objectives and requirements for S&Gs.

Management Direction

- Within the wilderness area open to grazing, management actions will provide for sustainable livestock grazing in Steens Mountain Wilderness and WSRs that meets allotment management (natural resource) objectives and the S&Gs. Revision of Allotment Management Plans (AMPs) is based on evaluations and rangeland health assessments, which determine allowable AUMs and plant community management.
- Interim and long-term grazing management and stocking levels are adjusted in accordance with results of monitoring studies, allotment evaluations, and rangeland health assessments. Accepted livestock management practices (e.g. adjustment of the timing, duration, and frequency of grazing, or periodic rest or deferment) will be implemented. These will be supplemented by administrative actions (e.g. season of use changes, stocking level adjustments, exclusionary pastures) or rangeland projects to accomplish natural resource management objectives.
- Existing grazing management projects will be maintained if they continue to support livestock grazing. Projects not functioning to support grazing, wildlife, or wild horses will be abandoned and the sites rehabilitated (e.g., removal of fencing in the No Livestock Grazing Area).
- Unless specifically needed as a vegetation management tool, the utilization level as measured at the end of the growing season will not exceed 50 percent on native, herbaceous forage plants on a pasture-average basis.
- No livestock grazing will occur on public lands within the Congressionally designated No Livestock Grazing Area.

Private Land Inholdings

Current Management Situation

Neither the Steens Act, Wilderness Act, nor the WSRs Act provide Federal land management agencies with authority to regulate private land. The Steens Act did address providing reasonable access to private land inholdings surrounded by wilderness, which is described in more detail in the roads section above. There are approximately 4,668 acres of private and State lands within Steens Mountain Wilderness. There are approximately 4,022 acres of private land within WSR corridors, most of which is within the Fish Creek and Ankle Creek WSR segments.

Management Objectives

- Encourage a cooperative working relationship between BLM and private landowners within Steens Mountain Wilderness and WSR corridors.
- Provide reasonable access to private inholdings while minimizing impacts to wilderness characteristics.

Management Direction

- Pursue cooperative agreements or projects with willing landowners that help protect or improve wilderness resources or ORVs in WSR corridors.
- Pursue cooperative agreements, projects, or land tenure adjustments with willing landowners.

STEENS MOUNTAIN WILDERNESS AND WILD AND SCENIC RIVERS MONITORING PLAN

Monitoring Strategy

Section 111(c) of the Steens Act requires implementation of a monitoring program for public lands in the CMPA including Steens Mountain Wilderness and WSRs.

Monitoring data for use by BLM is usually collected only by BLM personnel or contractors, except where specific agreements are in place to allow permittees, scientific and research institutions, or volunteers to collect data. All data must be collected under standards established by BLM, and are subject to constraints specific to each resource being monitored. Frequency of monitoring is dependent on workforce and budget.

Visitor Use Monitoring

Goals

1. To establish and maintain a wilderness recreational effects monitoring system, including gathering baseline data that will assist with future planning by monitoring seven indicators: campsite condition, campsite density, perception of solitude, trail condition, length of visitor stay, recreational stock use, and motor vehicle and mechanical transport intrusions.
2. To evaluate current condition of the resource in relation to management objectives in order to identify any problems.
3. To recognize trends and evaluate effectiveness of management programs in relation to wilderness use.

Objectives

1. To locate, inventory, and document wilderness campsites.
2. To document the condition of wilderness campsites.
3. To evaluate campsite density per management area.
4. To evaluate wilderness solitude by the closeness of wilderness campsites to each other and by monitoring the number of inter-party wilderness encounters.
5. To determine average length of visitor stay in the wilderness.
6. To establish effects, or lack thereof, of recreational stock use on each backcountry campsite.
7. To evaluate change in trail width and depth and analyze and document multiple trailing on established wilderness trails and campsite social trails.
8. To monitor effects of winter recreation within Steens Mountain Wilderness.
9. To monitor for unauthorized motor vehicle and mechanical transport intrusions into Steens Mountain Wilderness and WSRs.

Procedures

1. Campsites in Big Indian Gorge, Kiger Gorge, Little Blitzen Gorge, Wildhorse and Little Wildhorse Canyons, Little Indian Gorge, Pike Creek Canyon, Cold Springs Canyon, Mud and Ankle Creeks and Donner und Blitzen River will be monitored. Each campsite will be assigned a rating of minimum, moderate, high or extreme impact according to the Campsite Monitoring Form (OR020-8560-01) (Attachment 3). Camps will be plotted on maps. The wilderness will continue to be surveyed for additional campsites. The exception is at Wildhorse Lake where camping is only allowed at two established and designated campsites. Any sign of other campsites within Wildhorse Lake basin will be reported, dismantled and naturalized immediately. Also, any sign of campsites at Little Wildhorse Lake will be eliminated.

2. Recreational stock use and effects on campsites will be recorded on the Campsite Monitoring Form.
3. Parties found camping within sight or sound of each other will be documented on an Occupied Campsite Form (OR020-8560-03) (Attachment 4) to evaluate degree of wilderness crowding. Trail Register (OR020-8560-05) (Attachment 5) pages will be used in conjunction with compiled ranger data.
4. Inter-party wilderness encounters, on and off trail, will be documented and monitored on the Encounters Form (OR020-8560-04) (Attachment 6) to evaluate degree of wilderness crowding and opportunities for solitude. Comments made by visitors on the Trailhead Register pages will be used in conjunction with compiled ranger data.
5. Trail counter data will be used in conjunction with completed Trail Register pages and ranger field observations to determine wilderness recreation use numbers.
6. Average length of visitor stay will be determined by tallying information from Trailhead Registers at Big Indian, Little Blitzen, Kiger Gorge, Wildhorse Lake, Pike Creek, and the Donner und Blitzen River.
7. Trail width and depth and multiple trailing will be monitored on established wilderness trails and will be recorded on the Trail Monitoring Form (OR020-8560-02) (Attachment 7). Established trails include Big Indian, Little Blitzen, Wildhorse Lake, Pike Creek, Mud/Ankle Creek, and Donner und Blitzen River. A random number table was used to determine the points where the trail monitoring will be done. The numbers 1, 2, 4, and 7 were chosen from the random number table to reflect the approximate mile points where the trail monitoring will occur. At these points, a Global Positioning System (GPS) reading will be taken and monitoring conducted at these points. An exception is the Donner und Blitzen River trail where the trail is not seven miles long so only miles 1, 2 and 4 will be used. Pike Creek trail is less than four miles long, so miles 1 and 2 will be used. On the Wildhorse Lake trail, the monitoring will be done along the steep upper slope and on the lower, flat meadow area.
8. Winter Recreation Monitoring Form (OR020-8560-06) (Attachment 8) will be completed by BLM personnel after each monitoring trip into the winter recreation area. Monitoring will include user activity and will also document any intrusions into the wilderness or WSA, which will be noted as violations. The winter recreation area is defined as the snowline on North Steens Loop Road to Kiger Gorge Overlook.
9. A winter recreation registration box will be installed along North Steens Loop Road upon closure of the road for the winter season to estimate use of walk up visitors not wishing to get a winter use permit. Data will be used in conjunction with ranger field observations to evaluate degree of wilderness crowding and opportunities for solitude. This box will be retrieved when the Page Springs gate is opened.
10. Unauthorized Motor Vehicle and Mechanical Transport Intrusions Monitoring Form (OR020-8560-07)(Attachment 9) will be completed by BLM personnel after unauthorized motor vehicle and mechanized transport use and intrusion into Steens Mountain Wilderness and WSRs are observed. Such monitoring will be yearlong, including winter months. Monitoring will include user activity and documentation of unauthorized vehicle and mechanical transport intrusions into wilderness. The category of motor vehicle and mechanical transport includes, but is not limited to, OHVs, snowmobiles, bicycles, ultra-light aircraft, and hang gliders.

Frequency

1. Campsite inventories will be completed twice during the season, using the Campsite Monitoring Form.
2. Big Indian, Little Blitzen, Pike Creek, Donner und Blitzen River, Wildhorse Canyons, Cold Springs, Little Indian, Little Wildhorse, and Kiger Canyons and Mud and Ankle Creeks will be monitored twice – once in early summer and once in early fall. Other locations may be added if deemed necessary.
3. Recreational stock use and effects will be monitored twice a year with the regular campsite inventory.
4. The Occupied Campsite Form will be filled out whenever anyone camping in wilderness is encountered, including monitoring personnel.
5. The Encounters Form will be filled out for every day spent in wilderness, regardless of whether someone is encountered or not.
6. Trail Register pages will be collected when a page becomes full, or nearly full, to prevent pages from being stolen or defaced. This includes the winter registration box.

7. Calibration of trail counters and observations by rangers of visitor trailhead-registration boxes will be done to achieve better wilderness use numbers. Trail counter calibration will be done once a month by either physically observing the number of people crossing over the counter or by BLM personnel walking over the counter a number of times and verifying the number of crosses with the counter. Registration boxes will be observed for a minimum of four hours a day twice a month to help determine visitor registration rates. In both cases, calibration will be done with the ranger out of view of visitors.
8. Established GPS points on trails will be monitored at the beginning and end of every summer season.
9. Winter recreation use will be monitored on North Steens Loop Road to Kiger Overlook as snow conditions and personnel availability allow and preferably twice a month. Cold Springs and Dingle Creek Roads will be monitored if use by snowmobiles is observed.
10. Monitoring of unauthorized motorized vehicle and mechanical transport use intrusions into wilderness will occur whenever such intrusions are observed. Also, a strategy will be developed for increased patrolling if intrusions increase.

Files

Completed forms, photographs, and maps will be kept in a file in the Burns DO. In addition, a wilderness database will be created for ease of organization and retrieval of monitoring information. Data collected will be summarized annually and compiled into a yearly monitoring report.

Steens Mountain Wilderness and Wild and Scenic Rivers Monitoring Indicators and Forms

Indicator 1: Campsite Condition

- Monitor using the Campsite Monitoring Form (OR020-8560-01)
- Monitor twice a year - once in early summer and again in early fall.
- Take photos of each campsite at beginning of summer season to measure off-season recovery rate and again in early fall to measure summer usage.
- Campsite condition is defined as human or recreational stock-caused change in the site and is measured by comparison with an adjacent plot of land.
- Make notation to campsite monitoring form of any “natural” event or occurrence, which effects or alters the campsite area or condition. Such an instance would not be due to human use or visitor activities and will be ‘noted’ on the monitoring form but not ‘rated’.
- Maintain a permanent file for each campsite containing an updated Campsite Monitoring Form, photos and a detailed map of the campsite.
- Attention should be paid to changes in rating.
- Document ratings and map campsites on a large campsite inventory map. Symbols should go next to campsite number. Place a symbol next to the corresponding campsite number each year to easily indicate change in status. Symbols are as follows:
 - Red circle: minimum impact
 - Blue triangle: moderate impact
 - Green square: heavy impact
 - Yellow star: extreme impact
 - Black rectangle: campsite has been naturalized and is being monitored

Indicator 2: Campsite Density

- Monitor density using the Campsite Monitoring Form as a guideline.
- Measure per each management area, Gorges or Uplands.
- A campsite is defined as an area of human flattened vegetation where it can be inferred that at least one person camped or spent a considerable amount of time.
- A campsite does not need to have a fire ring, structures, etc., in order to be labeled a campsite.

- All campsites found within the wilderness boundary will be inventoried, inspected, documented, labeled, and mapped on 7.5 minute series quadrangle maps.
- When a campsite has been rehabilitated by natural or human means and has been monitored for a period of three summer seasons without further use, it can be taken out of the system.
- If an area was rehabilitated, then camped in again, the campsite will be put back in the system.
- As new campsites are found, they will be inventoried, documented, and added to the campsite map.
- Once a year, preferably at end of the summer season, the number of campsites per management area will be counted and analyzed by monitoring personnel. Special attention will be given to the number of new campsites located and any change in campsite rating.

Indicator 3: Perception of Solitude

Number of other parties camped within sight or continuous sound per canyon or Management Area (not including car camping on or near wilderness boundaries).

- Monitor using the Occupied Campsite Form (OR020-8560-03) and Trail Register (OR020-8560-05) pages.
- Campsites within sight or sound of each other are defined as two or more campsites situated 100 yards or less from each other.
- Monitor whenever an occupied campsite is seen, including that of monitoring personnel, within the wilderness boundary. This does not include car camping on wilderness boundaries or along roads bounded by wilderness.
- Document also if no campsites are seen within sight or sound of a particular camp.
- If the same group previously monitored is seen on a different day, document it again as a new entry.
- Record a given camp only once a day.
- Visitor comments (e.g., “I camped next to a party of eight on Tuesday.”) can be used as reliable monitoring information if their entire trip can be documented. This includes dates, camp locations, and the number of occupied campsites within sight or sound every night of their trip.
- Rangers should not go out of their way to camp near someone.
- Completed forms will be filed and an analysis completed at the end of each summer season.

Number of wilderness encounters per day on or off trail, per canyon or Management Area.

- Monitor using the Encounter Form (OR020-8560-04).
- An encounter is defined as a situation within the wilderness boundary when two or more separate parties pass each other, talk to each other, or are close enough to hear each other. This includes all areas except campgrounds.
- Monitor number of encounters every day spent in wilderness, along with specific location and party size. If no one is encountered on a given day, this too should be documented.
- Visitor comments (e.g., “There were six people at the headwall of the gorge yesterday.”) can be used as reliable monitoring information if their whole trip can be documented. This includes dates, camp locations and the number of encounters during their trip.
- Completed forms will be filed and analysis completed at the end of each summer season.

Indicator 4: Trail Conditions

- Monitor trail width, trail depth, and multiple trailing of established wilderness and campsite social trails using the Trail Monitoring Form (OR020-8560-02).
- Established wilderness trails include Little Blitzen, Big Indian, Donner und Blitzen River, Pike Creek, and Wildhorse Lake. The Mud/Ankle Creek trail will be monitored if and when single track trail conditions exist.
- Monitor campsite social trails and map them on the Campsite Monitoring Form (OR020-8560-01).
- For established wilderness trails, use established GPS points along each trail to be monitored and continue to use these same points every year.
- Monitor condition of established trails twice a year, once at the beginning of the summer season and once at the end.

- Monitor any newly discovered or created established trails similarly.
- Make notation to Trail Monitoring Form of any “natural” event or occurrence which affects or alters the trail or its condition. Such an instance would not be due to human use or visitor activities and will be noted on the monitoring form but not rated.

Indicator 5: Length-of-Stay

- Assess length-of-stay primarily by retrieval of visitor Trail Register pages, as well as information gathered from wilderness ranger visitor contacts.
- Place visitor registration books at the following trailheads: Big Indian, Little Blitzen, Donner und Blitzen River, Kiger, Pike Creek, South Steens equestrian campground, Mud/Ankle Creek, and Wildhorse Lake.
- Post a sign at each trailhead explaining why it is important to sign in.
- Analyze information annually.

Indicator 6: Recreational Stock Use

- Record recreational stock use in the recreational stock section of the Campsite Monitoring Form (OR020-8560-01).
- Recreational stock effects that will be assessed include tree root exposure due to stock, tree girdling, and evidence of stock by presence of feed and manure.
- Analyze the relationship between frequent recreational stock use and campsite impact ratings annually.
- Evidence of cows, specifically manure, is not to be used as evidence of recreational stock within the campsite.

Indicator 7: Unauthorized Motor Vehicle and Mechanical Transport Intrusions

- Monitor unauthorized motorized vehicle and mechanical transport intrusions into wilderness on the Unauthorized Motor Vehicle and Mechanical Transport Intrusions Monitoring Form (OR020-8560-07).
- Intrusions into wilderness which have not been authorized, including use of closed roads by any type of motor vehicle and mechanical transport, including but not limited to, OHVs, snowmobiles, bicycles, ultra-light aircraft, and hang gliders will be assessed.
- Monitoring will occur year-round, including winter months, and will be increased in areas where unauthorized intrusions are observed.
- Analyze the need to restrict or discontinue motorized vehicle and mechanical transport use in certain areas based on the number of unauthorized motor vehicle and mechanical transport intrusions into wilderness over an established time period.

Natural and Cultural Resource Elements Monitoring

Air Quality

The Fuel Analysis, Smoke Tracking, and Report Access Computer System (an emissions information system) is used in Oregon to quantify prescribed fire emissions and track changes in emissions and emission production in the State. An air-monitoring network has been developed for Oregon that is used to determine whether national ambient air quality standards are met. However, no monitors are located within the CMPA. Steens Mountain Wilderness and the WSRs are designated as Class II.

Water Resources

Water Quality: Water temperatures along perennial streams in Steens Mountain Wilderness and WSRs are periodically measured with continuous recording devices to monitor long-term maintenance or restoration of water quality. Riparian vegetation, as discussed under the vegetation section, may be monitored as a surrogate measure of water quality and serves as short-term and intermediate monitoring of maintenance and restoration. Monitoring of project specific management or restoration activities will be developed and implemented through the respective activity planning process.

Water Quantity: Water developments in Steens Mountain Wilderness will be inventoried, mapped, photographed, and evaluated for beneficial use and maintenance or reclamation/restoration needs.

Soils and Biological Soil Crusts

Monitoring studies within the CMPA focus on presence/absence and cover, and may be established and read by either the range conservationist for the allotment, a Burns District biologist, or may have an entire BLM Interdisciplinary Team (ID Team) present. Provisions for these monitoring efforts are included in the soils and biological soil crust sections of the RMP. The RMP provides for monitoring of the indicators of rangeland health, including biological soil crusts. The BLM uses data resulting from this monitoring to inform decisions regarding management of grazing and other resource uses.

Vegetation

No Livestock Grazing Area: Photo points are taken at key locations approximately every five years or as funding allows to evaluate the trend of each site. Additional studies may occur as funding allows.

Special Status Species: For a list of Special Status plant species see Attachment 2.

BLM Sensitive Species: Transects are established and read in habitats to determine the trend of individual plants or populations. Transects are read every one or two years. The number of transects varies with the number of species on the BLM Sensitive plant species list.

BLM Assessment and Tracking Species: Ocular reconnaissance monitoring of each species occurs every five to ten years. Populations are checked for presence/absence, numbers, and if there are any visible threats to plants or habitat.

Riparian: Photo point monitoring is used to monitor general condition and trend of riparian vegetation. Riparian vegetation community composition and relative abundance are monitored at selected sites to evaluate maintenance or improvement at the reach or area scale using standard methodologies. Additional monitoring, depending on site- specific issues or concerns, may include qualitative or quantitative measures of bank stability/disturbance, channel cross section profiles, and riparian canopy cover/shade.

Noxious Weeds

Noxious weed monitoring consists of annual surveys of high probability areas for weed introduction, identification of new weed introductions, and other inventories to determine the density and distribution of existing weed populations.

Fish

Fish habitat is monitored primarily in connection with assessment of water quality, riparian vegetation condition, and management. Additionally, BLM, independently or in coordination with ODFW or USFWS, periodically assesses fish and aquatic habitat using established inventory and monitoring protocols. Management and monitoring of fish population and distribution are under jurisdiction of ODFW or USFWS;

BLM coordinates and cooperates with these agencies relative to fisheries management and monitoring in wilderness and WSRs.

Wildlife

Monitoring of wildlife habitat occurs as described in the monitoring sections for Riparian and Wetlands and Rangelands in the CMPA RMP. Other methods include shrub utilization transects to determine amount of livestock use on shrubs used mainly by big game species. Monitoring also includes use of ODFW survey data on locations and numbers for various wildlife species, allowing for evaluation of the adequacy of wildlife forage allocations.

Paleontological Resources

Monitoring entails measurement, description, and photo documentation of disturbed areas within localities and recording evidence of illegal collection and excavation. These data serve as baseline information to compare to subsequent monitoring visits. All localities within Steens Mountain Wilderness are monitored once every five years.

Cultural Resources

Riddle Brothers Ranch National Historic District: The Benjamin Riddle House and associated structures are visited annually to assess maintenance needs. The caretaker reports historic structure/feature maintenance needs to the Burns DO cultural resources staff. The caretaker monitors visitor use and acts as a deterrent to illegal theft of historic and prehistoric artifacts.

Other Cultural Resources: National Register eligible sites most susceptible to effects from recreation and livestock grazing are monitored at least once every five years. Sites susceptible to illegal looting or excavation are monitored every year. Other National Register eligible sites will be monitored once every ten years.

Monitoring entails measurement, description, and photo documentation of disturbed areas within sites and recording evidence of looting and illegal excavation. These data will serve as baseline information to compare to subsequent monitoring visits.

American Indian Traditional Practices

A monitoring plan of identified traditional practice sites will be developed in order to determine condition, adverse effects, deterioration, and use of such sites. Procedures will be developed to track consultation and to document all written, telephone, electronic, and in-person communications with yearly review for adequacy.

Visual Resources

The visual contrast rating system described in BLM Manual Handbook H-8431-1 is used when assessing proposals for projects in wilderness and WSRs. No other monitoring is planned.

Energy and Minerals

No locatable or leasable mineral exploration or development proposals are authorized in Steens Mountain Wilderness and WSRs; therefore, no monitoring of locatable or leasable minerals is required or necessary.

Monitoring for saleable minerals exploration and development is designed to provide compliance with applicable laws, regulations, policy, and site-specific plans. In addition, monitoring helps provide compatibility with other resource management objectives, other resource uses, and protection of public lands.

Saleable Minerals

Inspections of saleable minerals operations are conducted primarily to determine compliance with 43 CFR 3600 regulations and site-specific plans. Where mineral production occurs, inspections show an accurate accounting of materials removed; proper compensation to the Federal government; protection of the environment, public health, and safety; and identification and resolution of saleable mineral trespass. Activities in sensitive areas or areas with a high potential for greater than usual effects are inspected more frequently in accordance with BLM policy.

Wild Horses

Wild horses and their habitat are monitored to determine need for and timing of gathers, which animals to remove, and whether or not to maintain or adjust AMLs. Habitat monitoring includes collecting climatic data, conducting vegetation utilization studies, recording actual use by horses and livestock, and determining vegetation condition, trend, and areas of use by livestock and horses. Animal monitoring includes periodic horse counts, determination of horse locations and seasonal movements/use areas, annual reproduction rates, herd age structure, sex ratios, physical traits (size, color, weight, unique markings), and establishment and reassessment of herd baseline genomes.

Areas of Critical Environmental Concern

Monitoring of RNA/ACECs is designed to measure uses and activities on relevant and important values associated with an RNA/ACEC. Monitoring is divided into two categories - visual observations and trend indicators. Baseline sampling has been established in some RNA/ACECs to document trends and conditions of relevant and important values. If visual monitoring indicates a potential problem, permanent plots could be established to identify potential causes and provide information for necessary changes in management.

Permitted Uses

Roads

Monitoring will occur on Service/Permit Use Routes to ensure they do not become more developed than they were at the time of wilderness designation. They will also be signed indicating the routes are closed to public motorized access and open only to livestock operators and private landowners under special authorization or for administrative use by BLM. Wilderness satisfaction information gathered will help determine effects to visitors from motorized activity. Other closed routes (those closed to all motorized and mechanized activity) will also be signed and monitored to discourage use by motorized vehicles or mechanical transport. Where needed, physical barriers will be used to close routes and monitored for effectiveness. Open roads will be monitored for maintenance needs. Service/Permit Routes may also be repaired as needed to provide reasonable motorized use. Photographs documenting route conditions at multiple locations will be used to determine if motorized routes within Steens Mountain Wilderness and WSRs are staying at a desired condition. Stream crossings will be monitored for effects to riparian vegetation, wildlife mortality along routes will be documented, and noxious weed sightings will be reported for treatment.

Grazing

Monitoring of livestock grazing in Steens Mountain Wilderness includes recording actual use and measurements of forage utilization, climate, and trend. These monitoring data are utilized to determine the attainment of the five standards of rangeland health. Trend in rangeland condition is monitored to provide data for periodic evaluation to determine effectiveness of current grazing management practices in attaining resource objectives.

Private Land Inholdings

No monitoring of private land will occur other than the monitoring of access routes into such inholdings across BLM administered lands.

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Glossary

A complete glossary of Transportation Management terms can be found in Appendix M.

A

Adaptive Management – A type of natural resource management in which decisions are made as part of an ongoing process. Adaptive management involves testing, monitoring, evaluation, and incorporating new knowledge into management approaches based on scientific findings and the needs of society. Results are used to modify management policy.

Advanced ecological status – A biotic community with a high similarity to a defined or perceived potential natural community (PNC) for an ecological site, usually late seral or PNC ecological status.

Allotment – A specific portion of public land allocated for livestock grazing, typically with identifiable or fenced boundaries and permitted for a specified number of livestock.

Allotment (grazing) – Area designated for the use of a certain number and kind of livestock for a prescribed period of time.

Allotment Management Plan (AMP) – A plan for managing livestock grazing on specified public land.

Analysis of the Management Situation (AMS) – Step 4 of the BLM’s land use planning process. It is a comprehensive documentation of the present conditions of the resources, current management guidance, and opportunities for change.

Animal unit – One cow, one cow/calf pair, one horse, or five sheep.

Animal Unit Month (AUM) – The forage needed to support one cow, one cow/calf pair, one horse, or five sheep for one month. Approximately 800 pounds of forage.

Appropriate Management Level (AML) – An established population range that represents the number of animals that the designated HMA can sustain and that results in a thriving natural ecological balance with other uses and resources common to the area and avoids deterioration of the public range.

Area of Critical Environmental Concern (ACEC) – Area where special management attention 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 humans from natural hazards.

Avoidance Areas – Areas with sensitive resource values where rights-of-way and land use authorizations will be strongly discouraged. Authorizations made in avoidance areas will have to be compatible with the purpose for which the area was designated and not be otherwise feasible outside the avoidance area.

B

Basalt – A dark, heavy, fine-grained silica-poor igneous rock composed largely of iron and magnesium minerals and calcium-rich plagioclase feldspars.

Basin (river) – In general, the area of land that drains water, sediment, and dissolved materials to a common point along a stream channel. River basins are composed of large river systems. In this EIS, the term refers to the equivalent of a third field hydrologic unit code, an area of about nine million acres, such as the Salmon River basin. It also is used to refer in general to the Interior Columbia River Basin.

Best Management Practices (BMPs) – A set of practices which, when applied during implementation of management actions, ensures that negative impacts to natural resources are minimized. BMPs are applied

based on site specific evaluation and represent the most effective and practical means to achieve management goals for a given site.

Biological Soil Crust - Lichens, mosses, green algae, fungi, cyanobacteria, and bacteria growing on or just below the surface of soils.

Bureau of Land Management (BLM) (Bureau) – Government agency with the mandate to manage Federal lands under its jurisdiction for multiple uses.

BLM assessment species – Plant and animal species on List 2 of the Oregon Natural Heritage Data Base, or those species on the Oregon List of Sensitive Wildlife Species (OAR 635-100-040) that are identified in BLM Instruction Memo OR-91-57 and are not included as federal candidate, state listed, or BLM sensitive species.

BLM sensitive species – Plant or animal species eligible for federal listed, federal candidate, state listed, or state candidate (plant) status, or on List 1 in the Oregon Natural Heritage Data Base, or approved for this category by the BLM State Director.

BLM tracking species – Plant and animal species on List 3 and 4 of the Oregon Natural Heritage Data Base, or those species on the Oregon List of Sensitive Wildlife Species (OAR 635-100-040) that are identified in BLM Instruction Memo OR-91-57 and are not included as federal candidate, state listed, BLM sensitive, or BLM assessment species.

C

Candidate Species – Any species included in the *Federal Register* Notice of Review that are being considered for listing as threatened or endangered by the US Fish and Wildlife Service.

Canopy – In a forest, the branches from the uppermost layer of trees; on rangeland, the vertical projection downward of the aerial portion of vegetation.

Cell - Unique ecosystem type used by the Natural Heritage Plan to inventory, classify, and evaluate natural areas. Cells contain one or more ecosystem elements (i.e., plant communities or ecosystems such as Natural Heritage Resources or special species).

Classification – A process required by law for determining the suitability of public lands for certain types of disposal or lease under the public land laws or for retention in public ownership.

Climax vegetation – The stabilized plant community on a particular site. The plant cover reproduces itself and does not change as long as the environment remains the same.

Colluvium – Soil material, rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.

Commodities – Goods and services produced by industries which include but are not limited to agriculture, livestock grazing, and mining.

Community – A group of species of plants and/or animals living and interacting at a particular time and place; a group of people residing in the same place and under the same government.

Consultation – (1) An active, affirmative process that (a) identifies issues and seeks input from appropriate American Indian governments, community groups, and individuals; and (b) considers their interests as a necessary and integral part of the BLM's and USFS's decision-making process. (2) The Federal Government has a legal obligation to consult with American Indian Tribes. This legal obligation is based in such laws as the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, and numerous other Executive Orders and statutes. This legal responsibility is, through consultation, to consider Indian interests and account for those interests in the decision. (3) The term also refers to a requirement under

Section 7 of the ESA for federal agencies to consult with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service with regard to federal actions that may affect listed threatened and endangered species or critical habitat.

Corridor (landscape) – Landscape elements that connect similar patches of habitat through an area with different characteristics. For example, streamside vegetation may create a corridor of willows and hardwoods between meadows or through a forest.

Custodial management – Management of a group of similar allotments with minimal expenditure of appropriated funds to continue protecting existing resource values.

D

Deep soil – A soil that is 40 to 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.

Developed recreation – Recreation that requires facilities which in turn result in concentrated use of an area; for example, a campground.

Dispersed recreation – Recreation that does not occur in a developed recreation site; for example, hunting or backpacking.

Disturbance – Refers to events that alter the structure, composition, or function of terrestrial or aquatic habitats. Natural disturbances include, among others, drought, floods, wind, fires, wildlife grazing, insects, and pathogens. Human-caused disturbances include actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species.

E

Ecological Site Inventory (ESI) – The basic inventory of present and potential vegetation on BLM rangelands. Ecological sites are differentiated on the basis of the kind, proportion, or amount of plant species.

Ecological status – The present state of vegetation of a range site in relation to the potential natural community for that site. Four classes are used to express the degree to which the production or composition of the present plant community reflects that of the potential natural community (climax):

Ecological Status (Seral stage)
Percent of Community in Climax Condition:

| | |
|-----------------------------|--------|
| Potential natural community | 76-100 |
| Late seral | 51-75 |
| Mid-seral | 26-50 |
| Early seral | 0-25 |

Ecosystem – A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

Ecosystem Management – The use of a “whole-landscape” approach to achieve multiple-use management of public lands by blending the needs of people and environmental values in such a way that these lands represent diverse, healthy, productive, and sustainable ecosystems.

Endangered Species – Any species defined under the Endangered Species Act (ESA) as being in danger of extinction throughout all or a significant portion of its range. Listings are published in the *Federal Register*.

Environmental Assessment (EA) – One type of document prepared by federal agencies in compliance with the National Environmental Policy Act (NEPA) which portrays the environmental consequences of proposed federal actions which are not expected to have significant effects on the human environment.

Environmental Impact Statement (EIS) – One type of document prepared by federal agencies in compliance with the National Environmental Policy Act (NEPA) which portrays the environmental consequences of proposed major federal actions expected to have significant impacts on the human environment.

Ephemeral stream – A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no continuous supply from melting snow or other source, and its channel is above the water table at all times.

Exclusion Areas – Areas with sensitive resource values where rights-of-way and land use authorizations will not be authorized.

Existing Management Situation – A component of the AMP; a description of the existing management direction governing resource management programs for a Planning Area.

Extensive Recreation Management Area (ERMA) – Area where recreation is unstructured and dispersed with minimal regulatory constraints and where minimal recreation-related investments are required.

F

Federal Land Policy and Management Act of 1976 (FLPMA) – Law mandating that the BLM manage lands under its jurisdiction for multiple uses. Establishes guidelines for its administration; and provides for the management, protection, development, and enhancement of the public lands, among other provisions.

Fire Management Plan (FMP) – A strategic plan that defines a program to manage wildland and prescribed fires and documents the Fire Management Program in the approved land use plan. The plan is supplemented by operational procedures such as preparedness plans, preplanned dispatch plans, prescribed fire plans and prevention plans.

Fire regime – The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality of fire.

Fire return interval – The number of years between fire events for a specified area.

Flood plain – A nearly level alluvial plain that borders a stream and is subject to inundation under flood-stage conditions unless protected artificially. It is usually a constructional landform built of sediment deposited during overflow and lateral migration of the stream.

Forb – Any herbaceous plant that is not a grass or a grasslike species. Broad-leafed plants; includes plants that commonly are called weeds or wildflowers.

Functional at Risk (FAR) - Riparian/Wetland areas that are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

G

Geographic Information System (GIS) – An information processing technology to input, store, manipulate, analyze, and display data; a system of computer maps with corresponding site specific information that can be combined electronically to provide reports and maps.

H

Herd Area – A geographic area identified as having provided habitat for a wild horse herd in 1971. A Herd Area may be solely the active Herd Management Area, or inactive, where wild horses are no longer managed, or a combination of both.

Herd Management Area (HMA) – A geographic area identified in a Management Framework Plan or Resource Management Plan for the long-term management of a wild horse herd.

Herd Management Area Plan – A plan that prescribes measures for the protection, management, and control of wild horses and their habitat on one or more HMAs, in conformance with decisions made in approved Management Framework or Resource Management Plans.

Hiking Trail - A pathway created and maintained by human foot traffic, saddle or pack stock, or constructed and maintained for these uses.

Hydrologic Unit Code (HUC) – A coding system developed by the U.S. Geological Service to map geographic boundaries of watersheds of various sizes.

Hydrothermal deposit – A mineral deposit formed by hot mineral-laden fluids.

I

Incident commander – Individual responsible for the management of all incident (fire) operations.

Interim Management Policy for Lands Under Wilderness Review (WSA IMP) – Policy for managing public lands under wilderness review. Section 603(c) of the FLPMA states: “During the period of review of such areas and until Congress has determined otherwise, the Secretary shall continue to manage such lands according to his authority under this Act and other applicable laws in a manner so as not to impair the suitability of such areas for preservation as wilderness, subject, however, to the continuation of existing mining and grazing uses and mineral leasing in the manner and degree in which the same was being conducted on the date of approval of this Act: Provided, that, in managing the public lands the Secretary shall by regulation or otherwise take any action required to prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection.”

Intermittent stream – A stream, or reach of a stream, that flows for prolonged periods only when it receives groundwater discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Interior Columbia Basin Ecosystem Management Project (ICBEMP) – An on going project examining the effects (on a large regional scale) of past and present land use activities on the Interior Columbia River Basin ecosystem and a small part of the Great Basin ecosystem.

Interior drainage – A system of streams with no outlet to the sea (e.g. Great Basin).

J

K

Known Geothermal Resource Area – “An area in which the geology, nearby discoveries, competitive interest, or other indicia will, in the opinion of the Secretary, engender the belief in men who are experienced in the subject matter that the prospect for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures or money for that purpose” (43 CFR 3200.0-5(k)).

L

Land Use Authorizations – Those realty related authorizations such as leases, permits, and easements authorized under 43 CFR 2920 and the R&PP Act. Land use authorizations also include any other authorizations with the exception of rights-of-way (43 CFR 2800) and Special Recreation Permits (proposed in 43 CFR 2930) generally contained in 43 CFR 2000 series of regulations.

Leasable Minerals – Minerals that may be leased to private interests by the federal government including oil, gas, geothermal, coal, and sodium compounds.

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.

M

Management Concern – Procedures or land use allocations that do not constitute issues but which are recognized, through the RMP/EIS preparation process, as needing modification or decision regarding management direction.

Management Direction – A statement of goals and objectives, management prescriptions, and associated standards and guidelines for attaining them.

Management Framework Plan (MFP) – BLM land use plan, predecessor to the RMP. Older generation of land use plans developed by the BLM. This generation of planning has been replaced by the Resource Management Plan (RMP).

Management Opportunities – A component of the AMP; actions or management directions that could be taken to resolve issues or management concerns.

Map unit – The basic system of description in a soil survey and delineation on a soil map. Can vary in level of detail.

Medium textured soil - Very fine sandy loam, loam, silt loam, or silt.

Mechanized Equipment - Any machine that uses or is activated by either a living or nonliving power source. This includes, but is not limited to, chain saws, power drills, aircraft, generators, motor vehicles, snow machines, etc. The term does not include shavers, wrist watches or clocks, flashlights, cameras, camp stoves, cell phones, radio transmitters/receivers, GPS units or other similar small hand held or portable equipment.

Mechanized Vehicle (for OHV) - Any vehicle, device, or contrivance that has moving parts for moving people or material in or over land, water, snow, or air. This includes, but is not limited to, sailboats, sailboards, hang gliders, parachutes, bicycles, game carriers, carts, and wagons. It does not include wheelchairs, horses, or other pack stock, skis, snowshoes, nonmotorized river craft, sleds, travois, or similar devices without moving parts.

Migration corridor – The habitat pathway an animal uses to move from one place to another.

Mineral Estate – Refers to the ownership of minerals at or beneath the surface of the land.

Mitigation – Measures designed to counteract environmental impacts or to make impacts less severe.

Monitoring – The periodic and systematic collection of resource data to measure progress toward achieving objectives.

Monitoring and Evaluation – The collection and analysis of data to evaluate the progress and effectiveness of on-the-ground actions in meeting resource management goals and objectives.

Motor Vehicle - Any vehicle, device, or contrivance which is self-propelled and is used for moving people or materials in or over land, water, snow, or air and is powered by a motor or engine.

Motorized Equipment - Any machine that uses or is activated by a motor, engine, or other power source. This includes, but is not limited to, chain saws, power drills, aircraft, generators, motor vehicles, snow machines, etc. The term does not include shavers, wrist watches or clocks, flashlights, cameras, camp stoves, cell phones, radio transmitters/receivers, GPS units or other similar small hand held or portable equipment.

Multiple Use – Management of public land and its resources to best meet various present and future needs of the American people. This means coordinated management of resources and uses to assure the long-term health of the ecosystem.

N

National Environmental Policy Act of 1969 (NEPA) – Law requiring all federal agencies to evaluate the impacts of proposed major federal actions with respect to their significance on the human environment.

National Wildlife Refuge (NWR) – An area administered by the U.S. Fish and Wildlife Service for the purpose of managing certain fish or wildlife species.

Naturalness (a primary wilderness value) – An area that generally appears to have been affected primarily by the forces of nature with the imprint of people’s work substantially unnoticeable.

Noxious Weed – A plant specified by law as being especially undesirable, troublesome, and difficult to control. A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the United States. According to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or has other adverse effects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

O

Objectives (management) – In this EIS, refers to indicators used to measure progress toward attainment of goals. They address short- and long-term actions taken to meet goals and the desired ranges of future conditions.

Off-Highway Vehicle (OHV) – Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding the following: 1) any nonamphibious registered motorboat; 2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly permitted by the authorized officer, or otherwise officially approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used in times of national defense emergencies.

P

Perennial – A plant that lives for three or more years.

Perennial stream – A stream in which water is present during all seasons of the year.

Permeability – The quality of the soil that enables water to move downward through the profile, measured as the number of inches per hour that water moves downward through the saturated soil.

pH value – A numerical designation of acidity and alkalinity in soil.

Playa Lake – A shallow lake that is seasonally dry. Soils on the lake bottom are usually quite alkaline.

Pluvial – Referring to a period of greater rainfall.

Pluvial Lake – A lake formed during a period of exceptionally high rainfall (e.g., a time of glacial advance during the Pleistocene epoch) and now either extinct or existing as a remnant, such as Lake Bonneville.

Point source pollution – Pollution that comes from a single identifiable source such as a smokestack, a sewer, or a pipe.

Prescribed burning – Controlled application of fire to wildland fuels in either their natural or modified state, under specified environmental conditions which allow the fire to be confined to a predetermined area and at the same time to produce the fire line intensity and rate of spread required to attain planned resource management objectives.

Prescribed fire – Any fire ignited by management actions to meet specific objectives. A written and approved prescribed fire plan must exist, and NEPA requirements must be met prior to ignition. The introduction of fire to an area under regulated conditions for specific management purposes (usually vegetation manipulation).

Prescribed Natural Fire - A naturally-ignited fire that is managed for resource benefits. Currently called Wildland Fire Use.

Prescription – Written statement defining objectives to be attained, as well as measurable criteria which guide the selection of appropriate management actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social or legal considerations under which the fire will be allowed to burn.

Primary wilderness values – The primary or key wilderness values described in the Wilderness Act by which WSAs and wildernesses are managed to protect and enhance the wilderness resource. Values include roadlessness, naturalness, solitude, primitive and unconfined recreation, and size.

Primitive and unconfined recreation (a primary wilderness value) – nonmotorized and undeveloped types of outdoor recreation activities. Refers to wilderness recreation opportunities such as nature study, hiking, photography, backpacking, fishing, hunting, and other related activities. Does not include the use of motorized vehicles, bicycles, or other mechanized means of travel.

Proper Functioning Condition (PFC) – PFC is both a qualitative method for assessing the physical function of riparian-wetland areas, and a defined condition of a riparian-wetland area.

Public lands – Any land or interest in land owned by the citizens of the United States and administered by the Secretary of the Interior through the BLM as defined in FLPMA.

Q

R

Rangeland – Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Range site – An area of rangeland where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. A range site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other range sites in kind or proportion of species or total production.

Record of Decision (ROD) – An official document in which a deciding official states the alternative that will be implemented from a prepared Final EIS.

Recreation site – An area where management actions are required to provide a specific recreation setting and activity opportunities, to protect resource values, provide public visitor safety and health, and/or to

meet public recreational use demands and recreation partnership commitments. A site may or may not have permanent facilities.

Recreational river – A river or section of a river that is readily accessible by road or railroad. It may have had some development along the shorelines and may have undergone some impoundments or diversions in the past.

Research Natural Area (RNA) – An area where natural processes predominate and which is preserved for research and education. Under current BLM policy, these areas must meet the relevance and importance criteria of ACECs and are designated as ACECs. An area of significant scientific interest that is designated to protect its resource values for scientific research and study.

Resource advisor – Resource specialist responsible to the incident commander for gathering and analyzing information concerning values-at-risk that may be impacted by fire or fire suppression activities.

Resource Area – The “on-the-ground” management unit of the BLM comprised of BLM administered land within a specific geographic area.

Resource Area Profile – A component of the AMP; a description of the current condition, amount, location, use, and demands of the natural resources in a Resource Area.

Resource Management Plan (RMP) – Current generation of land use plans developed by the BLM under the Federal Land Policy and Management Act. Replaces the older generation Management Framework Plans. Provides long-term (up to 20 years) direction for the management of a particular area of land and its resources, usually corresponding to a BLM Resource Area.

Right-of-way (ROW) – A permit or an easement which authorizes the use of public land for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, etc; also, the reference to the land covered by such an easement or permit.

Right-of-way corridor – A parcel of land that has been identified by law, Secretarial Order, through a land use plan, or by other management decision as being the preferred location for existing and future right-of-way grants and suitable to accommodate one type of right-of-way or one or more rights-of-way which are similar, identical or compatible.

Riparian area – Area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland; includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation.

Risk assessment – Assessing the chance of fire starting, naturally- or human-caused, and its potential risk to life, resources and property.

Road - Constructed or evolved transportation route that is normally maintained for regular use (except during periods of closure) that can be reasonably and prudently driven by motorized or mechanized vehicles.

Route - A linear ground transportation feature such as a way or road.

S

Saleable Minerals – High volume, low value mineral resources including common varieties of rock, clay, decorative stone, sand, gravel, and cinder.

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.

Scoping – The process of identifying the range of consideration, issues, management concerns, preliminary alternatives, and other components of an environmental impact statement or land-use planning document. It involves both internal and external, or public, involvement.

Section 202 lands – Lands being considered for wilderness designation under Section 202 of the Federal Land Policy and Management Act of 1976.

Sensitive species – Species identified by a Forest Service regional forester, or BLM state director, for which population viability is a concern either (a) because of significant current or predicted downward trends in population numbers or density, or (b) because of significant current or predicted downward trends in habitat capability that will reduce a species' existing distribution.

Seral – Refers to the sequence of transitional plant communities during succession. Early-seral refers to plants that are present soon after a disturbance or at the beginning of a new successional process (such as seedling or sapling growth stages in a forest); mid-seral in a forest will refer to pole or medium sawtimber growth stages; late- or old-seral refers to plants present during a later stage of plant community succession (such as mature and old forest stages).

Seral stage BThe developmental phase of a forest stand or rangeland with characteristic structure and plant species composition. The rated departure of a plant community from a described PNC for a specific ecological site. Low-seral stage is an existing plant community which is defined as 0 to 25 percent comparability to the defined PNC; Mid-seral stage is an existing plant community which has 26 to 50 percent comparability to the PNC; Late seral stage is 51 to 75 percent comparable to the PNC; PNC is an existing plant community with 76 to 100 percent comparability to the defined PNC.

Slope – The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.

Soil association – A group of soils geographically associated in a characteristic repeating pattern and defined and delineated as a single soil map unit.

Soil classification – The systematic arrangement of soils into groups or categories on the basis of their characteristics.

Soil compaction – An increase in soil bulk density of 15 percent or more from the undisturbed level.

Soil complex – A map unit of two or more kinds of soils in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping.

Soil Horizon - A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes.

Soil profile – A vertical section of the soil extending through all its horizons and into the parent material.

Soil series - A nationally defined soil type set apart on distinct soil properties that affect use and management. In a soil survey, this includes a group of soils having profiles that are almost alike, except for differences in texture of the surface layer or of the underlying material. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Soil survey – A field investigation resulting in a soil map showing the geographic distribution of various kinds of soil and an accompanying report that describes the soil types and interprets the findings.

Soil texture – The relative proportions of sand, silt, and clay particles in a mass of soil.

Solitude (a primary wilderness value) – The state of being alone or remote from habitations; a lonely, unfrequented, or secluded place. The intent is to evaluate the opportunity for solitude in comparison to habitations of people.

Special Recreation Management Area (SRMA) – An area where recreation is the principal management objective, where intensive recreation management is needed, and where more than minimal recreation related investments are required.

Special Status Species – Plant or animal species known or suspected to be limited in distribution, rare or uncommon within a specific area, and/or vulnerable to activities which may affect their survival. Lists of Special Status Species are prepared by knowledgeable specialists through the State of Oregon; the BLM prepares a list of state sensitive species predominantly based on the list prepared biennially by the Oregon Natural Heritage Program (ONHP).

Stand – A community of trees occupying a specific area and sufficiently uniform in species, age, spatial arrangement and condition as to be distinguishable from trees on surrounding lands.

State Implementation Plan (SIP) – A document prepared by each state describing existing air quality conditions and measures that will be taken to attain and maintain national ambient air quality standards.

State Listed Species – Any plant or animal species listed by the State of Oregon as threatened or endangered within the state under Oregon Revised Statute (ORS) 496.004, ORS 498.026, or ORS 564.040.

Step-down – The process of applying broad-scale science findings and land use decisions to site specific areas using a hierarchical approach (subbasin review) of understanding current resource conditions, risks, and opportunities.

Stream channel – The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

Subalpine – A terrestrial community that is generally found in harsher environments than the montane terrestrial community. Subalpine communities are generally colder than montane and support a unique clustering of wildlife species.

Subbasin review – An interagency collaborative consideration of resources, resource management issues, and management recommendations for one or more subbasins or watershed drainages approximately 800,000 to 1,000,000 acres in size, equivalent to a 4th-field HUC.

Subwatershed – A drainage area of approximately 20,000 acres, equivalent to a 6th-field HUC. Hierarchically, subwatersheds (6th-field HUC) are contained within a watershed (5th-field HUC), which in turn is contained within a subbasin (4th-field HUC).

Succession – A predictable process of changes in structure and composition of plant and animal communities over time. Conditions of the prior plant community or successional stage create conditions that are favorable for the establishment of the next stage. The different stages in succession are often referred to as “seral stages.” (See Seral.)

Sustainability – (1) meeting the needs of the present without compromising the abilities of future generations to meet their needs; emphasizing and maintaining the underlying ecological processes that ensure long-term productivity of goods, services, and values without impairing productivity of the land. (2) In commodity production, refers to the yield of a natural resource that can be produced continually at a given intensity of management.

Supplemental wilderness values – Includes ecological (e.g., vegetation, wildlife, and overall biological/botanical processes and values associated with the natural environment), geological, scientific, educational, scenic, and historic values. When present, they can enhance primary wilderness values, but are not mandated by Congress.

Sustained yield – Maintenance of an annual or regular periodic output of a renewable resource from public land consistent with the principles of multiple use.

T

Terrestrial communities – Groups of cover types with similar moisture and temperature regimes, elevational gradients, structures, and used by vertebrate wildlife species.

Threatened Species – Any plant or animal species defined under the ESA as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Listings are published in the *Federal Register*.

Trend – The direction of change in ecological status observed over time. Trend is described as toward or away from the PNC, or as not apparent.

U

Upland (geology) – Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Utilization – The proportion or degree of the current year's forage production that is consumed or destroyed by animals (including insects). Utilization may refer either to a single plant species, a group of species, or to the vegetation as a whole. Utilization is synonymous with use.

V

Values-at-risk – Any or all natural resources, improvements, or other values which may be jeopardized if a fire occurs (value-at-risk, risk of resource values).

Visual Resource Management (VRM) Objectives

Class I - The objective of this classification is to preserve the existing character of the landscape. This class provides for natural ecological changes and limited management activity. The level of change should be very low and must not attract attention. Class I is assigned to those areas where a management decision has been made to preserve a natural landscape.

Class II-The objective of this classification is to retain the existing character of the landscape. The level of change to landscape characteristics should be low. Management activities may be seen but should not attract the attention of a casual observer. Any changes must conform to the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. This class represents the minimum level of VRM for WSAs.

Class III-The objective of Class III is to partially retain the existing character of the landscape. Moderate levels of change are acceptable. Management activities may attract attention but should not dominate the view of a casual observer. Changes should conform to the basic elements of the predominant natural features of the characteristic landscape.

Class IV-The objective of Class IV is to provide for management activities that require major modification of the landscape. These management activities may dominate the view and become the focus of viewer attention; however, every effort should be made to minimize the impact of these projects by carefully locating activities, minimizing disturbance, and designing the projects to conform to the characteristic landscape.

W

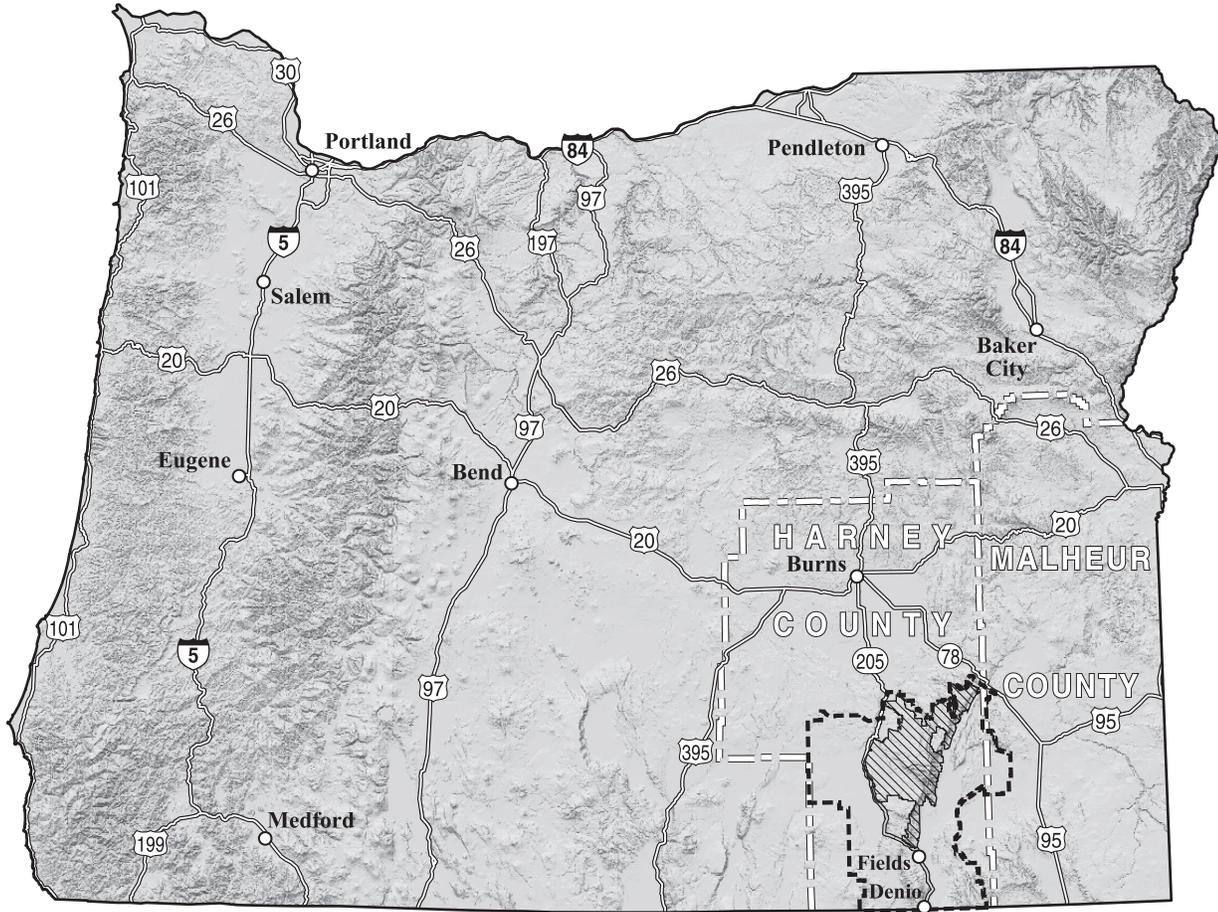
Way - A travel route in a WSA maintained solely by the passage of vehicles which has not been improved and/or maintained by mechanical means to ensure relatively regular and continuous use.

Wild River - A river or section of a river that is free of impoundments and generally inaccessible except by trail, with watersheds and shorelines essentially primitive and waters unpolluted.

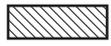
Wildland Fire - A general category of lightning or human-ignited fire in natural vegetation. Includes wildland fires, prescribed fires, and fire managed for resource benefits.

Wildland Fire Use - An unplanned ignition that is managed for resource benefits. Formally called Prescribed Natural Fire.

Withdrawal – Withholding an area of federal land from settlement, sale, location, or entry, under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of federal land, other than “property” governed by the Federal Property and Administrative Services Act, as amended (40U.S.C.472) from one department, bureau, or agency to another department, bureau, or agency.



LEGEND

-  Planning Area
-  Cooperative Management and Protection Area

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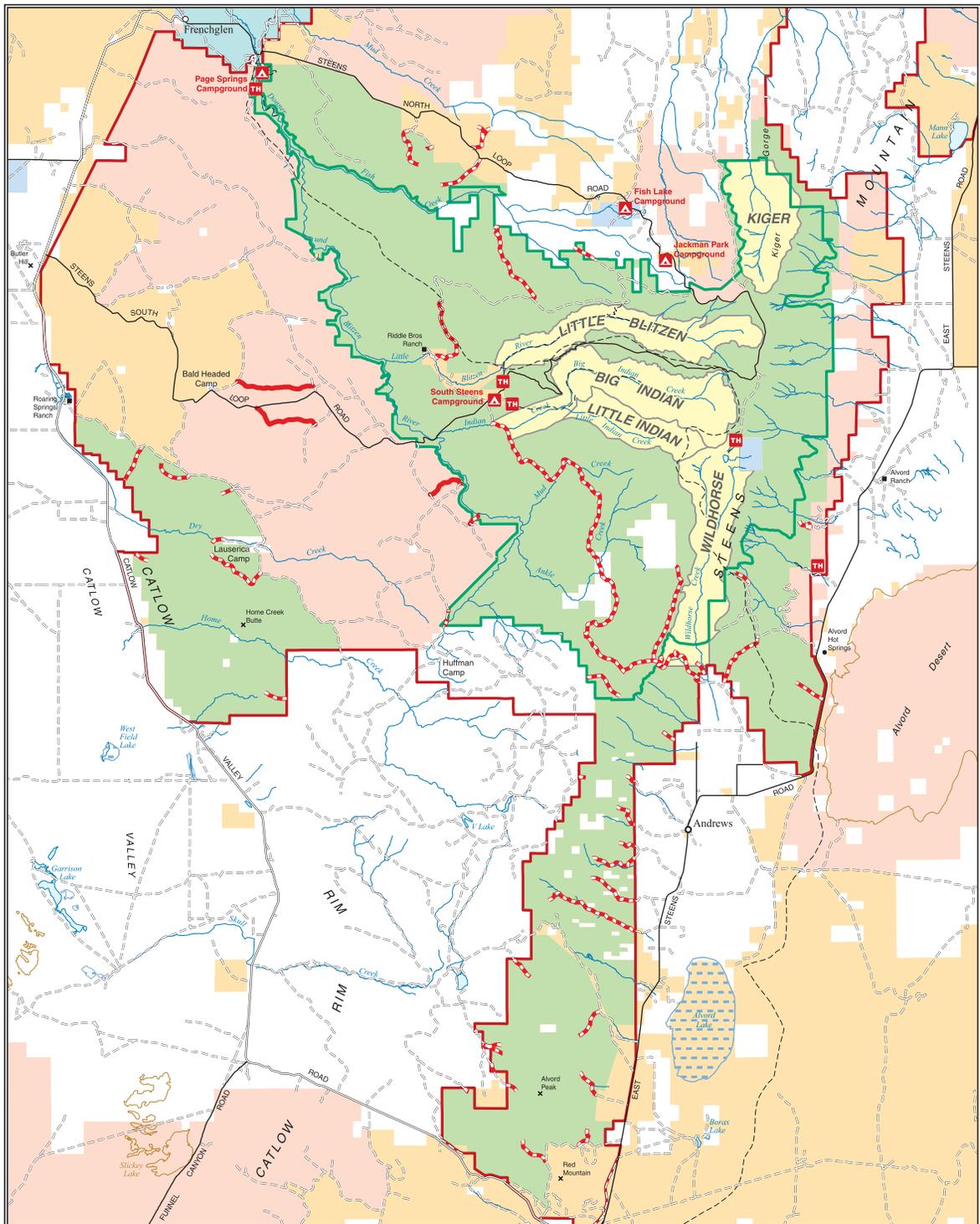
**Andrews Management Unit /
Steens Mountain Cooperative
Management and Protection Area
Resource Management Plan**

2005

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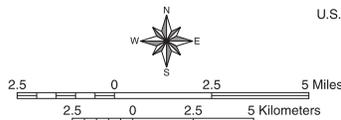
W-1: General Vicinity

M05-03-04:PF:042705



LEGEND

- | | | | |
|--|-------------------------------------|--|---|
| | Campground | | Cooperative Management and Protection Area Boundary |
| | Trailhead | | BLM Administered Land |
| | Closed Road | | Wilderness Management Area |
| | Closed Road Except by Permit | | Upland |
| | Paved Road | | Gorge |
| | Non-Paved Road | | Wilderness Study Area |
| | Primitive or Unknown Road Condition | | U.S. Fish and Wildlife Service Land |
| | Hiking Trail | | State Land |
| | No Livestock Grazing Perimeter | | Private Land |



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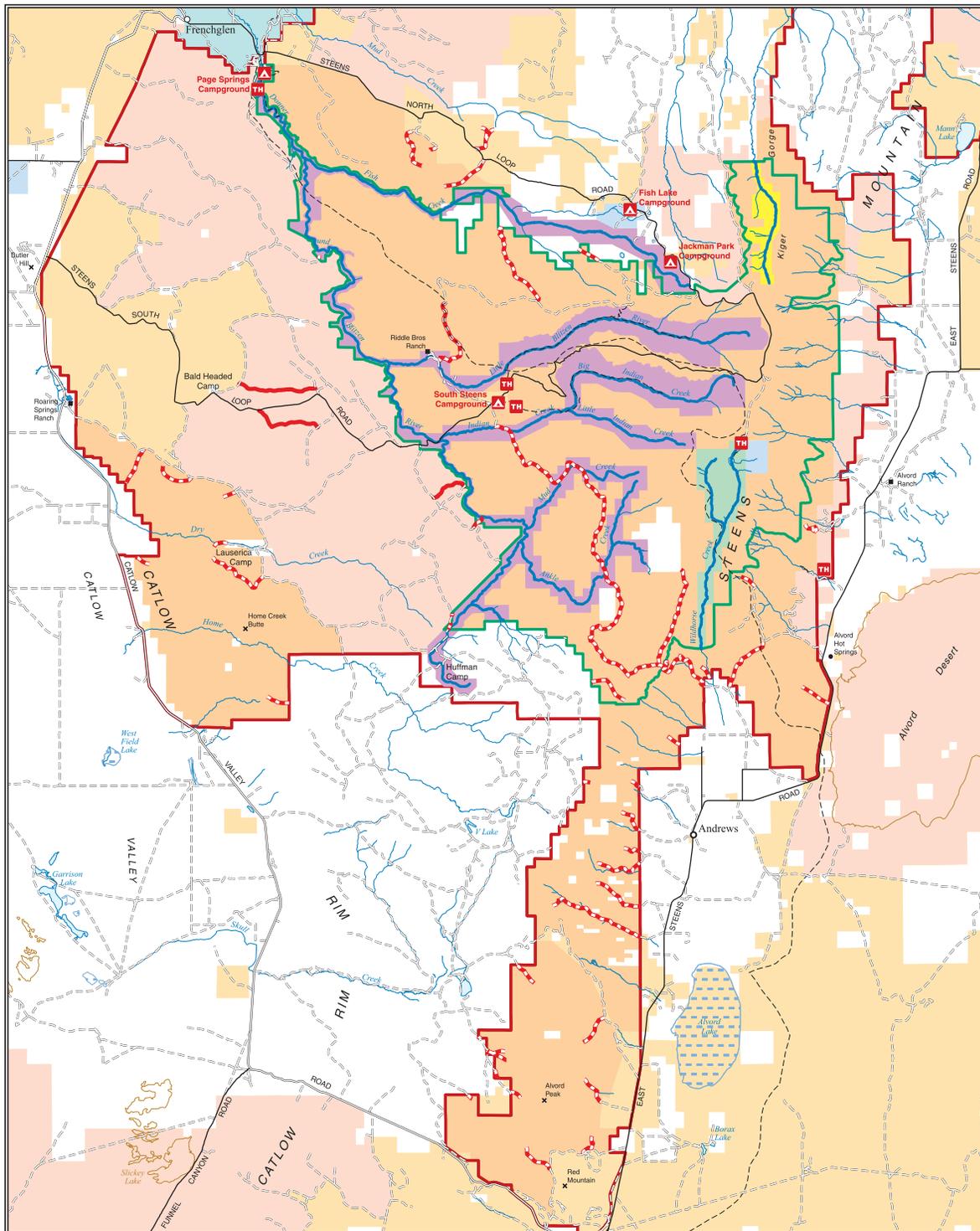


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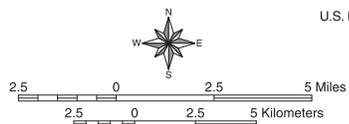
W-2: Wilderness Management Plan

M05-03-04-PF-041105



LEGEND

- | | | | |
|--|-------------------------------------|--|---|
| | Wild and Scenic River | | Campground |
| | Closed Road | | Trailhead |
| | Closed Road Except by Permit | | No Livestock Grazing Perimeter |
| | Paved Road | | Cooperative Management and Protection Area Boundary |
| | Non-Paved Road | | BLM Administered Land |
| | Primitive or Unknown Road Condition | | Wilderness |
| | Hiking Trail | | Wilderness Study Area |
| | Wild and Scenic River Corridor | | U.S. Fish and Wildlife Service Land |
| | Kiger | | State Land |
| | Wildhorse | | Private Land |
| | Donner und Blitzen | | |



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Attachment 1 - Public Use Management

Steens Mountain Wilderness and WSRs Condition Standards

Seven specific standards have been developed for use in evaluating the Management Areas with monitoring that is conducted to assess the baseline and ongoing wilderness condition. These include the following:

1. Campsite Condition - campsite changes.
2. Campsite Density - number of campsites in a given area.
3. Perception of Solitude - trail register information, including length-of-stay, location of use, party size and makeup, and interviews including location of use encounters.
4. Trail Condition - changes in trails, including width, depth, and number of social trails.
5. Length-of-Stay - trail register and interviews on the length-of-stay.
6. Recreational Stock Use - root exposure, manure in campsites, and tree girdling.
7. Unauthorized Motorized Vehicle and Mechanical Transport Intrusions - unauthorized vehicles and mechanical transport on closed roads or off of roads into the wilderness.

Indicators

Certain indicators will be monitored on a regular basis and the results of the monitoring will be used to adjust the management option levels needed to meet the guideline set for each indicator. Two different management areas, Gorges and Uplands, were identified for Steens Mountain Wilderness, each with its own desired conditions. The same indicators are used; however, the guidelines for the indicators are different for each of the management areas.

Management Option Levels

This section describes the management options used to help maintain or achieve the desired conditions in each management area. Management options are techniques, regulations, or responses that can be implemented to affect wilderness conditions on the ground. Management options are categorized into 3 levels as follows:

Level I - Management options are generally informational and educational measures that can be implemented initially.

Level II - Management options are generally indirect methods intended to return a given condition to compliance with a standard or guideline.

Level III - Management options are more direct or restrictive and are not undertaken until guidelines are exceeded to a certain extent that is sustained a number of times or for a certain period of time (described as thresholds).

Management Option Levels by Standard

The monitoring data are applied to the guidelines shown in Tables 2 through 8 to determine whether each management area or individual canyon within Gorges Management Area meets the guidelines. Each standard and its management options will be implemented based on the degree to which the management area or individual canyon in Gorges Management Area exceeds a threshold for one or more guidelines.

Campsite Condition Standard

Campsite conditions reflect the visual imprint of human uses, as well as effects to soil and vegetation and often, hydrologic and water quality. The Cole Campsite Monitoring System was developed through USFS to provide a method for systematic monitoring of campsites to assess use and conditions. A modified Cole Campsite Monitoring System is used to classify camp area conditions. Conditions are grouped into 4 categories based on a score determined by surveying a variety of factors influencing campsite effects. Conditions range from “minimum”, showing least effects, to “extreme”, showing highest effects.

| Campsite Condition - Management Options | | | |
|---|--|--|---|
| Indicator | Level I Options | Level II Options | Level III Options |
| Number of campsites within a Management Area or individual canyon that are within a Campsite Condition. | <ul style="list-style-type: none"> - Voluntary dispersal of use through education efforts by agency personnel, volunteers, and publications. - Inform visitors of opportunities outside Steens Mountain Wilderness. - Emphasize Leave No Trace education efforts. - Increase in visitor information programs by agency personnel and volunteers. | <ul style="list-style-type: none"> - Discourage the inclusion of information in publications or guidebooks directing visitors to high use areas. - Inform users about alternative areas. - Implement area-wide, non-quota permit system to increase visitor education. - Limit improvements of trail and trailhead access to areas where crowding is a concern. - Restrict campfire use to previously used areas. - Limit camping to designated campsites in high use zones to minimize establishment of new campsites. - Close and rehabilitate selected campsites where campsite density is high. - Limit group sizes to reduce effects to campsites. - Implement regulations to restrict recreational stock from being tied to trees in campsites. | <ul style="list-style-type: none"> - Shorten length-of-stay period. - Implement permit quota system for specific areas that are exceeding guidelines. - Implement area-wide permit quota system at trailheads or at individual destinations. - Implement closure of specific areas to the use of campfires and remove fire rings. |

Campsite Density Standard

The campsite density standard describes the maximum allowable number of established campsites per section (one square mile) within Uplands Management Area or per linear mile within Gorges Management Area or individual canyon. Established campsites are determined from evidence continued or repeated camping has occurred at the campsite. Evidence could consist of fire ring(s), barren ground caused by compaction, long-term vegetation effects, or other severe signs of human usage. Campsite density is also monitored at designated high-altitude lake basins. The guideline for the maximum allowable established campsites will be determined for each lake basin.

| Campsite Density - Management Options | | | |
|--|---|--|---|
| Indicator | Level I Options | Level II Options | Level III Options |
| Number of existing campsites within a management area or individual canyon. or Number of established campsites within a lake basin area. | <ul style="list-style-type: none"> - Voluntary dispersal of use through education efforts by agency personnel, volunteers, and publications. - Inform visitors of opportunities outside Steens Mountain Wilderness. - Emphasize Leave No Trace education efforts. - Agency personnel educate users to utilize existing campsites in high use areas. | <ul style="list-style-type: none"> - Discourage the inclusion of information in publications or guidebooks directing visitors to high use areas. - Inform users about alternative areas. - Implement area-wide non-quota permit system to increase visitor education. - Limit improvements of trail and trailhead access to areas where crowding is a concern. - In site-specific areas, increase the distance from campsite to water resources. - Restrict campfire use to previously used areas. - Limit camping to designated campsites in high use zones to minimize establishment of new campsites. - Close and rehabilitate selected campsites where campsite density is high. | <ul style="list-style-type: none"> - Shorten length-of-stay period. - Implement permit quota system for specific areas that are exceeding guidelines. - Implement area-wide permit quota system at trailheads or at individual destinations. |

Perception of Solitude Standard

Perception of Solitude is measured by campsite and trail encounters, the sizes of groups encountered, and the degree of “perceived crowding,” as determined from surveying Steens Mountain Wilderness and WSR users. The Campsite Encounter Guideline monitors the average number of occupied campsites within sight or sound of the monitor’s campsite per management area or individual canyon. The monitored number of encounters is averaged over the summer use season varying by management area or individual canyon.

The Trail Encounter Guideline monitors the average number of encounters with parties (groups) on a trail or cross-country route. Encounter rates depend on the length of time spent hiking or riding and are converted to an eight-hour period to obtain monitoring consistency. The location of a trail or route segment relative to the different management areas determines the location of encounters. Trail or route encounters with large groups (defined as groups having more than 12 people) are monitored by the same methodology. Crowding perception is monitored through surveys of Steens Mountain Wilderness and WSR users to obtain their viewpoints regarding crowding levels during their visit. The crowding scale ranges from Not Crowded to Extremely Crowded. The guideline refers to the percentage of respondents who reported being moderately to extremely crowded.

| Perception of Solitude - Management Options | | | |
|---|---|---|---|
| Indicator | Level I Options | Level II Options | Level III Options |
| Number of campsites occupied within sight or sound of the monitor’s campsite per management area or individual canyon (season average). or Number of party encounters on or off trail per 8-hour day (season average). or Percent of sampled visitors who report being moderately to extremely crowded within a management area or individual canyon. | <ul style="list-style-type: none"> - Voluntary dispersal of use through education efforts by agency personnel, volunteers, and publications. - Inform visitors of opportunities outside Steens Mountain Wilderness. - Inform visitors of the type of experience (i.e. high encounter rate, or numerous campsites) they are likely to have. - Inform visitors of areas or times best to visit that will reduce crowding. | <ul style="list-style-type: none"> - Discourage the inclusion of information in publications or guidebooks directing visitors to areas. - Inform users about alternative areas. - Implement area-wide, non-quota permit system to increase visitor education. - Limit group size in areas of concentrated use. - Limit improvements of trails and trailhead access to areas where crowding is a concern. - In specific areas, increase the distance that campsites must be away from water. | <ul style="list-style-type: none"> - Institute parking fees at high-use trailheads. - Shorten length-of-stay period. - Implement backcountry use fees for high-use areas. - Implement permit quota system for specific areas that are exceeding guidelines. - Implement area-wide permit quota system at trailheads or at individual destinations. |

Trail Condition Standard

The trail condition standard describes the maximum allowable number of social trails per management area or individual canyon, as well as changes in the width and depth of the system trails. System and social trails refer to evidence continued or repetitive use has occurred along a trail in the past. Evidence could consist of trampled vegetation, barren ground caused by compaction, long-term vegetation effects, or other severe signs of human use. System trails are those managed for continual long-term use. Social trails are the result of random use patterns and are unplanned in their location.

| Trail Condition - Management Options | | | |
|---|---|--|---|
| Indicator | Level I Options | Level II Options | Level III Options |
| Number of social trails within a management area or individual canyon. or Width and depth of system trails. | <ul style="list-style-type: none"> - Voluntary dispersal of use through education efforts by agency personnel, volunteers, and publications. - Inform visitors of opportunities outside Steens Mountain Wilderness. - Emphasize Leave No Trace education efforts. - Agency personnel educate users to utilize existing campsites in high use areas. | <ul style="list-style-type: none"> - Discourage the inclusion of information in publications or guidebooks directing visitors to high use areas. - Inform users about alternative areas. - Implement area-wide, non-quota permit system to increase visitor education. - Limit improvements of trails and trailhead access to areas where crowding is a concern. - In site-specific areas, increase the distance campsites must be away from water. - Limit camping to designated campsites in high-use zones to minimize establishment of new campsites. - Close and rehabilitate selected trails where trail density is high. | <ul style="list-style-type: none"> - Shorten length-of-stay period. - Implement permit quota system for specific areas that are exceeding guidelines. - Implement area-wide permit quota system at trailheads or at individual destinations. |

Length-of-Stay Standard

The length-of-stay standard describes the maximum allowable number of days individuals or groups stay within a management area or individual canyon. The length-of-stay will be based on information collected by voluntary reporting at trailheads and interviews.

| Length-of-Stay - Management Options | | | |
|---|--|--|---|
| Indicator | Level I Options | Level II Options | Level III Options |
| Length-of-stay within a management area or individual canyon. | <ul style="list-style-type: none"> - Voluntary reduction in the lengths-of-stay through education efforts by agency personnel, volunteers, and publications. - Inform visitors of opportunities outside Steens Mountain Wilderness. - Emphasize Leave No Trace education efforts. - Increase in visitor information programs by agency personnel and volunteers. | <ul style="list-style-type: none"> - Discourage the inclusion of information in publications or guidebooks directing visitors to high use areas. - Inform users about alternative areas. - Implement area-wide, non-quota permit system to increase visitor education. - Limit improvements of trails and trailhead access to areas where length-of-stay is a concern. - Limit camping to designated campsites in high use zones, to minimize establishment of new campsites. | <ul style="list-style-type: none"> - Shorten length-of-stay period. - Implement permit quota system for specific areas that are exceeding guidelines. - Implement area-wide permit quota system at trailheads or at individual destinations. - Implement closure of specific areas to the use of campfires and remove fire rings. |

Recreational Stock Use Standard

The effects of recreational stock use on vegetation, meadows, and riparian areas are determined by monitoring the amount of manure in campsite areas, the condition of tree roots, and presence of tree girdling in campsite areas.

| Recreational Stock Use - Management Options | | | |
|---|---|---|--|
| Indicator | Level I Options | Level II Options | Level III Options |
| Amount of recreational stock use within a management area or individual canyon. | <ul style="list-style-type: none"> - Educate public on proper use of recreational stock in the backcountry. - Voluntary dispersal of use through educational efforts. - Inform visitors of opportunities outside these areas. - Emphasize Leave No Trace education efforts for all backcountry users, with emphasis for recreational stock users. | <ul style="list-style-type: none"> - Limit the number of recreational stock-per-party in areas exceeding guidelines. - Require certified weed-free feed/hay be used for recreational stock in place of grazing. - Prohibit picketing in areas where guidelines are exceeded. - Implement and enforce special rules to prohibit tying of recreational stock to trees. - Restrict grazing within areas exceeding guidelines to no more than one-third of the grazing season. - Establish an “on” date for recreational stock use or a season of use. - Develop a rotational system within a Management Area or individual canyon that would allow recreational stock grazing only within specified areas. - Limit length-of-stay by recreational stock within areas exceeding guidelines. | <ul style="list-style-type: none"> - Close specific areas exceeding guidelines to use by recreational stock. - Close management area or individual canyons to grazing by recreational stock. |

Unauthorized Motor Vehicle and Mechanical Transport Intrusions Standard

The unauthorized motor vehicle and mechanical transport intrusions standard describes the maximum number of unauthorized intrusions into Steens Mountain Wilderness off road, on any closed road, from the offset boundary of any road bound on both sides by Steens Mountain Wilderness, or any road which runs parallel to the Steens Mountain Wilderness. Unauthorized intrusions can include any type of motor vehicle and mechanical transport including, but not limited to, OHVs, snowmobiles, bicycles, ultra-light aircraft, and hang gliders. Unauthorized intrusions are determined from evidence of vehicle tracks in wilderness or from actual sightings of vehicles in wilderness.

| Unauthorized Motor Vehicle and Mechanical Transport Intrusions - Management Options | | |
|---|---|--|
| Indicator | Level I Options | Level II Options |
| Number of intrusions into Steens Mountain Wilderness by unauthorized motor vehicles and mechanical transport on closed roads or off of roads. | <ul style="list-style-type: none"> - Disperse educational information regarding motor vehicle and mechanical transport regulations in Steens Mountain Wilderness with efforts by agency personnel, volunteers, and publications. - Increase signing of Steens Mountain Wilderness boundary and area closures. - Inform visitors of driving opportunities outside Steens Mountain Wilderness. - Emphasize Leave No Trace education efforts. - Agency personnel educate users and other agency personnel about regulations regarding motor vehicles and mechanical transport in Steens Mountain Wilderness. - Post regulations regarding motor vehicle and mechanical transport use restrictions in Steens Mountain Wilderness at campgrounds, trailheads, and other areas appropriate for public information. - Cite any known violators driving in Steens Mountain Wilderness. | <ul style="list-style-type: none"> - Restrict public use for certain recreational activities. - Develop controls at access points to exclude motor vehicles and mechanical transport from Steens Mountain Wilderness. - Increase law enforcement and other routine patrols. |

Attachment 2 – Special Status Species

Special Status Species

Table A2-1 Special Status Fish Species Summary Table

| Common Name | Scientific Name | Status | | | |
|---------------------------|-------------------------------------|-----------|--------------------|----------------------|---|
| | | BLM | State ¹ | Federal ² | |
| Lahontan cutthroat trout | <i>Oncorhynchus clarki henshawi</i> | | T | T | X |
| Great Basin redband trout | <i>Oncorhynchus mykiss</i> | Tracking | | S | X |
| Mountain whitefish | <i>Prosopium williamsoni</i> | | | | X |
| Malheur mottled sculpin | <i>Cottus bairdi ssp.</i> | Sensitive | | | X |
| Catflow Valley tui chub | <i>Gila bicolor spp.</i> | Tracking | | S | X |
| Longnose dace | <i>Rhinichthys cataractae</i> | | | | X |
| Speckled dace | <i>Rhinichthys osculus</i> | | | | X |
| Redside shiner | <i>Richardsonium balteatus</i> | | | | X |
| Largescale sucker | <i>Catostomus macrocheilus</i> | | | | X |
| Bridgelip sucker | <i>Catostomus columbianus</i> | | | | X |

¹State Status (ODFW): E-endangered; T-threatened

²Federal Status (USFWS): T-threatened; S-Species of special concern with conservation agreements.

Table A2-2 Special Status Plants Species Summary Table

| Common Name | Scientific Name | BLM Status | ONHP Status |
|-------------------------|--|------------|-------------|
| alpine fescue | <i>Festuca brachyphylla</i> | T | L3 |
| alpine lily | <i>Lloydia serotina</i> | T | L3 |
| Back's sedge | <i>Carex cordillerana</i> | A | L2 |
| Bellard's kobresia | <i>Kobresia bellardii</i> | A | L2 |
| capitate sedge | <i>Carex capitata</i> | T | L2 |
| Cusick's hyssop | <i>Agastache cusickii</i> | A | L2 |
| Cusicks's draba | <i>Draba cusickii</i> | T | L2 |
| dark alpine sedge | <i>Carex subnigricans</i> | T | L2 |
| Davidson's penstemon | <i>Penstemon davidsonii var. praeteritus</i> | T | L4 |
| desert needlegrass | <i>Achnatherum speciosum</i> | A | L2 |
| discoïd goldenweed | <i>Ericameria discoïdea var. discoïdea</i> | T | L4 |
| Drummond willow | <i>Salix drummondiana</i> | T | L4 |
| ephemeral monkey flower | <i>Mimulus evanescens</i> | S | L1 |
| foetid sedge | <i>Carex vernacula</i> | A | L2 |
| gray moonwort | <i>Botrychium minganense</i> | A | L2 |
| hairstemmed rush | <i>Juncus capillaris</i> | T | L3 |
| Hayden's cymopterus | <i>Cymopterus nivalis</i> | A | L2 |
| Hayden's sedge | <i>Carex haydeniana</i> | T | L4 |
| Kruckeberg's holly fern | <i>Polystichum kruckebergii</i> | T | L4 |
| lance-leaved grapefern | <i>Botrychium lanceolatum ssp. lanceolatum</i> | A | L2 |
| least rush | <i>Juncus hemiendytus var. abjectus</i> | T | L3 |
| long-flowered snowberry | <i>Symphoricarpos longiflorus</i> | A | L2 |
| moonwort | <i>Botrychium lunaria</i> | A | L2 |

| Common Name | Scientific Name | BLM Status | ONHP Status |
|-----------------------------|--|------------|-------------|
| moss gentian | <i>Gentiana prostrata</i> | A | L2 |
| mosslike dwarf rush | <i>Juncus bryoides</i> | T | L3 |
| narrowleaf cottonwood | <i>Populus angustifolia</i> | T | L4 |
| new sedge | <i>Carex nova</i> | A | L2 |
| nodding melic | <i>Melica stricta</i> | T | L4 |
| pinnate grapefern | <i>Botrychium pinnatum</i> | A | L2 |
| Rocky Mtn. Helianthella | <i>Helianthella uniflora var. uniflora</i> | T | L3 |
| short-fruited willow | <i>Salix brachycarpa var brachycarpa</i> | T | L4 |
| short-lobed penstemon | <i>Penstemon seorsus</i> | T | L3 |
| Sierra willow | <i>Salix orestera</i> | T | L3 |
| Sierran springbeauty | <i>Claytonia nevadensis</i> | T | L4 |
| sky pilot | <i>Polemonium viscosum</i> | T | L4 |
| slender gentian | <i>Gentianella tenella</i> | A | L2 |
| Steens Mountain paint brush | <i>Castilleja pilosa var. steenensis</i> | S | L4 |
| teacher's sedge | <i>Carex praeceptorum</i> | T | L3 |
| weak-stemmed stonecrop | <i>Sedum debile</i> | T | L4 |
| wedge-leaf saxifrage | <i>Saxifraga adscendens var. oregonensis</i> | A | L2 |
| white-flowered penstemon | <i>Penstemon pratensis</i> | T | L3 |

BLM Status

S=Sensitive - species that could easily become endangered or extinct in a state, are restricted in range, and have natural- or human-caused threats to survival.
 A=Assessment - species not presently eligible for official Federal or State status but are still of concern and need protection or mitigation in BLM activities.
 T=Tracking - species that may become of concern in the future, but more information is needed to determine status for management purposes.

ONHP (Oregon Natural Heritage Program) Status

L1 - taxa threatened with extinction or presumed to be extinct throughout their range.
 L2 - taxa threatened with extirpation or presumed to be extirpated from the State of Oregon.
 L3 - taxa of conservation concern that need more information to determine status.
 L4 – taxa which are of concern because they are rare and stable or common and declining.

Table A2-3 Special Status Wildlife Species Summary Table

| Common Name | Scientific Name | Status | | | |
|--------------------------------|---|--------|-----|----|-------|
| | | Fed | BLM | OR | ONHP |
| Amphibian | | | | | |
| Columbia spotted frog | <i>Rana luteiventris</i> | FC | | | L2 |
| western toad # | <i>Bufo boreas</i> | | BT | | L3 |
| Bird | | | | | |
| American white pelican | <i>Pelecanus erythrorhynchos</i> | | BA | | L2 |
| bank swallow | <i>Riparia riparia</i> | | BT | | L4 |
| black rosy finch | <i>Leucosticte atrata</i> | | BT | | L4 |
| black tern | <i>Chlidonias niger</i> | SoC | BT | | L4 |
| black-throated sparrow | <i>Amphispiza bilineata</i> | | BT | | L2 |
| bobolink | <i>Dolichonyx oryzivorus</i> | | BT | | L4 |
| broad-tailed hummingbird | <i>Selasphorus platycercus</i> | | BT | | L4 |
| Columbia sharp-tailed grouse # | <i>Tympanuchus phasianellus columbianus</i> | SoC | BS | | L1 |
| ferruginous hawk | <i>Buteo regalis</i> | SoC | BS | | L2 |
| flamulated owl | <i>Otus flammeolus</i> | | BS | | L4 |
| Forster's tern | <i>Sterna forsteri</i> | | BT | | L3 |
| Franklin's gull | <i>Larus pipixcan</i> | | BA | | L2 |
| great egret | <i>Casmerodius albus</i> | | BT | | L3 |
| Greater sage-grouse | <i>Centrocercus urophasianus</i> | SoC | BS | | L2 |
| greater sandhill crane | <i>Grus canadensis ssp.</i> | | BT | | L4 |
| horned grebe | <i>Podiceps auritus</i> | | BT | | L4 |
| least bittern | <i>Ixobrychus exilis</i> | SoC | BA | | L2 |
| loggerhead shrike | <i>Lanius ludovicianus</i> | | BT | | L4 |
| mountain quail # | <i>Oreortyx pictus</i> | SoC | BT | | L4 |
| northern bald eagle | <i>Haliaeetus leucocephalus</i> | FT | | ST | L1 |
| northern goshawk | <i>Accipiter gentilis</i> | SoC | BS | | L3 |
| olive-sided flycatcher | <i>Contopus cooperi</i> | | BT | | L3 |
| peregrine falcon | <i>Falco peregrinus ssp.</i> | | BS | SE | L1 |
| pinyon jay | <i>Gymnorhinus cyancephalus</i> | | BT | | L4 |
| sage sparrow | <i>Amphispiza belli</i> | | BS | | L4 |
| snowy egret | <i>Egretta thula</i> | | BA | | L4 |
| Swainson's hawk | <i>Buteo swainsoni</i> | | BT | | L4 |
| white-faced ibis | <i>Plegadis chihi</i> | SoC | BT | | L4 |
| willow flycatcher | <i>Empidonax traillii adastus</i> | SoC | BT | | L4 |
| yellow-billed cuckoo | <i>Coccyzus americanus</i> | FC | BS | | L2 |
| Fish | | | | | |
| Catlow Valley tui chub | <i>Gila bicolor ssp.</i> | SoC | BT | | L3 |
| Great Basin redband trout | <i>Oncorhynchus mykiss ssp.</i> | SoC | BT | | L3 |
| Lahontan cutthroat trout | <i>Oncorhynchus clark henshawi</i> | FT | | ST | L1 |
| Malheur mottled sculpin | <i>Cottus bairdi ssp.</i> | SoC | BS | | L3 |
| Mammal | | | | | |
| California bighorn sheep | <i>Ovis canadensis ssp.</i> | SoC | BT | | L4 |
| California wolverine | <i>Gulo gulo</i> | SoC | | ST | L2 |
| Canada lynx* | <i>Lynx canadensis</i> | FT | | | L2 |
| fringed myotis | <i>Myotis thysanodes</i> | SoC | BT | | L3 |
| gray wolf | <i>Canis lupus</i> | FE | | SE | L2-ex |

| Common Name | Scientific Name | Status | | | |
|---------------------------------------|----------------------------------|--------|-----|----|------|
| | | Fed | BLM | OR | ONHP |
| long-eared myotis | <i>Myotis evotis</i> | SoC | BT | | L4 |
| long-legged myotis | <i>Myotis volans</i> | SoC | BT | | L3 |
| pallid bat | <i>Antrozous pallidus</i> | SoC | BT | | L3 |
| Preble's shrew | <i>Sorex preblei</i> | SoC | BT | | L3 |
| silver-haired bat | <i>Lasionycteris noctivagans</i> | SoC | BT | | L3 |
| spotted bat | <i>Euderma maculatum</i> | SoC | BA | | L2 |
| Townsend's big-eared bat | <i>Corynorhinus townsendii</i> | SoC | BS | | L2 |
| western small-footed myotis | <i>Myotis ciliolabrum</i> | SoC | BT | | L3 |
| white-tailed antelope ground squirrel | <i>Ammospermophilus leucurus</i> | | BT | | L3 |
| white-tailed jackrabbit | <i>Lepus townsendii</i> | | BT | | L3 |
| Yuma myotis | <i>Myotis yumanensis</i> | SoC | BT | | L4 |
| Reptile | | | | | |
| desert horned lizard | <i>Phrynosoma platyrhinos</i> | | BT | | L3 |
| long-nosed leopard lizard | <i>Gambelia wislizenii</i> | | BT | | L4 |
| Mojave black-collared lizard | <i>Crotophytus bicinctores</i> | | BT | | L3 |
| northern sagebrush lizard | <i>Sceloporus graciosus</i> | SoC | BT | | L4 |

Status:

FE=Federal Endangered: A species which is in danger of becoming extinct within the foreseeable future throughout all or a significant portion of its range.

FT=Federal Threatened: A species that is likely to become endangered within the foreseeable future.

FC=Federal Candidate: A species for which the USFWS or National Marine Fisheries Service have sufficient information to support a proposal for listing as Threatened or Endangered under the ESA.

SoC=Species of Concern: A former C2 candidate species which needs additional information in order to propose as threatened or endangered under the ESA. The USFWS is reviewing species information for consideration as Candidates for listing under the ESA.

SE=State Endangered: A species which is in danger of becoming extinct within the foreseeable future throughout all or a significant portion of its range. This species may be extirpated from its range within the state.

ST=State Threatened: An animal that could become endangered within the foreseeable future within all or a portion of its range.

BS=BLM Sensitive: Species that could easily become endangered or extinct in a state, are restricted in range, and have natural or human-caused threats to survival.

BA=BLM Assessment: Species not presently eligible for official federal or state status but are still of concern and need protection of mitigation win BLM activities.

BT=BLM Tracking: Species that may become of concern in the future, but more information is needed to determine status for management purposes.

ONHP (Oregon Natural Heritage Program):

L1=List 1: Taxa that are threatened with extinction or presumed to be extinct throughout their entire range.

L2=List 2: Taxa that are threatened with extirpation or presumed to be extirpated from the state of Oregon.

L3=List 3: Species for which more information is needed before status can be determined, but which may be threatened or endangered in Oregon or throughout their range.

L4=List 4: Taxa which are of concern, but are not currently threatened or endangered.

- No longer found in the Planning Area.

* - Trapped once in the Steens Mountain, which is outside its normal range of habitat.

Ex = Extirpated - no longer within the original range of the species in Oregon. Outside of the recovery zone for gray wolves.

Attachment 3 – Campsite Monitoring Form

Steens Mountain Wilderness Campsite Monitoring Form

LOCATION

1. Campsite # 2. Survey Time and Date: 3. Former Names
4. Township Range: Section: ¼ Section ¼ ¼ Section
5. GPS Coordinates: 5a. Elevation
6. Closest Trailhead

DESCRIPTION

7. General Description
8. Tent Sites (# of tent sites and location within the campsite):
9. Other Notes (Cultural Resources, Prominent Natural Features, Naturally Occurring Events or Effects, Interesting Hikes):

WATER

10. Type and location of freshwater source:

11. Distance from campsite to water:

MONITORING

12. Recent Ranger Updates
Dates: Ranger: Length of Site Check:
13. Can sounds/noises be heard from adjacent campsites?
14. Number of campsites within 100 yards:
15. Distance from campsite to trail:
16. Firewood availability:
17. Distance to nearest campsite (over 100 yards not to be monitored):
18. Outfitter/Guide use:
19. Visitor record (visitors seen, contacted, and inferred):
20. Wildlife Observations:
21. Photo Point:

**Steens Mountain Wilderness
Campsite Monitoring Form (continued)**

22. MAP OF CAMPSITE (Draw a detailed map that includes measurements, compass directions, social trails, geologic and natural features, naturally occurring events or effects, tent site locations, and mineral soil exposure.

**Steens Mountain Wilderness
Campsite Monitoring Form (continued)**

| | Inside Campsite | Outside Campsite |
|----------------------------------|----------------------------------|----------------------------------|
| 23. Vegetation Cover | 0-5% 6-25% 26-50% 51-75% 76-100% | 0-5% 6-25% 26-50% 51-75% 76-100% |
| 24. Mineral Soil Exposure | 0-5% 6-25% 26-50% 51-75% 76-100% | 0-5% 6-25% 26-50% 51-75% 76-100% |

| <i>Human-caused ratings</i> | <i>1</i> | <i>2</i> | <i>3</i> | <i>Impact Index</i> |
|--|--|---|--|---------------------|
| 25. Vegetation Loss | No difference in cover | Difference of one coverage class | Difference of two or more coverage classes | x 2 = |
| 26. Mineral Soil Increase | No difference in cover | Difference of one coverage class | Difference of two or more coverage classes | x 3 = |
| 27. Human Caused Tree Damage # of trees scarred = # of trees felled = | 0-25% of all trees in campsite scarred or felled or have broken lower branches | 26-50% of all trees in campsite scarred or felled or have broken lower branches | More than 50% of all trees in campsite scarred or felled or have broken lower branches | x 3 = |
| 28. Development | None | 1-2 rock or log structures | More than 2 structures | x 1 = |
| 29. Cleanliness # of fire rings = Litter? | No more than evidence of fire. No fire ring or litter. | One fire ring, some litter, one burnt log or up to 50% of rocks in campsite scarred | More than one fire ring, or a large amount of litter, or any sign of human waste, or greater than 50% of rocks in campsite scarred, or more than one burnt log | x 1 = |
| 30. Social Trails # of trails = | No more than one discernable trail | Up to 3 discernable trails | More than 3 discernable trails | x 2 = |
| 31. Camp Area = square feet | 0-500 sq. feet | 501-1500 sq. feet | More than 1500 sq. feet | x 3 = |

| <i>Recreational Stock Ratings</i> | <i>1</i> | <i>2</i> | <i>3</i> | <i>Impact Index</i> |
|--|------------------|----------------------|--|---------------------|
| 32. Root Exposure | 0-25% | 26-50% | More than 50% | x 3 = |
| 33. Tree Girdling | 0-1 tree girdled | 2 to 3 trees girdled | More than 3 trees girdled | x 3 = |
| 34. Evidence of Recreational Stock Within Campsite Area | None | Manure or feed only | Manure, feed and/or tree damage present. | x 3 = |

35. Minimum Impact 20 - 29 Moderate Impact 30 - 39 Heavy Impact 40 - 49 Extreme Impact 50+
Total Impact Index Total =
(include recreational stock totals)

36. Minimum Impact 9 - 12 Moderate Impact 13 - 15 Heavy Impact 16 - 19 Extreme Impact 20+
Total Impact Recreational Stock Total =

Steens Mountain Wilderness Campsite Monitoring Form Instructions

Permanent files located in Burns DO will be maintained that will contain Campsite Monitoring Forms, photos, and a map of each campsite. In addition, there will be a separate file for each area (see below #1) including a 7½ minute map with all area campsites marked by GPS points. Campsites will be monitored twice a year, once at beginning and once at end of summer season.

- 1) Campsite #: Record current campsite number. This is a three or four digit identifier unique to each campsite. The first two digits refer to a particular area or drainage and are as follows:
Wildhorse Lake: WH
Cold Springs Canyon: CS
Mud Creek: MC
Ankle Creek: AC
Big Indian: BI
Little Blitzen: LB
Donner und Blitzen River: BR
Pike Creek: PC

The third and fourth numbers will be numbers that reflect the order in which the campsite was discovered. Other areas will be added as needed.

- 2) Survey date: Enter exact time and date the campsite was monitored. Record as DAY-MONTH-YEAR-TIME. Both are crucial in organizing field photos with a digital camera.
- 3) Former names: For comparison with past inventories, record any nicknames or former names. For newly discovered campsites, a name may be assigned if desired.
- 4) Township, range, section and quarter section: Fill in the correct grid information.
- 5) GPS coordinates: Enter coordinates. Take reading in the same place as the campsite photo.
- 6) Closest trailhead: Record the closest trailhead. Established trailheads include Big Indian, Wildhorse Lake, Little Blitzen, Donner und Blitzen River, and Riddle Ranch, Mud/Ankle, and Pike Creeks.
- 7) General description: Give a description of the campsite including size, impact, vegetation type, and anything else pertinent.
- 8) Tent Sites: Enter the number of tent sites, condition of sites, and general location of each site.
- 9) Other notes: Include information on cultural resources, natural features, and nearby hikes, etc.
- 10) Freshwater sources: Record name of river, creek or drainage. Document up to two sources.
- 11) Distance from campsite to water: This is the distance in feet the campsite is from a perennial or annual river, spring, creek or lake. Measure the distance from the middle of the campsite or fire ring, if present.
- 12) Recent ranger updates: Include the date, your first and last name, and the length of time you spent monitoring the campsite.
- 13) Sounds from adjacent campsites: Include any human or recreational stock noises heard from any other nearby campsite. Record on the Occupied Campsite Form (OR020-8560-03).
- 14) Number of campsites within 100 yards: Record number and name of any campsite, regardless if the other campsite is occupied by a camping party or not. Record on the Occupied Campsite Form (OR020-8560-03).

Burns BLM District, OR020-8560-03
(March 2004)

- 15) Distance from campsite to an established trail system: Measure the distance in feet from the nearest trail to the campsite. If the nearest trail is miles away, round to the nearest tenth of a mile. Differentiate between an established trail and a social trail and measure from the middle of the campsite or fire ring if present. Current established trail systems include Donner und Blitzen River, Wildhorse Lake, Big Indian, Mud/Ankle Creek, Little Blitzen, and Pike Creek.
- 16) Firewood availability: Walk around the campsite and note the different types of possible firewood on the ground. Record the nearest distance in feet from the center of the campsite to the closest available wood. This should be enough to make a small fire for one night, approximately 2 cubic feet of varying sizes of wood, including kindling. Do not count already collected firewood. Also make note of the type of firewood available in the area.
- 17) Distance to nearest campsite: This is meant to be a check for future seasons. Only monitor the distance up to 100 yards. Leave the section blank when distances are greater than this.
- 18) Outfitter/Guide use: Record encounters with guides as well as groups that are known to use the campsite.
- 19) Visitor record: Document number of visitors seen, contacted, or inferred at the campsite. Be sure to also document on the Occupied Campsite (OR020-8560-03) and Encounters Forms (OR020-8560-04).
- 20) Wildlife observations: Includes any wildlife sightings, big or small, furry or feathered observed at the campsite. Also include any intriguing tracks.
- 21) Photo point: Take photos at the same location where the GPS reading was taken, preferably the center of the campsite. Take four photos at each campsite which point towards the four cardinal directions; north, east, south and west.
- 22) Campsite Map: Draw a detailed map of the campsite. Include measurements, compass directions, social trails, geologic features, locations of tent sites, and any mineral soil exposure. Keep a permanent map of each campsite in each campsite file. Make a copy of the map and mark in pencil any changes to the campsite. The map drawing may be done only once per season.
- 23) Vegetative cover (Inside campsite): Study the ground on the inside of the campsite thoroughly. Speculate, on average, what percentage of the ground is covered by vegetation. Do not count trails going through camp. Do count satellite areas outside the campsite into the equation such as recreational stock areas, tent pads, kitchen areas, etc. Circle 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.
- Vegetative cover (Outside campsite): Study the ground at least 20 feet outside of the campsite thoroughly. Speculate, on average, what percentage of the ground is covered by vegetation. Circle 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.
- 24) Mineral soil exposure (Inside campsite): Study the ground on the inside of the campsite thoroughly. Speculate, on average, what percentage of the ground has mineral soil exposed. Mineral soil is defined as bare soil with no vegetation growing anywhere. If there are sprouts of any kind growing, then it does not count as mineral soil. Do not count trails going through camp. Do count satellite areas outside the campsite into the equation such as recreational stock areas, tent pads, kitchen areas, etc. Circle the correct percent of mineral soil that is exposed; 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.
- Mineral soil exposure (Outside campsite): Thoroughly study the ground at least 20 feet outside of the campsite. Speculate, on average, what percentage of the ground has mineral soil exposed. Circle the correct percent of mineral soil exposed. Circle 0-5%, 6-25%, 26-50%, 51-75%, or 76-100%.
- 25) Root Exposure: Calculate the percentage of trees with roots exposed from human use. Do not count trees that have naturally exposed roots. Count trees with damaged roots before scarred trees. Do not count a tree for both root exposure and scarring. Find impact index.
- 26) Tree Girdling: Defined tree damage encircling the tree. Count tree girdling before scarring and root exposure. Do not count any girdled tree for root exposure and scarring. Find impact index.

- 27) Evidence of recreational stock: Be sure that evidence points to horse, mule, llama or other pack animal dung, not a wild animal or cattle. Find impact index.
- 28) Vegetation loss: Take note of the difference in coverage classes from number 23, vegetation cover. Circle the appropriate box. Under the Impact index, multiply the rating number above the box you circled by the number already in the Impact index box. For example, if you recorded campsite vegetative cover was 50% inside the campsite and 75% outside the campsite, this would be a difference of one coverage class with a rating of 2. You would then multiply the 2 by 2, for a total of 4.
- 29) Mineral soil increase: Take note of the difference in coverage classes from number 24, mineral soil exposure. Circle the appropriate box. Under the impact index, multiply the rating number above the box you circled by the number already in the impact index box. For example, if you recorded the average percentage of mineral exposed as 25% inside the campsite and 5% outside the campsite, this would be a difference of one coverage class with a rating of 2. You would then multiply the 2 by 3, for a total of 6.
- 30) Tree damage: Record the number of trees scarred, inside as well as immediately outside, the campsite. Scarring trees include anything nailed or inserted in a tree, or anything carved into a tree. One nail found in a tree counts as scarring. Girdling does not count, as there is a separate section for recreational stock use. Record the number of felled trees within and immediately outside the campsite. Calculate the percentage of scarred and/or felled trees and circle the appropriate percentage. Multiply the rating by 3 to get the impact index.
- 31) Development: This counts as any human made structure and includes, but is not limited to rock chairs, altars, backrests, log benches, meat hangers, seats or tables. Circle the category and calculate the impact index.
- 32) Cleanliness: Count the number of fire rings and document whether or not litter is present. Count all fire rings and sites of repeated fires, with or without rock rings. Faint scars or sites of one time use should not be counted. If there is more than one fire ring, a large amount of litter, more than one burnt log or any evidence of human waste, rating 3 should be circled and the impact index would be a 3.
- 33) Social Trails: Any trail, besides the main trail that leads to the campsite. These are side trails which provide access to water, other campsites, viewpoints, firewood, bathroom places, etc. Find impact index. Draw all social trails on the map drawn of each campsite.
- 34) Camp area: This is the total camp area in square feet measured by using a tape measure. Measure satellite areas (tent pads, etc.) outside the campsite and add them to the total campsite size. Calculate the impact index.
- 35) Add up all of the impact indexes to find the total index. Designate impact by circling either minimum, moderate, heavy or extreme impact.
- 36) Add up the three recreational stock indexes to find the total recreational stock impact index. Designate impact by circling either minimum, moderate, heavy or extreme recreational stock impact.

Attachment 5 – Trail Register Form

Steens Mountain Wilderness Trail Register
WELCOME TO: STEENS MOUNTAIN WILDERNESS

Please register only once per group. The information you provide is very important in helping to manage the wilderness.

| NAME | ENTRY DATE | # PEOPLE | # DAYS | # STOCK | ACTIVITY (Hike, Hunt, Fish, etc) | DESTINATION | EXIT DATE/ COMMENTS |
|------|------------|----------|--------|---------|-------------------------------------|-------------|------------------------|
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Steens Mountain Wilderness Trail Monitoring Form Instructions

A. Trail width:

- 1 = Slight. Trail widening is width greater than 24 inches occurring in dry and sandy or upland soils with little impact to vegetation and little soil compaction. Trail is likely to become wider.
- 2 = Moderate. Trail widening is occurring 24 to 36 inches, and in an area of sensitive riparian vegetation, causing moderate damage to riparian vegetation and sod; moderate soil erosion is occurring along dry areas where soil productivity is affected. Potential for increased damage is likely.
- 3 = Severe. Trail widening is greater than 36 inches within a wet riparian/meadow area or adjacent stream crossing, causing significant damage to sod, and active erosion is occurring. Condition is in an active state and has a potential to become worse.

B. Trail depth:

- 1 = Slight. Slightly depressed trail is evident. Slight root exposure is noticeable.
- 2 = Moderate. Tread depth shows active erosion and the trail is incising. Tread is less than 12 inches below ground surface. Evidence of scour and sediment is leaving the trail and a moderate amount may be entering stream channels where trail is adjacent to streams. Beginning stages of gullying is starting to form.
- 3 = Severe. Trail is actively eroding, gullies are present. Tread is greater than 12 inches below ground surface. Evidence of sediment transport into stream channels at crossings is apparent. Trail is in an eroded state and difficult to tread.

C. Multiple trailing:

- 0 = None
- 1 = Slight. Multiple trailing is occurring, though not in an advanced condition.
- 2 = Moderate. Two to three trails have formed, some moderate damage has occurred to sod and riparian vegetation, some erosion within the trail troughs. Condition is worsening.
- 3 = Severe. Two to three trails have formed, have deeply incised troughs, loss of sod and damage to riparian vegetation is occurring.

D. Natural Event:

Note on form but do not rate as a human effect or visitor activity.

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Attachment 8 – Winter Recreation Monitoring Form

Steens Mountain Wilderness Winter Recreation Monitoring Form

Name(s): _____ Date: _____ Time: _____

Area(s) Visited: _____

What Road, Mile Mark, Elevation or Landmark

Road Conditions: _____

Snow Conditions/Elevations: _____

Your Activity: _____

Snowmobiling, Skiing, Snowshoeing, Driving

Number & Type of Vehicles Encountered: _____

User Activity & Numbers - Snowmobiling: _____ Skiing: _____ Snowshoeing: _____

Describe User Activity: _____

people encountered, track type(s), location, etc.

Wildlife Observed: _____

Type(s), Numbers, Tracks, Location

Wilderness/WSA Violations: _____

Other Comments: _____

| | | |
|-----------------|---------------------------------------|---|
| Landmark Notes: | 1 st Cattle Guard .2 mi | 2 nd Cattle Guard: 1.6 mi |
| | 3 rd Cattle Guard: 6.7 mi | 4 th Cattle Guard (Lake Creek Turnoff): 9.5 mi |
| | 5 th Cattle Guard: 12.3 mi | 6 th Cattle Guard (Fish Lake): 13.7 mi |

| | | | |
|-------------|-------------------------------------|---------------------|------------------|
| Elevations: | Page Springs Gate: 4200' | Juniper Line: 5400' | Fish Lake: 7400' |
| | Kiger Gorge Overlook Turnoff: 8800' | | |

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Attachment 9 – Unauthorized Intrusions Monitoring Form

Steens Mountain Wilderness Unauthorized Motor Vehicle and Mechanical Transport Intrusions Monitoring Form

Name(s) of Observer(s): _____ Date: _____ Time: _____

Area(s) Location(s): _____

Road Name(s): _____

GPS or Map Legal Description(s): _____

Number of Unauthorized Vehicles /Tracks Encountered: _____

Vehicle Description(s)/License Number(s): _____

Describe User Activity: _____

Wilderness Violation(s): _____

Other Comments: _____

***Attach photos to this form

United States Department of the Interior
Bureau of Land Management
Burns District Office
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Hines, Oregon 97738

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STEENS MOUNTAIN WILDERNESS & WILD AND SCENIC RIVERS PLAN
APPENDIX P