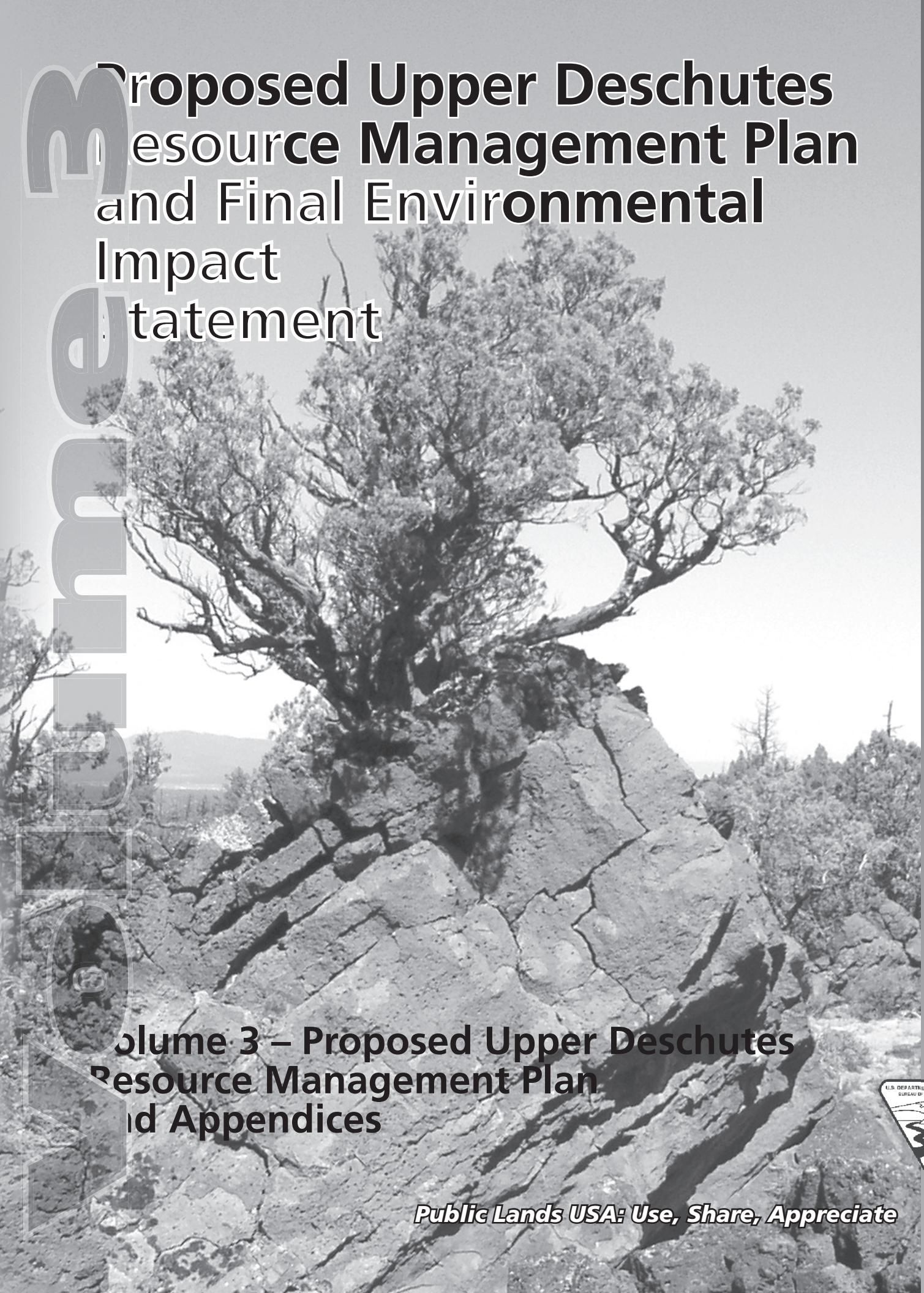

Volume 3

Proposed Upper Deschutes Resource Management Plan and Final Environmental Impact Statement

Volume 3 – Proposed Upper Deschutes Resource Management Plan and Appendices

BLM

Prineville District Office

October 2004

Public Lands USA: Use, Share, Appreciate

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.

Volume 3

Volume 3 – Proposed Upper Deschutes Resource Management Plan and Final Environmental Impact Statement

Proposed Resource Management Plan and Appendices

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Introduction

The Proposed Upper Deschutes Resource Management Plan articulates management direction for the Preferred Alternative (Alternative 7) of the Final Environmental Impact Statement. It provides this direction as prescribed by the Federal Land Management Policy Act and BLM Manual and Handbook direction. The PRMP describes the overall vision and goals for managing the planning area, and provides area-specific land use allocations and allowable uses as well as management objectives and guidelines for the conditions under which future uses might be authorized. These elements are presented in the PRMP in the following sections:

Goals and Vision:

- ***Goals*** - broad, overarching purposes the BLM is mandated to administer public lands. These generally describe the legal basis and management direction provided to the agency by the Laws, BLM policy and Program Direction, and they apply to all alternatives.
- ***Vision*** – how lands within the resource management plan area would look or function into the future. These visions were developed by community members during the plan preparation process.

Management Direction – includes the following:

- ***Objectives* -** resource or area specific outcomes against which future actions must be measured for consistency with overall plan purposes. All management direction included here applies across the planning area unless supplemented by area-specific management direction.
- ***Allocations/Allowable Uses* -** specific management direction for how certain resources would be emphasized, uses that may or would be prohibited, or conditions under which certain uses may be permitted.
- ***Guidelines*** - sideboards set in relation to how management objectives can be accomplished, or expected methods of achieving objectives. Often guidelines can be described as "mitigation" or "conservation measures" established to protect specific resources while retaining sight of the ultimate objective of the action. Guidelines are a toolbox from which one or more elements may be selected as needed to meet the overall management objective. All guidelines will be considered during site-specific use authorizations, and will be applied as needed, or may be supplemented or modified with other management techniques if they are demonstrated to better meet management objectives for the area. Guidelines also often indicate that emphasis will be given to development of certain facilities or certain actions. This guidance is provided to help direct future considerations and is not intended to represent a decision in principal about future actions.
- ***Rationale* -** the reasoning behind the development of specific objectives or guidelines.

The Proposed Resource Management Plan revises portions of the Brothers - La Pine However, not all management direction is new. Consequently, some of the key Continued Management Direction for the planning area is also included at the end of this PRMP (see section Continued Management Direction), and will be blended into the final RMP when it is completed. Mid-level plans or strategies such as the Central Oregon Fire plan, the Horse Ridge RNA and, the Middle Deschutes and Lower Crooked River Wild and Scenic River Plans are incorporated by reference into the Continuing Management Direction. These plans generally provide more specific site management guidance than a land use plan. Future site-specific project-level analyses will supplement direction

included in the PRMP for specific areas. A section describing the process that will be used for developing an implementation and monitoring strategy follows the Continued Management Direction.

Management Direction is also provided by the GIS maps published with the Draft and Final Environmental Impact Statements and support maps also supplied for the DEIS. GIS maps provided with the RMP show the land allocations identified in the Allocations/ Allowable Uses section of the PRMP. These boundaries are not specific to ground conditions and may be modified without plan amendment to adjust to new conditions, provided such adjustments to not integrally change the purpose of the land allocation.

Goals and Vision

Ecosystem Health and Diversity

Goal

Restore and support healthy upland riparian and aquatic ecosystems in conjunction with vegetation and wildlife habitat needs, riparian conservation strategies, watershed restoration methods, and economic reliance of the population on public lands. Management actions would emphasize ecosystem sustainability and health throughout the planning area, while managing for expected increases in human population and use levels.

Recognize the role of fire in the ecosystem and manage prescribed fire to maintain the disturbance cycle where practicable outside the Wildland-urban interface (WUI). Provide guidance for fire suppression and fuels treatments based on resource values at risk such as homes, facilities, and special habitats. WUI areas, in particular, would be prioritized and scheduled for fuels treatments early in the implementation phase.

Vision

Vegetation - The planning area contains large, un-fragmented blocks of healthy shrub-steppe plant communities, intermixed with old-growth juniper woodlands and large and small openings containing grasslands, meadow, and savanna. Shrub-steppe and savanna communities have a vigorous and diverse composition of native shrubs, grasses, and forbs spatially arranged in a mosaic of seral stages in large and small patch sizes appropriate to conditions of climate, landform and soils. Ponderosa and lodgepole pine forests are present in a diverse mix of seral stage, structure, stand size, and species composition. Ponderosa pine is dominant on suitable sites. The proportion of old forests and old woodlands is maintained at current levels with options for expansion in the future. Special status plant species are maintained or increased in their distribution and abundance. Noxious weeds and other invasive or non-native species are decreased in their distribution and abundance. Forest, woodland, savanna, treeless shrub-steppe, meadow, and riparian communities are healthy and properly functioning ecosystems sufficient to support quality wildlife habitat, hydrologic processes, and social and economic needs.

Riparian and Aquatic - Riparian areas, floodplains, and wetlands function naturally relating to water storage, groundwater recharge, water quality, and fish and wildlife habitat. Vegetation structure and diversity controls erosion, stabilizes stream banks, heals

incised channels, provides regulation of air and water temperature, filters sediment, aids in floodplain development, dissipates energy, delays floodwater, and recharges groundwater.

Biologically diverse habitats are maintained to ensure the presence of organisms and processes necessary to sustain native aquatic communities over the long term. Adequate spatial distribution of these communities is maintained, avoiding habitat fragmentation and allowing for re-colonization of populations after disturbance. A diversity of breeding habitats for aquatic species provides clean gravels, quiet backwaters, and emergent and submergent vegetation. Rearing habitats for larvae and fry are available in backwaters, shallow edges, and other protected sites.

Wildlife - Ecosystem processes are functioning properly. Maintaining and restoring healthy ecosystems benefits a variety of wildlife species by increasing the quality, quantity, and variety of habitat. Habitats support healthy, productive and diverse populations and communities of native plants and animals, including special status species and species of local importance, appropriate to soil, climate and landform. Habitats occur in large contiguous blocks, are adequately arranged spatially, and contain a natural diversity of animal and plant communities. Animal populations are present and move freely across the landscape. The amount and diversity of wildlife habitats are maintained or improved through time. Native plant communities exist in blocks of various sizes distributed in patterns across the landscape appropriate to site potential. Maintenance and restoration of healthy ecosystems throughout key areas and management of specific habitat components such as vegetation cover, forage, and roads, contribute to maintaining habitat conditions within the site potential of the area.

Watershed/Hydrologic Function and Water Quality - Stream networks, uplands, floodplains, and riparian areas are resilient and where capture, storage and release of water limits the effects of sedimentation and erosion, and where infiltration, percolation, and nutrient cycling provide for improved water quality, water quantity, timing and duration of flows, and diverse and productive aquatic habitats. Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate and landform. Surface water and groundwater quality, influenced by agency actions, meets state water quality standards. Riparian areas are maintained, restored or improved to achieve a healthy and productive ecological condition for maximum long-term multiple use benefits and values. Water quality is maintained equal to or above legal water quality standards, consistent with beneficial uses of water. Water quality provides stable and productive riparian and aquatic ecosystems.

Fire/Fuels Management - Fuels in the planning area are managed to provide for protection of Communities at Risk from the undesired effects of wildland fire, while assisting in the attainment of other management goals. Safety of the public and fire fighters is the first priority in planning fuels management activities, while recognizing the role of wildland fire as an essential ecological process and natural change event.

Air Quality - Air quality is generally good. Public health is protected by holding the amount of smoke entering populated areas to a minimum. The National Ambient Air Quality Standards (NAAQS) are being met, with no significant deterioration of air quality. There are no human-caused visibility impacts to Class I areas.

Special Management Areas - The resources that led to the designation of special management areas such as caves, ACECs, and Wilderness Study Areas are protected. Guidelines for the amount and type of public uses in SMAs are established. Opportunities and partnerships for public education, enjoyment, and interpretation for these resources are fostered.

Areas of Critical Environmental Concern - The special resources for which ACECs were designated are protected. Guidelines for the amount and type of public uses are established. In addition, opportunities for public education and interpretation are fostered, along with partnerships to help protect and interpret these resources.

Wilderness Study Areas - Wilderness Study Areas are managed to maintain wilderness suitability, consistent with the 1995 "Interim Management Policy for Lands under Wilderness Review" (IMP).

Research Natural Areas - Research Natural Areas are protected from outside human influences. Natural ecological and physical processes are allowed to occur. These representative natural plant communities are generally reserved for education and scientific study but are also available for some types of low-impact non-motorized recreation.

Caves - Significant caves or caves nominated for significance under the under the FCRPA remain in a natural condition, with cave resources monitored and managed. Graffiti and litter are removed and caves appear natural and provide a sense of discovery for visitors. Recreational and interpretive opportunities are created, consistent with the management of cave resources.

Land Uses

Goal

Manage the land in a manner that recognizes the nation's need for domestic sources of minerals, food, timber, and fiber from the public lands. At the same time, protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archeological values. Preserve and protect public lands are in their natural condition, and assure they provide, where appropriate, food and habitat for fish, wildlife and domestic animals, and land for outdoor recreation and other uses.

Promote healthy sustainable rangeland ecosystems; accelerate restoration and improvement of public rangelands to properly functioning conditions; promote the orderly use, improvement and development of the public lands; establish efficient and effective administration of grazing of public rangelands; and provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy public rangelands (43 CFR 4100). Accomplish these goals consistent with land use plans, multiple use, sustained yield, environmental values, economic and other objectives.

Vision

Land uses, including but not limited to livestock grazing, mineral and commercial forest uses, occur in a pattern across the planning area, where economically feasible, socially compatible, and environmentally responsible, that support community and national demands and contribute to the local economy and quality of life.

The National Guard and Oregon Military Department (OMD) continue a long-term partnership with the BLM. The partnership demonstrates land stewardship that integrates resource objectives and goals of public lands with military training objectives. Public lands support the military training purposes of the Biak Training Center where consistent with public land management objectives. The military is provided a reliable long-term land base for training operations. The military has invests time and funds to maintain and restore sustainable ecological conditions within designated training areas consistent with integrated resource management and training objectives.

Visual Resources

Goal

Identify and protect visual values on public lands, assuring integrating environmental design arts in planning and decision-making.

Vision

The scenic qualities of the planning area are maintained and improved over time. Visual Resource Management (VRM) classifications identify the scenic importance of landscape characteristics and guide the design and development of future projects. Vegetation management emphasizes long-term over short-term visual objectives and seeks to create more naturally appearing landscapes over time.

Recreation

Goal

Provide a broad spectrum of resource-dependent recreation opportunities to meet the needs and demands of public land visitors, while ensuring the continued availability of public lands and related waters for a diversity of resource-dependent outdoor recreation opportunities. Visitor management, resource protection, and facility investments are provided where the public has demonstrated its desire to use public lands for outdoor recreation, and outdoor recreation is a high priority.

Vision

The planning area provides a wide variety of recreational opportunities for a growing demand. Local and out-of-area visitors enjoy frequent activities on public lands that are close to urban and residential areas, such as hiking, running, mountain biking, and off-highway vehicle use. Commercial recreation opportunities provide a public service while protecting resource values and minimizing conflicts with other recreationists and adjacent landowners.

Local communities are integrally involved in developing and implementing management strategies for individual geographic areas within the planning area. Increases or improvements in facilities such as picnic areas, group use sites, interpretive sites or trails are developed through an integrated effort with other recreational providers and local communities. The number and types of facilities change over time to reflect demographic changes and the changing popularity of different types of recreation.

Public lands in the planning area are distinct from private lands and have a unique identity that fosters desired recreation opportunities for that area. Information on recreation opportunities, travel management, interpretation, and management goals and policies is readily available to visitors.

Areas within highly developed surroundings are managed for an emphasis on safety and compatibility with surrounding land uses. Designated access points, roads and trails are designed to minimize conflicts with neighbors as much as possible. Designated recreation trails, facilities, restored and maintained recreation sites and access points, and intensive recreation management help to meet increased demand. Public lands provide opportunities for regional trails that link communities. Local roads and trails provide a pleasing experience for users within a specific area that matches the recreation emphasis for that area.

Transportation and Utility Rights-of-way

Goal

Provide Transportation and Utilities facilities that protect public safety, provide user safety, protect the environment, conserve and protect resources, and enhance productivity and use of public lands. Identify facilities as part of an approved transportation plan to allow for allocation of construction and maintenance funds; and minimize damage to scenic and esthetic values, fish and wildlife habitat, and otherwise protect the environment. Collaborate with local communities to plan reasonable, safe access to or across public land if necessary, in a manner that serves to protect and conserve sensitive resources and the environment.

Regional Transportation Planning - Develop and maintain functional and efficient regional transportation systems coordinated with State, local and BLM jurisdictions that provide links between local communities by considering land allocation needs for regional transportation corridors in conjunction with multiple resource management.

Local Transportation Planning - Provide reasonable access for recreation, fire safety, and resource management that meet objectives for access management.

Vision

Transportation systems, utility corridors and communication/energy sites on public lands are the result of an inter-regional coordinated effort between tribal, federal, state, and local governments that support links between communities. The corridors provide routes for approved or anticipated land uses that cannot be reasonably accommodated on other lands.

New or expanded transportation/utility system corridors and communication/energy sites are located considering the intrinsic values of public lands. Values include but are not limited to visual considerations, wildlife habitat, open space, recreation, traditional and cultural uses, and sensitive or unique resources.

Land Ownership

Goal

Retain public lands in federal ownership, unless disposal or acquisition of a particular parcel would better serve the national interest and the needs of state and local people, including needs for lands for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife. Changes in public land ownership are considered where consistent with public land management policy and where these changes would result in improved management efficiency.

Withdrawals are used to dedicate public lands to specific uses by protecting specific resource values over the development of lesser values. Lands may be segregated from some or all of the public land laws and/or location and entry under the mining laws. Withdrawals are also used to transfer jurisdiction over an area of Federal land from one department, bureau, or agency to another department, bureau, or agency after alternative realty tools have been considered (such as a rights-of-way reservation) and found inadequate.[1]

Vision

Public lands provide social and economic value for local, regional, and national communities. Land is maintained in public ownership that provides contiguous native ecosystems able to support healthy plant and animal populations or provides other important natural values. Land acquisition promotes improved quality, location, or distribution of public land ownership consistent with resource management objectives. Public lands are located in a pattern that can be efficiently and effectively managed. Public lands are available for federal and state projects, community growth, and projects for non-profit groups.

Public Health and Safety

Goal

Provide the public with recreation areas and facilities that are free from recognized hazards insofar as practical, and meets the requirements of BLM Manual H-2111 – 1, 2001: Safety and Health Management in accordance with safety policies and procedures.

Vision

BLM-administered lands are available for activities that do not compromise the health and safety of land users or adjacent landowners, or diminish natural resource protection. Public lands are managed to discourage illegal activities such as dumping and vandalism. Bullets fired from BLM administered lands do not strike public land users or adjacent landowners. Firearm-related property damage and garbage related to shooting is experienced infrequently. Natural and cultural resources are not damaged by firearm discharge or illegal activities. Firearm discharge and other recreational uses are managed concurrently to improve recreational opportunities and reduce user conflict.

Archaeology

Goal

Locate, protect, preserve, enhance, and interpret cultural resources in accordance with existing legal authorities.

Vision

Cultural resources and "At-Risk," significant archaeological resources are managed in a pro-active manner for their various use categories[2]. Information about the archaeology of the planning area is current. Residents of, and visitors to, the area have an opportunity to learn about the local prehistory and history of the region. Interpretation, education, inventories, monitoring, and law enforcement enhances protection and preservation of "At-Risk", significant archaeological resources.

[1]Departmental Manual 603.1.1 addresses specific guidance to the BLM for managing the withdrawal program that includes making, modifying, and revoking withdrawals. The manual also addresses post-withdrawal management objectives and stresses the periodic review of existing withdrawals.

[2]As defined in BLM Manual 8100

Proposed Management Direction

This section describes the new Management Direction that would be applied to the planning area. Continued Management Direction is included following this section, and may be referenced within this section.

Ecosystem Health and Diversity

Vegetation

Ecosystem Maintenance and Restoration

<u>Objective V - 1:</u> Maintain and restore healthy, diverse and productive native plant communities appropriate to local site conditions. Manage vegetation structure, density, species composition, patch size, pattern, and distribution to reduce the occurrence of uncharacteristically large and severe disturbances. Maintain or mimic natural disturbance regimes so that plant communities are resilient to periodic outbreaks of insects, disease and wildland fire. Identify opportunities to actively re-pattern vegetation on the landscape to conditions more consistent with landform, climate, biological, and physical components of the ecosystem, and considering social expectations and changes to the landscape driven by human influences.

<u>Rationale:</u>
The Federal Land Policy and Management Act of October 21, 1976 (43 USC 1701) declares that it is the policy of the United States that the public land be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use.

Many plant communities throughout the interior west are in a condition, structure and composition that deviate from their "natural" state that existed prior to white European settlement. Human management activities and other influences have contributed to the current imbalance in ecosystems. Restoring conditions that approximate historic conditions would help prevent large-scale occurrences of insect, disease, and wildland fire and the resulting undesirable ecological, social, and economic effects of these large-scale disturbances. Restoration of landscape succession/disturbance regimes is the foundation of the strategy to manage long-term risk to terrestrial, aquatic, and riparian ecosystems. This risk management strategy would conserve scarce habitats in the short-term while expanding these habitats through restoration in the long-term.

<u>Allocations/Allowable Uses</u>
1. Vegetative restoration treatments would be accomplished by a variety of methods including, but not limited to, mechanical, prescribed fire, and grazing. Specific project prescriptions would be appropriate to site conditions, plant community types, and resource objectives, and would be detailed in project-level plans and NEPA analyses.
2. Apply Best Management Practices (see Appendix F) where appropriate during vegetative treatments.

Guidelines:

Maintenance and Restoration

Treatment Priorities

1. Where ecosystems are healthy and functioning, apply management to ensure the maintenance of good conditions and, where the condition of ecosystems is not as good, keep conditions from deteriorating further until they can be restored, either passively or actively.
2. Potential project areas would be evaluated for expected rehabilitation success given a reasonable level of treatment effort and investment. Areas that are so damaged or altered so as to have transitioned beyond the threshold of restoration success may be deferred in favor of areas that have greater opportunity for success.

Structure

3. Seed or plant grasses, forbs, shrubs and trees where appropriate to achieve a variety of objectives such as: stabilizing soils, restoring native communities, converting to more desirable plant communities, improving wildlife habitat, and influencing potential fire behavior in the wildland urban interface.
4. Use native species for a majority of restoration/rehabilitation treatments. Examples of when use of non-natives may be appropriate include:
   A. When advantageous for quick soil stabilizatio
   B. When aggressive competition with invasive weeds is needed
   C. When non-natives are significantly more cost-effective and result in a much greater area treated
   D. When natives are not capable of achieving objectives
   E. When non-natives can contribute to overall restoration success
5. Increase the potential for re-seeding success by utilizing stock adapted to or appropriate for local conditions. Use native seeds or seedlings obtained from local genetic stock whenever practicable.
6. Utilize wildland/urban interface fire zone treatments to maintain or contribute early seral (low shrub, perennial grass, forbs) structure and composition to desired landscape vegetative communities.
7. Promote native herbaceous cover with restoration treatments to reduce the amount of bare, exposed soil for erosion control and displacement of weeds.
8. Restore the distribution and vigor of bitterbrush stands through vegetative treatments designed to reduce competing plants, create a variety of bitterbrush age classes, and create conditions conducive to bitterbrush natural regeneration.
9. Increase the health and ecological dominance of ponderosa pine (where sites are appropriate for ponderosa pine). Favor retention of large trees. Create stands with stocking levels and fuel loads that are more resilient to wildland fire, insects, and disease. A series of periodic, non-commercial thinning, commercial thinning, and prescribed fire treatments would be used to achieve and maintain the desired species composition and stand structure.
10. On sites that would support ponderosa pine, ponderosa would be favored over other tree species for prescriptions involving planting or natural regeneration. Leave trees left in shelter wood, seed trees, and fire salvage treatments would include the healthiest available ponderosa pine, regardless of size or age.
11. Use a variety of measures to protect planted and naturally regenerated seedlings from the effects of trampling, browsing, and girdling by livestock and wildlife. Such measures could include: suspension of grazing, fencing, tubing, netting, and animal repellents.
12. Maintain/create snags and down logs at levels that would consider historic conditions, wildlife habitat needs, and objectives for fuels treatments in wildland urban interface areas.
13. Restore riparian vegetation wherever it occurs within larger-scale upland vegetative treatments. Important hardwood riparian vegetative types occurring within the

planning area requiring special attention would include aspen, alder, willow, currant, chokecherry, oceanspray, and mock-orange. Due to the different plant communities and site conditions involved, site-specific prescriptions would be developed riparian treatments. Additional protection from damage by domestic livestock, deer and elk should be considered.

Fire

14. Guidelines for restoration/maintenance of ecosystems utilizing prescribed fire are discussed in more detail in the Fire/Fuels Guidelines.
15. Rehabilitation would be considered whenever there is damage caused by natural or human-caused events such as erosion, fire, trespass, mining, road construction, and other ground disturbing activities. Weed management would also be integral to most rehabilitation efforts.
16. Guidelines for rehabilitation of burned areas are discussed in more detail in Fire/Fuels Guidelines.

Soil

17. Incorporate measures to protect microbiotic crusts where practicable during vegetative treatments and other authorized activities. Promoting conditions favorable for retention and development of biological crusts.
18. Retain non-commercial vegetative and woody residues from mechanical vegetative treatments scattered on-site wherever possible to:
    A. Maintain soil nutrients and long-term site productivity
    B. Maintain soil organic matter
    C. Provide site protection from wind and water erosion
    D. Facilitate native plant re-colonization by providing micro-site amelioration of extremes of heat and cold
19. Vegetative and woody residues from mechanical treatments would be placed in a manner that does not block trails or create safety hazards.

Recreation

20. Special considerations would be implemented for integration of vegetation management with recreation management in areas with the following recreational characteristics:
    A. high density of trail systems;
    B. trail systems important to regional trail demand; and,
    C. need for separation of different trail user groups. Integration is defined as simultaneous site-specific vegetation and recreation planning or a single interdisciplinary analysis.
21. Integrate vegetation/fuels treatments and trail design within Special Recreation Management subunits including Millican Plateau, North Millican and Cline Buttes. Old-growth juniper, degraded ecosystem conditions, weeds, soil erosion, traveler and recreationist's safety, and increasing trail demand in this area are all factors that contribute to the high priority for an integrated natural resource and recreation plan for this area.
22. In North Millican concurrent vegetation and trail design planning would be required to ensure that habitat variables other than road densities such as vegetative structure and condition, protecting soils and vegetation from erosion and disturbance, and enhancing the recreation experience are considered when modifying or lifting seasonal motorized use restrictions in this area.
23. If final trail designs for high trail density or multi-user group areas cannot be done in conjunction with vegetation treatments, a conceptual trail layout would be done that provides input into vegetation management strategies.
24. Vegetation management would provide for the following design features/mitigation measures in areas with existing or planned trail systems:
    A. Piling and burning, chipping, or lopping and spreading of slash would be

emphasized along trail corridors, except where barriers or erosion control measures are specifically needed.

B. Provide a clear area from trail edge to slash piles, logs, and other scattered woody debris sufficient to allow for the safety of trail users.
C. Orient cuts on stumps and logs left along the trail such that cut ends do not present a sharp hazard to riders and so as to be minimally intrusive visually.
D. Retain higher densities of trees in areas that have mixed uses on separate trails in order to screen different types of trail systems from each other.
E. Retain patches, buffer strips, or higher densities along trail sections in order to limit cross-country travel and screen views of roads, houses, fences, other developments, and other trail users.
F. Retain trees and/or promote the growth and spread of tall shrubs (such as basin big sagebrush and bitterbrush) to maintain the curvilinear nature of the trail and minimize the cutting of curves and straightening of trails by users.

Plant Communities

The following sections describe direction specific to plant communities/source habitats across the planning area.

Shrub-Steppe Communities

<u>Objective V – 1a:</u> Maintain/restore large contiguous stands of healthy, productive and diverse native shrub/steppe plant communities throughout their historic range[3] where appropriate considering current conditions and potential for success.

<u>Rationale:</u>
Restoration and expansion of key plant communities would approximate historic stand structure and geographic range using conditions existing at pre-European settlement times as a reference condition. On most historic shrub-steppe sites, western juniper would be reduced to widely spaced old-growth trees or small patches on ridge tops or other focused locations where trees would contribute to biodiversity at the landscape level. Social and economic factors would be considered in formulating project design, location, and priorities.

<u>Guidelines:</u>

Maintenance/Restoration

1. Minimize disturbance related activities by limiting motorized travel to designated roads and trails.
2. Mimic natural processes with vegetation management efforts in the Badlands WSA so as not to impair the area's suitability for wilderness designation.
3. Restoring historic fire regimes wherever practicable outside the wildland-urban interface would be emphasized to improve/maintain the condition and expand the extent of shrub-steppe communities to historic ranges.
4. Composition, density, and distribution of young western juniper would be reduced to historic levels. Juniper older than 150 years or displaying old-growth characteristics may be removed in some circumstances if specific restoration needs for wildlife habitat or other natural values exceed the need to maintain the large or old tree component.

[3]The term "historic range" as used in the context of this PRMP refers to the distribution of the following major vegetative types mapped within the planning area: shrub-steppe, old-growth juniper, ponderosa pine, and riparian (see DEIS Map 4: Vegetation Types). These are the vegetative types within the planning area that have declined the most in terms of condition/structure and in geographic extent from the historic to current time period. Their decline has created a current deficit representation as compared to their distribution during pre-European settlement times.

5. A primary criterion for prescribing treatment is when juniper occurs at a density and/or distribution that is determined to be outside its historic range of variability.
6. Where ecologically appropriate, restore or maintain stands of large contiguous sagebrush communities in patches of 400 acres and larger. Design of landscape patterns would include connectivity of large shrub-steppe patches.
7. Vegetative habitat needs of sagebrush-steppe obligate species would be emphasized in treatment design.

Treatment Priorities

8. Proposed vegetation treatments to maintain or restore shrub-steppe communities would be based on a landscape level restoration of broad vegetative types. Priorities for treatment would focus on areas that would show the biggest ecological gain for a given level of treatment intensity or investment. Cost-benefit ratios would help determine project priority and scale. Priorities would include restoration of sage grouse and other special status species habitat. Areas that have transitioned beyond the threshold of restoration success with reasonable treatment effort and expense would normally receive lower priority.

Old-Growth Juniper Woodlands

Objective V – 1b: Maintain, promote, and restore the health and integrity of old-growth juniper woodlands/savanna (add footnote) throughout its historic range where practicable. Decisions authorizing social/economic land uses and activities within mapped old-growth woodlands (see DEIS Map 4) would be evaluated against land use criteria in Guidelines below. Where possible, provide reasonable mitigation for impacts to old growth juniper woodlands ecosystems when authorizing land uses or activities.

Rationale:

Old-growth western juniper woodlands in the pumice sands of Central Oregon are unique in their age, size and extent. Of the eight million acres of western juniper in the intermountain west, only an estimated three percent is considered to be old-growth. Ideal conditions of soil, climate and topography converge in Central Oregon to allow juniper to attain its maximum potential for size and age of individual trees and density and range for contiguous old-growth stands. The oldest (1,600 years) western juniper tree found to date is located within the planning area. Continued human population growth and associated increases in development and public land use in Central Oregon is causing fragmentation and degradation of this important habitat type. Large healthy contiguous stands of old woodlands provide habitat for late-seral dependent species, scenic quality, and education/interpretation opportunities.

Allocations/Allowable Uses:

1. Allow cutting/harvest of green trees up to 18 inches DBH east of State Route 27. Harvest of juniper west of State Route 27 would generally be allowed only in conjunction with restoration treatments, fuels reduction, or clearing for ROWs or other approved facilities or developments. Cutting and harvest during restoration or fuels management treatments would generally be limited to trees less than 150 years old and based on physical characteristics. Individual trees showing characteristics of old-growth, regardless of size, would generally not be cut.
2. Cutting of old growth tree snags and large down logs would generally not be allowed except where they pose a risk to structures, facilities, or health and safety.

Guidelines:

Maintenance/Restoration

1. Treatments would emphasize maintenance/restoration of historic condition/range of old-growth woodlands/savanna while considering social and economic factors such as:
   A. Authorization and design of land uses and activities such as new or expanded rights-of-way, roads, special-use permits, and any ground-disturbing activities would consider the following factors:
      i. Quality and importance of affected old-growth woodland values.
      ii. Relative importance of the proposed use or activity.
      iii. A full range of site location or route options, including non-BLM-administered land.
      iv. Considering the above factors, incorporate reasonable mitigation measures and special requirements into land use authorizations to protect or enhance old-growth woodland values.
2. Treatments would be designed to both maintain the health and longevity of the old trees, snags and down logs and to increase the amount and diversity of understory shrubs, grasses, and forbs.
3. Prescriptions would allow for, or mimic, natural disturbances wherever practicable.
4. Prescriptions would maintain an uneven-age structure (consistent with natural old-growth woodland succession and structural development).
5. Field surveys and historical accounts would help estimate pre-settlement structure/composition of plant communities. This information would be used to develop restoration prescriptions and treatment priorities that would move plant communities back toward historic range and conditions, where practicable. Old woodland structural and composition components would include large old trees, multiple age classes, dead standing trees, dead down trees, shrub, grass, and forb densities and proportions similar to historic levels and distribution.

Treatment Priorities

6. Selected old-growth stands with high ecological values would receive high priority for treatment. These areas would achieve relatively rapid response for a given level of rehabilitation effort/expense. Specific areas and boundaries of old-growth woodland priority treatment areas are subject to change based on updated inventory information.
7. Sites with substantial erosion or weed infestations would receive consideration for treatment. These sites would be evaluated for relative ecological values and potential for response given reasonable rehabilitation efforts/expense.
8. Other priority areas would be sites that have high densities of young juniper establishing in the interspace between the older trees.
9. In addition, treatment priorities would include selected areas where evidence indicates old-growth woodland/savanna existed during pre-European settlement times and where there is potential to re-establish old-growth characteristics in the future. These areas may include old homesteads cleared for farming, crested wheatgrass seedings, firewood harvest areas, or other juniper site conversion project areas.
10. An emphasis would be placed on managing special status species habitats.

Lodgepole and Ponderosa Pine Forests

Objective V – 1c: Maintain, promote, and restore the health and integrity of old forest structure and conditions. Reduce potential for physical and biological threats to late seral and old growth forests, including uncharacteristic or severe natural disturbances.

Develop and maintain stand structures that are relatively complex with variable tree, snag and down log densities, and healthy and diverse understory composition.

Rationale:
Due to past logging practices, human developments, livestock grazing, and wildland fire exclusion, old ponderosa pine forest structure within the planning area has been degraded, both in extent and condition, from historical to current periods. Similarly, in the lodgepole pine, the mountain pine beetle epidemic and subsequent aggressive salvage logging has greatly reduced the proportion of mature lodgepole pine habitat. Mature forest structure supports a variety of wildlife and understory plant species that depend on old forest conditions for all or portions of their life cycle. Old forest also contributes to foreground scenic quality and provides opportunities for education and research.

Allocations/Allowable Uses:
1. Maintain existing mature and old structure ponderosa pine stands using thinning, harvesting, prescribed fire, and other techniques.

Guidelines:
1. Match stand structure, condition, composition, density, snag and down log levels, fuel loading and arrangement, and litter and duff depth to the desired fire regime. In some key areas, individual remnant old trees would be targeted for maintenance.
2. Approximately ninety percent (12,800 acres) of remaining mature lodgepole pine stands in the La Pine area would be maintained in mature/old structure during the life of this plan.

Objective V – 1d: Maintain and promote healthy and diverse lodgepole and ponderosa pine forest ecosystems.[4] Manage stand structure, density, species composition, patch size, pattern, and distribution to provide an environment in which fire intensity can be managed for human safety and fire effects are compatible with other management objective. Maintain or mimic natural disturbance regimes so that stands are resilient to periodic outbreaks of insects, disease and wildland fire. Manage ponderosa pine to maintain a dominant status throughout its range. Provide for a balance of biological, social and economic needs in an urban/wildland setting.

Rationale:
The Federal Land Policy and Management Act of October 21, 1976 (43 USC 1701) declares that it is the policy of the United States that the public land be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use. Many plant communities throughout the interior west are in a condition, structure and composition that deviate from their "natural" state that existed prior to European settlement. Human management activities and other influences have contributed to the current imbalance in ecosystems. Restoring conditions that approximate historic conditions would help prevent large-scale occurrences of insect, disease, and wildland fire and the resulting undesirable ecological, social, and economic effects of these large-scale disturbances. Restoration of landscape succession/disturbance regimes is the foundation of the strategy to manage long-term risk to terrestrial, aquatic, and riparian ecosystems. This risk management strategy would conserve scarce habitats in the short-term while expanding these habitats through restoration in the long-term.

[4]The term "forest ecosystem" in the context of this PRMP encompasses all physical and biological components of the landscape. The tree component in the forests located within the planning area is dominated by lodgepole pine or ponderosa pine. Management of the small amounts of shrub-dominated openings and riparian and wetland vegetative types would also be considered within management guidelines for lodgepole and ponderosa pine forest types.

Ponderosa pine is important from an ecological perspective because of its relative scarcity in the planning area and its inherent resiliency to disease and fire.

Guidelines:

1. Treatments would be designed to transition to more stable self-sustaining ecosystems to prevent large-scale occurrences of insects, disease and fire. Promote stand structures and landscape patterns that would limit the risk and reduce extent of damage caused by large-scale natural disturbance processes.
2. Treatments would be designed to promote Ponderosa pine dominance and structure within its historic range. Lodgepole pine and juniper would be aggressively thinned where it is encroaching into and competing with ponderosa pine stands. Most old-growth juniper found in these mixed stands would be left for diversity.
3. Treatment units and habitat patch size would generally be based on larger-scale treatments to mimic natural disturbance processes and to restore healthy ecosystems. In lodgepole pine sites, thinning would be more intensive with wider spacing, more acres treated, and/or more frequent treatment entries.
4. Isolated groups and individual ponderosa pine trees, particularly in the La Pine and Cline Buttes areas, would be targeted for protection and enhancement to maintain biodiversity and aesthetic values associated with these trees. Large isolated pine trees are particularly valuable as nesting, perching, and roosting habitat for raptors. Treatments would include radius thinning for up to 30 feet around each tree to reduce competition from lodgepole pine and western juniper.
5. Thinning treatments in sapling to pole sized stands would leave 109-134 trees per acre.

Objective V – 1e: Maintain existing late and old structure ponderosa pine and promote its restoration throughout its historic range within the planning area.

Rationale:

Many plant communities throughout the interior west are in a condition, structure and composition that deviate from their "natural" state that existed prior to European settlement. Human management activities and other influences have contributed to the current imbalance in ecosystems. Restoring conditions that approximate historic conditions would help prevent large-scale occurrences of insect, disease, and wildland fire and the resulting undesirable ecological, social, and economic effects of these large-scale disturbances.

Guidelines:

1. Treatments within ponderosa pine forests would promote long-term sustainability of representative stands of early, mid, and late seral ponderosa pine within its historic range and reduce future risk of occurrence and extent of damage caused by insects, disease, and stand-replacement wildland fires, and meet wildlife habitat management objectives.
2. Maintain and restore old and mature ponderosa pine forest structure and expand its range toward historic levels, including areas affected by past logging and species transition, to re-establish ponderosa pine dominance and mature structure over time.
3. Field surveys and historical accounts would help estimate pre-settlement range, structure, and composition of old and mature forest stands. Old and mature forest structure components include size, age, and density of trees, down logs, canopy structure, and understory composition.

Treatment Priorities

4. Priority treatment areas are those sites that are at high risk of uncharacteristically severe disturbance events and have a relatively high potential for response to treatments to alleviate those risks. Treatments would work toward restoring deficient habitats to approximate historic landscape patterns and proportions on a relatively large scale.

Riparian and Aquatic

<u>Objective V – 1f:</u> Maintain, conserve (protect), and restore aquatic and riparian dependent resources, including riparian vegetation and habitat diversity, to achieve healthy and productive riparian areas and wetlands. Riparian habitats support populations of well-distributed native and desired nonnative plant, vertebrate, and invertebrate populations similar to historic conditions.

<u>Rationale:</u>
The intent of this objective is to ensure that adequate amounts of functioning riparian and wetland vegetation are sustained or increased in the long term. Adequate amounts of healthy riparian and wetland vegetation are critical to fully functioning aquatic, riparian, and wetland systems, which are necessary for riparian and wetland-dependent species. ICBEMP science identifies past alterations to vegetation on BLM-administered lands that have resulted in riparian habitat conditions that are less than optimal for aquatic and riparian–dependent species. Riparian ecosystem function, as determined by the amount and type of vegetation cover, has decreased since historic times. Therefore, restoration of riparian habitat of sufficient quality, patch size, and distribution is necessary to support healthy populations of native fish and riparian-dependent species.

Riparian Conservation Areas (RCAs) are intended to: maintain and restore riparian structures and functions; benefit fish and riparian-dependent resources; enhance conservation of organisms that depend on the transition zone between upslope and the stream; and improve connectivity of travel and dispersal corridors for terrestrial animals and plants, and aquatic organisms.

FLPMA directs and requires BLM to comply with State water quality standards and manage public land in a manner that will preserve and protect certain land in its natural condition. In addition to FLPMA, Executive Orders 11988 and 11990, and the Oregon-Washington Riparian Plan (1987) direct BLM to manage its riparian/wetland areas for biological diversity, and the productivity, and sustainability for the benefit of the Nation and its economy.

BLM policies relating to riparian/wetland areas include the following:
1. Focus management on entire watersheds using an ecosystem approach and involving interested landowners and affected parties;
2. Achieve riparian/wetland area improvement and maintenance objectives through the management of existing and future uses;
3. Prescribe riparian/wetland management based on site-specific physical, biological, and chemical condition and potential; and
4. Use interdisciplinary teams to inventory, monitor, and evaluate management of riparian/wetland areas and to revise management where objectives are not being met.

<u>Allocations/Allowable Uses:</u>
1. Within designated Riparian Conservation Areas, authorized activities would consider the degree to which that activity would:
   A. maintain and restore riparian structures and functions;
   B. benefit fish and riparian-dependent resources;
   C. enhance conservation of organisms that depend on the transition zone between upslope and stream, and
   D. improve the connectivity of travel and dispersal corridors for terrestrial animals and plants and aquatic organisms.
2. Activities within Riparian Conservation Areas would be adjusted or excluded from the area if the activity does not support maintenance or measurable progress toward achieving Properly Functioning Condition streams within the watershed, or attainment of water quality standards.

Guidelines:

Riparian Conservation Areas

1. Management options would focus on uses and activities that allow for the protection, maintenance, and restoration of RCA's and upland watersheds and measurable progress toward the attainment of water quality standards and PFC, within the stream and/or RCA's. Interim RCA widths would be applied for planning purposes where activities would not adversely affect riparian processes and functions.
2. Interim RCAs consist of the stream channel and the area on either side of the stream extending from the edges of the active channel to the extent of the flood prone width (Rosgen 1996). Where proposed activities may adversely affect riparian processes and functions, more site-specific RCAs would be developed based on second tier criteria. Second tier criteria to be considered in applying more site-specific RCA delineation include identifying the dominant physical and biological features that influence the riparian network, and addressing important biophysical functions and processes.
3. Possible activities that may require second tier delineation of RCAs include, but are not limited to, juniper retention (where more trees are proposed to be left within the RCA that historic conditions indicate), livestock grazing, roads, trails, new ROWs, and rockhounding. Activities that promote watershed function such as the removal of excessive juniper would generally not require 2nd tier.
4. Areas not in PFC would be managed to attain an upward trend in the composition and structure of key riparian/wetland vegetation and desired physical characteristics of the stream channel. Managed uses and activities in RCAs may not affect progress toward attainment of State water quality standards, PFC, and RMOs (Riparian Management Objective). Uses and activities in these riparian/wetland areas would be adjusted or excluded from the RCA if current management would not allow for the maintenance or measurable progress toward the attainment of PFC. Exclusion would be in the form of buffered exclusion areas or the use of temporary and/or permanent fencing. Management options for uses and activities would allow for measurable progress toward the attainment of water quality, PFC, and RMOs within RCA's at a positive annual rate.

Maintenance/Restoration

5. Restoration would emphasize diversity in plant species and structure, such as shrubs and large trees, which occurred in the area historically.
6. Restore the extent and diversity of wet and moist meadow and riparian plant communities using techniques such as burning, cutting encroaching conifers, planting native hardwoods, grazing management, fencing, and managing uplands for improved hydrologic function.
7. Promote late successional riparian vegetation in amounts and distribution similar to historic conditions.
8. Promote complex in stream structure formed from woody debris, aquatic plants, roots, undercut banks, or boulders that serve as cover for all life cycle stages.

Objective V – 1g: Secure exiting habitats that support the strongest populations of wide-ranging aquatic species. Securing can mean either reducing threats within the sub watershed or reducing threats in adjacent sub watersheds that would prevent achievement of sub watershed objectives.

Rationale:

Sub watersheds identified on DEIS Map S-14 represent areas that support the strongest fish populations and highest native diversity and integrity (Aquatic Strongholds). These sub watersheds serve as the foundation of a conservation strategy and a starting point for a restoration strategy. Securing these sub watersheds from internal or adjacent threats to watershed function and structure would enhance the short-term persistence of aquatic species and diversity. This action is necessary to ensure a source of individuals to colonize available habitats following natural recovery or restoration.

Guidelines:

1. Validate and, as necessary, refine the sub watershed locations using existing finer scale information.
2. Design aquatic/riparian restoration actions to influence temporal (through time) and spatial (placement on the ground) diversity of productive aquatic habitat and key aspects of structure and function, such as channel morphology and hydrologic and sediment regimes; riparian vegetation condition and complexity; aquatic habitat complexity; and channel structure (wood and bank stability).
3. Focus aquatic/riparian restoration where minimal investment can improve or secure the largest amount of productive habitat and diverse riparian-dependent species communities.
4. Integrate prioritization and restoration of aquatic strongholds with other sub basin efforts including but not limited to the settlement agreement for the re-licensing of the Pelton-Round Butte hydroelectric dam; sub-basin assessments drafted for the Northwest Power Planning Commission; in stream flow studies currently being conducted in the Middle Deschutes and recently completed in the Lower Crooked River, in stream flow restoration efforts; Water Quality Restoration Plans; and non-profit organizational efforts to conserve lands within the salmon restoration area.

Special Status Plants

Objective V – 2: Special status plant species are managed such that BLM actions do not contribute to the need to federally list as threatened or endangered.

Rationale:
The BLM has legal responsibilities and policy requirements to protect and provide habitat for threatened, endangered and proposed species. The Endangered Species Act of 1973 declares that: "The United States has pledged itself...to conserve to the extent practicable the various species of fish, wildlife, and plants facing extinction...Meeting these responsibilities requires protection and maintenance of high quality habitat and restoration of degraded habitats necessary for the recovery of these species. These areas include both occupied habitat and designated critical habitat for federally listed threatened, endangered or proposed species within the planning area."

Guidelines:

1. Management would include a combination of protection, restoration and enhancement depending on individual species, population condition and dynamics, and larger scale treatment opportunities.
2. Where practicable, vegetative treatments would incorporate active habitat improvement for the conservation of special status plant species. Experience and research findings would help dictate appropriate vegetative treatments to improve habitat for the specific special status species within the planning area.
3. Prior to implementing any projects that could potentially affect special status plant species, surveys would be conducted and documented, including any site-specific management recommendations.

Traditional Cultural Plants

Objective V - 3: Through consultation and coordination with local tribal governments, identify plants of traditional cultural significance to contemporary Indian communities and the important places those plants occur. In collaboration with Tribal Officials, develop strategies to manage those cultural plant use areas in a proactive manner.

Rationale:
FLPMA obligates the BLM to coordinate all aspects of planning with Indian tribes to ensure consistency between BLM and tribal land use plans. NEPA requires the BLM

to consult with Indian tribes to identify potential conflicts and develop alternatives that would resolve those conflicts. The NHPA requires the BLM to consult with Indian tribes that attach cultural significance to traditional properties that may be eligible to the National Register of Historic Places. Executive Order 13175 was issued, in part, to "establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications".

Guidelines:

1. Continue to consult with Tribal Officials to identify specific areas that may possess traditional cultural plants.
2. To the maximum extent allowable by law and the principles of a multiple use policy, protect cultural plants during BLM authorized, funded, or approved activities at specific locations identified by the Tribes.
3. Inform Tribal Natural Resources Departments about areas observed by BLM field staff that may possess quantities of cultural plants that could be harvested in a sustainable manner.
4. BLM would coordinate Tribal/BLM visits to locations where cultural plants have been observed by BLM field staff.
5. The Tribes would coordinate Tribal/BLM visits to areas identified as locations of important traditional plant use to tribal communities.
6. On an annual schedule and where feasible, pursue opportunities for the Tribes and BLM to exchange information in the form of maps, GPS readings, and approximate numbers of plants discovered in specific locations.
7. Pursue opportunities with Tribal Officials and staff to develop and collaborate on efforts to improve access to, and enhance the condition and quantity of, cultural plants at specific locations.
8. Assure that sensitive information about the locations of cultural plants is kept confidential to the maximum extent allowable by law.

Ecosystem Assessment

Objective V - 4: Obtain and efficiently display information to help in analyses at all levels ranging from broad-scale assessments to site-specific projects.

Rationale:

Gathering of resource condition information is critical in order to assess restoration needs, prescriptions, cost-benefit, priorities, and treatment success.

Specifically, existing and potential natural vegetation classification and map information is needed to:

1. Describe the diversity of vegetation occupying a site
2. Characterize the effect of disturbances or management on species (particularly TES) and community distributions.
3. Identify desired objectives and related management opportunities.
4. Document successional relationships and communities within potential natural vegetative or ecological types.
5. Streamline monitoring design and facilitate extrapolation of monitoring interpretations.
6. Assess resource conditions, determine capability and suitability, and evaluate forest and rangeland health.
7. Assess risks for invasive species and fire.
8. Conduct project planning and watershed analysis, and predict activity outcomes at the project or RMP planning scales.
9. More effectively communicate with our neighbors and partners.

Guidelines:

1. Integrate assessments at all scales with complimentary or associated efforts by other entities such as watershed councils and non-profit organizations.
2. Project proposals would consider an assessment of resource conditions, and ecosystem health risks and opportunities at appropriate scales. Current and historic conditions and trends would be a consideration when appropriate in project proposals and treatment prescriptions.
3. Geographically prioritize condition assessments according to the objectives of the Resource Management Plan and proposed treatment priorities.
4. Assessments would be conducted using the most current and relevant guidance such as that in the "Standards for Rangeland Health and Guidelines for Grazing Management" (BLM, 1997), President Bush's "Healthy Forest Initiative" (2003), the National Fire Plan (2002), and Governor Kitzhaber's "An 11-Point Strategy for Restoring Eastern Oregon Forests, Watersheds and Communities" (1997).
5. Existing vegetative mapping and database programs such as the Forest Operations Inventory (FOI), Soil and Vegetation Inventory Method (SVIM), and Ecological Site Inventory (ESI), and others would be updated and utilized to their maximum potential until they become outdated or replaced with more accurate mapping and inventory efforts.
6. Standards and procedures for collecting, storing, and displaying information should be compatible with those of the Forest Service and other agencies whenever practicable to facilitate cross-jurisdictional watershed and other landscape-level analysis.
7. Stored information can take many forms including, field surveys and inventories, photo points, aerial photography, remote sensing, scientific research, and empirical data from other landowner/agency experience. For preservation and retrieval efficiency, Geographic Information Systems and other computerized database programs are the preferred methods for storing and displaying information.
8. Potential project areas would be evaluated for expected rehabilitation success given a reasonable level of treatment effort and investment. Areas that are so damaged or altered as to have transitioned beyond the threshold of restoration success may be deferred in favor of areas that have greater opportunity for success.

Stewardship Units/Contracts

Objective V – 5: Promote involvement of local stakeholders, and small businesses to accomplish resource management objectives.

Guidelines:

1. Consider the use of "stewardship units" wherever practicable to directly involve local citizen groups, individual volunteers, adjacent homeowners, nearby residents, and small contractors to help accomplish natural resource protection and enhancement work. A stewardship unit is a small parcel of public land where workers/volunteers have obtained BLM approval to do low-impact treatments such as small diameter tree thinning, pruning, brush cutting, hand piling, lop and scatter, and other treatments to help accomplish ecosystem restoration and fuels reduction objectives within or adjacent to communities. Workers would also be able to obtain permits to remove firewood, posts, poles and other products resulting from treatments.
2. Identify project areas and units, which are operationally suitable, for small contractors and non-industrial workers. Provide adequate instruction and guidance to workers/volunteers on operational procedures, techniques, and safety to achieve desired objectives. Issue written authorization with appropriate requirements and map or some other designation of areas.
3. Consider the more formal Stewardship Contracts to efficiently achieve a wide variety of resource management projects over a multiple year time frame.

Wildlife

<u>Objective W – 1:</u> Conserve federally listed species and the ecosystems on which they depend (Manual 6840, p. 0.1). Ensure that actions requiring authorization or approval by the BLM are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species under provisions of the ESA, or designate additional sensitive species under provisions of BLM Manual 6840-Special Status Species Management 6840, p. 0.2).

<u>Rationale:</u>
The Agency is directed to contribute to the recovery of federally listed or proposed species (or subspecies or populations) across their ranges by maintaining and restoring habitat quality, quantity and effectiveness.

Meeting these responsibilities requires maintenance of suitable habitat and restoration of degraded habitats necessary for the recovery of these species. There is new information that has been provided as a result of the Interior Columbia Basin Ecosystem Management Project (ICBEMP), in a document titled Scientific Assessment (Quigley and Arbelbide, 1997). New information from this source and others includes:

1. Recent Biological Opinions issued under the Endangered Species Act indicating additional guidance is needed to protect some plants and animals in portions of the planning area;
2. Downward trends in ecological integrity, based on the condition of soil and vegetation, and perceived impacts from land uses including recreation, grazing, agriculture and urban or rural development;
3. An increase in fragmentation and loss of plant and animal species diversity or genetic resilience due to loss of connectivity within and between blocks of upland forest, shrub-steppe and riparian habitats;
4. Noxious weed encroachment and the expansion of juniper and other woody species beyond their historic range of variability;
5. New requirements for plant and animal species habitat;
6. The importance of late and old seral species, historic disturbance factors such as fire on the landscape, and sustainable use and development on public lands;
7. Identification of high priority areas and special emphasis watersheds for restoration activities within the Upper Deschutes basin.

<u>Allocations/Allowable Uses:</u>
General

1. Vegetation altering activities could occur in sage grouse habitat where it does not result in the long-term loss of habitats or contribute to the need to list.

Bald Eagle

2. Include current and future potential habitat into an overall Bald Eagle Habitat conservation strategy where current populations occur near Prineville Reservoir and Grizzly Mountain.
3. Management techniques, including but not limited to altering or removing trees and shrubs, prescribed and managed wildland fire, livestock grazing, and planting may be used to maintain or improve habitat conditions.

Sage Grouse

4. Sage grouse management activities would be designed and implemented to be consistent with adopted conservation strategies and current, accepted science[5]

[5]For example, where appropriate, actions would be consistent with the Greater Sage-Grouse and Sagebrush- Steppe Ecosystems Management Guidelines as directed in IB No. OR-2000-334. This management strategy is to be implemented in concert with the process established in BLM's "Standards for Rangeland Health and Guidelines for Livestock Management for Public Lands in Oregon and Washington" and other applicable laws, regulations, and policies.

Guidelines:

General

1. Reduce competition to roost and nest trees
2. Enhance conditions for future large perch/nest trees
3. As new habitat areas or future potential habitat[6] areas become known, consider including them into the designated Bald Eagle Habitat Areas and managing them with an emphasis on Bald eagles.
4. Action would be taken, when practical, to determine the distribution, abundance, reason for current status, and management needs of special status species occurring on BLM-administered lands, and would evaluate needed management for the conservation of these species. The District would also document observations of, and minimize impacts to Bureau assessment and Bureau tracking species.
5. Assess habitat potential of RedmondCaves and identify which caves (if any) contain potentially suitable habitat for bats (especially, Townsend's Big-Eared Bat). Identify one cave that has high potential for occupation/reoccupation by bats and consider emphasizing habitat restoration/ interpretation for that cave/lava tube.

Habitat Modification and Disturbance

6. Balance the need for restorative actions to address long-term threats to listed and proposed species with the short-term need to protect listed and proposed species and their habitats.
7. Management activities in the habitat of listed, candidate threatened, or endangered and sensitive species would maintain or improve habitat conditions and/or not prevent or retard attainment of future desirable habitat conditions.
8. Develop an interdisciplinary interim species response matrix that includes documented (from literature searches) responses of the species to management activities or natural phenomena. This information would be used to determine management activities for which mitigation measures should be recommended or are needed.
9. Identify needs to protect special status species and their habitats when authorizing activities by conducting an appropriate assessment of the wildlife resources depending upon the level of anticipated impacts. Include consideration of:
    A. the Wildlife Observations Database and conduct field surveys during appropriate seasons to identify existing habitat conditions and species occurrences and habitat associations.
    B. impacts and develop mitigation measures to be applied to project implementation requirements.
    C. opportunities for habitat enhancement as part of project design
    D. contract stipulations to allow work to be stopped if special status species are discovered to be present in or adjacent to a project area.
    E. adjustment of clearance and mitigation activities to accommodate additions or deletions in official listings of special status species.
10. Evaluate effects of Bureau actions on federally listed, proposed, candidate, state listed, Bureau sensitive or assessment species in accordance with management direction. Impacts to these species would be evaluated through the NEPA process (Instruction Memorandum No. OR-91-57).
11. Seek opportunities to conserve and improve special status species and habitats for native animals and wildlife in BLM authorized activities.
12. Disturbance activities could occur in sage grouse habitat where they do not disrupt breeding and over-wintering activities or compromise habitat suitability.

[6] "Future potential habitats" are areas that either historically were or naturally have the potential to develop into bald eagle habitat. These areas would typically consist of ponderosa pine stands or individual trees, cliffs or rock outcrops that could be restored or grow to provide nesting, perching or roosting habitats.

13. Design and implement relevant management activities to be consistent with BLM adopted recovery plans, conservation strategies, and other appropriate reports.

Objective W - 2: Maintain or improve habitats to support healthy, productive and diverse populations and communities of native plants and animals (including species of local importance) appropriate to soil, climate and landform. Where consistent with habitat capabilities, meet ODFW management objective numbers for deer, elk, and pronghorn.

Rationale:
As noted by Johnson and O'Neil (2001), the conservation of wildlife and of biological diversity at large has taken various approaches in the U.S. Sometimes the focus is on the provisions of life requisites for a single species, sometimes for a suite of species (i.e.: guild or biological community such as cavity-dependent or wetland and riparian dependent species), and sometimes the focus is on ecosystems (i.e.: integrated systems of land, water, and biota in contiguous areas such as watersheds, landscapes, or regions).

In this plan, management considerations are directed at some individual species such as sage grouse, deer, elk, and pronghorn by designating wildlife management emphasis levels described here; at groups of species represented by the emphasis on management of source habitats such as shrub-steppe, juniper woodlands, or riparian in the vegetation section; and on ecosystem function represented by the emphasis on restoration of the historic structure and extent of vegetation conditions and hydrologic function in high priority watersheds.

For individual and groups of species, habitat factors that most influence wildlife use in an area include habitat patch size, quality, connection to habitats that provide for all life requisites, and disturbance – most often from human activities and most prominently from open motorized travel routes. Objectives and guidelines focus on providing effective wildlife habitat at various emphasis levels based on those factors. Habitat effectiveness is one model that provides guidance for evaluating the influences of disturbances caused by open motorized travel route.

Allocations/Allowable Uses:
1. Designate areas for primary, secondary, or general wildlife management emphases in winter range, breeding and rearing habitats, connectivity areas, and source habitats.

Objective W – 2a – Primary Wildlife Emphasis: Provide habitat that benefits wildlife and retains high wildlife use. Wildlife habitat is a primary management consideration in these areas.

Guidelines:
1. habitat effectiveness should advance toward 70 percent or greater.
2. where possible, maintain large un-fragmented patches (1000 to 2,000 acres).
3. where possible, manage for low densities of open motorized travel routes (approximately<1.5 mi/mi^2).
4. rate as a high priority for habitat restoration treatments,
5. group use restrictions may be applied in some areas or during some seasons.
6. seasonal closures

Objective W2b – Secondary Wildlife Emphasis: Provide habitats that support wildlife and maintain a moderate level of wildlife use. Wildlife habitats may receive a secondary management emphasis in these areas.

Guidelines:
1. habitat effectiveness[7] should advance toward 50 percent or greater,
2. maintain moderate size un-fragmented habitat patches(400 to 800 acres),
3. target low to moderate densities of open motorized travel routes (approximately $\leq$2.5 mi/mi^2)

Objective W-2c – General Wildlife Emphasis: Provide habitat that contributes to species occurrence and distribution. Wildlife habitats typically are not the focus of management in these areas.

Allocations/Allowable Uses:
1. The occurrence of important habitat areas (i.e., nest sites of special status species or connectivity corridors of species of local importance) could receive a focused management effort to maintain or improve the condition of the habitat.

Objective W-2d – Jurisdictional Limitations: Provide habitat conditions that move toward primary or secondary wildlife management emphasis to the extent practicable within jurisdictional limitations.

Rationale:
Northwest, Tumalo, La Pine (Northern Area and Southern Area), Prineville Reservoir (Chimney Rock, Eagle Rock, West Eagle Rock, Taylor Butte and Reservoir North) and Prineville Geographic Areas are examples of geographic areas where guidelines for primary or secondary emphasis may not be achievable because of conditions (such as fragmented land ownership or occurrence of county/state roadways) outside of BLM jurisdiction. In those or other areas with similar conditions the guidance is to manage toward those objectives.

Guidelines:
1. During the development of management facilities (mineral sites, access roads, etc.) or infrastructure (trails) emphasize maintenance of relatively large un-fragmented habitat patches. The term "relatively large un-fragmented habitat patches" means the size of the patch is related to the size of the BLM parcel(s) in the area and the goal is to minimize the amount of human disturbance of wildlife and human influence on the physical condition of the habitat.
2. Non-motorized trail development would be done in a manner that leaves some un-fragmented areas across the geographic area.
3. Motorized travel routes would be kept to a minimum. Roads and driveways that access private land and are not needed for general public access may be gaited to limit use only to land owners. Consider building roads and driveways to the minimum standard necessary that allows reasonable access and has the least impact on wildlife resources possible.

Geographic Areas

Specific allocations, allowable uses and guidelines for each geographic area are described below.

Allocations/Allowable Uses:
1. Designate areas for primary, secondary, or general wildlife management emphases in winter range, breeding and rearing habitats, connectivity areas, and source habitats.

[7] Habitat effectiveness is used as an index to measure the percentage of available habitat that is usable by elk and is used as a guideline for some alternatives. The Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges developed by Thomas et. al. (1988) will be used with modifications developed from findings in Roloff et. al. (2001) and Rowland et. al. (2000) to assess impacts caused by motorized travel. Note that because of fragmented ownership and differing road jurisdictions, this guideline may not be achievable in some geographic areas.

Badlands WSA

Allocations/Allowable Uses:
1. Primary emphasis would be for deer and elk winter range, pronghorn year-round and connectivity habitats.
2. Closed to motorized use.

Guidelines:
1. Avoid actions that create barriers to pronghorn movements in connectivity corridors. Emphasize shrub-steppe and open savanna habitat restoration.

Bend/Redmond

Allocations/Allowable Uses:
1. General wildlife emphasis for pronghorn year-round habitat; limit motorized travel to designated roads and trails (except for OMD permitted activities); and secondary wildlife emphasis for the potential pronghorn connectivity corridor located along Highway 126.
2. Consider managing the potential pronghorn connectivity corridor along Highway 126 to maintain a low to moderate level of motorized travel routes.

Cline Buttes Recreation Area

Allocations/Allowable Uses:
1. Main Block: General wildlife emphasis; limit motorized travel to designated roads and trails.
2. Southwest: Secondary emphasis for deer, elk and raptor habitat; limit motorized travel to designated roads.
3. Southeast: General wildlife emphasis; limit motorized use to designated roads and trails. Dry Canyon: Secondary wildlife emphasis; emphasis for non-motorized use.
4. Maston allotment: Primary emphasis for elk, raptors and riparian habitat; Closed to motorized use.

Horse Ridge

Allocations/Allowable Uses:
1. Skeleton Fire: Primary emphasis for deer and elk winter range, sage grouse habitat and year-round habitat for pronghorn. Limit motorized travel to designated roads.
2. Main Block: Primary emphasis for deer and elk winter range, pronghorn year round habitat, and sage grouse habitats. Limit motorized travel to designated roads.
3. Horse Ridge: Closed to motorized vehicles.

Guidelines:
General management guidelines would include:
1. Trail dependant non-motorized special recreation events (trail rides, races, etc.) would be allowed on designated roads and trails. Motorized events would not be allowed.
2. A maximum of 2 events (motorized or non-motorized) could be held per month, with events up to 2 days long allowed. Each permitted event would be separated by at least 12 days with no scheduled events.

La Pine Recreation Area

Allocations/Allowable Uses:
1. Northern portion: Primary emphasis for elk winter range, deer migration corridor, ponderosa pine and riparian source habitats. Limit motorized travel to designated roads.

2. Isolated parcels along the Little Deschutes River: Primary emphasis for riparian habitats, deer migration, elk winter range and raptor nesting and foraging habitats; closed to motorized vehicles.
3. Southern area: Primary emphasis for deer migration corridor, ponderosa pine and riparian source habitats.
4. Expanded Rosland Play area: General emphasis; limit motorized use to designated roads and trails.

Mayfield Recreation Area

Allocations/Allowable Uses:

1. Main: Secondary emphasis for year-round pronghorn habitat and connectivity corridors; limit motorized use to designated roads.
2. South Alfalfa: Primary emphasis for deer and pronghorn year-round and connectivity habitats; Closed to motor vehicles.

Guidelines:

North of Alfalfa-Market Road:

1. Avoid actions in pronghorn connectivity corridors that create barriers to pronghorn movements and relocate the existing access road to Mayfield Pond away from the pond to improve habitat condition and decrease disturbance to wildlife.

South of Alfalfa-Market Road and west of Dodds Road:

2. Avoid actions in pronghorn connectivity corridors that create barriers to pronghorn movements.

Millican Off Highway Vehicle Area

Millican Plateau

Allocations/Allowable Uses:

1. Main: General wildlife emphasis except the Mayfield link[8] which has a secondary wildlife emphasis for pronghorn connectivity. In the pronghorn winter range, military exercises would not occur seasonally from Dec. 1 to April 30th.
2. Wild and Scenic River Corridor: Primary emphasis for deer and pronghorn winter range, and riparian and raptor nesting and foraging habitats. The area would be limited to designated roads between Highway 27 and the river; closed between Highway 27 and the canyon rim and the river and canyon rim.
3. West Butte: Primary emphasis for elk and sage grouse winter range and breeding habitat; Closed to motorized use.
4. Northern Peninsula: Primary for pronghorn winter range; Closed to motorized use.
5. Crooked River Rim: Primary wildlife emphasis for deer and pronghorn winter range, and raptor nesting and foraging habitats; Closed to motorized travel except for a single OHV loop to provide a scenic view; this loop would stay out of the WSR boundary.
6. South: General wildlife emphasis; limit motorized use to designated roads and trails.
7. Mayfield Link[9]: Secondary for pronghorn connectivity routes; limit motorized use to designated roads only.
8. Uses may be limited in the North Millican and Millican Plateau areas during periods of severe winter conditions based on ODFW requests.

[8]The Mayfield link is on the west side of the block north of Alfalfa.
[9]These general guidelines are only examples of typical restrictions. Specific dates and distances may vary depending on the type of action proposed and the local breeding chronology of species or the local weather patterns.

Guidelines:

1. Winter closures of this area may be implemented during especially severe winter conditions upon request by ODFW. Such requests would be evaluated on a case-by-case basis.

North Millican

Allocations/Allowable Uses:

1. Dry River Canyon: Primary emphasis for deer, elk and sage grouse; limit motorized use to designated roads only.

2. Main (East and West): Primary emphasis for deer and elk winter range, sage grouse habitats and pronghorn year-round and connectivity habitats:
   A. Limit motorized travel to designated roads and trails

Guidelines:

1. Manage for habitat effectiveness (HE) of 50-60 percent for road influences and have concurrent (integrated) vegetation management goals to improve poor quality habitat conditions and maintain existing good quality habitat conditions.
2. Manage for un-fragmented habitat patch sizes along a wide range in sizes, with some occurring around 1,000 acres, some smaller sizes in less effective habitats and some considerably larger in key habitat areas,
3. Avoid locating motorized trails within 2-4 miles of any active leks or within high value wintering habitat for deer and elk.
4. Seasonally close road/trail system to OHV and bicycle use within areas or along portions of the trail system, and
5. Concentrate year round open trail areas in/near areas of lower value habitats.
6. Winter closures of this area may be implemented during especially severe winter conditions upon request by ODFW. Such requests would be evaluated on a case-by-case basis.

South Millican

Allocations/Allowable Uses:

1. Primary emphasis on deer and elk habitat, sage grouse winter and breeding habitats, and year-round pronghorn habitat; limit motorized use to designated roads and trails seasonally from December 1st to July 31st.

Guidelines:

1. Management guidelines for sage grouse include increasing the size of habitat patches by permanently closing some trails and roads and rehabilitating them to natural vegetation.

Northwest Recreation Area

Allocations/Allowable Uses:

1. Primary emphasis for deer and elk winter range and raptor nesting and foraging habitats.
2. Main: Limit motorized travel to designated roads and seasonally close (12/01 to 03/31) all BLM roads in this area (except access roads to non-motorized trailheads or developed sites).
3. Close isolated parcels west of Squaw Creek to motorized travel (except for Sisters Bouldering Area).

Guidelines:

1. Motorized access to trailheads or developed sites would be allowed
2. Seasonally (12/01 to 03/31) maintain open motorized route densities.

Prineville

Allocations/Allowable Uses:

1. Section 32 north of Ochoco Reservoir: Primary emphasis for deer winter range and raptor nesting and foraging habitats. The area would be closed to motorized travel. Other activities may be subject to seasonal restrictions or limitations on types of use depending upon their potential effects to deer and raptor habitat (See Table PRMP-1).
2. Powell Buttes: Primary emphasis on year-round deer habitat. Closed to motorized use.
3. Grizzly/Scattered Northern parcels: Primary emphasis for deer and elk; most Closed to motorized travel, with remaining isolated parcels secondary to deer and elk and limiting motorized travel to designated roads.
4. Combs Flat: Secondary emphasis for deer and pronghorn winter range and year round habitat; limit motorized use to designated roads. A small OHV play area could be located in a portion of this area.
5. Miscellaneous Scattered Parcels: Some primary and some secondary emphasis for deer and year-round pronghorn habitat; limit motorized use to designated roads and close some roads seasonally.

Prineville Reservoir

Allocations/Allowable Uses:

1. Eagle Rock: Primary emphasis for deer and elk winter range and elk connectivity habitat. Limit motorized travel to designated roads and seasonally (12-1 to 4-30) close the area to motorized travel.
2. Lower Crooked River (W&S River): Primary emphasis for deer, riparian and raptor habitats; Closed to motorized use.
3. Chimney Rock: Primary emphasis for deer and raptor habitat; Closed to motorized use.
4. West Eagle Rock: Secondary wildlife emphasis for deer and year-round pronghorn habitat; limit motorized use to designated roads. A small OHV play area could be located in a portion of this area.
5. Main: Primary emphasis for deer and elk winter range, elk connectivity and raptor habitats; In the Sanford Creek area limit motorized travel to designated roads and seasonally closed from December 1st to April 30th. In the Salt Creek area Limit motorized travel to designated roads only.
6. Taylor Butte: Primary for deer and raptors; limit motorized travel to designated roads only.
7. Reservoir North: Primary emphasis for deer, elk connectivity routes and raptor habitat. A small OHV play area could be located in a western portion of this area. Limit motorized travel to designated roads only; roads would be seasonally closed from December 1st to April 30th.

Guidelines:

1. When considering developed motorized use areas (see Recreation), consider as a first priority secondary habitat emphasis areas, and primary habitat emphasis areas only if secondary are found to not be suitable. Avoid the Eagle Rock area as well as the area adjacent to the north portion of Prineville Reservoir.

Smith Rock

Allocations/Allowable Uses:

1. Primary emphasis for deer winter range and raptor nesting and foraging habitats. Closed to motorized travel. Limit mechanized and horse travel to designated routes. See Table PRMP-1 for distance or seasonal restrictions that could be applied to climbing activities.

Steamboat Rock

Allocations/Allowable Uses:

1. Wild and Scenic River, Wilderness Study Area and River Riparian Habitats in the scattered parcels: Primary emphasis for riparian habitats, deer and elk winter range and raptor nesting and foraging habitats; closed to motorized travel.
2. Main Block: General emphasis, limit motorized use to designated roads and trails.
3. River in Main Block: Primary emphasis for deer and elk winter range, raptors and riparian habitat; Closed to motorized use.

Tumalo

Allocations/Allowable Uses:

1. Primary emphasis for deer and elk winter range; closed year round to motorized travel.

Guidelines:

1. Consider limiting activities authorized under permit during the winter if necessary to manage for wintering deer and elk.

Objective W - 3: Protect and restore special habitat components or features that contribute to the productivity of species. These features include, but are not limited to caves, cliffs, playas, riparian areas and wetlands, foraging areas, and snags and down wood. Maintain and/or recruit adequate numbers, species and sizes of snags and levels of downed wood to contribute meaningfully to the needs of wildlife, invertebrates, fungi, bryophytes, saprophytes, lichens, other organisms, long-term soil productivity, nutrient cycling, carbon cycles and other ecosystem processes (See also Vegetation).

Rationale:

As directed under the Federal Land Policy and Management Act of 1976, public lands would be managed in a manner that protects ecological values, maintains their natural condition and provides food and habitat for wildlife. Special habitat components are often limited across the landscape, and thus are more important to those species that depend upon those features for some portion of their lifecycle than more abundant features of the landscape.

Snags and downed logs are important components of forest and woodland ecosystems. They provide essential habitat for wildlife and other organisms, long-term soil productivity and several ecosystem processes. They store carbon and nutrients and provide site improvement following extreme disturbance. Large diameter snags are especially valuable to a wide array of species because they offer greater surface area, more opportunity for cavities, and greater longevity. Hann et al. (1997) found that snag and coarse woody debris levels have declined in roaded and harvested areas. Providing for the appropriate species, numbers and sizes of snags maintains the value of the stand for wildlife.

Allocations/Allowable Uses

1. Provide some suitable special habitat components where they occur across the planning area.

2. Special habitats and features could be maintained or improved using a variety of techniques, such as mowing shrubs, prescribed burning, livestock grazing, vegetation treatments, spatial buffers and seasonal closures.
3. Mineral material mining could be allowed on cliffs or talus slopes not occupied by special status species provided that habitat components are provided in appropriate amounts and arrangements across the landscape to support general species needs.

Guidelines:

1. Consider presence and abundance of wildlife values when evaluating proposed mining reclamation/rehabilitation plans.
2. Whenever practical, avoid special habitat features/components when authorizing activities.
3. Provide reasonable mitigation, by reducing, avoiding, restoring or compensating for important special habitats that are altered by mineral material mining.

Snags and Dead and Down Wood

4. Consider the natural variability in number and size of snags and downed logs across landscapes, through time, and in context of biomass levels under which soils and species evolved.
5. Except where public safety is a concern, forest and woodland management activities would retain an adequate number of snags and large coarse woody debris in treatment areas at levels sufficient to support species of cavity-nesting birds at 100 percent of potential population levels. Except for safety concerns and fire hazards management actions would:
   A. Retain all soft snags
   B. Retain scattered hard snags and large live trees, both to provide the current needs of hard snag dependant species and to serve as a source of future hard and soft snags.
   C. Retain approximately 8 large live trees per acre in regeneration harvest units to provide a legacy, bridging past and future forests. These trees are not to be counted toward future snag recruitment as described above.
   D. Where snag densities are below the established, desired range, initiate management activities to increase snag levels through snag recruitment (ICBEMP Proposed Decision p. 48).
   E. Retain and consider recruiting additional snag numbers and coarse woody debris levels in areas that have been burned.
   F. Trees retained for current and future snags and as "legacy trees" would be chosen from the largest trees available.
6. The potential population levels for snags described above would be determined using one the following three methods:
   A. Use the interim standard densities (described in ICBEMP Supplemental Draft EIS Volume 2/Appendix 12/Page 12-13, Tables 1, 2 and 3) for snags and downed wood to be used in designing field projects, or;
   B. Use the amounts that are described in Wildlife-Habitat Relationships in Oregon and Washington (Johnson and O'Neil, 2001) Chapter 24/Page 596, Tables 1, 2 and 3, or;
   C. Determine site specific natural variability of snag and down log amounts for the planning area. In making these determinations, use the snag analysis and coarse woody debris process described in Appendix 12 of the ICBEMP Supplemental Draft environmental EIS, Volume 2, or use or develop a similar process appropriate for local conditions. If using or developing a new process, it must have a scientific basis, using information from the literature and/or studies on historical conditions to determine snag sizes and average numbers. Retain and consider recruiting additional snag numbers and coarse woody debris levels in areas that have been burned.

Harvest Operations/Vegetation Treatments

7. Dead and down woody material would be retained in amounts that are within the range of natural variability for the plant community, to the extent compatible with

reforestation objectives, fire hazard reduction standards, and public safety/trail use.

8. Coarse woody debris would be left in place across treatment areas rather than piled and burned.
9. Salvage of dead and down material would be conducted where an adequate amount of such material would be retained to provide sufficient habitat to maintain populations of dependant wildlife.

Structural Developments

10. Guzzlers (artificial structures that collect rain water and then regulate the flow to a drinking basin) would be installed only where they facilitate distribution of target wildlife species. Maintenance of existing guzzlers would receive priority funding over the development of new guzzlers, except when managing for special status species.
11. To the maximum extent feasible, new guzzlers would be located away from existing designated trails to avoid the potential for seasonal trail closures or rerouting of trails.
12. In suitable habitats, where important nesting structures are absent, install nesting platforms, nest boxes, and other structures to improve habitat conditions for snag dependant species.
13. New fences would be built to standard Bureau wildlife specifications to allow wildlife passage, with the exception of fences built specifically to keep ungulates out of an area or fences built to meet specific public safety or other administrative purposes. Existing fences not meeting standard Bureau wildlife specification would be modified to meet the standard when major reconstruction is done or as funding allows.

Objective W - 4: Determine the distributions, abundance, reasons for current status, habitat, and management needs of Special Status Species and species of local interest occurring on BLM-administered lands, and evaluate the significance of these lands and BLM actions for the conservation of these species.

Rationale:

Inventory and conservation of habitats for Bureau designated special status species, and other state or federally protected species, is promoted by FLPMA, NEPA, and Bureau policy in BLM manual 6840. This manual also directs the agency to provide habitat for threatened, endangered and proposed species. Meeting these responsibilities requires maintenance of high quality habitat and restoration of degraded habitats necessary for species recovery.

Guidelines:

1. Record observations of and minimize impacts to BLM assessment and tracking species.
2. Prior to initiating ground disturbing projects within potential habitat of candidate, sensitive, tracking and assessment species, review habitat and management relationships for species of focus to assess key wildlife issues concerning these species and identify conservation measures and management opportunities to address these issues.
3. In coordination with other federal and state natural resource management agencies develop a long-term conservation strategy for managing sage grouse habitats. Until that time, use the guidelines from the Greater Sage Grouse and Sagebrush-Steppe Ecosystems Management Guidelines (2000).
4. Consider partnering with ODFW, OMD, USFWS and others in developing a multi-species habitat conservation strategy for the Bend/Redmond, Horse Ridge, Mayfield, Millican Plateau, North Millican and Prineville Reservoir geographic areas. Focal species for this strategy are to include, but not be limited to sage grouse, deer, elk, pronghorn and golden eagles.

Table PRMP - 1: General Guidelines[1] for Seasonal Restriction and Distance Buffers

Species	Habitat	Spatial Buffer	Restriction Dates
Bald Eagle	Nest	¼ mile non-line of sight ½ mi line of sight 1.0 mile blasting	January 1 – August 31
	Winter Roosts	¼ mile	November 1 – April 30
Golden Eagle	Nest	¼ to ½ mile	February 1 – August 31
Northern Goshawk	Nest	¼ mile	March 1 – August 31
Cooper's Hawk	Nest	¼ mile	March 1 – August 31
Sharp-shinned Hawk	Nest	¼ mile	March 1 – August 31
Ferruginous Hawk	Nest	½ mi direct line of sight ¼ mi with visual buffer	March 1 – August 1
R.T. Hawk	Nest	¼ mile	March 1 – August 31
Swainson's Hawk	Nest	¼ - ½ mile	April 1 – August 31
Peregrine Falcon	Nest	1.0 mile	January 1 – August 15
Prairie Falcon	Nest	¼ - ½ mile	March 15 – August 15
Osprey	Nest	¼ mile	March 1 – August 31
Burrowing Owl	Nest	¼ mile	March 1 – August 31
Flammulated owl	Nest	¼ mile	April 1 – September 30
Great Gray Owl	Nest	¼ mile	March 1 – July 31
Sage Grouse	Lekking	0.6 mile	March 1st – May 15 * February 15– May 1
Sage Grouse	Nesting, Brooding and Rearing	NA	April 1 – July 31 *March 15– July 31
Sage Grouse	Winter Habitat	NA	November 15 – March 15 *November 1– March 31
Great Blue Heron	Nest	660 ft – ¼ mile	15 March – 15 July
Mule Deer	Winter Range	Variable	01 December – 30 April *01 November – 01 May
Rocky Mountain Elk	Winter Range	Variable	01 December – 30 April *01December – 01 May
	Calving	N/A	May 15 – Jun 30
Pronghorn	Winter Range	Variable	01 December – 30 April *01 November – 01 April
Townsend's Big-eared Bat	Hibernaculum	N/A	November 1 – April 15
	Nursery	N/A	April 15 – October 31

THESE GENERAL GUIDELINES ARE ONLY EXAMPLES OF TYPICAL RESTRICTIONS. SPECIFIC DATES AND DISTANCES MAY VARY DEPENDING ON THE TYPE OF ACTION PROPOSED AND THE LOCAL BREEDING CHRONOLOGY OF SPECIES OR THE LOCAL WEATHER PATTERNS.
* MILLICAN DATES

[1]These general guidelines are only examples of typical restructions. Specific dates and distances may vary depending on the type of action proposed and the local breeding chronology of species or the local weather patterns.

Hydrology

Watershed/Hydrologic Function

<u>Objective H – 1:</u> Where the capability exists, restore, maintain and improve upland and hydrologic function through the reduction of overland flow, increased infiltration, and improved floodplain function similar to historic levels.

<u>Rationale:</u>
FLPMA directs the BLM to manage the public lands for long-term needs of future generations for renewable and non-renewable resources, including watershed. This includes management of the various resources without permanent impairment of the productivity of the land and the quality of the environment. The Fundamentals of Rangeland Health captured in 43 CFR 4180 also require that watersheds are in, or are making significant progress toward, properly functioning physical condition so that soil and plant conditions support infiltration, soil moisture storage and the release of water that are in balance with climate and landform so that water quantity and the timing and duration of flow is improved. Management actions would re-pattern vegetation patches and succession/disturbance regimes in order to sustain hydrologic processes characteristic of the geoclimatic setting. Restoration of landscape succession/disturbance regimes would maintain and promote (a) healthy, productive, and diverse plant and animal communities as appropriate to soil type, climate, and landform; and (b) ecological processes of nutrient cycling, energy flow, and the hydrologic cycle. The Soil and Water Resources Conservation Act of 1977 (16 U.S.C. 2001) provides for conservation, protection and enhancement of soil, water, and related resources.

In addition to FLPMA and Fundamentals of Rangeland Health, the Interior Columbia Basin Strategy (BLM, 2003) directs management actions to sustain hydrologic processes characteristic of the geo-climatic setting by maintaining and promoting (a) healthy, productive, and diverse plant and animal communities as appropriate to soil type, climate, and landform; and (b) ecological processes of nutrient cycling, energy flow, and the hydrologic cycle.

Scientific assessments completed at the Columbia basin scale, have indicated where some critical areas for restoration focus are located. These areas were noted and identified as broad-scale high priority restoration sub basins (See objective H-2) Verified high priority areas in the planning area are based on broad-scale priority sub basins identified at the regional scale and are designated after verifying their actual restoration needs based on local site conditions. These areas would receive priority consideration for future treatments to restore hydrologic function.

<u>Allocations/Allowable Uses:</u>
1. Designate areas for high restoration priority where site conditions support science findings of broad-scale high restoration areas identified by the Interior Columbia Basin Management Project Scientific Assessment.

<u>Guidelines</u>:
1. Determine watershed condition and restoration potential using a variety of evaluation techniques including but not limited to Rangeland Health Standards, Proper Functioning Condition assessments, site surveys, or other existing information. Based on assessments, establish guidance to:
   A. prevent impairment of watershed hydrologic function
   B. improve hydrologic function
   C. restore hydrologic function
2. Reduce compaction and artificial conduits for overland flow of water by rehabilitating all non-designated roads and trails. Road designation would occur in project-specific documents. Any road that is not designated as a local road or motorized travel route

would be closed to motorized use. Some designated roads may have seasonal closures. Prioritize non-system roads and trails for closure in areas of sensitive soils or located within RCAs. Maintain all BLM designated system roads to reduce concentration of water on roads as outlined in BLM Manual 9113 (also see Appendix F), and BLM Manual 9114 for trails.

3. Work cooperatively with State Agencies, including OWRD, ODFW, Parks and Recreation, and ODEQ to protect and maintain water resources (both quantity and quality) of BLM-administered rivers, streams, and springs and their associated resources as consumptive use increases in the Deschutes basin. Where negotiations and cooperative efforts fail to protect water resources, utilize federal authorities to fulfill mandates as outlined by Congress and in the BLM's Manual and policy directives.
4. Emphasize moving vegetation composition and densities to structural and physical historic ranges to promote infiltration and minimize overland flow.

Objective H - 2: Within the Broad Scale High Restoration Priority Sub-basins[10], determine actual restoration needs prior to any large scale site disturbing activities that could affect hydrologic function.

Rationale:
The Interior Columbia Basin Scientific Assessment provided a regional, broad-based assessment of natural resource conditions. The result of this assessment was to identify sub-basins that were considered high restoration priorities based on: 1) risk to aquatic and terrestrial species and their habitats from natural disturbances; 2) opportunity to reduce those risks, improve habitats, provide connectivity for and expand scarce aquatic and terrestrial habitats; 3) hydrologic processes; 4) economic value to human communities; and 5) ability to restore other biophysical and/or social needs where opportunities exist. The Upper Crooked River Sub-basin was identified as a broad-scale high restoration priority. This signifies this sub- basin has a need to restore hydrologic processes to ensure favorable water quality conditions for aquatic, riparian, and municipal uses. Within the Crooked River sub basin, this objective would provide management emphasis to compare sub basin priorities with watershed conditions to determine specific approaches to restoration needs (such aquatics, water quality, vegetation management, disturbance regimes) that would promote effective and efficient restoration efforts.

Guidelines:
1. Validate and, as necessary, refine the sub watershed locations using existing finer scale information.
2. Focus restoration activities on entire watershed using an ecosystem approach and involving all interested landowners and affected parties;
3. Prescribe restoration activities based on site-specific physical, biological, and chemical condition and site potential.

Water Quality

Objective H - 3: Ensure that surface water and ground water influenced by BLM activities comply with or are making progress toward achieving State of Oregon water quality standards for beneficial uses as established per stream by the Oregon Department of Environmental Quality (ODEQ). Where water quality does not meet the water quality standards, water quality would not degrade to the point at which it impacts beneficial use. This would be achieved through improved riparian vegetation,

[10] This includes only the Upper Crooked Sub-basin shown on map DEIS-S-14.

stream shade, and stream channel function. For streams with water quality limited segments (impaired waters) as defined by section 303(d) of the CWA, management activities would be implemented with the intent to restore water quality to levels that meet State water quality standards.

Rationale:
The "Federal Water Pollution Control Act" (commonly known as the "Clean Water Act" [CWA]) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters. Mandates of the Act establish the EPA as administrator and the states (e.g., Oregon) as implementers of the Act. The BLM is responsible to manage the requirements of the Act on land they administer, but primacy in implementing the Act is retained by Oregon. BLM is required to maintain water quality where it presently meets EPA-approved Oregon State water quality standards and improve water quality on public land where it does not meet standards. State developed total maximum daily loads (TMDLs) and State approved water quality management plans are required for water bodies in sub basins and watersheds containing water quality limited segments (Appendix E) (as defined by section 303(d) of the CWA) where water quality is not meeting standards. In addition to the Act, numerous laws, regulations, policies, and Executive orders direct BLM to manage for water quality for the benefit of the Nation and its economy.

Water quality is important not only for human use but also for proper ecosystem function. Management practices such as grazing, mining, recreation, forest harvesting, and other forms of vegetation management for restoring and maintaining water quality would be designed for healthy sustainable and functional rangeland ecosystems as described in Standards for Rangeland Health, 1997.

Allocations/Allowable Uses:
1. In watersheds having streams with water quality limited segments identified by the State of Oregon, uses and activities would be allowed only if they would have no adverse effects on restoring water to State water quality standards (while protecting and enhancing natural values).
2. Public use would be allowed along streams and around other water bodies as long as State water quality standards are either attained at the same or greater rate than if the use or activity were absent or maintained.
3. Management would be adjusted as needed for those uses and activities that are not leading to the attainment of State water quality standards.

Guidelines:
1. Eliminate all non-designated roads and maintain designated roads to reduce gullying and rilling in RCAs of intermittent and perennial streams (see also Riparian and Aquatics).
2. Streams and water bodies not meeting State water quality standards and/or PFC would be managed to attain an upward trend in the composition and structure of key riparian/wetland vegetation and desired physical characteristics of the stream channel.
3. Uses and activities within the RCA and contributing upland watershed areas that adversely affect water quality and/or lead to stream channel or riparian/wetland resource degradation would be adjusted, restricted, or limited if water quality and PFC cannot be attained or maintained with existing management.

Fire/Fuels Management

Objective FF – 1: Provide an appropriate management response on all wildland fires, with emphasis on firefighter and public safety. When assigning priorities, decisions would be based on relative values to be protected commensurate with fire

management costs.

Rationale:
Protection of human life (firefighter and public safety) is the highest priority during a wildland fire. Once firefighters have been assigned to a fire, their safety becomes the highest value to be protected. Property and natural and cultural resources are lower priorities.

The "Review Update of the 1995 Federal Wildland Fire Management Policy" acknowledges that fire is a critical natural process and must be reintroduced into the ecosystem on a landscape scale. Wildland fire management decisions are based on approved fire management and activity level plans, this RMP, and the best available science. The policy further emphasizes that for natural ignitions (i.e., lightning caused), a manager must have the ability to choose from the full spectrum of fire management actionsófrom prompt suppression to allowing fire to function in its natural ecological role. The "Interior Columbia Basin Final Environmental Impact Statement" (USDA-FS and USDI-BLM 2000) states that wildland fire management strategies and suppression activities should minimize damage to long-term ecosystem function, and should emphasize protection, restoration, or maintenance of key habitats.

The initial Central Oregon Fire Management Plan was completed in 2002, and addresses fire suppression and fuels management on all federal lands for the Deschutes National Forest, the Ochoco National Forest, and the Prineville District BLM. The fire management plan outlines the appropriate management response, including full suppression and modified suppression, throughout the Central Oregon. It also identifies conditions and potential locations for wildland fire use and for prescribed fires, as well as other factors pertaining to fire management in the COFMS (Central Oregon Fire Management Service) area.

Allocations/Allowable Uses:
1. Use natural and human-created barriers (i.e., roads) as available for control lines.
2. Use of heavy equipment in ACECs, WSAs, and RNAs would be avoided. Exceptions may be granted by the field manager to protect public and firefighter safety, other Federal, state and private property, and commodity areas. During times of multiple ignitions and limited suppression resources, place highest priority on suppression resources to protect communities from wildland fire. If used, heavy equipment would be restricted to existing roads and trails. Use of retardant would be allowed within these areas for initial attack.

Guidelines:
1. Provide for an appropriate management response of initial attack and full suppression on all wildland fires.
2. Retardant use during extended attack would be considered as a part of the wildland fire situation analysis, considering the resource values at risk and public and firefighter safety.

Objective FF – 2: Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.

Rationale:
The "Emergency Fire Rehabilitation Handbook" (H-1742-1) (USDI-BLM 1998) outlines the process for implementing emergency fire rehabilitation projects following wildland fires and wildland fire use. Emergency fire rehabilitation funds may be used to:
1. Protect life, property, and soil, water, and vegetation resources;
2. Prevent unacceptable onsite or offsite damage;
3. Facilitate meeting land use plan objectives and other Federal laws; and

4. Reduce the invasion and establishment of undesirable or invasive vegetation species.

Allocations/Allowable Uses:
After prescribed burns or wildland fire, restrict livestock grazing for the remainder of the calendar year and through the growing season of the next year. Allow grazing earlier if it would not impede site recovery, or if it is used as a tool to accomplish resource objectives (see Livestock Grazing).

Guidelines:
1. After a fire disturbance event which results in undesirable soil or plant conditions, review current uses including but not limited to recreation, rights of way and permitted uses to determine whether site has recovered sufficiently to support those uses without further degradation.
2. Emergency fire rehabilitation activities would be implemented after wildland fire. Separate environmental analysis would only be completed for emergency fire rehabilitation projects that are outside the scope of activities described in the burn rehabilitation plan.

Objective FF – 3: Restore and maintain ecosystems consistent with land uses and historic fire regimes through wildland fire use, prescribed fire, and other methods. Reduce areas of high fuel loading that may contribute to extreme fire behavior.

Rationale:
Both the "Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin" (USDA-FS and USDI-BLM 1996) and the "Review Update of the 1995 Federal Wildland Fire Management Policy and Program Review" recognize fire's essential role as an ecological process. COFMS is charged with clearly defining fire management goals, objectives, and actions in comprehensive fire management plans, which are tiered to this RMP. Fire management plans would include identification of areas for prescribed fire.

The "Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin" (USDA-FS and USDI-BLM 1996) emphasizes that strategic watershed scale fuel management and fire planning, often integrating a variety of treatment methods, would cost-effectively reduce fuel hazards to acceptable levels and achieve both ecosystem health and resource benefits. Fire management programs and activities should be based upon protecting resources, minimizing costs, and achieving land management objectives. They must also be economically viable. The "Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin" (USDA-FS and USDI-BLM 1996) also stresses the use of fire to restore and sustain ecosystem health based on sound scientific principles and information. This must also be balanced with other societal goals, including public health and safety, air quality, and other specific environmental concerns.

To prioritize fuels treatments, the annual updates to the COFMS Fire Management Plan provides a framework to prioritize the allocation and use of resources, evaluate multiple objectives and priorities, identify treatment needs, facilitate communication and coordination between agencies and groups, and assist in identifying information gaps.

Sound risk management is a foundation for all fire management activities. Risks and uncertainties relating to fire management activities must be understood, analyzed, communicated, and managed as they relate to the cost or consequences of either doing or not doing an activity.

Allocations/Allowable Uses:
Wildland fire use would be allowed in accordance with value at rick categories in Brothers/La Pine RMP except within WUI.

Guidelines:

1. Subsequent analysis would identify conditions and potential locations for prescribed fires, as well as other factors pertaining to fire management in the RMP area.
2. Fuels treatments in non-WUI areas would be designed to restore acres currently in Fire Regime Condition Classes 2 and 3 where the probability of success is high and other resource objectives can be met. Fuel treatments, mostly in the form of prescribed burning, would be done in condition class 1 areas to maintain desired conditions and prevent these areas from progressing into condition class 2.
3. Vegetative treatments would be designed to break up treated and untreated areas in a mosaic effect to meet fire and vegetation management objectives.
4. After prescribed burns or wildland fire, restrict livestock grazing for the remainder of the calendar year and through the growing season of the next year. Allow grazing earlier if it would not impede site recovery, or if it is used as a tool to accomplish resource objectives (see Livestock Grazing section of RMP).Other temporary use restrictions, such as no off-road travel, may be imposed where warranted.
5. Use prescribed fire and mechanical, and biological hazardous fuels reduction treatments on a case-by-case basis to improve forage base and restore natural processes. Where these treatment areas intersect special management areas, the fuels management project design would incorporate the objective of the special management area.
6. Prescribed fires would be conducted under fuel and weather conditions that allow for public and firefighter safety while meeting desired resource management objectives.

Objective FF-4: In the wildland urban interface, live and dead vegetation would be managed so that a wildland fire would burn with fire behavior where firefighters can be safe and successful in suppression efforts under hot, dry summer weather conditions. Treatments would be designed for human safety while still considering recreation opportunities, wildlife habitat and corridors, visual quality, air and water quality, and public access.

Rationale:

The Healthy Forests Restoration Act of 2003, the 2002 Western Governor's Association A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: A 10-Year Comprehensive Strategy, and the 2000 National Fire Plan all emphasize the need to reduce hazardous fuels that pose a risk to Communities at Risk from the undesired effects of wildland fire.

With the protection of human life as the highest priority during a wildland fire, fuel conditions should be managed adjacent to Communities at Risk that allow for safe operations during fire suppression.

All hazardous fuels management activities in the wildland urban interface (WUI) will take place following site specific analysis. That analysis must consider the amount and arrangement of fuel that will contribute to wildland fire behavior under high and extreme summer weather conditions. Objectives for fuels management in the WUI should be linked to obtaining fire behavior that yields the desired results, including safety of the public and fire suppression forces.

The size of the WUI varies with vegetative type, based on potential fire behavior. Forest fuels are heavy and can support extreme fire behavior, with crown fire and long range spotting contributing to safety concerns and resistance to control. In these areas, including lands in the La Pine area and ponderosa pine stands near Tumalo and Sisters, the WUI zone is 1.5 miles from the mapped Communities at Risk as published in the 2001 Federal Register. For communities surrounded by rangelands and woodland vegetation types with lighter fuel loadings, that area is described as 1/2 mile. These zones are considered to be the starting point in which to discuss and analyze hazardous fuels that may threaten firefighters or the public in the event of an unplanned ignition.

Actual treatment areas may be narrower or wider than that, depending upon site-specific objectives and conditions of fuels and topography that are adjacent to communities.

Allocations/Allowable Uses:

1. Hazardous fuels reduction objectives may be met through a combination of fuels treatments including thinning, mowing, pruning, piling, burning, grazing, or other approaches that reduce the three dimensional fuel profiles and reduce the risk of crown fire or uncontrollable surface fire.
2. Wildland Urban Interface zones are designated as follows:
   A. Forested Zones: up to 1.5 miles adjacent to Communities at Risk .
   B. Rangeland/Woodland Zones: up to ½ mile adjacent to Communities at Risk.

Guidelines:

Fuels Management in Forested Wildland Urban Interface Zones

1. For site specific planning, the forested WUI zone would be subdivided into three bands with treatments designed to give desired fire behavior given 90th percentile (extreme) summer weather conditions. The actual width of these three bands and treatment prescriptions would vary according to site-specific conditions such as vegetation/fuel type/density/structure, proximity of homes to property boundaries, prevailing winds, topographic and other natural fuel breaks, etc.
   A. The first band, nearest to homes and private property, would managed for conditions that would not support crown fire, and would only allow for surface fires with flame lengths of less than 2 feet under average weather conditions.
   B. Treatments in the second band would be designed to prevent crown fire initiation and spread, and keep surface fuel flame lengths below the 3 to 4 foot range under 90th percentile summer weather conditions. Flame lengths below 4 feet are considered to be a safe environment for suppression forces to engage in direct attack of the fire.
   C. Treatments in the third band, farthest away from homes, would be designed to reduce the occurrence, size, and severity of crown fires by breaking up fuel continuities and limiting ladder fuels. Most wildland fires would be limited to surface fires less than 4 foot flame lengths under average weather conditions, with opportunities for limited passive crown fire (occasional ignition and torching of individual or small groups of overstory trees). Stand replacement fires would be a rare occurrence. Crown fire approaching this zone would fall from the tree canopy to the forest floor in this area due to lack of horizontal and vertical fuel continuity. Treatment objectives would place a higher emphasis on wildlife habitat and silvicultural needs as long as fuel continuities and ladder fuels are reduced on at least 50 percent of the area.
   D. Prescribed fire in the WUI would be used only for burning piles or broadcast burning in smaller areas where smoke and risk could be managed at acceptable levels. Based on expected re-growth rates in these vegetative types, re-treatment is expected to occur approximately every 15 to 20 years for tree thinning and every 5 to 10 years for brush cutting/mowing.

Fuels Management in Rangeland/Woodland Wildland Urban Interface Zones

2. As in forested areas, the actual width and treatment prescriptions of two treatment bands would vary according to site-specific conditions.
   A. The first band may be 500 to 600 feet wide. Approximately 50 to 70 percent of the area within this band would be treated to prevent crown fires and keep surface fuel flame lengths in the 1 to 2 foot range.
      i. Brush treatments would be initiated when shrub canopy exceeds 50 percent or is greater than 2 feet in height.
      ii. Thinning in this area would favor leaving older juniper (greater than 150 years old) and removal of younger trees.

iii. All naturally occurring juniper snags would be left within this band. An exception to this would be snags less than 6 inches dbh in a fire-killed juniper stand. In this case dead trees would be reduced to a density of 5 to 7 trees per acre.
iv. No hazard trees would be left within reach of property, roads or other facilities.

B. The second band would be 600 feet to 1/2 mile wide. Treatments would be designed to reduce the occurrence, size, and intensity of fires by breaking up fuel continuities and limiting ladder fuels.
   i. Wildland fires would be limited to surface fires with flame lengths of 3 to 4 feet.
   ii. Crown fires would not occur under 90th percentile summer weather conditions. There may be an occasional ignition of individual or small groups of juniper trees under extremely windy conditions.
   iii. Juniper less than 150 years old would occur in small clumps where needed for hiding cover, and would be discouraged elsewhere.
   iv. Most of the old juniper would be left.
   v. Treatment objectives would place a higher emphasis on wildlife habitat and woodland management objectives as long as fuel continuity and ladder fuels are reduced such that crown fires do not occur. Mosaic patterns of old juniper, shrub, and grass types would be emphasized.
   vi. Prescribed fire would be used only for burning piles or broadcast burning in smaller areas where smoke and risk could be managed at acceptable levels. Based on expected re-growth rates in these vegetative types, re-treatment is expected to occur approximately every 15 to 20 years. All treatments would consider potential of introduction and spread of exotic annuals and noxious weeds.

Priority Setting in the Wildland Urban Interface (WUI)

3. The COFMS Fuels Management Priority Framework guides fuels project priorities in the wildland urban interface by considering the potential for damaging fire behavior, economic opportunities, community involvement, values at risk, and the condition of vegetation and fuels. Risk from the undesired effects of wildland fire is not the same for each community within the plan area. Priority treatments would be done adjacent to those communities that have the following characteristics:
   A. Heavy fuel loading and high potential for crown fire or fast moving surface fire at the average weather conditions, especially if those fuels are "upwind" given the dominant summer wind directions.
   B. The community is physically close to federal lands, with structures or other improvements within 1 mile of BLM administered lands.
   C. The community is actively involved in the hazardous fuels reduction effort, matching federal efforts on private lands, coordinating fuels reduction or suppression capability improvements with the protection agencies like ODF or city/rural fire districts, and taking steps to improve the survivability of their community.
   D. Opportunities exist to meet multiple objectives with the fuel treatment activities, including improvement of wildlife habitat, recreation opportunities, visual quality, restoration of ecosystem integrity, or opportunity to provide marketable products or energy from the removal of hazardous fuels.

WUI fuel treatments and potential social conflicts

4. Where WUI intersects other specially designated areas such as WSA, wild and scenic river corridors, ACECs, or RNAs, the fuels objectives would be pursued within the framework of the objective for the special management designation.
5. Reduction of hazardous fuels in the WUI may increase conflicts between recreational users and adjacent landowners, increase incidents of unauthorized use, and could potentially impact visual quality, wildlife habitats, populations of rare plant species, spread of exotic species, or availability of forage or small wood products to the public. To better manage public use of BLM-administered land, and to reduce the potential adverse impacts of fuels treatments to adjacent landowners, site specific analysis

should include mitigating measures in the project design. Those measures may include:

A. Information sharing, including posting of signs and working with the adjacent homeowners to enlist their support for appropriate use of BLM-administered land.
B. Physical barriers left or installed as part of the fuels treatment, including boulder placement, log barriers, fences, and vegetative patches or strips left in deliberate patterns to discourage unauthorized use
C. Design features should be employed to reduce the potential indirect effects of the fuels treatment on designated trails. It may be appropriate to move or close designated trails or roads within the WUI zone to reduce conflicts between users and adjacent landowners.
D. Where backyard stewardship contracts are forged to treat the hazardous fuels at the WUI, consider including an agreement with adjacent landowner/stewards to refrain from accessing their private lands or other BLM-administered land through the treated area.

Special Management Areas

Special Management Areas within the Upper Deschutes Planning Area include Areas of Critical Environmental Concern (ACECs), Research Natural Areas (RNAs), Wilderness Study Areas (WSAs), Wild and Scenic Rivers (WSRs), and caves.

Areas of Critical Environmental Concern

General

Objective SMA – 1: Retain existing and/or designate ACECs where relevance and importance criteria are met and special management is required to protect the identified values. Management activities and resource uses within ACECs would not impair the values for which the ACEC was designated.

Rationale:
An ACEC is a special designation created by Congress (FLPMA, 1976). Under FLPMA, the Secretary of the Interior and the BLM were directed to designate ACECs within the public lands where special management attention is required to protect and prevent irreparable damage to important cultural, historic or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect public health and safety from natural hazards. By BLM policy, every RNA is also designated as an ACEC.

Guidelines:
1. Establish baseline conditions for ACEC values and monitor for trends in the condition of those values. If declining conditions are observed, identify and take action to mitigate the cause(s).

Area Specific

Badlands ACEC

See Badlands WSA. If the Badlands WSA designation is discontinued by Congress, the allocations/allowable uses and guidelines for the Badlands WSA would continue to apply to the Badlands ACEC except that the closure to mineral leasing would change to a closure to surface occupancy within the ACEC. ACEC protection for old growth juniper, geologic formations, pictographs, and primitive recreation opportunities would continue. The ACEC designation would be removed if the Badlands is designated as a wilderness area.

Peck's Milkvetch ACEC

<u>Objective SMA – 1a:</u> Manage land uses and other activities so as to not impair Peck's milkvetch (*Astragalus peckii*) populations or its habitat.

<u>Rationale:</u>
The expansion of the existing ACEC into the Cline Buttes Recreation Area will provide protection for additional populations of Peck's milkvetch and its habitat.

<u>Allocations/Allowable Uses:</u>

1. **ACEC Area:** The existing 4073-acre ACEC would be expanded by 6,252 acres to a total of 10,325 acres, including lands within the Tumalo and Cline Buttes Recreation Areas. The guidelines described in the Continued Management Direction and this section would apply to the existing ACEC and the expanded area.
2. **Fire Management:** Unless life or property is threatened, off-road use of fire suppression vehicles would not be allowed and fire lines would be limited to hand lines only. Prescribed burning would be allowed.
3. **Vegetative Treatments**: Treatments designed to maintain or enhance Peck's milkvetch populations or its habitat would be allowed.
4. **Forest and Range Products**: Generally, harvesting of wood products would not be allowed except in conjunction with restoration treatments or if it does not impair the values of this ACEC.
5. **Minerals:** Rockhounding and the collection of decorative stone would not be allowed. See Peck's Milkvetch under Continued Management direction for mineral materials and locatable and leasable minerals.
6. **Livestock Grazing:** Livestock grazing would continue to be allowed under a deferred rotation system, but deferment would be until Peck's milkvetch dormancy (usually mid-August) at least every other year.
7. **Recreation:** No allocations/allowable uses specific to this ACEC. See Recreation sections for area guidance.
8. **Firearm Discharge:** No allocations/allowable uses specific to this ACEC. See Public Health and Safety sections for area guidance.
9. **Rights-of-Way:**
   A. New rights-of-ways (ROWs) would be granted only if no other reasonable route is available. Where new ROW cannot be reasonably accommodated outside of ACECs, consider first along existing utility corridors, county roads, or BLM system roads.
   B. Vacated ROW would be considered for conversion to compatible trails prior to obliteration.
10. **Land Ownership:** Recreation and Public Purposes Act (R&PP) leases would not be issued for lands within the ACEC unless such leases would be non-patent leases and would not impair the values of the ACEC.

Tumalo Canals ACEC

<u>Objective SMA – 1b:</u> Protect and maintain the historic Tumalo Canals and provide for its use as an interpretive resource. Manage land uses, recreation, and other activities to maintain or enhance the archaeological and interpretive values of the Tumalo Canals.

<u>Rationale:</u>
The Federal Land Policy and Management Act (FLPMA) gives priority to the designation and protection of ACECs and to the prevention of irreparable damage to the important resources of the ACEC. ACEC designation is the principle BLM designation where special management is required to protect important natural, cultural and scenic resources.

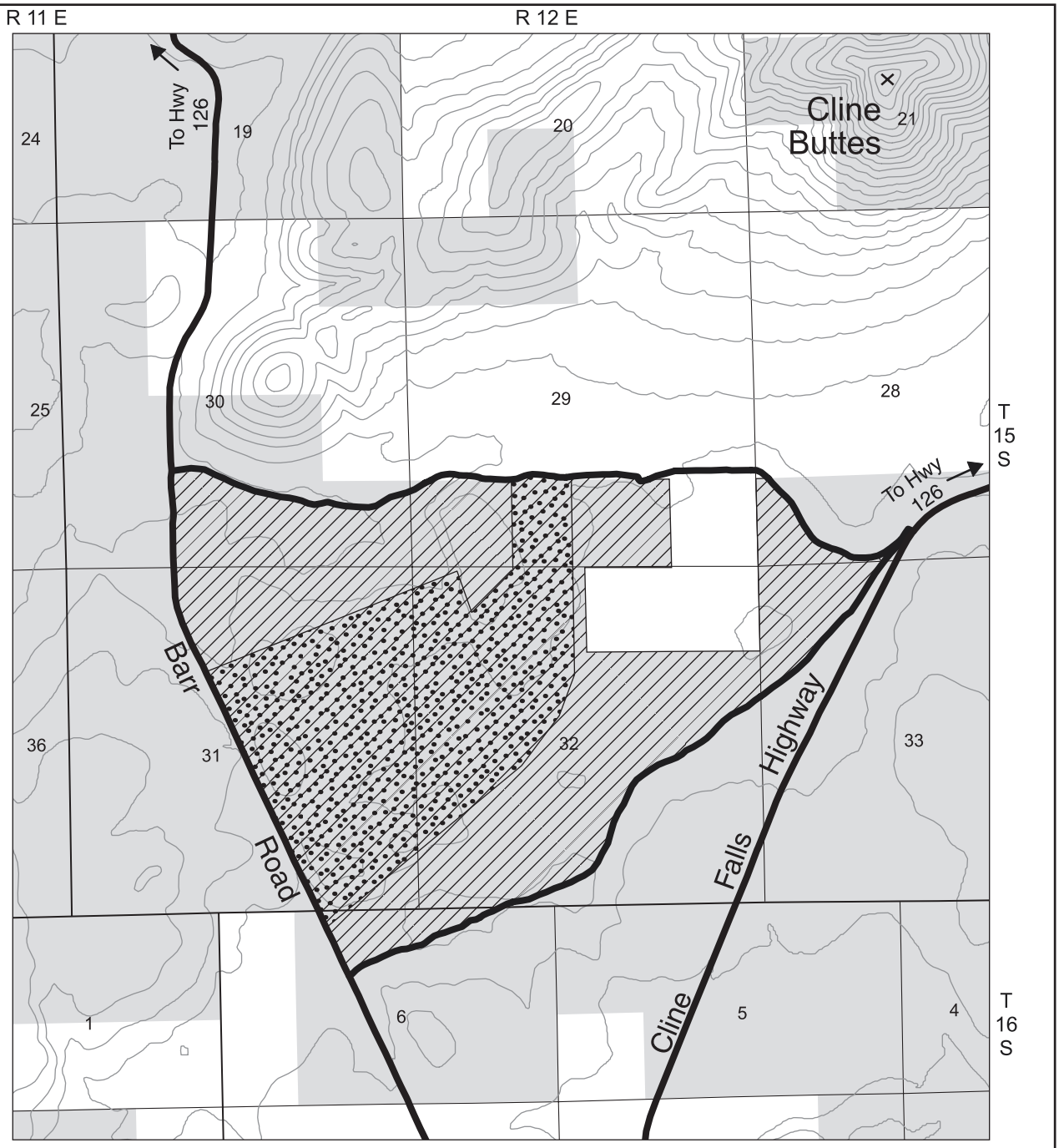
The relic canal system was developed during the first decade of the twentieth century and represents an excellent example of efforts to provide irrigation water to the high desert during the early settlement period of central Oregon. Integrity and significance of the identified canal segment has been assessed by a BLM archaeologist and is considered eligible to the National Register of Historic Places by the State Historic Preservation Office.

Allocations/Allowable Uses:

1. **ACEC Area:** A 1050-acre area containing a portion of the historic Tumalo irrigation canals would be designated as an ACEC and managed with an emphasis on interpretation of the historic values.
2. **Fire management:** Fire lines would not be constructed on or adjacent to the canal features (Figure and surface disturbance would be kept to the minimum amount necessary.
3. **Vegetative treatments**: Treatments that would not impair historical and interpretive values would be allowed.
4. **Forest and Range Products**: Generally, harvesting of wood products and special forest and range products would not be allowed except in conjunction with restoration treatments or if the values of the ACEC would not be impaired.
5. **Minerals:**
   A. Mineral material mining would not be allowed in the south ½ sections 29 and 30 and the north ½ of sections 31 and 32 of T 15 S R12 E to protect the canal features and interpretive values. Surface occupancy for fluid mineral leasing would not be allowed within the ACEC boundary.
   B. Plans of operation would be required prior to any development of mining claims. Approved plans of operation would have stipulations to protect the interpretive and historical values of this ACEC.
   C. Rockhounding and the collection of decorative stone would not be allowed in the ACEC.
6. **Livestock grazing:** Not allowed within the 433-acre area around the canal features (see Figure PRMP-1).
7. **Recreation:**
   A. Overnight use, campfires, geocaching and use of paintball guns would not be allowed within the 433-acre area around the canal features (see Figure PRMP-1).
   B. Motorized, mechanized, and equestrian uses would be restricted to designated trail systems throughout the ACEC.
8. **Firearm discharge:** The entire ACEC would be closed to all firearm discharge.
9. **Rights-of-Way:**
   A. New rights-of-way (ROWs) would be granted only if no other reasonable route is available. Where a new ROW cannot be reasonably accommodated outside of the ACEC, consider first along existing utility corridors, county roads, or BLM system roads.
   B. Vacated ROW would be considered for conversion to compatible trails prior to obliteration.
10. **Land Ownership:** Recreation and Public Purposes Act (R&PP) leases would not be issued for lands within the ACEC unless such leases would be non-patent leases and would not impair the values of this ACEC.

Guidelines:

1. Protect and preserve the integrity of the identified relic, historic canal segment and its associated features from BLM authorizations and actions.
2. Pursue opportunities to form partnerships between the BLM and interested parties to develop a pedestrian interpretive trail in the approximately 433-acre area of the ACEC that comprises the relic canal system.
3. Consider fencing and/or signing the area that includes the relic canal system following site-specific analysis.
4. Consider designation of equestrian and mountain bike trails at the minimum density



Legend

- Proposed ACEC / Tumalo Canal
- Potential ACEC / Tumalo Canal Limited Use Area
- Road
- Contour Interval = 40 feet

Administered Land

- Bureau of Land Management
- Priviate or Undefined

N W E S

0.25 0 0.25 0.5 MILES

0.25 0 0.25 0.5 KILOMETERS

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
PRINEVILLE DISTRICT
2004

Proposed Upper Deschutes Resource Management Plan and Final Environmental Impact Statement

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Figure PRMP-1: Tumalo Canal ACEC

necessary to provide trail links between Cline Buttes Highway and Barr Road without impairing ACEC values.

5. Emphasize restoration/enhancement projects to improve native plant communities, old-growth juniper woodlands, and habitat for raptors, neo-tropical birds and threatened, endangered or other special status plants and animals. Long-term vegetation maintenance would be designed to emulate natural processes.

Wagon Roads ACEC

Objective SMA – 1c: Protect and maintain the segments of the historic Horner, Huntington and Bend-Prineville roads designated as an ACEC. Manage land uses, recreation, and other activities to maintain or enhance the archaeological and interpretive values of these roads.

Rationale:
The Federal Land Policy and Management Act (FLPMA) of 1976 gives priority to the designation and protection of ACECs and to the prevention of irreparable damage to the important resources of the ACEC. ACEC designation is the principle BLM designation where special management is required to protect important natural, cultural and scenic resources.

The ACEC contains relatively intact segments of historic Huntington Road, Bend-Prineville Road, and Horner Road and various historic features associated with them. The roads were developed between the 1860s and 1908 and represent excellent examples of transportation systems during the pioneer and early settlement periods of central Oregon. The road segments in the proposed Wagon Roads ACEC have been assessed by archaeologists employed in the private sector and the BLM and are considered eligible for inclusion to the National Register of Historic Places.

Allocations/Allowable Uses:

1. **ACEC Area:** Approximately 6 miles of the historic Horner Road and approximately 5 miles of the historic Bend-Prineville Road including a 300-ft distance on either side of these road segments would receive ACEC protection (see FEIS Map 1). The ACEC would total about 986 acres.
2. **Fire management:** See ACECs under Continued Management Direction.
3. **Vegetative treatments**: Vegetative treatments designed to maintain or enhance the values of this ACEC would be allowed.
4. **Forest and Range Products**: Generally, harvesting of wood products and special forest and range products would not be allowed except in conjunction with restoration treatments or if it is consistent with the values of the ACEC.
5. **Livestock grazing:** See ACECs under Continued Management Direction.
6. **Military use:** Tracked military vehicles would not be allowed on the protected road segments. Locations where tracked vehicles may cross the historic roads have been, or would be in the future, determined in consultation with the Oregon Military Department.
7. **Minerals:**
   A. An area one half mile of either side of the roads for which this ACEC is designated to protect would be closed to mineral material mining and surface occupancy for fluid mineral leasing.
   B. Geophysical exploration would be allowed if the values of this ACEC would not be impaired.
   C. Plans of operation would be required prior to any development of mining claims. Approved plans of operation would have stipulations to protect the interpretive and archeological values of this ACEC.
   D. Rockhounding and the collection of decorative stone would not be allowed.

8. **Recreation:**
   A. The ACEC would be closed to overnight use, campfires, use of paintball guns, and geocaching.
   B. OHV use would be allowed on designated trails within the 300 foot area on either side of each road (except the southernmost segment), to the extent necessary to create safe and maintainable trail crossings. OHV trails that parallel the historic roads would be located beyond 300 feet from each side of the road to the maximum extent feasible. Special Recreation Permits (SRPs) would be issued for foot traffic events/group use only on the road segments. No competitive events would be allowed except at designated trail or road crossing points.
9. **Firearm discharge:** Would not be allowed within the fence enclosure that surrounds the segment of Huntington Road in Section 1.
10. **Rights-of-Way:**
    A. New rights-of-ways (ROWs) would be granted only if no other reasonable route is available. Where new ROW cannot be reasonably accommodated outside of the ACEC, consider first along existing utility corridors, county roads, or BLM system roads.
    B. Vacated ROW would be considered for conversion to compatible trails prior to obliteration.
11. **Land Ownership:** Recreation and Public Purposes Act (R&PP) leases would not be issued for lands within the ACEC unless such leases would be non-patent leases and would not impair the values of this ACEC.

Guidelines

1. Protect and preserve the integrity of identified segments of historic Huntington, Horner, and Bend-Prineville roads, its associated rock features, and blazed trees from BLM authorizations and actions.
2. Revise boundaries to reflect modifications to the ACEC.
3. The partnership between the BLM and the Deschutes County Historical Society for interpretive development and educational products for that portion of the ACEC in township 17, range 12, section 1 would continue.
4. Complete a cultural resource survey and documentation of the historic road segments and their associated features.
5. Continue a site stewardship program with the Archaeological Society of Central Oregon (ASCO) to monitor the condition of the ACEC.
6. As funding permits, pursue opportunities to form partnerships between the BLM and interested parties to develop an interpretive pedestrian trail system along segments of the historic roads.

Research Natural Areas

Objective SMA – 2: Provide components of the national system of RNAs. The Natural Heritage Act calls for the establishment of a "discrete and limited system" of natural heritage conservation areas, which have "substantially retained their natural character" and which "represent the full range of Oregon's natural heritage resources."

Allocations/Allowable Uses:

1. Vegetative Treatments: Vegetative treatments other than restoring or maintaining characteristic disturbances to meet the purposes of the RNA would generally not be allowed. RNA management strategies or site specific projects may determine whether activities are suitable to further the purpose of the RNA.
2. Fire Management: See RNAs under Continued Management Direction.
3. Forest/Range Products: See RNAs under Continued Management Direction.
4. Minerals: Mining for mineral materials would not be allowed. See Research Natural Areas under Continued Management direction for rockhounding, and locatable and leasable minerals.
5. Livestock Grazing: See RNAs under Continued Management Direction.

6. Recreation: Both RNAs would be closed to overnight use, mechanized travel, campfires, geocaching and the use of paintball guns. See Research Natural Areas under Continued Management Direction for motorized use.
7. Firearm Discharge: Both RNAs would be closed to firearm discharge unless legally hunting.
8. Rights of Way: See RNAs under Continued Management Direction.
9. Land Ownership: Recreation and Public Purposes Act (R&PP) leases would not be issued for lands within either RNA unless such leases would be non-patent leases and would not impair the condition of natural plant communities.

Wilderness Study Areas

Badlands WSA

Objective SMA - 3: Manage Wilderness Study Areas to maintain wilderness suitability consistent with the 1995 "Interim Management Policy for Lands under Wilderness Review" (IMP).

Rationale:
The BLM is required to maintain the suitability of the Badlands and Steelhead Falls for possible future wilderness designation by Congress. General management policy for these areas is set forth in the Interim Management Policy for Lands Under Wilderness Review (1995). Like most of the BLM-administered land in the planning area, these two areas are receiving increasing visitation and use by the public. Both local and out of area visitation is increasing, resulting in user conflicts, safety issues, visitor dissatisfaction, and resource impacts.

Allocations/Allowable Uses:
1. **Fire management:** See WSAs under Continued Management Direction.
2. **Vegetative treatments:** See WSAs under Continued Management Direction.
3. **Forest/Range Products:** See WSAs under Continued Management Direction.
4. **Minerals:**
   A. Mining for mineral materials would not be allowed
   B. Rockhounding would not be allowed.
5. **Livestock grazing**: See WSAs under Continued Management Direction.
6. **Recreation:** Motorized use, geocaching and the use of paintball guns would not be allowed.
7. **Firearm discharge:** Firearm discharge would not be allowed unless legally hunting. Within ¼ mile of Badlands Rock, there would be a closure to all firearm discharge. See WSAs under Continued Management direction for additional firearm discharge restrictions.
8. **Rights of Way:**
   A. New rights-of-ways (ROWs) would be granted only if no other reasonable route is available. Where new ROW cannot be reasonably accommodated outside of the WSA, consider first along existing utility corridors, county roads, or BLM system roads.
   B. Vacated ROW would be considered for conversion to compatible trails prior to obliteration.
9. **Land Ownership:** Recreation and Public Purposes Act (R&PP) leases would not be issued for lands within the WSA unless such leases would be non-patent leases and would not impair the values of this WSA.

Guidelines:
1. Survey and locate boundaries of each WSA on the ground.
2. Use signs, fences and other appropriate techniques to define and mark the boundaries of the WSA.

3. Vegetation management efforts would be designed to mimic natural processes and would avoid impairment of the area's suitability for wilderness designation.

Caves

<u>Objective SMA - 4:</u> Manage caves nominated for significance or determined significant with an emphasis on education, research, and protection of cave resources while providing for public use opportunities.

<u>Rationale:</u>
A number of caves within the planning area were nominated as "significant" under the Federal Caves Resource protection Act (FCRPA), and final determinations of cave values have not been completed. The FCRPA (1988) and BLM Washington/Oregon Policy directs the BLM to manage nominated or significant determined caves in accordance with the provisions of the FCRPA and interim Cave Management Policy. This objective would emphasize a need to continue to pursue funding and partnership opportunities to determine the significance of nominated caves and develop specific management plans to address their unique resources.

<u>Allocations/Allowable Uses:</u>

1. **General:** Acts that would not be allowed in all significant/nominated caves:
   A. Willfully defacing, removing, or destroying plants or their parts, soils, rocks, minerals, or other cave resources.
   B. Smoking
   C. Possessing, discharging, or using any kind of fireworks or other pyrotechnic devices
   D. Possessing a domestic animal
   E. Depositing or disposing of human waste
   F. Digging, excavation, or displacement of natural and/or cultural features
   G. Entering without written authorization, if required.
2. **Vegetative treatments:**
   A. Trees would not be harvested in a 150-200 ft radius around cave entrances and feeder drainages with slopes greater than 30 degrees.
   B. Clearing of vegetation, except for noxious weeds, would not be allowed within 250 feet of the entrance to caves with significant populations of bats.
   C. Similar buffers would be maintained around direct drainages into caves, including sinkholes, cave collapse areas known to open into a cave's drainage system, and perennial, intermittent, or ephemeral streams flowing into caves.
3. **Forest and Range Products:** Trees would not be harvested in a 150 to 200 foot radius around cave entrances and in feeder drainages with slopes of less than 30 degrees.
4. **Minerals:** An area ½ mile from the entrance and ½ mile on either side of the centerline along the length of any significant/nominated cave would be closed to mining for mineral materials and surface occupancy for fluid mineral leasing.
5. **Livestock grazing:** Not applicable.
6. **Recreation:**
   A. Access:
      i. Access to all Significant/nominated Caves would be restricted to foot access only.
   B. Group and commercial use:
      i. Group use of caves would only be allowed under Special Recreation Permit authorizations. Limit group size to six to eight people at one time and no more than one tour per cave per day. Group use under permit must comply with seasonal restrictions and provisions of the FCRPA.
      ii. Commercial use would be limited to a group size of six to eight people at one time and no more than one cave tour per day (group and commercial use combined).

C. The following acts would not be allowed in nominated/significant caves:
   i. Building, maintaining, attending, or using any fire, campfire, or stove.
   ii. Camping or overnight use
   iii. Mountain bike, horse, or motor vehicle use.
   iv. Use and possession of chalk or hand drying agents for climbing which are not natural appearing.
   v. Geocaching.
   vi. Possession and use of paintball guns.
   vii. Possession and use of alcoholic beverages as defined by state law.
   viii. Use of glass containers.

7. **Firearm discharge:** Discharging a firearm, air rifle, or gas gun would not be allowed.
8. **Rights-of-way**: New rights-of-way would not be granted within ½ mile of entrance(s) to any significant/nominated cave unless no reasonable alternative routes are available. Where new ROW cannot be reasonably accommodated outside of the ½-mile buffer, consider first along existing utility corridors, county roads, or BLM system roads.

Guidelines:

1. As funding permits, a management plan would be developed for each significant cave. It would include an inventory and mapping of cave resources, research and monitoring programs, and if necessary, a clean-up or rehabilitation program.
2. For caves with designated parking areas, consider providing a visitor register to collect information on the visitors name, purpose, number in party, comments and use patterns. Caves with high resource concerns and those with active volunteer/stewardship programs would be considered as priorities for visitor registers.
3. For caves with designated parking areas, provide signs with cave information, cave etiquette and leave no trace information.
4. Where appropriate, signs would be located to minimize advertisement of the cave location, and to provide information to those who already know the cave's location.
5. Maintain current native plant populations or rehabilitate denuded areas at cave entrances by encouraging foot traffic in designated areas only (mark entry trails).
6. Provide multi-agency consistency with seasonal closure periods. Hibernacula closure dates would be approximately October 15 to May 1, and maternity closure dates would be April 15 to September 30.

Area Specific

The following guidance is supplemental guidance for specific caves. General guidance provided above applies to all caves, including those described below.

Redmond Caves

Objective SMA – 4a: Manage the Redmond Caves parcel to protect and maintain the resources found there, including biologic, cultural, and geologic features. Provide for recreational use that is consistent with management of these cave resources.

Rationale:
The FCRPA and BLM Washington/Oregon Policy direct the BLM to manage nominated or significant determined caves in accordance with the provisions of the FCRPA and interim Cave Management Policy.

Allocations/Allowable Uses:

1. **Vegetative treatments:** Emphasize restoration/enhancement projects to improve native plant and animal communities. Where feasible, vegetation maintenance would be designed to emulate natural processes.

2. **Recreation:** The following activities that are not allowed within significant/nominated caves would also not be allowed in all of the 40-acre Redmond Caves Parcel:
   A. motorized and mechanized vehicles.
   B. campfires.
   C. overnight use, except under permit.
   D. geocache use.
   E. paintball use.
3. **Minerals:** Rockhounding and the collection of decorative stone would not be allowed within the 40-acre Redmond Caves Parcel.

Guidelines:
1. In partnership with the City of Redmond, continue to pursue the development of the 40 acre parcel into a "natural" community park.
2. The site would be fenced and a designated parking area provided.
3. Provide for marked and signed foot trails.
4. Work with the City of Redmond, local Tribes, and interested parties to develop the interpretive component of the future community park.
5. Human uses may be excluded from some portion of the Redmond Caves lava tube system to protect Townsend's Big-Eared Bat habitat.

Pictograph (Stout) Cave

Objective SMA – 4b: Manage Pictograph (Stout) Cave to protect scientific values and cave resources (including habitat for bats), and to meet the requirements of the FCRPA. Recreation management would be oriented toward interpretive and educational opportunities.

Rationale:
The FCRPA and BLM Washington/Oregon Policy direct the BLM to manage nominated or significant determined caves in accordance with the provisions of the FCRPA and interim Cave Management Policy.

Allocations/Allowable Uses:
1. **Recreation:**
   A. Bolted climbing routes would not be allowed.
   B. Pictograph Cave would be closed seasonally (October 15 – May 1) for bat hibernacula.

Guidelines:
1. Manage cave access for hike-in visitation only. No developed or designated roads or trails would be built to provide access to the cave site. No designated parking area would be provided.
2. Place signs at the cave informing visitors of cave management policy.
3. Remove all existing bolts and climbing hardware and manage the cave under Leave No Trace principles.

Land Uses

Livestock Grazing

Objective LG - 1: Provide for continued livestock grazing, while reducing conflicts with and meeting needs of other uses and resources.

Rationale:
During the planning process, public comments urged the BLM to modify or discontinue grazing in sensitive areas, critical plant/animal habitats, and areas not grazed in many

years. Livestock grazing permittees who rely on public lands also expressed continued concerns about the difficulty of managing allotments in areas adjacent to resorts and residential areas, and in areas of high recreation uses. BLM management direction is to reduce threats to public health, safety, and property as well as to provide guidance for grazing management.

FLPMA, the Public Rangeland Improvement Act (PRIA), the Taylor Grazing Act, and other acts direct public lands to be managed for multiple use and sustained yield; and, among other things, to provide for improved forage conditions to benefit wildlife, watershed protection and livestock production.

The Standards for Rangeland Health and Guidelines for Livestock Management (BLM 1997), provide standards by which the condition of watersheds currently under livestock management can be measured to evaluate upland and riparian function, ecological processes, water quality, and habitat for native, Threatened and Endangered, and locally important species. Based on the condition assessment, this direction also guides actions to be taken if livestock grazing is found to be affecting those factors. These Standards and Guidelines have been incorporated into this plan by reference, and form the basis for future evaluation of livestock use. However, these Standards and Guidelines to not include evaluation social and economic conditions that are prevalent throughout the planning area. The Grazing Matrix establishes classifications into which each allotment is placed depending upon a number of factors in addition to the Rangeland Health Standards. This approach is described under guidelines, and the classifications displayed in the Grazing Matrix.

Allocations/Allowable Uses:

General Uses

1. Allow prescribed livestock grazing to control weeds, reduce fire danger, or accomplish other management objectives, regardless of parcel status (including active, vacant, RFA, or area of discontinued grazing).
   A. Prescribed grazing would only occur when BLM initiates such action.
   B. Vacant allotments and areas of discontinued grazing would not be available for temporary non-renewable grazing use.
2. Allotment classifications shown in appendix G may be adjusted by more site-specific information about allotments.
3. Livestock grazing would not be allowed in the fenced area around Mayfield Pond, after an alternate water source for livestock is established.
4. Additional direction for livestock grazing in Peck's Milkvetch ACEC is described in the Special Management Areas section.
5. After a disturbance event[11] which results in undesirable soil or plant conditions, livestock grazing would typically not be permitted the remainder of the calendar year, and through the growing season of the next year. Exceptions would be for cases where such grazing would either not impede site recovery, or where livestock are used as a tool to aid in achieving certain recovery objectives (such as cheatgrass control). Livestock grazing would resume after interdisciplinary review and determination that soil and vegetation have recovered sufficiently from the initial disturbance to support livestock grazing.
6. Livestock grazing would be allowed in pastures if the disturbance event does not result in undesirable soil or vegetative conditions. Livestock exclusion after disturbance events would also not be required if livestock would not be trailed through the affected area, and attractants (e.g., water, supplemental feed, salt) are not provided within one mile. Attractants could be closer than one mile if physical barriers (e.g., rimrock, fences) would prevent livestock access to the affected area.

[11] Natural and human-induced events including but not limited to wildland fire, prescribed burns, timber management treatments, juniper cuts, and rehabilitation seedings.

7. Prescribed or permitted livestock grazing could occur any time after disturbances in pastures containing affected areas if an interdisciplinary team designs and monitors the grazing to accomplish resource objectives (e.g. to control noxious weeds, or assist in getting broadcast seeds worked into the soil).

Allotment Classification

8. FEIS Map 5 and the "Alt 7" column in Appendix G show areas available for livestock grazing. Allotments are shown or listed in one of several categories: "Open," "If permit is relinquished (IPR), Open or create Reserve Forage Allotment (RFA)" (see explanation of RFA below under guidelines), "IPR, create RFA," "IPR, Close or create RFA," "IPR, Close" or "Close." Some of these categories allow manager discretion (ones with "or").
9. Livestock grazing would continue to be allowed for allotments in the "Open" category on the Grazing Matrix (Table PRMP-4). See section below on "Using the Grazing Matrix" for instructions on how to rate allotments, and see Table PRMP-5 for allotments' raw scores on each factor. Currently about 90 allotments (75 percent) of the allotments are in the "Open" category.
10. Livestock grazing would continue be allowed under permit or as an RFA for allotments falling in the "IPR, Open or Create RFA" category on the Grazing Matrix if the grazing permittee voluntarily relinquishes his or her grazing permit.
11. Allow livestock grazing as an RFA for allotments falling into the "IPR, Create RFA" category if the grazing permittee voluntarily relinquishes his or her grazing permit.
12. Livestock grazing would not be allowed under permit but could be allowed as an RFA for allotments falling into the "IPR, Close or Create RFA" category if the grazing permittee voluntarily relinquishes his or her grazing permit.
13. Livestock grazing would not be allowed for allotments falling in the "IPR, Close" category if the grazing permittee voluntarily relinquishes his or her grazing permit.
14. Livestock grazing would not be allowed for allotments falling in the "Close" category.

<u>Guidelines:</u>

1. Permits for Reserve Forage Allotments would not be held by specific grazing operators. In these allotments, temporary, non-renewable use could be granted to federal permit holders when there is a demonstrated need to rest a permittee's allotment. "Need" for rest would include but not be limited to the following reasons: Prior to prescribed fire or necessary fence construction, or during/after rehabilitation projects, wildland fire or prescribed fire, drought, flood, insect damage, or disease. Use would meet goals described for the area in the RMP and, if applicable, in an Allotment Management Plan.
2. Grazing operators in good standing can continue to hold or transfer permits to other qualified applicants in all but those allotments in the "Close" category on the Grazing Decision Matrix.

Using the Grazing Matrix

3. Estimate the potential demand for and social and ecological conflict in each allotment using the factors shown in Table PRMP-2. Note conflict/demand are interrelated, so there is some overlap of factors used in their estimates. The weighting of each factor in the conflict/demand rating is also shown in the Table PRMP-3.

Table PRMP-2 Grazing Matrix Factors[1]

Factor title	What factor measures	How factor is calculated[2]	Weight of factor		
			Social	Demand	Ecological
SMA Social	Percent of acres within allotment designated as a Special Management Area (SMA) in part for social values (e.g.: WSA for scenery, solitude)	Acres SMA-social/total acres in allotment.	33		
Zoning	Miles of high-density zoning (resort, residential) along allotment boundary relative to number of AUMs in allotment, and relative to other allotments.	Miles X 4000/AUMs in allotment.[3]	33	20	
Recreation	Amount of recreational use in allotment	If C3 on Allotment Categorization Form (see App. G) is "M" then the score is 75; if it is "H" the score is 100.	33	12	
Wait List	Rancher interest in allotment	Relative interest shown in an allotment compared to other allotments, based on considerations including but not limited to applications, letters of interest and personal contacts.		12	
Fencing	Cost to install new fence and maintain existing fence, relative to other allotments.	Miles of fence maintenance X 4 X $50/mi/yr + miles of new fence X $4,000/mi/decade.[4]		12	
Water	Percent of allotment needing water hauled to troughs	Permittee and BLM estimate of number of acres served by hauling water to troughs, divided by the total number of acres in the allotment.		12	
Seasonal	Amount of seasonal restrictions on livestock grazing.	Grazing restricted to one season = 100, two seasons = 50, three seasons = 25, year-round permit = 0		10	
Forage	Relative amount of forage in allotment, compared to other allotments in planning area	For each allotment, 2500/AUMs.[5]		12	
Wildlife	Percent of allotment containing important deer, grouse, and elk habitats.	For each allotment, 0.5 X (percent of acres deer winter range + percent of acres sage grouse habitat + percent elk winter range)[6]		10	30
SMA Ecological	Percent of acres within allotment designated SMA at least in part for ecological values (e.g. Peck's Milkvetch ACEC).	Acres SMA-ecological/total acres in allotment.			30
Rangeland Health Assessment	Percent of Standards not met during Rangeland Health Assessment, where livestock have been determined to be part of that failure.	Number of Standards not met where livestock are a factor/total number of Standards (5)			40

[1] Each allotment's score on the above factors at the time of this printing is listed in Table LG2-XX. These scores are not constant; they change as the amount of residentially zoned land around allotments changes, as the proportion of the allotment where water is hauled vs. piped changes, and as each of the other factors making up the scores changes.
[2] All calculations are estimates, and would require site visit, updated information, and permittee input to get more accurate estimate. Scores at time of this printing are shown in Appendix G.
[3] Score is multiplied (by number indicated) and scores over 100 are set at 100, to get a more even spread of scores and to make the indicators sensitive enough to register differences.
[4] *Ibid*
[5] *Ibid*
[6] *Ibid*

Table PRMP-3 Grazing Matrix Rating

Factor	Rating		
	Low	Moderate	High
Social	<34	34-66	>66
Demand	>66	34-66	<34
Ecological	<34	34-66	>67

Table PRMP-4: Grazing Matrix

		SOCIAL & ECOLOGICAL RATING								
		Low Ecological			Moderate Ecological			High Ecological		
		Low Social	Moderate Social	High Social	Low Social	Moderate Social	High Social	Low Social	Moderate Social	High Social
DEMAND RATING	Low Demand	IPR[1], Close or create RFA[2]	IPR, Close or create RFA	IPR, Close or create RFA	IPR, Close or create RFA	IPR, Close	IPR, Close	IPR, Close	Close[3]	Close
	Moderate Demand	Open	Open	IPR, create RFA	Open	IPR, Close or create RFA	IPR, Close	IPR, Close or create RFA	IPR, Close	IPR, Close
	High Demand	Open	Open	IPR, Open or create RFA	Open	IPR, Open or Create RFA	IPR, create RFA	IPR, Open or create RFA	IPR, create RFA	IPR, Close or create RFA

[1] IPR = if permit is relinquished
[2] RFA = Reserve Forage Allotment
[3] Close = Discontinue livestock grazing for the life of the plan. BLM would provide two years notice of cancellation unless waived by permittee.

Table PRMP-5: Indicators of and estimated levels of Conflict/Demand regarding Livestock Grazing (for use in Grazing Matrix).

Allotment Number	Indicators (factors)											Estimated Levels Total score[1] in category, and rating (Low, Moderate, High)					
	SMA Soc	Zoning	Recreation	Waiting List	Fences	Water	Seasonal	Forage	Wildlife	SMA Eco	S&Gs	Social		Demand		Ecological	
0072	0	12	75	75	57	100	100	30	3	0	0	43	M	58	M	1	L
5001	0	100	75	90	29	100	50	100	3	0	0	88	H	72	L	1	L
5002	0	100	75	95	100	0	100	100	0	0	0	88	H	74	L	0	L
5003	0	100	0	95	100	100	50	100	0	0	0	51	M	72	L	0	L
5004	0	0	0	90	25	0	100	100	0	0	0	0	L	43	M	0	L
5006	0	100	75	95	100	100	50	100	100	100	0	88	H	91	L	60	M
5007	0	0	75	85	68	50	100	100	100	100	0	37	M	72	L	60	M
5011	0	0	0	0	17	0	0	100	100	0	0	0	L	24	H	30	L
5012	0	72	75	75	77	100	0	30	100	0	0	74	H	68	L	30	L
5018	0	41	75	50	27	0	50	51	100	0	0	58	M	48	M	30	L
5019	0	0	100	10	5	40	25	13	10	0	0	50	M	24	H	3	L
5022	0	100	75	75	42	0	100	40	0	0	20	88	H	56	M	8	L
5023	0	0	0	0	40	0	0	100	80	0	0	0	L	25	H	24	L
5024	0	0	0	0	20	0	25	100	100	0	0	0	L	27	H	30	L
5026	0	67	0	95	100	0	50	83	100	2	0	34	M	64	M	31	L
5031	0	0	75	90	100	0	0	37	100	0	40	37	M	53	M	46	M
5032	0	0	0	90	25	100	100	100	53	0	0	0	L	60	M	16	L
5050	0	0	100	85	11	100	50	89	100	0	0	50	M	68	L	30	L
5051	0	0	100	85	20	100	0	49	100	0	0	50	M	59	M	30	L
5052	0	0	100	85	50	100	0	100	82	0	0	50	M	67	L	25	L
5061	0	100	100	95	100	100	50	7	100	0	0	101	H	83	L	30	L
5064	0	0	0	65	23	100	50	57	100	0	0	0	L	50	M	30	L
5065	0	52	75	50	34	100	100	8	100	0	0	63	M	62	M	30	L
5066	0	29	0	75	32	100	100	74	100	0	0	15	L	63	M	30	L
5067	0	0	75	95	100	0	50	100	100	0	0	37	M	67	L	30	L
5068	0	0	75	95	100	100	50	54	100	0	0	37	M	74	L	30	L
5069	0	100	75	95	100	50	50	100	100	0	0	88	H	85	L	30	L
5070	0	0	75	95	100	100	50	13	100	0	0	37	M	69	L	30	L
5071	0	56	75	95	100	100	50	10	100	0	0	65	M	75	L	30	L

Allotment Number	Indicators (factors)											Estimated Levels Total score[1] in category, and rating (Low, Moderate, High)					
	SMA Soc	Zoning	Recreation	Waiting List	Fences	Water	Seasonal	Forage	Wildlife	SMA Eco	S&Gs	Social		Demand		Ecological	
5072	0	42	100	90	90	100	50	17	100	0	0	71	H	75	L	30	L
5073	0	13	100	60	10	100	0	4	100	43	0	56	M	49	M	43	M
5075	0	71	100	60	50	100	0	22	100	65	0	86	H	63	M	50	M
5076	0	0	0	75	4	0	100	37	100	0	40	0	L	40	M	46	M
5078	0	100	100	75	12	100	50	13	100	100	40	101	H	69	L	76	H
5079	0	10	100	75	12	100	50	25	100	49	40	55	M	60	M	61	M
5080	0	24	75	50	37	100	0	12	100	0	0	49	M	50	M	30	L
5081	0	0	0	80	36	0	100	100	100	0	0	0	L	52	M	30	L
5082	0	0	0	95	100	0	50	100	100	0	0	0	L	58	M	30	L
5084	0	0	75	95	100	100	50	100	0	0	0	37	M	69	L	0	L
5086	0	0	0	90	100	0	100	100	20	0	0	0	L	54	M	6	L
5088	0	0	0	90	12	0	25	100	79	0	0	0	L	42	M	24	L
5089	0	0	75	90	100	25	100	100	0	0	0	37	M	64	M	0	L
5092	0	0	100	90	36	0	100	76	0	0	0	50	M	53	M	0	L
5093	0	0	0	90	84	0	50	100	0	0	0	0	L	45	M	0	L
5094	0	0	0	90	13	100	25	100	0	0	0	0	L	46	M	0	L
5096	0	83	0	90	25	0	0	100	100	0	0	43	M	53	M	30	L
5107	0	0	0	90	6	0	25	69	0	0	0	0	L	30	H	0	L
5108	15	0	100	80	17	0	25	33	100	0	0	57	M	47	M	30	L
5109	0	0	75	60	17	100	0	10	100	0	0	37	M	46	M	30	L
5110	0	0	0	90	11	0	25	71	0	0	0	0	L	30	H	0	L
5111	0	100	75	75	37	100	100	51	0	0	0	88	H	69	L	0	L
5112	0	4	75	60	15	50	50	10	0	0	0	39	M	36	M	0	L
5113	0	0	100	60	27	50	100	25	0	0	0	50	M	46	M	0	L
5114	0	0	100	60	11	50	25	14	0	0	0	50	M	36	M	0	L
5115	0	0	100	50	24	0	50	23	0	0	0	50	M	33	H	0	L
5116	2	60	100	50	11	0	100	4	0	0	0	81	H	41	M	0	L
5117	5	0	100	50	9	0	50	5	0	0	0	52	M	29	H	0	L
5119	0	0	0	50	4	0	100	50	0	0	0	0	L	26	H	0	L
5120	4	0	100	50	13	50	25	11	0	0	0	51	M	33	M	0	L
5121	0	0	75	25	13	100	0	21	0	0	0	37	M	30	H	0	L
5122	13	100	75	85	13	0	25	37	0	0	0	95	H	47	M	0	L
5123	0	0	0	0	8	0	0	49	100	0	0	0	L	17	H	30	L

Allotment Number	Indicators (factors)											Estimated Levels Total score[1] in category, and rating (Low, Moderate, High)					
	SMA Soc	Zoning	Recreation	Waiting List	Fences	Water	Seasonal	Forage	Wildlife	SMA Eco	S&Gs	Social		Demand		Ecological	
5125	0	0	100	50	14	50	25	8	0	0	0	50	M	33	H	0	L
5127	0	0	100	25	14	100	25	4	100	0	0	50	M	44	M	30	L
5130	0	0	0	0	6	0	0	24	100	0	0	0	L	14	H	30	L
5132	0	25	100	25	21	75	0	6	100	0	0	62	M	42	M	30	L
5133	0	0	0	0	53	0	25	100	100	0	0	0	L	31	H	30	L
5134	0	0	100	0	14	5	0	4	100	0	60	50	M	25	H	54	M
5135	0	72	100	25	12	0	0	7	100	0	0	86	H	38	M	30	L
5136	0	57	100	10	13	0	75	7	100	0	0	78	H	41	M	30	L
5138	0	0	75	25	23	100	0	10	100	0	0	37	M	40	M	30	L
5140	0	0	75	0	6	0	50	2	100	0	0	37	M	25	H	30	L
5141	0	0	0	0	6	0	50	7	100	0	0	0	L	17	H	30	L
5142	0	100	75	0	23	0	0	54	100	0	0	88	H	40	M	30	L
5143	0	0	75	0	14	0	75	15	100	0	0	37	M	30	H	30	L
5145	0	0	100	0	16	0	50	15	100	0	0	50	M	31	H	30	L
5176	0	0	0	95	100	0	50	100	100	0	0	0	L	58	M	30	L
5177	0	0	0	90	16	0	50	25	100	0	0	0	L	38	M	30	L
5178	0	0	0	95	100	50	50	36	100	0	0	0	L	56	M	30	L
5179	0	0	0	90	100	0	50	100	60	0	0	0	L	53	M	18	L
5180	0	0	0	85	100	0	50	100	99	0	0	0	L	56	M	30	L
5182	0	0	0	95	100	0	50	32	100	0	0	0	L	50	M	30	L
5198	0	0	0	95	100	0	50	100	80	0	60	0	L	56	M	48	M
5201	0	43	100	75	13	100	50	18	0	0	0	71	H	53	M	0	L
5204	100	71	75	90	25	100	25	89	100	0	0	123	H	74	L	30	L
5205	56	0	75	85	48	0	0	33	100	0	40	65	M	46	M	46	M
5206	0	100	75	95	100	100	50	100	100	0	0	88	H	91	L	30	L
5207	100	0	75	85	39	100	25	66	100	0	40	87	H	63	M	46	M
5208	0	28	75	25	6	0	50	4	100	0	0	52	M	34	M	30	L
5209	93	0	75	25	11	100	25	5	100	0	20	83	H	40	M	38	M
5210	0	0	75	0	5	100	0	2	100	0	0	37	M	32	H	30	L
5211	0	0	100	10	7	85	0	8	100	0	0	50	M	36	M	30	L
5212	5	0	100	10	5	0	0	1	100	0	0	52	M	25	H	30	L
5213	44	0	100	10	8	100	0	4	100	0	0	71	H	37	M	30	L
5214	0	0	100	0	9	0	0	3	100	0	0	50	M	23	H	30	L

Allotment Number	Indicators (factors)											Estimated Levels Total score[1] in category, and rating (Low, Moderate, High)					
	SMA Soc	Zoning	Recreation	Waiting List	Fences	Water	Seasonal	Forage	Wildlife	SMA Eco	S&Gs	Social		Demand		Ecological	
5216	0	0	75	85	75	0	100	100	0	0	20	37	M	57	M	8	L
5224	0	0	0	0	47	0	0	100	100	0	0	0	L	28	H	30	L
5228	0	0	0	0	7	0	0	15	100	0	0	0	L	13	H	30	L
5231	0	0	75	0	4	0	50	1	100	0	0	37	M	25	H	30	L
5233	0	0	0	0	3	10	0	5	100	0	0	0	L	12	H	30	L
5234	0	0	0	0	6	0	25	13	100	0	0	0	L	15	H	30	L
5252	0	0	75	95	79	0	50	74	0	0	0	37	M	51	M	0	L
5257	0	0	0	0	10	0	0	100	42	0	0	0	L	17	H	13	L
5261	0	91	0	0	14	0	25	57	100	0	0	46	M	32	H	30	L
7502	0	4	0	85	43	100	0	2	100	0	0	2	L	45	M	30	L
7504	0	11	0	75	9	0	25	27	100	0	0	5	L	33	H	30	L
7509	0	100	75	75	55	0	50	28	100	0	0	88	H	61	M	30	L
7514	0	100	0	90	61	0	100	93	100	0	0	51	M	68	L	30	L
7515	0	0	75	85	13	0	25	42	100	0	0	37	M	45	M	30	L
7530	0	0	0	90	3	0	100	78	0	0	0	0	L	38	M	0	L
7538	0	100	75	95	100	0	50	96	100	0	0	88	H	79	L	30	L
7552	0	2	0	60	7	50	50	4	100	0	0	1	L	34	M	30	L
7554	0	0	0	90	27	0	50	100	40	0	20	0	L	42	M	20	L
7559	0	28	75	60	8	50	25	14	100	0	0	51	M	46	M	30	L
7571	0	38	0	95	42	0	50	96	0	0	0	20	L	45	M	0	L
7572	0	100	0	90	29	0	25	100	0	0	0	51	M	48	M	0	L
7574	0	0	0	95	41	100	50	74	39	0	0	0	L	54	M	12	L
7575	0	82	0	80	55	0	75	34	0	0	0	42	M	44	M	0	L
7582	0	0	0	75	29	100	0	100	99	0	0	0	L	52	M	30	L
7586	0	61	75	80	21	100	75	76	0	0	0	68	H	63	M	0	L
7594	0	0	0	95	25	0	25	100	13	0	0	0	L	38	M	4	L
7595	0	100	0	80	22	50	25	35	100	0	0	51	M	53	M	30	L
7597	0	0	75	73	5	0	50	10	100	0	0	37	M	40	M	30	L
9999	0	6	75	75	26	50	50	0	100	0	0	40	M	49	M	30	L

[1] The raw scores for some factors were proportionally adjusted to achieve a fairly even spread between 0 and 100 (aiming for about 1/3 falling above 67, at the "high" end). This was necessary to make the indicators sensitive enough to register differences between allotments. These adjustments are noted above by the adjusted factors.

Minerals

<u>Objective MN – 1:</u> Meet the increasing demand for mineral materials while mitigating conflicts with recreation and residents. Also mitigate leasable and locatable mining conflicts with recreation and residents. Place more emphasis on reduction of mining conflicts with recreation and natural resource management objectives in "rural" areas (See FEIS Map 8).

<u>Rationale:</u>
The Brothers/La Pine RMP (1989) did not anticipate the rapid population growth of Central Oregon, growth in demand for mineral materials, and increasing mining conflicts with recreation, residents, and wildlife. Local residents and recreational users have voiced objections to the noise, dust, scenic degradation, and increased traffic associated with mining.

<u>Allocations/Allowable Uses:</u>
1. Public lands not withdrawn from mineral entry or otherwise closed to the development of mineral resources may be explored and/or developed for mineral materials and locatable and leasable minerals with consideration for conflicts with residents, recreation and resource management objectives. Plans of operation for mineral material sites, mineral leasing and mining claims would be include measures to mitigate conflicts with recreation and residents where such conflicts exist.
2. Mineral material sites would not be developed within 1/8 mile of residentially zoned areas or designated recreation sites. Designated recreation sites that depend upon or exist in mineral sites generally would not be considered to be in conflict with mining for hte purposes of setting up a 1/8 mile closure area.
3. 349,199 acres would be available for the development of mineral material sites.
4. Roads under BLM jurisdiction that feed into residentially zoned areas may be used for mining-related traffic only if alternate routes are not available.
5. In "urban" areas, mineral material site development would not occur within 1/8 mile of designated recreation sites.
6. In "rural" areas, mineral material site development would not occur within 1/2 mile of designated recreation sites.
7. Seasonal Restrictions on all mineral operations could apply on 60,521 acres to protect wildlife and habitat (See FEIS Map 3, Recreation and Travel Management Designations and Table PRMP-1, General Guidelines for Seasonal Restriction and Distance Buffers).
8. Surface occupancy for fluid mineral leasing would not be allowed on 48,305 acres.

<u>Guidelines</u>:
1. Hours of operation for surface mining activities could be implemented as needed to mitigate conflict with residents and recreation:
   A. For mineral material sites within ½ mile of designated recreation sites and residentially zoned areas, mineral extraction, processing, and equipment operation may be restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday.
   B. For mineral material sites located farther than 1/2 mile from developed recreation sites and residentially zoned areas, mineral extraction, processing, and equipment operation may be restricted to the hours of 7:00 a.m. to 10:00 p.m. Monday through Friday.
   C. Operations at mineral material sites may not be allowed on weekends (Saturdays and Sundays) or the following legal holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day.
2. Blasting restrictions may also be implemented as needed to mitigate conflicts:
   A. For mineral material sites within one mile of designated recreation sites, residential areas, and agricultural use sites involving the raising of animals, blasting may be restricted to the hours of 9:00 a.m. to 5:00 p.m. Monday through Friday.
   B. The operator may be required to provide written notification to land owners and inhabitants within one mile of the mineral material site specifying the days and hours that blasting would occur at least 48 hours prior to the time blasting starts. For extended blasting operations, such notification would be given at least once each month if such notification is required.
   C. Blasting at mineral material sites may not be allowed on weekends (Saturdays and Sundays) or any of the legal holidays.

3. Designated recreation sites that depend upon or exist in mineral material sites generally would not be considered to be in conflict with mining operations for the purposes of setting up a buffer zone. During periods of authorized mining activity, designated recreation sites that depend on or exist in the mineral material site may be temporarily closed.
4. Environmental Assessments written for proposed mineral material sites shall include stipulations for allowable recreation uses of those sites approved for development. Allowable recreation uses shall be specified for periods of active operations and for periods of inactivity over the expected life of each new mineral pit.
5. When a new mineral materials site is initially permitted within the Planning Area the BLM would explicitly address the following:
   A. Firearm discharge, generally managing under one of the following guidelines:
      i. No restrictions on firearm discharge
      ii. No firearm discharge unless legally hunting
      iii. No firearm discharge
   B. Off-Highway Vehicle (OHV) use is generally managed under one of the following guidelines:
      i. No restrictions on motorized use
      ii. The type of motorized use is limited
      iii. All motorized use is prohibited
   C. Public notice of possible use restrictions: The authorized officer may include stipulations in sales and free use contracts requiring or authorizing operators to post signs and/or provide access control (i.e. fences, gates etc.) for recreational activities.
6. Require plans of operation including reclamation plans, fees, or bonds as authorized by 43 CFR Part 3600 for testing, sampling and mining of common variety mineral materials.
7. See Special Management Areas for other guidelines and allocations for minerals.

Rockhounding

<u>Objective MN – 1a:</u> Provide recreational rockhounding[12] opportunities while protecting other values. Manage rockhounding resources to provide long-term recreation opportunities while mitigating ground disturbances and discouraging illegal commercial activity and excessive personal use.

<u>Rationale:</u>
Collection of rocks, fossils, and mineral specimens from public lands for commercial use is an ongoing illegal activity. Excessive quantities of rocks and mineral specimens collected for personal or illegal commercial use would deplete rockhounding sites more rapidly and may result in the loss of future recreational rock collecting opportunities.

There are currently no reclamation requirements for ground disturbances resulting from rockhounding. At many rockhounding sites, numerous holes are left unfilled, tunnel horizontally into the earth, or undermine trees. These activities create hazards to health and safety.

Under existing management direction, legal rock collecting activities could adversely impact riparian areas and watersheds.

The Reservoir Heights and Prineville Reservoir rockhounding sites designated in the B/LP RMP do not have significant amounts of materials of rockhounding interest. The Fischer Canyon rockhounding site has paleontological resources that should be evaluated for significance.

<u>Allocations/Allowable Uses:</u>
1. Continue designation of the North Ochoco Reservoir, Eagle Rock, and Fischer Canyon sites for rockhounding. These rockhounding sites would be designated as all BLM-

[12] Rockhounding is defined in this plan as the non-commercial hobby collection of mineral specimens, semi-precious gemstones, common invertebrate fossils and petrified wood. These rock types include but are not limited to agate, jasper, quartz, calcite, cinnabar, opal, obsidian, botanical (leaf) fossils, and marine invertebrate fossils (clams, snails, etc.).

administered lands within the following areas: (1) North Ochoco Reservoir – SE ¼ Section 31 of T14S R17E, (2) Eagle Rock – NW ¼ of Section 14 and NE ¼ Section 15 of T16S R17E, and (3) Fischer Canyon – Section 9 T18S R17.

2. Discontinue management of the Prineville Reservoir, Reservoir Heights, and the portion of the Fischer Canyon site west of Highway 27 for rockhounding.
3. Permits for commercial use generally would not be issued for areas within the boundaries of designated rockhounding sites to protect recreational collecting opportunities.
4. On public lands open to rockhounding, no person would be allowed to create or occupy excavations or holes that (1) undermine the root systems of trees, (2) enter into the ground at a non-vertical angle so as to create a tunnel or overhang or (3) have vertical walls that exceed a depth or height of four feet. The walls of holes or excavations that exceed a depth of four feet must be sloped to an angle not greater than 45 degrees from horizontal.
5. All persons excavating, digging or otherwise removing soil to explore for, discover, or remove buried rock materials outside of designated rockhounding site boundaries would be required to fill all holes prior to departure from the digging site.
6. In all riparian areas and stream channels including the channel banks, rockhounding activities would be restricted to surface collection only. Stream channels are defined as all perennial, intermittent, and ephemeral channels having defined beds and banks. A stream channels is an open conduit which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water. No person would be allowed to excavate, dig, or otherwise remove soil, sand, or gravel in stream channels to explore for, discover, or remove buried rock materials. The collecting restrictions in stream channels would not preclude casual use for locatable minerals as provided for in 43 CFR 3809.5.
7. See "Special Management Areas" for additional rockhounding management direction.

Guidelines:

1. Develop rockhounding management plans for specific sites including Eagle Rock and Fischer Canyon.

Decorative Stone

Objective MN – 1b: Provide decorative stone[13] collecting opportunities while protecting other values. Manage decorative stone resources to provide long-term collecting opportunities while discouraging illegal commercial use and mitigating ground disturbances and widespread damage to rock outcrops.

Rationale:

The unregulated collection of decorative stone has resulted in damaged and defaced pressure ridges, cliff faces, and other rock outcrops across the planning area, mainly in the urban interface. Moreover, vehicles have been driven off-road to reach outcrops and surface deposits. Due to increasing populations and high commercial prices, the demand for decorative stone from public lands is likely to increase during the life of this plan. The effects of decorative stone collection would likely continue to spread and increase in the absence of regulation.

Allocations/Allowable Uses:

Until common use area(s) are designated, the following would apply across the planning area, except for existing community pits:

[13]The collection of mineral materials for decorative stone, landscaping, or other similar uses would not be considered rockhounding. Rocks considered to be decorative stone would include but not be limited to basalt, andesite, rhyolite, tuff, pumice, and cinder. Specific forms of these rock types include but are not limited to gravel, rounded river cobbles, basalt columns, flagstone, stepping stones, and boulders. Mineral specimens, semi-precious gemstones, common invertebrate fossils, and petrified wood are not considered to be decorative stone for the purposes of this plan (see Rockhounding).

1. Where rock collecting is allowed, the general public would be allowed to collect small amounts[14] of decorative stone without a permit provided that:
   A. Only loose rocks (float) on soil are collected.
   B. No rocks are removed from outcrops including but not limited to bedrock surfaces, cliff faces, pressure ridges, or other lava flow exposures.
   C. The material is collected for noncommercial use; any commercial use would require a permit.
   D. No vehicles are driven off-road or in a manner inconsistent with motorized travel regulations.

After common use area(s) are designated, the following would apply:

2. Any collection of decorative stone in the planning area would require a sales contract or free use permit.
3. Sales contracts/free use permits to the general public would only be issued for common use area(s) or existing community pits. The collection of decorative stone would not be allowed in areas without common use or community pit designation.

Use of the Prineville Reservoir Pit would be allowed as follows:

4. The pit would be inaccessible most of the year due to road closures in the area.
5. The access road to the pit would be opened to the public and commercial operators during the month of May unless otherwise determined by site specific analysis. Only those persons with valid sales contracts for the site would be allowed to use motorized vehicles to access pit, and they would only have authorization to drive on the main access road.
6. Government agencies with valid free use permits would be granted administrative access to the site.

Guidelines:

1. Designate common use area(s) through site-specific environmental analyses for personal and commercial decorative stone collection. Determine maximum collection amounts per household or per person and whether commercial use would be allowed. Determine conditions for free use permit vs. sales contract, consistent with 43 CFR Part 3600.
2. The decorative stone management direction (before and after community pit designation(s)) would not change existing management direction for considering mineral material permit requests from private commercial operators or government agencies. Commercial operators and government agencies may apply for development of new mineral material sites on any lands that are open to that use.

Forest, Range, and Woodland Products

Objective FP – 1: Manage forests, woodlands, and rangelands to provide for social and economic values, including wood products, consistent with ecosystem sustainability and other resource management objectives. Timber harvest would normally be associated with restoration treatments and would be designed to meet objectives for forest health, fuels reduction, hazard tree removal, special status species management, recreation and travel management, and wildlife habitat management.

Rationale:

Harvest of forest, range, and woodland products is consistent with BLM's multiple-use mandate as directed in the Federal Land and Policy Management Act. Most of the accelerated harvest/salvage that was specified in the Brothers/La Pine RMP due to the pine beetle epidemic has been implemented within the last 15 years. During the next 30-40 years, harvested areas would be allowed to regenerate and return to a productive condition suitable for potential future timber harvest. Therefore, a probable sale quantity

[14] Small amounts are defined as no more than 1 cubic yard or ton per household per year. This is approximately the amount that can fit in the bed of a full size pickup truck.

(PSQ) will not be projected for the life of this RMP (approximately 15 years). A new PSQ for La Pine commercial forestlands based on sustainable production capability would likely be determined during a future RMP planning effort for the Upper Deschutes Planning Area.

To prevent further declines in forest ecosystem health, timber harvest would be done for stewardship reasons and would be consistent with objectives such as: reducing risk of severe fire behavior and effects, promoting shade intolerant species, promoting scarce terrestrial habitats, and increasing resiliency to disturbance. Forest product outputs from the northern area would also be limited due to the dry site, low productivity conditions and the scattered land ownership pattern in this area.

Commercial Timber and Biomass Fiber

Allocations/Allowable Uses:

1. Allow harvest of forest and woodland products produced from restoration and fuels reduction treatments where practicable and where compatible with other resource objectives. Sale receipts would be used, where allowable under current policies, to help offset treatment costs.

2. Allow collection of juniper wood products in conjunction with woodland/shrub-steppe maintenance and restoration treatments, except where restricted within RNAs, WSAs and other special designations.

Guidelines:

1. Where compatible with restoration and other resource objectives, manage for the long-term sustained production of forest products through a program of periodic pre-commercial and small diameter commercial thinning.
2. Commercial and pre-commercial thinning and other forest treatments in the La Pine area would occur on up to 1,500 acres per year producing up to 3,000 CCF (hundred cubic feet) per year. Commercial and pre-commercial thinning and other forest treatments in the northern area would occur on up to 80 acres per year producing up to 158 CCF per year. Acres and CCF figures are considered on an average annual basis.
3. Promote harvest, utilization, and marketing of small diameter pine and juniper wherever practicable to reduce fuel loading and achieve resource management objectives. Consider entering into partnerships to facilitate the development of new products and new low-impact harvesting techniques for small diameter trees and young juniper. During project environmental analyses, consider the larger societal benefits and tradeoffs of utilizing forest and woodland fuel residues and small tree biomass in products that would serve as a substitute for other products that would have a higher environmental and/or economic cost (i.e. metals, plastics, petroleum based fuel/products).
4. Salvage of killed and damaged trees from wildland fire, wind throw, insects, disease and other causes would be considered in conjunction with snag and down wood retention guidelines and other resource objectives, including recovery of economic value. When salvage is appropriate, high priority would be given to rapid action to minimize loss of timber value.
5. Snags and down logs would be retained to meet objectives for specific habitat types as specified in Wildlife Guidelines.
6. Plantation management treatments including site preparation, planting, replanting, animal damage control, and fertilization would be implemented as appropriate and in accordance with site-specific project plans.
7. Harvest of forest and woodland products would comply with all applicable travel management regulations, except where specifically allowed as administrative access.

Special Products

Allocations/Allowable Uses:

1. Allow collection of minor amounts of native plants, seed, lichen, and other vegetative products in a sustainable manner and in accordance with permit guidelines established for specific products or specific areas.
2. Allow juniper bough harvest in the planning area, except within ACECs, developed recreation sites, river corridors, along major highways/roads, and other restricted areas identified on permits.

Guidelines:

1. Restoration treatments using mechanical methods would provide opportunities to harvest juniper for furniture wood, hobby wood, fence posts, boughs, and other uses where available and where appropriate.
2. For long-term sustainability of the public firewood program, opportunities would be sought to transition away from cutting of dead standing trees to utilization of smaller diameter green trees obtained from thinning and fuels reduction treatments.
3. Harvest of special products would comply with all applicable travel management regulations, except where specifically allowed as administrative access.

Objective FP - 2: Provide for maintenance and safety of facilities within and adjacent to urban areas, residential areas, major roads, trails, facilities, and recreational developments.

Rationale:

Forested areas with insects, disease and mortality result in occasional hazard trees. Hazard trees are dead standing or green trees that are leaning or have other defects such that they pose a safety hazard to local residents, travelers, recreationists, private property, and facilities.

Guidelines:

1. Cutting and removal of individual or small groups of hazard trees would be allowed where trees pose a safety risk to people or an imminent threat to valuable structures, utilities, roads or other facilities. Cutting and removal of hazardous large snags and old-growth trees would be evaluated on a case-by-case basis. Mitigation measures such as topping trees or relocating low-value structures, in lieu of cutting high value trees, would also be considered.
2. All vegetative treatment prescriptions should consider multiple objectives, including removal of trees that pose a safety hazard to humans or threat of damage to property.

Military Uses

Objective MU -1: Provide a reliable land base suitable for meeting short and long term national and state readiness needs.

Rationale:

The National Guard requires a large training maneuver area within the State of Oregon to train troops and maintain troop readiness in support of State and national missions including State emergencies that may affect public health and safety. No comparable maneuver training area presently exists within the State of Oregon. The existing series of short term agreements has restricted the ability of the OMD to obtain congressional funding to meet program, manpower, and equipment needs at the Training Center.

The BLM is authorized to make lands available for multiple uses, including military training, under the Federal Land Policy and Management Act (FLPMA), (90 Stat. 2743; 43 U.S.C. 1701, et seq.) and the Engle Act (72 Stat. 27; 43 U.S.C. 155 - 158). The primary regulatory guidance is at 43 CFR Parts 2300, 2800, and 2900. BLM policy concerning making lands available for use by the military is described in Instruction Memorandum No. 2001-030 and includes "All authorizations for military activity must provide the proponent agency the minimum land area necessary to accomplish the authorized activity in a safe and generally unimpeded manner, subject to valid existing rights."

Allocations/Allowable Uses:

Training Area

1. Long-term military use would be allowed where shown on FEIS Map 6 – Land Ownership and Military Use Areas. Also see Appendix J – Legal Description of Lands Designated for Military Training.
2. As displayed in Table PRMP-6, Military Training Area Acres, approximately 44,000 acres of would be allocated as either core or extended areas for long-term training use by the Oregon Military Department and National Guard.

Core Training Area

3. The designated core training area would be south of O'Neil Highway, crossing Highway 126 and Powell Buttes Highway and south of Roberts Field and Deschutes County Fairgrounds. From north to south, the permitted area would remain east of the North Unit Canal, except for the area south of the Airport and north of Pronghorn resort. It would be north of BLM road 6589-B. The permitted area would be west of the private land ownership in the rural community of Powell Buttes.

Extended Training Area

4. There would be two designated extended training area:
   A. Area 2 - Five miles south of Prineville Airport to five miles north of the Millican/West Butte Road/Reservoir Road Intersection (Four Corners) (about 7,060 acres)
   B. Area 3 - Five miles north of the Millican/West Butte Road/Reservoir Road Intersection to that intersection (about 9,388 acres)

Guidelines:

Authorize long-term use (minimum of 30 years) of identified BLM-administered lands for military training consistent with objectives identified in this plan.

Objective MU – 2: Allow OMD uses and rights necessary to accomplish the authorized activity in a safe and generally unimpeded manner while meeting the objectives of this Management Plan.

Rationale:

Use of combat vehicles and training activity of personnel pose risks to public lands and disturbance of visitors and adjacent landowners. BLM policy (Instruction Memorandum No. 2001-030) notes that "Requests for use of the public lands for military activity are not given any special status. Proposals made to the BLM and OMD must be considered within the BLM's existing processes, including land use planning, compliance with the National Environmental Policy Act of 1969 (NEPA), other natural resource and cultural resource laws and Executive Orders, and standard public participation practices. To reduce such risks to resources and other uses the military is responsible for rehabilitation activities, resource protection, and other mitigations as specified or authorized in 43 CFR Part 2920.7 Terms and Conditions as part of authorized uses..

Allocations/Allowable Uses:

Core Training Area

1. Allocations/Allowable Uses are identified under Continued Management Direction.

Extended Training Area

2. Areas 2 and 3: Closed from December 1 to May 1 for Pronghorn Winter Range except may be utilized between April 15 and May 1. Waiver may be granted for operations between April 15 and May 1 subject to annual conditions and applicable guidelines.

3. Area 2: Open to dismounted soldiers and wheeled vehicles off road. Tracked vehicles limited to designated roads.

4. Area 3: Vehicles restricted to designated roads only. Dismounted soldiers permitted off road.

Guidelines:

1. BLM-administered lands within the designated training areas, not withdrawn for exclusive use by the Military, would be open to and shared with the public except when OMD and the BLM agree that the security of OMD resources or public and/or OMD personnel safety would be at risk as a result of the intermingling of military and civilian activities.
   A. Restricted access to public lands during military operations would be temporary and procedures for establishing location and duration of closures would be by agreement between the BLM and the OMD
2. When necessary to meet training needs the BLM may authorize exemptions from travel management restrictions for military operations consistent with administrative access guidelines included in Transportation and Utilities.
3. The use of extended training areas (2-3) would be made available as needed for maneuvers when ground and vegetation conditions meet or exceed established baseline conditions.
   A. Military training use would be designed to minimize use conflicts with livestock grazing, recreation, and wildlife while still meeting the objectives for military training.
   B. Baseline conditions would be established by an interdisciplinary process and would include consultation with interested and affected government agencies.
4. Waiver of the seasonal restrictions in the Millican Valley OHV Special Recreation Management Area (Extended areas 2 and 3) may be granted annually after consultation with the BLM. Waivers would be considered that would not significantly affect wildlife or recreational uses.
5. Use of small areas of concentration which have been treated by providing gravel cover, barriers, road improvement/maintenance or other engineering works to reduce general area resource damage is encouraged.
   A. Meeting objectives for public uses of BLM-administered lands would be a secondary objective when selecting types and locations of improvements

Table PRMP-6: Military Training Area Acres

Training Area	Acres
Core – A	5,290
Core – B	5,695
Core – C	2,013
Core – D	9,094
Core – E	6,563
Core – F	163
Total Core	**28,818**
Extended – 2	6,072
Extended – 3	9,095
Total Extended Areas	**15,167**
Total Core and Extended Areas	**43,985**

Visual Resources

<u>Objective VR - 1:</u> Manage all BLM-administered lands in the planning area to meet the following Visual Resource Management Classes:

1. **VRM Class 1 areas – Preserve the existing character of landscapes. Manage VRM Class 1 lands to preserve the existing character of the landscape. Natural, ecological changes dominate; the level of change provided by management actions should be very low and not attract attention. (See also Wilderness Study Area section)**
2. **VRM Class 2 areas – Retain the existing character of landscapes. Manage landscapes seen from high use travel routes, recreation destinations, special management areas, or that provide a visual backdrop to communities for low levels of change to the characteristic landscape. In these areas, management activities may be seen but should not attract the attention of the casual observer. Changes should repeat the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic landscape.**
3. **VRM Class 3 areas – Partially retain the existing character of the landscape. Manage VRM Class 3 lands for moderate levels of change to the characteristic landscape. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic landscape.**
4. **VRM Class 4 areas – Allow major modifications of existing character of landscapes. Manage VRM Class 4 lands for moderate levels of change to the characteristic landscape. Management activities may dominate the view and be the major focus of viewer attention. Every attempt would be made to minimize the effect of management actions through careful location, minimal disturbance, and repeating the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.**
5. **VRM Class 5 areas – Areas in need of rehabilitation from a visual resource standpoint.**

<u>Rationale:</u>
Section 102(8) of FLPMA declares that public land would be managed to protect the quality of scenic values and, where appropriate, to preserve and protect certain public land in its natural condition. NEPA, Section 101(b), requires Federal agencies to "assure for all Americans...esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "utilize a systematic, interdisciplinary approach, which would ensure the

integrated use of...environmental design in the planning and decision making process." The rapid development of rural lands in Central Oregon increases the value and concern over the scenic resources that BLM-administered lands represent.

VRM Process: Objectives for managing visual resources on BLM administered lands are established through the RMP process by defining visual resource management (VRM) classes. The establishment of visual resource management classes on public land is based on an evaluation of the landscape's scenic qualities (mapped as Variety Classes), public sensitivity about scenic qualities of certain areas (mapped as Sensitivity Levels), and the visibility of affected land from Key Observation Points (KOPs) such as major travel corridors (mapped as Distance Zones). VRM classes represent the relative value of visual resources, with Class 1 and 2 being the most valued, Class 3 representing a moderate value, and Class 4 being of least value. Areas can also be identified through the RMP process as Class 5, where the natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications. This classification also applies to areas where there is potential to increase an area's visual quality; Class 5 is often used as an interim classification until objectives of another VRM Class can be reached. Key Observation Points (KOPs) are identified to establish these distance zones and levels of visual sensitivity (See Appendix H for a description of the establishment of VRM classes and KOPs in the planning area).

Allocations/Allowable Uses:
Specific VRM classifications for lands within the planning area are shown on DEIS Map 22. The following list identifies general areas that are included in each VRM Class in the FEIS/PRMP area:

VRM Class 1 – 32,928 acres:
Badlands WSA
Steelhead Falls WSA
Horse Ridge RNA/ACEC/ISA

VRM Class 2 - 37,590 acres:
Areas visible from Prineville Reservoir (foreground views)
Smith Rock block
Horse Ridge and Dry Canyon
Portions of West Butte area
Dry Canyon in Cline Buttes
Deschutes River corridor
Crooked River corridor
Ochoco Reservoir parcel
Cline Buttes slopes visible from the Redmond area
Wagon Roads ACEC
Powell Butte RNA
Redmond Caves parcel
State Highway 31/Outback Scenic Byway
Little Deschutes River Parcel (once acquired)

VRM Class 3 - 88,179 acres:
Skeleton Fire area
West Butte area
Areas visible from Prineville Reservoir (background views)
Smith Canyon area
Immediate foreground view of State Highway 20, 26, 27, 126, Powell Butte Highway, Juniper Canyon Road, Reservoir Road, except where superceded by other VRM Class designations

VRM Class 4 - 246,163 acres:
Remainder of planning area

VRM Class 5 - 8 acres:
Crooked River Canyon area north of Chimney Rock Wild and Scenic River segment

Guidelines:

General

1. Work with State and local governments to manage visual resources and interpretive opportunities along roads and highways including the Hwy 31/Outback Scenic Byway.
2. Project specific analysis may require an increase or decrease in VRM Class depending on existence of new Key Observation Points or project specific determination of seen areas.

All Activities

3. All surface disturbing activities under permit or lease or done by BLM would require visual resource analysis using BLM's contrast rating methodology. Visual design considerations shall be incorporated into all surface-disturbing projects regardless of size or potential impact. Projects would be designed to resolve and minimize potential impacts and meet or exceed the visual resource management class objectives. Project specific analysis would be done based on the following:
   A. Provide this input at the earliest stage of project or permit planning, so as to minimize costly redesign or mitigation at later phases of project design and development. BLM would request project specific visual resource information from project proponents, including design plans, construction drawings, concept plans, etc. prior to starting work on permit approval or environmental assessments or environmental impact statements.
   B. Project specific analysis of visual resource impacts would include an evaluation of new Key Observation Points, including new recreation facilities, trails, and community areas. A project specific determination of seen areas, distance zones and appropriate VRM Class would be done using the VRM mapping in the FEIS/PRMP as a baseline.
   C. Emphasize monitoring during project construction to assure visual resource mitigation measures are met.
4. Landscapes containing negative visual elements, including, but not limited to, braided or extremely dense road networks, garbage piles, unstable cut or fill slopes, open pits, or numerous damaged trees/stumps, would be rehabilitated as funding allows.
5. Identify and rehabilitate negative visual elements on public lands within the immediate foreground (0 to 1/4 mile) corridor of travel routes through special areas (ACECs, RNAs, Wild and Scenic River Corridors, WSAs) and along designated scenic or backcountry byways, trails, and major travel routes through the planning area.

Facilities

6. Parking facilities, structures, structural range improvements, and recreational facilities would normally be placed where they are not visible from known observations points (KOPs). Emphasis would be placed on providing signs to direct recreational visitors to parking areas and facilities instead. Where it is not possible to screen recreational facilities or other structures, or where public safety issues require these facilities to be visible, they would be designed to blend with the elements found in the natural landscape and remain subordinate to the overall strength of the landscape being viewed.
7. New heliports, gravel pits, gravel stockpile locations, clay pits, and borrow areas would be located out of foreground view from KOPs. If a site is not available outside of the immediate (0 to 1/4 mile) foreground view of KOPs, then appropriate

mitigation would be determined (e.g., screening, project design, berms, etc.) prior to permits being issued.

8. Improve entry signage to BLM-administered lands in the planning area, considering the use of native rock foundations, BLM logo signs, and wording that identifies the name of each specific area, etc. A priority would be made on using these higher sign standards first on WSAs, ACECs and developed sites.
9. All transmission line towers, conductors, and communication antennas would utilize non-reflective surfaces or be painted to minimize visual impacts.

Rights-of-Way

10. New roads, ROWs and other surface disturbing projects would be designed to meet the Visual Resource Management Class of the affected area. Routes likely to be popular with recreational visitors would be designed and maintained to enhance the area's scenic qualities. Road improvements or new road construction in VRM Class I or II areas would use non-reflective surfaces such as Corten Steel guard rails to minimize contrast with the surrounding landscape. Materials would be specified before ROW permits are issued.
11. New roads or utility ROWs would be constructed when new routes would enhance, improve, or protect an area's scenic qualities better than improvement of existing roads or expanding or co-located ROWs.

Vegetation

12. Vegetation manipulation such as brush removal, juniper thinning, reseeding and prescribed burning would be designed to meet or exceed VRM Classes. Vegetation manipulation projects may include the following design concepts to enhance visual quality:
    A. Treatment objectives in old growth juniper woodlands/savanna would include enhancing foreground visual characteristics of the old-growth juniper woodlands/ savanna and the overall scenic quality of the area. Juniper woodland characteristics that would be expected to generate high visual appeal would include:
        i. "Healthy" woodlands with large and old trees of various densities and structure
        ii. Understories of diverse native shrub, grasses and forbs
        iii. A low occurrence of noxious weeds and other non-native species
        iv. High visual diversity with regard to vegetative and geologic features of the characteristic landscape.
    B. Where possible and appropriate, background and vista views would be enhanced by treatments such as thinning, pruning, or clearing corridors through foreground juniper woodlands, emphasizing removal of younger, smaller trees.
    C. Treatments in old growth juniper woodlands would emphasize treating the "best" old-growth juniper woodlands within major travel corridors, along backcountry byways, and near recreation and residential/urban areas. Primary objectives would be to maintain old woodland health and longevity and to improve or highlight scenic values.
    D. Cutting or pruning to produce small openings in dense stands to clear vistas or expose other natural features of interest.
    E. Stand management to clear dead and down trees or promote different ages, sizes, densities, species composition, and vertical layers for increased visual diversity.
    F. Rehabilitation of sites with noxious weeds, exotic annuals, and other disturbed/ unbalanced vegetative communities to transition toward a more natural vegetative landscape.
    G. Enhancement of visually interesting meadows, riparian areas, and old-growth trees.
    H. Treatments to improve wildlife viewing, education, and interpretation opportunities.
    I. All other standard operating procedures for reducing visual effects from mechanical vegetative treatments and prescribed burning would be implemented. Examples

of mitigating measures for reducing visual effects could include: closing, scarifying and seeding roads, smoothing berms, chipping or removal of juniper thinning slash instead of piling, cutting stumps at ground level, low intensity prescribed burning to reduce scorch height, and concealing higher intensity juniper treatments with vegetative and topographic screening, leaving individual and groups of trees, and unit edge feathering.

Recreation

Management direction for recreation is provided with planning area-wide direction and with management guidance specific to the High Desert Special Recreation sub-units. These geographic areas are described following the Planning Area direction. One existing Special Recreation Management Area – the Millican Valley OHV area was incorporated into the High Desert Special Recreation Management Area. It includes three subunits of the High Desert SRMA, Millican Plateau, North Millican, and South Millican. These are grouped together in the objectives and guidelines.

Planning Area Wide Direction

Objective R - 1: Provide and maintain a wide range of recreation opportunities and resource management objectives within the planning area and urban interface setting.

Rationale:
FLPMA provides for recreation use of public land as an integral part of multiple use management. The population in the planning area has the fastest growth rate in the state of Oregon. The demand for year-round outdoor recreation opportunities is placing increasing pressure on BLM urban interface lands. State Comprehensive Outdoor Recreation Plan (SCORP) goals and needs assessment call for recreation facility and trails development to meet the demands of the rapidly growing region.

Policy guidelines in BLM Manual 8300 direct the BLM to designate special units, known as Special Recreation Management Areas in a manner consistent with community, economic and resource goals. Management of these special recreation management areas focuses on providing recreation opportunities that would not otherwise be available to the public, reducing conflicts among users, reducing damage to resources and reducing visitor health and safety problems. The presence of high quality natural resources and the current or potential demand warrants intensive practices to maintain the areas for their scientific, educational, or recreational value, while accommodating the projected increase in use for recreation activities specific to each area. The region's growth and the area's suitability for year-round outdoor recreation have resulted in high use levels, user conflicts, and resource impacts resulting from unmanaged recreation use throughout BLM-administered lands in the planning area.

BLM-managed lands provide for a variety of human and natural resource benefits. As recreation demand in the area grows, emphasizing different recreational opportunities across the area that are integrated with natural resource and other land use management goals would reduce the potential for future conflicts between public land users and neighbors. This concept is established in this management plan through different Recreation Emphases.

Allocations/Allowable Uses:

1. All lands within the planning area would be identified as the High Desert Special Recreation Management Area, except those north of Prineville because of the scattered nature of the public land parcels surrounding the area. Those parcels not included in the SRMA are addressed as part of the Prineville geographic area. The specific

components or subunits of this SRMA are identified (See FEIS Map 1) as:

A. Badlands WSA
B. Bend/Redmond Recreation Area
C. Cline Buttes Recreation Area
D. Horse Ridge Recreation Area
E. La Pine Recreation Area
F. Mayfield Recreation Area
G. Millican Valley OHV Area
   i. Millican Plateau
   ii. North Millican
   iii. South Millican
H. Northwest Recreation Area
I. Prineville Reservoir Recreation Area
J. Smith Rock Recreation Area
K. Steamboat Rock Recreation Area
   i. Steelhead Falls
L. Tumalo Recreation Area

2. Recreation Emphasis: Each subunit is designated with one or more Recreation Emphasis classifications that establish trail management goals for an area. These are displayed on FEIS Map 4 – Wildlife and Recreation Emphasis.

Guidelines:

1. Areas designated **Non-motorized Exclusive Recreation Emphasis** would be managed to promote non-motorized recreation uses. Trails and facilities in these areas would be designed and managed for non-motorized trial use. These areas are designated closed to motorized use except for use of public roads and rights-of-way, or roads that access recreation facilities, trailheads, etc.
2. Areas designated **Non-motorized Recreation Emphasis** would be managed to provide for motorized use on roads only, with road systems that provide for general access into an area or loop roads to tour an area. Trails and related facilities in these areas would be designed and managed for non-motorized trail use.
3. Areas designated **Multiple Use, Shared Facilities** would emphasize shared road and trail systems for both motorized and non-motorized uses. The majority of trails and facilities in these areas would be designed to accommodate OHV use. Some separated trail or road use could occur in these areas, depending on specific features or management classifications (e.g., ACECs)
4. Areas designated **Multiple Use, Separated Facilities** would manage all or a portion of the road and trail use with separate routes and related facilities for motorized and non-motorized uses. The separation of uses may be seasonal, by area, or by specific routes or facilities.
5. Areas designated as **Non-Recreation Emphasis** would be managed to provide research opportunities or as administrative sites or leases. Recreation use of these areas would not be promoted.
6. Areas designated as **Roads Only Emphasis** would generally not receive designated trail systems, due to the area's location, size, or fragmented ownership pattern.
7. The Upper Deschutes RMP would serve as a recreation management plan or would allow the completion of the following required elements of a Special Recreation Area management plan:
   A. A designated road system with arterial, collector, and local roads; including existing road segments to be closed, and new road segments to be constructed to make a useable system (no new construction in WSAs).
   B. Designated access points, staging areas, trailheads, parking areas, day use sites, campgrounds, and other site facilities.
   C. A specific trail system layout that includes shared use trails or user-specific trails as dictated by the RMP. Designated trail system layouts would include segments to be closed, segments to retain as is or improve, and new segments to be constructed to make a useable system.

D. Other recreation site improvements, including sign plans, interpretive plans, and volunteer agreements.

<u>Objective R – 2:</u> Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

<u>Rationale:</u>
The FLPMA provides for recreation use of public land as an integral part of multiple use management. Managed road and trail systems increase public safety, reduce user conflicts, and minimize conflicts between recreationists and adjacent landowners. The existing number of access points into BLM administered land in the urban interface is beyond the ability of BLM to manage in a professional manner, and has led to widespread dumping and resource damage. BLM Manual 8300.06 (6) (a.) directs BLM to maintain recreation facilities in a "manner that fosters pride in public ownership." Roads and/or trails are necessary for BLM personnel to administer the various resource management programs on public land. Access is also needed for fire suppression and fire management. Access is also important for recreationists throughout the planning area.

<u>Allocations/Allowable Uses</u>
1. Motorized access on designated roads would be allowed in areas designated Closed on state highways, county roads, rights-of-way, and for administrative purposes. (See also Transportation, Administrative Access)
2. Unless specifically identified and designated as a campground, all designated trailheads/staging areas are closed to overnight camping/occupancy and campfires.

<u>Guidelines:</u>
1. Provide safe access from public roadways to public lands at locations and distributions appropriate to overall management. Prioritize access points from public roadways as follows:
   A. Paved public roads that are not Expressways (includes county major and minor arterials) are used as a first priority.
   B. Paved collector streets not within local subdivisions are used as a second priority.
   C. Paved or unpaved local subdivisions are used as a third priority.
2. Incorporate ODOT transportation corridor management strategies with access designations.
3. General public access points would be limited to the minimum necessary to meet recreation and other management objectives.
4. Motorized access points not needed or selected for designation/development, but required for other uses (e.g. utility access, grazing access, and other occasional administrative access), may not be open to the public.
5. Designate new or move existing access points, when feasible, away from private property boundaries.
6. Access to public lands, particularly for full-size vehicles, would be limited within several miles of urban growth boundaries, especially access from high volume state highways or paved county roads. Existing rights-of-ways may be used as primary public access.
7. Avoid locating trailheads above buried pipelines. Where unavoidable, BLM would complete the project in a manner that would ensure that proper pipeline functioning is retained.
8. Mark access points and managed parking areas with physical barriers that define the area.
9. Consider range of the developments at designated access points depending upon projected use levels, that include but are not limited to:
   A. Trailheads utilized by equestrians or OHV users should be large enough to accommodate vehicles pulling trailers and designed to minimize or eliminate the need to back a trailer.

B. Informational and regulatory signs
C. Sanitary facilities
D. Site hardening for parking or staging areas

<u>Objective R – 3:</u> Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

<u>Rationale</u>
The FLPMA provides for recreation use of public land as an integral part of multiple use management. Federal regulations (43 CFR Part 8340) and BLM planning guidance require the BLM to designate all BLM administered lands are classified with a Travel Management designation of Open, Limited, or Closed in regard to Off-Highway Vehicle use. These designations are to help meet public demand for OHV activities, protect natural resources, ensure public safety, and minimize conflicts among users. Smaller areas of BLM administered land are less suited for motorized trail development, unless linked with trail systems in larger, adjacent public land blocks. In accordance with national direction, all geographic areas within the planning area are designated in one of those classifications. Off-highway designations were developed to provide an integrated balance and mix of uses across the planning area, providing areas for more extensive trail development in larger blocks more removed from urban development, and opportunities for smaller, shorter trail systems in closer to urban developments.

<u>Allocations/Allowable Uses:</u>
1. The following areas are Limited to designated roads and trails:
   A. Bend/Redmond Recreation Area
   B. Cline Buttes Recreation Area
   C. La Pine Recreation Area
   D. Millican Valley OHV Area
      i. Millican Plateau
      ii. North Millican
      iii. South Millican
   E. Steamboat Rock Recreation Area

2. The following areas are Limited to roads only:
   A. Horse Ridge Recreation Area
   B. Mayfield Recreation Area
   C. Northwest Recreation Area
   D. Prineville Reservoir Recreation Area
   E. Prineville Geographic Area

3. The following areas are Closed to Off-Highway Motorized use:
   A. Badlands WSA
   B. Tumalo Recreation Area
   C. Smith Rock Recreation Area
   D. Ochoco Reservoir parcel east of Prineville
   E. Isolated parcels located along Deschutes River northwest of Redmond
   F. Sisters bouldering area
   G. Parcel on State Highway 97 between Bend and Redmond
   H. Bend-Redmond block south of McGrath Road
   I. North tip of Millican Plateau along Crooked River and Millican/West Butte Road
   J. A portion of West Butte
   K. Isolated parcels in La Pine[15]

[15]BLM-administered lands within the current city limits, the area around the Rosland OHV play area and land south of the play area (and east of highways 97 and 31) to Section 2 of Township 23 South, Range 10 E.

Guidelines:

1. Areas with a travel management designation of "Limited to Designated Roads Only" or a Recreation Emphasis designation of "Non-Motorized Recreation Emphasis" or "Roads Only Emphasis" may have designated motorized trails provided the following conditions are met:
   A. the trail link provides a connection to a designated trail system on BLM or other public land;
   B. the trail link does not change the overall management emphasis of the area; and
   C. the provision of a trail provides better travel management conditions than use of an existing road or development of a new road.
2. Any area or seasonal closures would be clearly signed. Signs posted on BLM-administered lands by other agencies under cooperative agreement must be approved by the BLM.
3. Roads closed to motorized travel by the public may be retained if needed for administrative or public safety purposes.
4. OHV trails may be utilized by non-motorized users except when prohibited during special events to provide for public safety. These trails may also be closed during special circumstances for public safety or resource management objectives.
5. In areas designated as Closed to motor vehicles, existing ROW roads are encouraged, where possible, to be relocated (i.e. moved to edge of BLM closure area or BLM jurisdiction) if needed to provide better recreation and resource management.
6. In areas designated as Closed to motor vehicles, existing roads may be retained or new roads created that provide access to parking areas, trailheads, or other use areas.
7. OHV trails and site development would provide for a diversity of activities, including but not limited to motorcycle, quad, and four-wheel drive opportunities.
8. Obtain trail or road easements from willing landowners, in order to provide access to currently landlocked BLM public land parcels or promote trail system continuity and regional trail development.
9. Road and trail maps would not, where practicable, show unauthorized access across private lands.

Interim Use of Existing Roads and Trails

10. Road and trail maintenance would occur to the level necessary to promote visitor safety and resource protection. Road and trail maintenance on routes that are currently part of the BLM's transportation system or part of the existing Millican Valley OHV system would be performed to promote visitor safety, resource protection, and to maintain trail difficulty or road maintenance ratings.
11. Existing roads and trails would generally be open for use in the areas designated Limited to Designated Roads or Limited to Designated Roads and Trails pending completion of local transportation system designations within each geographic area consistent with management direction in the final RMP.
12. Rights-of-way currently open to motorized use would generally remain open, and those closed seasonally or year round to general public use would continue closed until final designation of a local transportation system for the area, or updates to specific rights-of-way have been completed.
13. Maps S-47 thourgh S-61 displays those known and mapped motorized travel ways under BLM jurisdiction that would continue to be open to motorized uses pending completion of local transportation decisions or updates to specific rights-of-way have been completed. Some existing motorized travel ways may not be shown because of one or more of the following factors:
    A. Roads and trails that occur in known problem areas (e.g., unsafe intersections with paved public roads)
    B. Any road or trails on private land without legal easements for public use and roads and trails that occur for a majority of their length on private land.
    C. Roads and trails that directly link Limited areas with closed areas.

14. Motorized travel would generally not be allowed (see also administrative access guidelines) outside of the travel ways shown on FEIS Map 3 until a final local transportation system is designated or updates to specific rights-of-way have been completed. Other road and trail links, realignments, and ROWs would be available for motorized use on a case by case basis prior to final transportation system designations.
15. In areas designated Closed to motor vehicle use and outside WSAs, existing road rights of way that are open to general public use and provide access to residential areas (i.e., more than a single residence) or connections to other public roads may remain open as part of the interim management of existing roads and trails until a final road and trail system is designated.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Rationale:
FLPMA provides for recreation use of public land as an integral part of multiple use management. Non-motorized trails and regional trails are identified as a regional need in the current SCORP needs assessment... Non-motorized recreation demand is growing, as are conflicts associated between motorized and non-motorized users and often different non-motorized user groups. Recreation Emphases allow for blocks of areas with exclusive non-motorized trail management guidance, areas where motorized and non-motorized uses are mixed or separated, and provides for direction on where non-motorized opportunities would be emphasized.

Allocations/Allowable Uses:
1. In all areas, construction, placement or maintenance of roads or trails without authorization, contract, or approved operating plan would be prohibited.
2. The following areas would be designated Closed, Non-Motorized Exclusive Recreation Emphasis:
   A. Tumalo block
   B. Northwest block
   C. Horse Ridge/Skeleton Fire area
   D. Dry River Canyon
   E. Airport allotment
   F. Taylor Butte area
   G. Area south of Alfalfa Market Road, north and west of Dodds Road

Guidelines:
1. When consistent with plan objectives convert non-designated roads and old travel ways to trails for such activities as horseback riding, running, or mountain biking. When possible, rehabilitate these roads to differentiate them from designated roads that occur in the same area and reduce the unintended use of these routes by full size vehicles.
2. Incorporate BLM administered non-motorized trails into regional trail networks when consistent with other resource management goals.
3. Designate river access points and improve, maintain river access trails to a condition that reduces erosion and resource problems and provides safe access for the public.
4. Develop campgrounds as needed, with an emphasis on camping facilities that support designated trail systems.

Trail Design and Construction
5. Close redundant trails.
6. Rehabilitate or repair trails that are unsafe or contribute to erosion.

7. Design trail routes that avoid private property or obtain easements from willing landowner if avoidance is difficult or expensive.
8. Reroute roads and trails that cross private property to create road and trail loops that are exclusively on BLM-administered lands to allow continued recreation use and authorization of SRPs for events that do not require private landowner approval.
9. If necessary for public safety or to protect natural conditions, trails may be closed temporarily until rehabilitated or reconstructed.
10. Relocate or eliminate at-grade trail crossings whenever possible, and especially:
    A. When road construction or reconstruction fragments existing trail systems.
    B. When road is subject to highs speed travel.
    C. When either trail system or road is subject to high use levels
    D. When line of sight at crossings is limited.
11. Provide trail maps and install route markers to designate trails.
12. Construct gates for equestrian use adjacent to cattle guards where such structures are built to facilitate motorized travel on shared use trails.

Objective R – 5: Provide for projects, programs, and permits that promote a diverse range of recreation opportunities. Provide for individual, group, and competitive event recreational use that could not be reasonably accommodated on private land.

Rationale:
FLPMA provides for recreational use of public land as an integral part of multiple use management. BLM Strategic Plan includes direction for serving both present and future publics. However, on an individual basis, visitors may lack the skills (technical ability, local knowledge) or gear, to achieve their recreational goals. Visitors may also wish to recreate on BLM-administered lands in large groups, or engage in competitive events; activities which may include increased risks to natural or cultural resources, impacted social experiences, and degraded facilities. These types of recreational opportunities are not normally provided by the BLM. Demand for these types of recreational use is rapidly increasing now, and is expected to continue to increase in the future. Management of group uses within an urban interface setting is needed to avoid conflicts between public land users and adjacent landowners. The adjacent USFS group use permit threshold is 75 participants; however, given the fragmented public ownership pattern and variety of uses in the urban interface, the permit threshold is set lower at 50 participants.

Allocation/Allowable Uses:

Wilderness Study areas
1. The following apply to organized group use in both the Steelhead Falls and Badlands Wilderness Study Areas:
    A. SRPs would be required for all organized group activities involving greater than 12 participants.
    B. SRPs may be required for organized groups involving less than 12 participants depending upon factors including but not limited to: proposed activity, season of use, and potential impacts.
    C. An SRP permit would be required for all organized groups not on an inventoried route. Management of organized group use will emphasize the use of inventoried, designatued routes.
    D. No competitive events allowed.
    E. No vending allowed.

Specific area direction for group uses follows:

Badlands WSA
2. Organized group use in the Badlands would have the following restrictions:
    A. 20 people/group maximum (both commercial and non commercial)

B. Group parking must occur outside the WSA boundary, and/or groups utilizing Milepost 16, County Line Road, or Obernolte Road trailheads must utilize a shuttle and park legally outside the trailhead parking areas.

Steelhead Falls WSA

3. All competitive events would require a Special Recreation Permit.
4. Organized group (commercial and non-commercial) use for the Steelhead Falls area would have the following restrictions:
   A. No organized group use on holiday weekends
   B. 1 group/day maximum
   C. 12 people/group maximum (including commercial groups)
   D. 6 cars/group maximum
   E. In the Steelhead Falls Area - only foot travel would be allowed.
   F. In the Foley Waters Area - only foot or equestrian travel would be allowed.
5. Up to 4 Commercial filming activities per year would be allowed at Steelhead Falls WSA, providing the following**:**
   A. Group size would be limited to no more than eight people.
   B. All activities take place on signed and designated trails
   C. Motor vehicle use would be limited to Steelhead Falls trailhead and campground area (i.e., designated routes only).
   D. Filming activities only occur during the weekdays and not on holidays
   E. No helicopters or aircraft are used.
   F. Filming activities do not occur within a 1/4 mile distance from known and active raptor nests.
   G. The BLM would monitor the progress of the filming.
   H. No surface disturbance takes place.
   I. The filming sites shall be maintained in a sanitary condition at all times: waste materials at the sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment.
   J. All other standard permit stipulations would be followed.

Horse Ridge Recreation Area

6. Organized group use in the Horse Ridge area would have the following restrictions:
   A. SRPs would be required for all organized group activities involving greater than 12 participants.
   B. Trail dependant special recreation events (trail rides, races, etc.) would be allowed on designated roads and trails. A maximum of two events (motorized or non-motorized) could be held per month, with events up to two days long allowed. Each permitted event would be separated by at least 12 days with no scheduled events.

Wagon Road ACEC

7. Special Recreation Permits would be limited to group use and foot traffic only. No competitive events would be allowed.

<u>Guidelines:</u>

1. Manage SRP authorizations to allow specified recreational use of public lands and related waters. These permits would be used as a mechanism to accommodate specific recreational uses, protect resources, and manage visitor use.
2. Maintain and improve cooperative efforts to provide interpretation of the Wagon Roads ACEC.

General:

3. Activities outside of the guidelines contained in the FEIS/PRMP for group and commercial use may be permitted based on additional NEPA analysis and BLM's SRP permit process That analysis would examine factors including but not limited to:
   A. Effects on natural and cultural resources,

B. Effects on the social experience,
C. Effects on facilities,
D. Within WSAs, impairment of wilderness suitability.

4. Prior to the issuance of a Special Recreation Permit for recreational activities, the BLM would assess the proposed activity to determine if it is in the public interest and to assure adequate mitigation of effects. This assessment would include but not necessarily be limited to:
   A. Need for service – what specific niche does this service provide that cannot otherwise be provided on private lands, or is already provided for on public lands through existing permits?
   B. Proposed project mitigations – what are the expected levels of effects, and what prevention, mitigation, or rehabilitation would be needed to meet resource management objectives for the area.

Commercial Use[16]

5. New Special Recreation Permits for non-foot traffic, trail dependent annual use (e.g., guided horseback rides, llama pack trips, mountain bike rides, etc.) would only be issued for designated trails or routes that are part of BLM's transportation system.

6. For hiking/foot traffic use, the BLM would emphasize authorizing commercial annual use on designated trails, then consider non-designated routes (in areas where no trail systems have been designated) through the Special Recreation Permit process if these routes are mapped and do not present resource or social concerns. In areas where a designated trail system is implemented after the ROD, trail dependent commercial use (including hiking) would be managed on this system in order to avoid creation of additional routes.

Organized Group Use:

7. Group use levels that are likely to exceed the capacity of facilities such as trailheads, staging areas, and other facilities, may be subject to use of a reservations system to meet growing demands for group uses such as group camping, day use for special events, etc without exceeding the capacity of existing facilities.
8. Group use authorizations would be required for organized group activities involving greater than 50 participants within the High Desert Special Recreation Management Area.

<u>Objective R - 6:</u> Provide developed or urban-based recreation opportunities while minimizing duplication of services among agencies. Provide improvements that allow for easier pedestrian access and encourage day use and interpretive activities while minimizing conflicts with adjacent landowners where practicable.

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[16]For the purposes of issuing Special Recreation Permits, Commercial use is defined as the following (43 CFR 8372) BLM National SRP Policy):

Commercial use is defined as recreational use of the public lands and related waters for business or financial gain.

When any person, group, or organization makes or attempts to make a profit, receive money, amortize equipment, or obtain goods or services, as compensation from participants in recreational actives occurring on public lands, the use is considered commercial. An activity, service, or use is commercial if anyone collects a fee or receives other compensation that is not strictly a sharing or, or is in excess of, actual expenses incurred for the purposes of the activity, service or use. Commercial use may also be characterized by public advertising for participants or situations where a duty of care or expectation of safety is owed participants by service providers as a result of compensation.

Use by scientific, educational, and therapeutic institutions or non-profit organizations is considered commercial when the above criteria are met and subject to a permit when the above conditions exist. Non-profit status of any group or organization does not, in itself, determine whether an event or activity arranged by such a group or organization is non-commercial. Profit making organizations are automatically classified as commercial, even if that part of their activity covered by the permit is not profit-making.

Examples of permit activities include outfitters and guides, jeep tours, horse trail and wagon train rides, cattle drives, and photography associated with a recreational activity, i.e., when images are taken of recreation participants for sale to participants or filming of recreational activities to be sold to the public.

Rationale:
FLPMA provides for recreation use of public land as an integral part of multiple use management. Developed recreation facilities have been identified as a regional need in the current SCORP needs assessment. Developed recreation facility needs have been identified by local governments seeking to lease BLM-administered land for public purposes. The landscape character of some BLM administered lands provides specific recreation opportunities. The concentration of recreational use in particular locations often leads to impacts and need for more focused recreation and resource management.

Guidelines:
1. New facilities may be developed when needed for public safety or to protect resources.
2. Development may include but would not be limited to trails, picnic tables, site designations, hardened and delineated parking areas, and permanent toilets.
3. Day use and group use areas would be considered, with an emphasis on day use facilities that support areas with designated trail systems or interpretive features.
4. When necessary to protect facilities or resources adjacent to facilities, boundaries would be defined through techniques such as signing and/or fencing or other appropriate means.
5. Installation of recreation facilities above buried pipelines would be avoided. Where unavoidable, a proper pipeline functioning would be retained.
6. Work with other agencies and local governments to provide regional trail corridors, interpretive services, park development and other recreation services..

Objective R – 7: Provide appropriate recreational opportunities while reducing conflicts between recreational users, and between recreational users and adjacent landowners.

Rationale:
While some overnight recreational use (including camping and hiking) is appropriate in most of the planning area, there are some specific sites where this use is not appropriate, or only appropriate in limited quantities. For example, some areas, like the Wagon Roads ACEC, are managed primarily as an interpretive site, and cannot be fully appreciated at night. Other areas, like the parcel north of State Highway 126 and west of the North Unit Canal, are places where visitors have traditionally engaged in prohibited acts, including but not limited to: Illegal dumping, illegal fires, occupancy, vandalism, holding of large unauthorized parties, and resource and cultural damage. While closures to overnight use are not expected to completely address these prohibited acts, the closures should improve existing conditions and greatly assist in enforcement of regulations.

Allowable Uses/Allocation:
1. Areas closed to camping/overnight use:
   A. Powell Butte RNA
   B. Horse Ridge RNA
   C. Wagon Roads ACEC
   D. Tumalo Canal ACEC
   E. Area west of the North Unit Canal north and immediately south of State Highway 126.
   F. Redmond Caves parcel
   G. BLM parcel north of Highway 126 and adjacent to Cline Falls State Park
   H. 40 acre parcel on State Highway 97 south of Deschutes Junction
   I. All designated parking areas, staging areas, and trailheads unless specifically authorized and posted.
   J. Sisters bouldering area

Guidelines:

1. Additional areas may be closed to all overnight camping if conflicts among users, or between users and adjacent landowners increase, or if resources are being degraded by overnight camping use.
2. Unless otherwise authorized by permit, BLM parcels managed for non-motorized exclusive use would be limited to 3 nights of overnight camping per 28 day period, except where closed to all overnight use above.

Geographic Areas

The recreation management direction specific to geographic areas is described below with a brief discussion of the overall emphasis and road and trail system goals for that area.

Badlands WSA

The existing inventoried system of routes that connect to the following trailheads (Obernolte, Route 5, Milepost 16, and Route 8) would be retained. A designated, signed trailhead at Milepost 12 would not be provided. A non-motorized trail entrance at the east boundary of the Badlands would be provided. For direction on parking/trailhead improvements, see plan guidance for the Mayfield and North Millican areas.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Guidelines:

1. Reduce unauthorized vehicular entry into WSA by using appropriate mechanisms (e.g., fencing, signs, etc.).
2. Provide improvements to parking/trailhead areas to better handle equestrian use (e.g., hitching rails, adequate turning radius for trailers, and adequate parking space).
3. Provide designated and managed parking areas that respond to increased needs when the area is closed to motor vehicles.
4. Provide visitor information at parking areas on WSA designation, travel management, and interpretation of natural and cultural resources.
5. Due to the motorized vehicle closures, a high priority would be given to providing designated parking areas and trailhead improvements at major entry points (this includes travel management and trailhead improvements outside the WSA, including in the Mayfield area and in the North Millican area at the base of Dry Canyon).

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Rationale:

The Badlands WSA is located relatively close to Bend. Therefore, the area receives increased levels of use. Additional non-motorized trail opportunities are identified as a regional need by the Oregon State Parks needs assessment. Non-motorized trail use is increasing in the Badlands, both from individual users and non-permitted commercial guides. The level of non-motorized use off designated, inventoried routes can impact resources and wilderness suitability.

Allocations/Allowable Uses:

1. The WSA would be Closed to motor vehicle use year-round (Travel Management Designation: Closed).
2. All mechanized travel and stock use would be limited to the designated system of inventoried routes.. The WSA would be open year-round for non-motorized use on a

designated network of the inventoried routes, which include, but are not necessarily limited to:
A. Route 8
B. Route 10 bypass
C. Routes 4, 5, 6, 7
D. Route connection to eastern WSA boundary
E. Routes connected to Obernolte Road trailhead

Guidelines:
1. The recreation emphasis in the Badlands WSA would be Non-motorized Recreation Exclusive.
2. The Badlands WSA would be managed for primitive, non-motorized recreation.

Bend/Redmond Recreation Area

A multi-use trail system would be developed in the Bend-Redmond block. The trail system would be developed to create a system that could function with portions closed if needed to minimize conflicts with OMD training exercises. The road system needed for OMD use and other administrative uses would be retained. The non-motorized trails in this area would include a potential regional trail along the North Unit Canal (with BOR and NUID concurrence), and use of roads within the Wagon Roads ACEC.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Allocations/Allowable Uses:
1. Access from the following subdivisions would be non-motorized trail access only: Powell Butte Estates West, Boonesborough and other major subdivisions.
2. To support OHV use on a designated trail system, provide staging areas where appropriate. The emphasis for staging area development would be to serve different local customers, with staging areas/trailheads easily accessible for Redmond, Bend and Prineville residents. Other goals for staging area development would include multiple use needs of the OMD, and the ability to disperse users on the trail system and reduce user conflicts.

Guidelines:
1. Appropriate measures would be taken to reduce conflicts and safety hazards due to OHV access across State Route 126.
2. Develop trailheads and staging areas for trail systems that help increase public awareness of travel management regulations and other uses of the area, such as OMD training exercises.
3. Design should be compatible with the needs of the military.

Objective R – 3: Manage off-highway motorized vehicle use on BLM-administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners, and integrate opportunities with adjacent land management agencies.

Rationale:
The large block of public lands in the Bend/Redmond area would be used to develop new motorized trail systems. A designated trail system is needed due to the increased levels of development in the area and the likelihood that additional paved roads would fragment the area in the future.

Allocations/Allowable Uses:

1. The entire area would be designated as Limited to designated roads and trails, open year-round, with the exception of the following areas that are closed:
   A. The area west of the North Unit Main Canal north and immediately south of State Highway 126.
   B. Highway 97 parcel would be designated as Closed to motor vehicles.
   C. The Wagon Roads ACEC

Guidelines:

1. The recreation emphasis for the majority of the Bend/Redmond block would be Multiple Use Shared Facilities.
2. The Bend/Redmond area would be managed for motorized use on designated roads and trails, both north and south of State Highway 126.
3. Trail system would be developed in loops and sections to allow area or sectional closures if necessary during OMD training exercises (while maintaining some trails for public use).
4. Work with Bureau of Reclamation (BOR), the North Unit Irrigation District (NUID) and OMD to provide additional trail crossing points over the North Unit canal as part of a designated trail system.
5. The designated trail system in the Bend/Redmond area would be designed to minimize development of user created trails that require crossing of State Highway 126.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Rationale:

The presence of the Wagon Roads ACEC and the North Unit Canal provide opportunities for an understandable trail system that has regional trail potential and also high interpretive values.

Guidelines:

1. Work with BOR, NUID, Deschutes County, State Parks, OMD, and others to designate and manage the North Unit Canal as a regional, non-motorized trail corridor and to consider possible water-oriented recreation use.
2. Consider the development of non-motorized trail connections between the two longer segments of historic road in the Wagon Roads ACEC and the North Unit Canal, if the Canal Corridor becomes a regional trail and the values for which the ACEC was designated can be maintained.
3. Work with city of Redmond and Deschutes County on future management of BLM-administered lands west of the North Unit Canal north and immediately south of State Highway 126.

Objective R - 6: Provide developed or urban-based recreation opportunities while minimizing duplication of services among agencies. Provide improvements that allow for easier pedestrian access and encourage day use and interpretive activities while minimizing conflicts with adjacent landowners where practicable.

Rationale:

The BLM and the City of Redmond have been involved in the cooperative management of the 40 Redmond Caves parcel for several years. Over the last 10-20 years, this site has been the victim of repeated vandalism and garbage dumping. Cooperative projects such as fencing, archeological site evaluation, and clean-ups have been the focus of these cooperative efforts in the last few years. A draft "master plan" for how the site would ultimately be developed and managed was developed in the 1990s but not completed.

The caves are important cultural resources and have had identified in the past some use by Townsend's Big-Eared Bat.

Guidelines:
1. Work with the City of Redmond to develop the Redmond caves site as an interpretive park site.
2. Interpretive site development would include an emphasis on old growth juniper and native plant communities associated with the area, restoration of suitable bat habitat in some portion of the cave system and interpretation of archeological values.
3. Explore opportunities for community involvement in removal of graffiti and site stewardship.

Cline Buttes Recreation Area

The Cline Buttes area would be managed for multiple recreation use, with some areas being designated specifically for non-motorized trail development, while other areas would have multiple use trails. The Maston Allotment area east of Cline Falls Highway would be managed exclusively for non-motorized use. Like motorized users, equestrians and mountain bikes would be limited to a designated trail system, once completed.

Roads would be retained or developed in the Cline Buttes block to the extent necessary to provide for administrative access and create a reasonable and identifiable loop system for public use, particularly in the area between Barr Road and Fryrear Road. Only the minimum number of roads needed for administrative access would be retained in the Maston Allotment. Other roads in the Maston Allotment would be either designated and managed as non-motorized trails or closed and rehabilitated. Trail development in the higher elevation portions of the buttes would be oriented toward providing non-motorized trails for hiking, mountain biking, and equestrian use.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Allocations/Allowable Uses:
1. Identify designated access points, parking areas and trailheads to support the non-motorized trail system.
2. Limit the number of access points through trail layout and rehabilitation efforts.

Guidelines:
1. Designate trailheads for hiking access to the Deschutes River. Move existing access points away from private residences and provide marked, defined parking areas and signed trails to public portions of the river.
2. Provide improvements to Fryrear Road trailhead or develop a replacement trailhead as needed to accommodate additional vehicles and adequate turning radius for horse trailers.
3. Provide signs and information on Sisters area trails if regional trail link is developed along Jordan Road from Sisters to BLM-administered land at Cline Buttes.

Objective R – 3: Manage off-highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners, and integrate opportunities with adjacent land management agencies.

Rationale:
The area has been a popular area for motorized use for well over a decade. Increasing development within and adjacent to BLM-administered lands in Cline Buttes, as well as increased number of public land visitors, have contributed to an increase in user created trails, visitor conflicts and conflicts between public land visitors and adjacent landowners.

Allocations/Allowable Uses:

1. The following areas are designated as Limited to designated roads and trails, open year-round:
   A. The Cline Buttes block west of Cline Falls Highway, east of Fryrear Road, and north of State Highway 126
   B. The Cline Buttes block north of State Highway 126
2. The following areas are designated as Closed to motor vehicles:
   A. The Cline Buttes block east of Cline Falls Highway (except for designated entry roads to parking areas and river access points)
   B. The Tumalo Canal ACEC.
   C. Harper Road Parcel
   D. Youngs Avenue Parcel
   E. All Cline Buttes lands located east of the Deschutes River, including the Jaguar Road parcel
   F. BLM Parcel adjacent to Cline Falls State Park

Guidelines:

1. The majority of the Cline Buttes Block would be managed with a Multiple Use, Separate Facilities Emphasis.
2. Multi-use trail system emphasis would be most heavily developed in center and north portions of the Cline Buttes block. In other areas, management of motorized use would emphasize motorized use on designated roads, with trails being used by non-motorized recreationists.
3. Work with ODOT to cooperatively manage the existing material site west of Barr Road as an OHV play area while maintaining the site for mineral material use. Manage trails in the area between Cline Falls Highway and Barr Road to minimize erosion and visual impacts.
4. For motorized trails, the trail system would be developed to:
   A. provide year-round opportunities
   B. provide riding opportunities in a variety of terrain
   C. limit the number of trailheads to a manageable numbe
   D. provide play area opportunities
   E. separate OHV use from other non-motorized trails to the extent feasible
   F. take advantage of scenic and interpretive opportunities
   G. provide separate loops and a variety of choices that help to disperse users, given the relatively small acreage of the trail system.
   H. allow motorized trail designation within or along the Tumalo Canals outside the ACEC and areas designated as Closed.
   I. locate trails to minimize conflicts with adjacent land owners to the extent feasible while maintaining a workable trail system.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Rationale:
Non-motorized use is occurring and growing in the area. Additional non-motorized trail opportunities are identified as a regional need by the Oregon State Parks needs assessment (SCORP). User conflicts between trail users is occurring in the Cline Buttes

area, as are conflicts between trail users and landowners. The increase in development in the area makes these conflicts more likely.

Allocations/Allowable Uses:
A portion of the Tumalo Canals ACEC in the area east of Barr Road would be managed for foot traffic only (See Special Management Areas).

Guidelines:
1. The Maston Allotment and Harper Road parcels would be managed to achieve a Non-motorized Recreation Exclusive Emphasis.
2. Manage equestrian and mountain bike use on a designated trail system. The overall goal of the non-motorized trail system would be for shared use non-motorized trails; however, separate trails would be considered to meet recreation user needs at the area management plan level by:
   A. specific trail designations, or
   B. identifying trail design and maintenance standards to meet a specific user group and informing the public of the trail emphasis without specifically closing the trail to any non-motorized user.
3. For non-motorized trails, the trail system would be developed to:
   A. provide year-round opportunities
   B. clearly differentiate between motorized and non-motorized trails
   C. provide opportunities for all non-motorized users, but allow separation of uses (e.g., horses and mountain bikes) where appropriate)
   D. a variety of trail conditions that suit different type of users (mountain bikes vs. equestrians)
   E. connections from trails at the buttes to the Maston Allotment area and to the Dry Canyon complex
   F. connections to regional trail networks
   G. provide a loop trail around Cline Buttes
   H. Provide a variety of trail difficulties, particularly for hiking and mountain biking.
   I. provide connections between the area east of Cline Falls Highway and the areas west of Cline Falls Highway and West of Barr Road.
   J. separation of motorized and non-motorized trails, including designation of separate trailheads to the maximum extent feasible
   K. provide managed and maintained trail access to public portions of the Middle Deschutes.
   L. Take advantage of scenic and interpretive opportunities.

Objective R - 6: Provide developed or urban based recreation opportunities while minimizing duplication of services among agencies. Provide improvements that allow for easier pedestrian access and encourage day use and interpretive activities while minimizing conflicts with adjacent landowners where practicable.

Rationale:
FLPMA provides for recreation use of public land as an integral part of multiple use management. Developed recreation facilities have been identified as a regional need in the current SCORP needs assessment. Developed recreation facility needs have been identified by local governments seeking to lease BLM-administered land for public purposes. The landscape character of some BLM administered lands provides specific recreation opportunities. The concentration of recreational use in particular locations often leads to impacts and need for more focused recreation and resource management.

Guidelines:
1. Provide access and trailheads for motorized and non-motorized trail use.
2. Development of group use areas, picnic areas, or other developments may occur as needed.

Horse Ridge Recreation Area

The Skeleton Fire area would be managed for motorized use on a few main roads, much like it is today. Roads would be retained and previously closed roads reopened only to the extent necessary to create a loop road from the Gosney Road access and State Highway 20 access. The remaining roads in the area would either be closed and rehabilitated or converted to non-motorized trails, which would provide various trail loops and connect to non-motorized trails in the Horse Ridge area. Trails on horse ridge would be developed to serve a variety of non-motorized users; however separated trails for different users would be considered at the area management plan level.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Rationale:
The Skeleton Fire and Horse Ridge areas are high use trail areas that lack designated trails and trailheads. The lack of these facilities has led to private land trespass and reduces the opportunity for communication of regulations and resource concerns in the area.

Guidelines:
1. Designate adequate access to parking and user information for non-motorized trail use in the Horse Ridge and Skeleton Fire area.
2. Maintain and improve conditions at South Millican Horse Camp by clearly defining boundaries, signs and trail information. Consider increased development if multiple user groups can be served.

Objective R – 3: Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

Rationale
Smaller areas of BLM administered land are less suited for motorized trail development, unless linked with trail systems in larger, adjacent public land blocks.

Allocations/Allowable Uses:
1. The Skeleton Fire area between the Deschutes National Forest boundary, Old Highway 20, private lands at Gosney Road and Horse Ridge would be limited to designated roads only.
2. The following areas would be designated Closed to motor vehicle use:
   A. Horse Ridge area between State Highway 20 and the old highway 20 alignment (T18S, R14E, Sec. 30, 31,32; T19S, R14E, Sec. 5, 4, 3, 10; T18S, R13E, Sec. 25).
   B. Small parcels surrounding Conestoga Hills Estates.
   C. The BLM administered lands bounded by State Highway 20 on the east, Rickard Road on the south, and private lands to the west and north.
   D. Horse Ridge RNA.

Guidelines:
1. The Skeleton Fire area would be designated as Non-motorized recreation emphasis.
2. Designated roads in the Skeleton Fire area would form a loop system that allows for recreational use, including special events.
3. Trail dependant special recreation events (trail rides, races, etc.) would be allowed on designated roads or trails. A maximum of 2 events (motorized or non-motorized)

could be held per month, with events up to 2 days long allowed. Each permitted event would be separated by at least 12 days with no scheduled events.

4. Reroute dead-end roads in the area south of State Highway 20 and north of Old Highway 20 (T18S, R14E, Sec. 30, 31,32; T19S, R14E, Sec. 5, 4, 3, 10; T18S, R13E, Sec. 25) to create several interconnected loops and eliminate dead-ends along the south side of State Highway 20.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Guidelines:

1. The Horse Ridge area would be designated as Non-motorized Recreation Exclusive (Recreation Emphasis) and managed for year-round non-motorized trail use (see FEIS Map 3).
2. The BLM administered lands bounded by State Highway 20 on the east, Rickard Road on the south, and private lands to the west and north would be designated as Non-motorized Recreation Exclusive (Recreation Emphasis) and managed for non-motorized trail use on a designated trail system.
3. The area between State Highway 20 and the old highway would be designated Non-motorized Recreation Exclusive (Recreation Emphasis) and managed for non-motorized trail use on a designated trail system.
4. The Skeleton Fire area would be designated as Non-motorized Recreation Emphasis and managed for non-motorized trail use.
5. Roads would be realigned or closed to create a trail network for non-motorized use that provides loops and connections to Horse Ridge and the Skeleton Fire area.
6. Designate any roads in the Skeleton Fire area that would remain Closed to motor vehicles as non-motorized trails if they meet the needs of the non-motorized trail system. The designated trail system would be designed and managed to differentiate it from roads, and to reduce redundant access points, avoid trespass, and avoid sensitive resource areas. Construct additional trails as needed to complete a system that offers loops of varying lengths.
7. Develop non-motorized trails on Horse Ridge that avoid private parcels and allow continuation of existing trail use. Closed roads in the Horse Ridge area needed for a non motorized trail system would be converted into trails for non-motorized use.
8. Designated trails would be located outside the Horse Ridge RNA.
9. Trail dependant special recreation events (trail rides, races, etc.) would be allowed on designated roads or trails. A maximum of 2 events (motorized or non-motorized) could be held per month, with events up to 2 days long allowed. Each permitted event would be separated by at least 12 days with no scheduled events.
10. Provide a designated trail link from Horse Ridge trails to the existing culvert trail crossing under State Highway 20.
11. Mountain bike, equestrian and other non-foot traffic trail use would be limited to a designated trail system in South Millican.

La Pine Recreation Area

The majority of the La Pine area would be managed for motorized use on designated roads only. The middle portion of the La Pine area east of State Highway 97 would be managed for motorized use on designated roads and trails year-round. This area would encompass the Rosland OHV Play area, and provide more opportunities for designated trails and links to roads or potential future trails on the Deschutes National Forest. The northern portion of the La Pine area would be managed for motorized use on designated roads only, with additional non-motorized trails being designated if a need arises or if adjacent trail opportunities are available at La Pine State Park.

<u>Objective R – 3:</u> Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

<u>Allocations/Allowable Uses:</u>

1. The La Pine block would be limited to designated roads only, except (see FEIS Map 3):
   A. Motor vehicle travel would be limited to a designated system throughout the majority of the area.
   B. An area south and east of the Rosland OHV Play Area would be retained for motorized trail use and designated as Limited to designated roads and trails, open year-round.
   C. Isolated public land blocks within the La Pine area would be managed as closed to motor vehicles. These blocks generally range from 40 to 500 acres in size
   D. Designated OHV trail links would be allowed in the areas identified for motorized use on roads only in La Pine. Trail links would be provided to the extent practicable in order to provide access to trail or road systems on adjacent public lands or to reach the designated trail systems associated with the Rosland area.
   E. Once acquired, the Little Deschutes River parcel located north of State Recreation Road would be designated as closed to motor vehicle use.

<u>Guidelines:</u>

1. The area south and east of the Rosland OHV area would be designated as Multiple Use Shared Facilities Recreation Emphasis. The emphasis for the area would be enlargement of the trail system linked to the Rosland OHV Play area site.
2. The areas designated as Roads Only and Multiple Use Separate Facilities may contain designated OHV trails at the minimum needed to provide trail links to other adjacent designated OHV trail systems.

<u>Objective R – 4:</u> Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

<u>Guidelines:</u>

1. The southern portion of the La Pine block would be designated Roads only Recreation Emphasis.
2. The northern portion of the La Pine block would be designated Non-motorized Recreation Emphasis, and managed to provide trails for non-motorized uses and roads for motorized vehicles.
3. Isolated blocks would be managed for dispersed non-motorized use
4. If opportunities for non-motorized trail connections exist, consider development of non-motorized trails in the northern portion of the La Pine area.
5. Once acquired, the Little Deschutes River parcel located north of State Recreation Road would be managed for non-motorized trail use with an emphasis on hiking trails.

<u>Objective R - 6:</u> Provide developed or urban based recreation opportunities while minimizing duplication of services among agencies. Provide improvements that allow for easier pedestrian access and encourage day use and interpretive activities while minimizing conflicts with adjacent landowners where practicable.

<u>Rationale:</u>

The unincorporated city of La Pine has, proportionally, a larger percentage of public lands within the unincorporated community urban growth boundary than other areas in the planning area. As a consequence, the area has had a long history of requests for uses of BLM- managed lands things such as parks, rodeo grounds, and other community interests.

Guidelines:

1. Work with Deschutes County, State Parks, and the community of La Pine to explore R&PP lease options for park development in La Pine.
2. Development of new park sites could occur under R&PP lease or if management responsibilities were assumed by another public entity.

Mayfield Recreation Area

The Mayfield area would be managed to provide separate geographic areas for motorized and non-motorized use, with most of the area south of Alfalfa Market Road being managed exclusively for non-motorized trail use, and the area to the north of Alfalfa Market Road being managed for motorized use on a designated road system. Nearby motorized trail use opportunities would be available in the Millican Valley area and in the Bend/Redmond Recreation Area.

An entry road and parking area would be located further away from Alfalfa Pond, to minimize conflicts with adjacent residents. Other roads in the area not needed for administrative access would be closed and rehabilitated.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Guidelines:

1. Provide designated trailhead and parking facilities to support trail use in the Airport Allotment.
2. Provide designated entry points and trailheads that support trail use in the Mayfield block.
3. Provide designated access/parking at Mayfield Pond.
4. Provide designated access/parking at the Route 5 entrance to the Badlands WSA or at the Reynolds Pond area with a designated road/trail link to the Route 5 entrance. This trailhead would be designed to:
   A. Accommodate horse trailers
   B. minimize the spread or expansion of user created parking areas.
   C. Provide interpretive information on WSA resources and management
5. Consider providing new designated access to the area south of Alfalfa Market Road from Dodds Road.
6. Relocate road and parking at Alfalfa Pond.
7. General public use, motorized access points into the area north of Alfalfa Market Road would be limited to allow better management of the area and a reduction in conflicts with adjacent landowners (e.g., one access point from Powell Butte Highway and one access point from Alfalfa Market Road).
8. Access controls would be made to support the motorized vehicle closure south of Alfalfa Market Road (e.g., fences, signs, barriers, etc.).
9. Provide a parking area/trailhead for the closed area south of Alfalfa Market Road, to allow for parking. Day use improvements such as picnic tables, group use areas, etc. may be considered. Other access points would be provided to serve surrounding residential access, but would be minor access gates, without improved parking.
10. Vehicle parking would be moved farther away from Alfalfa Pond, but still be available off Dodds Road. The road would be retained for administrative access and may be improved to provide a well marked vehicle access to the Route 5 trailhead for the Badlands WSA.
11. Relocate the existing access road to Mayfield Pond farther away from the pond to improve recreation and resource conditions at the pond site.

<u>Objective R – 3:</u> Manage off-highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

<u>Allocations/Allowable Uses:</u>

1. The following areas would be closed to motor vehicles:
   A. Airport Allotment.
   B. Area within the fence around Mayfield Pond.
   C. The area south of Alfalfa Market Road and west of Dodds Road.
2. Main block between Alfalfa Market Road and Powell Butte Highway would be designated as Limited to Designated Roads only.
3. The area east of Dodds Road would be limited to designated roads only, in order to allow continued access to Reynolds Pond, improved access to the Badlands WSA Route 5 trailhead, and access to Alfalfa Pond.

<u>Guidelines:</u>

1. The 19,399 acre Mayfield area north of Alfalfa Market Road would be designated as Non-motorized Recreation Emphasis and managed to allow motorized use on a road network. This road system would be designed to:
   A. Provide road loops in the area that can be used by both motorized and non-motorized recreationists and provide access for permittees.
   B. Rerouting of the existing road away from the edge of Mayfield Pond would be a priority.
   C. Designated roads would be located approximately 1/4 to 1/2 mile from bordering subdivisions.
   D. Non-motorized trail connections would be considered at the surrounding subdivisions.
   E. Roads not designated would be rehabilitated or converted to trails.
   F. Avoid dead-end roads, and limit the number of motorized access points from adjacent roads, subdivisions or private property.
2. Roads in the area east of Dodds Road would be limited to those needed for canal maintenance access or to reach trailheads or ponds.

<u>Objective R – 4:</u> Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

<u>Allocations/Allowable Uses:</u>

Non-motorized use south of Alfalfa Market Road and west of Dodds Road (except hiking) would be limited to designated roads and trails when a designated system is implemented.

<u>Guidelines:</u>

1. The Mayfield area north of Alfalfa Market Road would be designated as Non-motorized recreation emphasis.
2. The Mayfield area south of Alfalfa Market Road and north of Dodds Road, and the Airport Allotment would be designated as Non-motorized Recreation Exclusive (Recreation Emphasis) and managed for non-motorized trail use. Trails in the area would provide several different length loops for hiking, running, equestrian and mountain bike use.
3. Manage non-motorized use by developing a designated, signed, non-motorized trail system in the following areas:
   A. The main block (north of Alfalfa Market Road);
   B. The Alfalfa ACEC and the area between the ACEC boundary and west of Dodds
   C. Road;
   D. The Airport Allotment.

4. The trail system in the main block north of Alfalfa Market road would be designed to provide a loop around the periphery of the public land block, as well as a connection to the Mayfield Pond site. Designated and signed non-motorized access to this trail system would be provided from adjacent subdivisions.
5. To the maximum extent feasible, non-motorized trails would be located away from designated roads in the main block, to avoid conflicts between motorized and non-motorized uses.
6. Create a designated, non-motorized trail link between the Reynolds Pond parking area and the Badlands WSA Route 5 trailhead.
7. Where possible, the road system in Airport allotment area would be modified to create a single track system that includes trail loops and avoids dead-end trails.
8. Where possible, roads would be converted to trails.
9. Provide a designated, non-motorized trail link outside of the Badlands WSA boundary to a designated parking area at Reynolds Pond to Route 5 entry point in the Badlands.
10. Provide trailheads and access for non-motorized trail use in areas closed seasonally to motorized use.

Objective R - 6: Provide developed or urban based recreation opportunities while minimizing duplication of services among agencies. Provide improvements that allow for easier pedestrian access and encourage day use and interpretive activities while minimizing conflicts with adjacent landowners where practicable.

Rationale:
Levels of use in these areas continue to increase – both from individuals and organized groups. As use levels increase, user conflicts and resource damage is occurring, and the quality of recreation experience may suffer.

Guidelines:
1. Provide site improvements at ponds (toilets, hardened parking, picnic areas, shade structures, trash receptacles, etc.) as needed to increase visitor satisfaction and protect resources.

Millican Valley Off Highway Vehicle Area

Millican Plateau

The majority of the geographic area would be managed for year-round use on designated road and trails. The Millican Plateau area would be managed for year-round OHV use on a designated trail system. There would be an increase in the amount of area available for future trail designations by expanding the OHV trail system to incorporate areas to the west, east, and north of the existing designated OHV area. The goal of this expansion would be to improve management of areas currently limited to "existing" roads and trails by designating specific trail systems, to increase the diversity of OHV opportunities by creating new trails and play areas, and to provide trail opportunities to help balance the seasonal and trail density restrictions in North Millican and South Millican areas.

The northern tip of the Millican Plateau area is Closed to motor vehicles, in response to chronic dumping and vandalism problems between the BLM boundary and the power line crossing at Millican/West Butte Road (see FEIS Map 3 – Recreation and Travel Management Designations, Alternative 7).

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Guidelines

1. Develop trailheads to access the Millican Plateau portion of the OHV area, while controlling parking and spread of dispersed use. Trailheads and staging areas would be provided to:
   A. Disperse users throughout the system to avoid user conflicts
   B. Provide a diversity of experiences
   C. Minimize visual impacts from Millican/West Butte Road and Reservoir Road
   D. Minimize need for at-grade trail crossings of Millican/West Butte Road and Reservoir Road
   E. Provide facilities that serve causal use and also special event use.

Objective R – 3: Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

Rationale:

The area currently receives a high level of OHV use on both a designated trail system and existing roads and trails. The area's growing population and use as a recreation destination would likely increase the levels of use the area currently receives. In addition, the likely paving of Millican/West Butte Road would lead to increased safety issues for the OHV trail system that crosses the newly paved road in numerous places. Realignment of trails, closing of other trails, and new trail construction is needed to ensure the trail system connects to safe crossing points.

Allocations/Allowable Uses:

1. The following areas would be designated Closed to motor vehicles:
   A. Powell Butte RNA/ACE
   B. Isolated block of public land on top of Powell Butte (except for a designated entry road and parking area if private lands or an easement is acquired that provides legal access to BLM administered lands).
   C. Millican Cliff area on east side of Millican/West Butte Road.
   D. An area immediately west of the Crooked River (except for one OHV trail loop that provides scenic views of the Crooked River Canyon. This designated trail would be outside the Crooked Wild and Scenic River boundary)
2. The Millican Plateau OHV area is limited to designated roads and trails.
3. Current northern half of Millican Plateau area would be expanded so OHV area encompasses the area north of Reservoir Road, east of Johnson Market Road and west of the Crooked River Canyon except:
   A. The area east of Road 6555-b and west of the Crooked River would be designated as Closed to motor vehicles.
   B. The area immediately surrounding the Powell Butte RNA would be limited to designated roads, in order to maintain a separation between OHV use and the RNA.
   C. The northern tip of Millican Plateau would be Closed to motor vehicles (see FEIS Map 3) except for providing some trail access to a viewpoint.
   D. Isolated parcels located within and east of Juniper Acres subdivision are either Closed to motorized use or limited to designated roads only (see FEIS Map 3).

Guidelines:

1. Designate and manage the majority of the Millican Plateau area for a Multiple Use Shared Facility Recreation Emphasis.
2. Retain and enlarge the Millican Plateau area as part of the Millican Valley OHV Area. Goals for the management of OHV use in the area include:
   A. An increased density of trails compared to the North and South Millican Areas to provide dispersal of users

B. A range of opportunities, including trails, play areas, and technical four-wheel drive opportunities;
C. Year-round trail connections to the North Millican Area
D. Staging areas to disperse users and provide OHV area access from Prineville.
E. Increased development of staging areas, with provision of toilets or camping areas as needed.

3. Additional trails are designated in area between Millican/West Butte Road and Johnson Market Road.
4. Additional trails are designated in area east of Road 6555-b to allow for one or more trail loops.
5. Provide additional OHV play area opportunities in Millican Valley, with an emphasis on areas/communities not served by existing facilities (i.e., Millican Plateau/Prineville)
6. Designate trails in the area west of Millican/West Butte Road and south of Powell Butte.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Guidelines:

1. The area along the west rim of the Crooked River would be designated as Non-motorized Recreation Exclusive and managed for non-motorized trail use.
2. If legal access is obtained, designate a non-motorized trail system in Powell Buttes and manage all non-motorized (except foot traffic) use as limited to this system. Close and rehabilitate other user created trails.
3. Entire area would be open to non-motorized use on designated trails year-round.

North Millican Recreation Area

Most of the area would be managed for shared use on a designated trail system. The OHV system would allow for year-round use and maintain connections to the South Millican and Millican Plateau areas. Certain areas, such as the Dry Canyon area along State Highway 20, a portion of West Butte, and the area west of, and adjacent to State Highway 27, would not have any motorized trails designated in them. The designated trail system would be reduced in mileage and density to allow for year-round use. To reach a relatively low trail density, the travel management priority for the area would be given to trails, and all roads not needed for administrative access may be closed and rehabilitated.
The target road and trail system densities for the area would be approximately 1.5 miles per square mile.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Rationale:
The reduction in trail and road density, along with multiple wildlife management concerns, require more highly managed access points, with signs, maps, and the potential for visitor contacts and public information on the area's management.

Guidelines:

1. Develop trailhead and parking area at base of Dry Canyon to serve the Badlands WSA and Dry Canyon use areas.

2. Consider providing a primitive camping area at base of Dry Canyon if needed and if this development would reduce impacts to wilderness suitability in the Badlands WSA.
3. Consider developed group use and camping site near COSSA Shooting range, to be operated on a reservation system to support a range of activities, including shooting events, trail use events, and other group use activities.
4. Provide a non-motorized trailhead/access point to North Millican trail system at State Highway 27 if there is a demonstrated need or if user conflicts cannot be managed at other trailheads.
5. Access goals for staging areas to serve the larger trail system in North Millican are provided in the Common to Alternatives 2-7 section.

Objective R – 3: Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

Rationale:
The area receives significant use by OHV enthusiasts and offers wintertime riding opportunities for both local and out of area visitors. Multiple wildlife management concerns for sage grouse and for deer and elk winter range require management of recreation use to maintain habitat suitability.

Allocations/Allowable Uses:
1. Area would be managed as Limited to designated roads and trails, open year-round, except for an area along State Highway 27 managed as Limited to designated roads only (see FEIS Map 3).
2. The North Millican OHV area would be maintained for OHV use on designated roads and trails.
   A. ODOT Pit Play Area would be open year round.
   B. Some portion of the area or portions of trails would be seasonally closed (12-1 to 4-30) to maintain wildlife habitat objectives.
3. Isolated parcels located within and east of Juniper Acres subdivision are either closed to motorized use or limited to designated roads only (see FEIS Map 3, Recreation and Travel Management Designations – Alternative 7).

Guidelines:
1. The majority of the area would be designated as Multiple Use Shared Facilities and managed as part of the larger Millican Valley OHV area, with OHV trail connections to South Millican and Millican Plateau.
2. Interim guidelines for the existing Road and trail system in North Millican would include:
   A. The interim road and trail system in North Millican would be the existing road and trail system implemented under the Millican Valley OHV Area Plan, with revisions made to the extent necessary to provide safe trail crossing locations of the upgraded Millican/West Butte Road. It would also include existing roads open to street legal vehicles year-round.
   B. The existing designated OHV system would be subject to the current seasonal closures that currently apply (Area closed from December 1 through April 30), until a final road and trail system is implemented.
3. Improve ODOT pit to increase usefulness as a staging area and increase safety and user satisfaction at the play area.
4. Staging areas would be developed on either side of Millican/West Butte Road, to serve public recreational use and allow for events to be focused on one side of Millican/West Butte Road or the other.

5. Modify the OHV trail system in the area to reduce the need for at grade crossings of Millican/West Butte Road and to increase trail mileage on east side of Millican/West Butte Road.
6. Retain juniper trees in adequate numbers along trail corridors to keep riders on trails and reduce maintenance needs, consistent with other resource objectives.
7. Motorized use Road and trail density would be limited to approximately 1.5 miles per square mile
8. Road and trail dependent special recreation events (e.g., races, trail rides) would not be allowed between December 1 and April 30. During the remainder of the year, events could be permitted up to 2 events per month, with a minimum of 12 days between events.
9. The trail system layout would also emphasize retention of large, un-fragmented habitat blocks (in a range of 1,000 to 2,500 acres or greater) throughout the area.
10. Areas or portions of the trail system may be closed during the winter; however, the trail system goals for the North Millican area would include:
    A. A workable winter trail system that, in combination with Millican Plateau and South Millican, provides high quality, diverse riding opportunities over a variety of difficulties and terrain.
    B. A trail system designed to encourage winding, challenging trails that increase the hours of riding opportunity per mile of trail corridor.
    C. A range of opportunities, including trails, play areas, and technical four-wheel drive routes.
    D. Year-round trail connections to Millican Plateau, to provide for dispersal of users and longer riding opportunities.
    E. Multiple staging areas to disperse users throughout a less dense trail system than is currently present.
    F. Provision of toilets and camping areas as needed.
    G. Maintain connections to the South Millican Area.
    H. Development of grade separated trail crossings of Millican/West Butte and Reservoir Roads.
    I. Provide a range of riding opportunities during the best riding conditions (winter) by providing winter trails in areas of steeper topography that offer challenge and provide scenic qualities.
11. The trail system in the area would be revised to maintain a functional system on both sides of Millican/West Butte Road. The number of trail crossings of Millican/West Butte Road would be reduced, and frontage trails may be provided to collect trail use and lead it to a smaller number of grade separated crossings.

<u>Objective R – 4:</u> Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

<u>Guidelines:</u>

1. The West Butte area would be designated and managed as Non-motorized Recreation Exclusive (Recreation Emphasis), providing for non-motorized designated trails.
2. The area immediately west of State Highway 27 would be managed as Non-motorized recreation emphasis.
3. The Dry Canyon area in the northwest corner of North Millican area would be managed for equestrian, hiking, and mountain bicycling use on designated trails. Additional non-motorized trails may be considered to provide a loop trail incorporating Dry Canyon and the area to the north of Dry Canyon.
4. A designated trail link would be provided from Dry Canyon to the Route 8 entrance to the Badlands WSA.
5. If opportunity occurs, add grade separated crossings of Millican/West Butte Road or State Highway 20 to provide additional trail connections or to separate user types on different crossings.

6. A designated trail link would be provided at the upper end of Dry Canyon to link with trails in Horse Ridge area. Consider connection of dry canyon trail routes to existing culverts under State Highway 20 to provide safe crossing of the Highway for trail users.

Objective R - 6: Provide developed or urban based recreation opportunities while minimizing duplication of services among agencies. Provide improvements that allow for easier pedestrian access and encourage day use and interpretive activities while minimizing conflicts with adjacent landowners where practicable.

Guidelines:
1. The North Millican Cinder Pit would be redesigned for better and safer OHV use if this can be done without compromising the site's effectiveness for material extraction.
2. Develop a group use and camping site near COSSA Shooting range, to be operated on a reservation system to support a range of activities, including shooting events, trail use events, and other group use activities if such a development meets the objectives of this plan.
3. Consider development of a primitive camping area at base of Dry Canyon.

South Millican Area

South Millican would remain as an OHV use area, but would retain the existing seasonal closure (area closed to motorized use from December 1 through July 31). The existing trail system would be retained. No new trail connections would be provided between the motorized trail system in South Millican and trails in the adjacent Deschutes National Forest.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Rationale:
The FLPMA provides for recreation use of public land as an integral part of multiple use management. Managed road and trail systems increase public safety, reduce user conflicts, and minimize conflicts between recreationists and adjacent landowners. Designated staging areas are critical for use of a designated trail system, and communication of management concerns, regulations and resource issues for the South Millican Area.

Guidelines:
1. Maintain staging areas for OHV use in the South Millican area.
2. Provide improvements to staging areas in South Millican that accommodate both motorized and non-motorized uses.

Objective R – 3: Manage off-highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

Rationale
Smaller areas of BLM-administered land are less suited for motorized trail development, unless linked with trail systems in larger, adjacent public land blocks.

Allocations/Allowable Uses:
1. The South Millican Area would be designated as Limited to Designated Roads and Trails. The OHV system would be closed seasonally (open to motorized use from August 1 to November 30, closed the remainder of the year)

Guidelines:
1. The South Millican area would be designated as Multiple Use Shared Facilities Recreation Emphasis.
2. The South Millican OHV area would be maintained for OHV use on designated roads and trails.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Guidelines:
1. Provide a designated trail link from Horse Ridge trails to the existing culvert trail crossing under State Highway 20.
2. Mountain bike, equestrian and other non-foot traffic trail use would be limited to a designated trail system in South Millican.

Northwest Recreation Area

The area would be managed with an emphasis on development of non-motorized, designated trails that provide connectivity to a regional trail system, links to Sisters Community trails, and links to non-motorized trail systems on Crooked River National Grasslands (CRNG) to the north. Roads would be retained or developed in the main block only to the extent necessary to create or access parking areas, trailheads or developed sites, or to serve existing administrative use.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Guidelines:
1. Identify designated access points, parking areas and trailheads to support the non-motorized trail system. Limit the number of access points through trail layout and rehabilitation efforts.
2. Provide trailhead(s) at appropriate locations to serve the local area community of Sisters.
3. Where feasible, provide trailheads in locations that connect to area or regional trails as identified by the Sisters CAT, or by adjacent land management agencies.
4. The existing road on BLM-administered land that connects Holmes Road to Forest Road 6360 would be retained as a BLM system road.

Objective R – 3: Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

Allocations/Allowable Uses:
1. Motorized travel in main block would be limited to designated roads. All BLM roads in this area (except access roads to non-motorized trailheads or developed sites) would be Closed to motorized use seasonally, from December 1 to March 31.
2. Isolated parcels west of Squaw Creek would be Closed to motorized travel, except for Sisters Bouldering Area, which would be limited to designated roads only, year-round.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Rationale:
Non-motorized trail use is one of the recreation needs identified specifically for the region by the State Outdoor Recreation Needs Assessment (Oregon State Parks). The Sisters Community Action Team has developed conceptual trail goals and identified trail links and corridors. The potential for connections between Sisters area trails and longer trail networks on BLM and adjacent Crooked River National Grasslands helps meet the demand for non-motorized, regional trails.

Guidelines:
1. The Northwest Area would be designated as Non-motorized Recreation Emphasis and managed to:
   A. Provide connections to regional trails
   B. Provide a non-motorized trail link from the Sisters area to Alder Springs trailhead access road
   C. Provide year-round non-motorized trail opportunities.
2. Provide a trail link from the Sisters area through BLM-administered lands to access the road leading to Alder Springs trailhead on the Crooked River National Grasslands (e.g., a portion of the Cascade Mountain/Willamette Valley Wagon Road could be identified and managed as a non-motorized trail).
3. Construct new trail alignments as necessary to avoid private property.
4. Consider development of one or more loop trails off the main trail.

Objective R – 5: Provide for projects, programs, and permits that promote a diverse range of recreation opportunities. Provide for individual, group, and competitive event recreational use that could not be reasonably accommodated on private land.

Guidelines:
1. If disposal/exchange of isolated BLM parcels west of Squaw Creek is made a priority, work with local climbing organizations and national groups such as the Access Fund to maintain the Sisters Bouldering area (Fremont Canyon) as a publicly accessible climbing opportunity.
2. The Sisters Bouldering area would be managed specifically for climbing use, and would be identifiable as BLM administered land.

Prineville Geographic Area

The many small isolated tracts of BLM-administered land north of Prineville would be closed to motorized vehicle use. This also includes one of the larger tracts, the 640-acre parcel located adjacent to Ochoco Reservoir. BLM public lands located south of Prineville and north of the Prineville Reservoir geographic area are managed primarily for motorized use on designated roads year-round.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Guidelines:
1. Provide trailheads for non-motorized use of road and trail systems during periods when areas are seasonally closed to motorized use.
2. Provide trailhead for the proposed trail system in the Eagle Rock area.
3. If legal access is obtained, provide trailheads for Powell Butte.

Objective R – 3: Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

Rationale:
Smaller areas of BLM administered land are less suited for motorized trail development, unless linked with trail systems in larger, adjacent public land blocks.

Allocations/Allowable Uses:
1. The following areas would be designated as Closed to motor vehicles:
   A. The 160 acre Barnes Butte Parcel
   B. The 640 acre Ochoco Reservoir parcel
   C. The Dry Canyon parcel located in T 15 S, R 14 E, Sec. 3
2. Motorized access on designated roads would be retained in the Eagle Rock area to provide access to Rockhounding sites.
3. A localized developed OHV play area with small trail loop system may be allowed in the area north of Prineville Reservoir where the travel management designation is Limited to Designated Roads Only.

Guidelines:
1. Development of OHV opportunities north of Prineville Reservoir consider year-round opportunities would consider the following:
   A. Orient development toward local residents, not as a draw to regional users
   B. The development can be located in a defined area with clear boundaries
   C. The development can be located outside of areas designated as Closed to motorized use.
   D. Consider first suitable areas within Secondary wildlife emphasis. Primary wildlife emphasis areas should be avoided if possible.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Guidelines:
1. The scattered parcels north of Prineville are designated as Non-motorized Recreation Exclusive (Recreation Emphasis).
2. The majority of the parcels south of Prineville are designated as Roads Only Recreation Emphasis.
3. A designated, non-motorized trail system would be considered in the Eagle Rock area, with a trail link to Prineville Reservoir.

Objective R – 5: Provide for projects, programs, and permits that promote a diverse range of recreation opportunities. Provide for individual, group, and competitive event recreational use that could not be reasonably accommodated on private land.

Guidelines:
BLM would work with the City of Prineville and Crook County to explore R&PP lease options for park development around Prineville, and specifically for management of Barnes Butte.

Prineville Reservoir Recreation Area

The area would be managed primarily for motorized use on a limited designated road system, with the trails focus being the development of non-motorized trails adjacent to the Crooked River and Prineville Reservoir. The area between the County Boat Ramp and the Chimney Rock Trail on the Crooked River would be managed exclusively for non-motorized use only. The northeastern portion of the area (the Sanford Creek drainage) would be managed for motorized use on roads that are open seasonally. The remainder of the area including lands on either side of the Bear Creek arm of Prineville Reservoir would be Limited to designated roads only year-round. These BLM-

administered lands would have designated, non-motorized trails that link to BOR/State Park managed sites at Prineville Reservoir.

<u>Objective R – 2:</u> Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

<u>Guidelines:</u>
1. Designated non-motorized trails would utilize State Park/BOR trailhead facilities where feasible.
2. Consider development of a trailhead for non-motorized use off State Highway 27 at Taylor Butte.
3. Consider development of a trailhead on the east side of State Highway 27 south of Powderhouse Cove.
4. Consider development of trailheads for non-motorized trail use in the Eagle Rock area and the area between Prineville Reservoir and the Chimney Rock segment of the Wild and Scenic Crooked River.

<u>Objective R – 3:</u> Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

<u>Rationale:</u>
The area currently has no managed or designated trail system, and recreation use conflicts have occurred due to the different management goals of BLM, BOR, State Parks and ODF&W. BOR and State Parks have identified trailheads and non-motorized trail goals in their current planning process.

Much of the area exists in a fragmented land ownership pattern. In addition, BLM administered lands are located adjacent to Prineville Reservoir and the Lower Crooked River; therefore, some wildlife management concerns exist here. In addition, recreation users often use both BLM-administered lands and the adjacent Prineville Reservoir State Park.

<u>Allocations/Allowable Uses:</u>
1. Most of the area would be Limited to Designated Roads and Trails year round.
2. The following areas would be Limited to Designated Roads year-round:
   A. All isolated parcels east of Bear Creek Arm, and scattered tracts at the eastern edge of the planning area.
   B. Powderhouse Cove/Taylor Butte area east of State Hwy 27 and south f the Reservoir.
3. The following areas would be Limited to Designated Roads Only, with a season of use from May 1 – November 30:
   A. Area north of the upper portion of Prineville Reservoir
   B. Sanford Creek Area
4. A localized developed OHV play area with small trail loop system may be allowed in the area north of Prineville Reservoir where the travel management designation is Limited to Designated Roads Only.

<u>Guidelines:</u>
1. Development of OHV opportunities north of Prineville Reservoir consider year-round opportunities would consider the following:
   A. Orient development toward local residents, not as a draw to regional users
   B. The development can be located in a defined area with clear boundaries
   C. The development can be located outside of areas designated as Closed to motorized use.

D. Consider first suitable areas within Secondary wildlife emphasis. Primary wildlife emphasis areas should be avoided if possible.
E. Do not locate development in the Eagle Rock area or immediately adjacent to the north portion of Prineville Reservoir.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Rationale:
The area currently has no managed or designated trail system, and recreation use conflicts have occurred due to the different management goals of BLM, BOR, State Parks and ODF&W. BOR and State Parks have identified trailheads and non-motorized trail goals in their current planning efforts for Prineville Reservoir.

Guidelines:
1. The areas immediately north and south of Prineville Reservoir would be designated as Non-motorized Recreation Emphasis.
2. The Area north of Prineville Reservoir and immediately east of the Crooked River would be designated as Non-motorized Recreation Exclusive (Recreation Emphasis).
3. The southernmost portion of the area would be designated as Roads Only Recreation Emphasis.
4. Designated, non-motorized trail systems would be developed throughout the geographic area. The goal of the non-motorized trail systems in this geographic area would be for year-round non-motorized trail use, with connections made to Prineville Reservoir State Park and the Crooked Wild and Scenic River where appropriate.
5. The area north of Prineville Reservoir and immediately east of the Crooked River would be managed for non-motorized trail use on designated trails. If roads Closed to motorized travel are suitable for a non-motorized trail system, they may be converted to non-motorized trails. Roads not needed would be obliterated.
6. The existing Chimney Rock trail would be extended into a trail system with several loops that ultimately connects to a BOR and State Parks managed trailhead near the County Boat Ramp.
7. A non-motorized trailhead and parking area would be developed on the north side of this area; other access points would be the Chimney Rock Trailhead, and a trailhead near the County Boat Ramp.
8. Develop designated, non-motorized trials in the Taylor Butte/Powderhouse Cove area that would connect to BOR/State Park facilities, provide loops in the Powderhouse Cove area, and link Roberts Bay to the Bear Creek site.
9. Designated trails in the Taylor Butte area would be coordinated with BOR and State Parks.
10. A designated, non-motorized trail system would be developed in the Eagle Rock area, with a trail link to Prineville Reservoir. The intent of this trail system would be to provide year-round non-motorized trail access. Access points closed seasonally to motor vehicles would have provisions made to allow for non-motorized access into the area.
11. Trail loops in the Taylor Butte area would connect to the proposed Powderhouse Cove boat ramp and parking area.
12. Work with BOR and State Parks to implement a trail system that provides recreation opportunities consistent with BOR and State Park's management goals for Prineville Reservoir.
13. The trail system would be designed to provide viewpoints of the reservoir, toward the northwest.

Smith Rock Recreation Area

The entire block would be Closed to motorized vehicles. Additional non-motorized trails may be created, both to solve resource issues at climbers' trails and to meet demand for hiking, mountain biking, and equestrian trail opportunities.

Objective R – 4: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

Allocations/Allowable Uses:
Allow development of additional trails to reduce impacts at climbing areas and to provide additional mountain bike, hiking, and equestrian use opportunities.

Guidelines:
1. Develop alternative access to BLM administered lands adjacent to Smith Rock State Park if:
   A. Trails in Smith Rock State Park are closed to mountain bikes
   B. North Unit Canal is identified as a regional trail corridor.
2. Coordinate trail development with SRSP and CRNG.
3. Trails would be designed and located to protect resources and scenic values.

Steamboat Rock Recreation Area

The majority of the main block of public land in the Steamboat Rock area would be managed for both motorized and non-motorized use on a shared trail system. While this area would be open to OHV (Class I and III, i.e., motorcycles and quads), it would be closed to full size vehicles in an effort to reduce conflicts between adjacent landowners and public land visitors and to reduce illegal dumping prevalent in the area. The existing high density (approximately 8 miles of roads per square mile) of roads in the main Steamboat Rock block would be reduced, with many roads being closed and rehabilitated while others would be managed as trails. A separate trail system for non-motorized use would be developed along the Deschutes River in the main block. The river parcels adjacent to Crooked River Ranch would continue to be managed to emphasize non-motorized use. Isolated parcels northwest of Redmond are managed exclusively for non-motorized use.

Objective R – 2: Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

Rationale:
High use demand, increased developments adjacent to the area, continuing trespass and social conflicts, unmarked and unmaintained trails, large scale dumping of trash, enlarging and expanding access points.

Guidelines:
1. Provide permanent toilet facilities at high use trailheads such as Steelhead Falls.
2. Work to acquire easement or other mechanism to allow foot traffic to both sides of the Deschutes River within the BLM parcel near Crestridge Estates.
3. Designate trailheads for hiking access to Deschutes and Crooked Rivers. Move existing access points away from private residences if feasible and provide marked, defined parking areas and signed trails to public portions of river.
4. Consider providing a designated parking and trailhead area for the Deschutes River area closed to motor vehicles located south of Lower Bridge Road.

<u>Objective R – 3:</u> Manage off highway motorized vehicle use on BLM administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, minimize conflicts among public land visitors and adjacent land owners and integrate opportunities with adjacent land management agencies.

<u>Rationale:</u>
The area contains many small parcels that are surrounded by residential development. The Deschutes River flows through some of these small parcels, which have high resource values and public value. Unmanaged recreational use of many of these parcels has resulted in high social conflicts between adjacent landowners and public land visitors. The Steamboat Rock area has been designated as Open to OHV use since the B/LP RMP; however the proliferation of user created roads and trails, along with massive and widespread garbage dumping, has led to resource impacts, user conflicts, and dissatisfaction among most visitors to the area.

<u>Allocations/Allowable Uses:</u>
1. Main block managed as Limited to designated roads and trails only, and limited to Class I and III OHVs only (no full size vehicles).
2. The following areas would be designated Closed to motor vehicles:
   A. The Deschutes River corridor in the main block. The boundaries of the closure area are Lower Bridge Road to the north, the main unimproved road that parallels the river to the east, and the BLM boundary with private land to the south and west.
   B. BLM parcel at Crestridge Estates.
   C. With the exception of the BPA power line parcel, all isolated BLM parcels northwest of Redmond[17].
   D. Both BLM parcels at Tetherow Buttes
   E. The BLM parcel adjacent to Lower Bridge Estates
   F. Approximately 120-acre area of BLM-administered land north of Parkey Road and NW 81st Street in Crooked River Ranch.
3. Vehicle access to Steamboat Rock would be limited to designated parking areas, in order to control the expansion of cleared areas surrounding the rock.

<u>Guidelines:</u>
1. Hill-climbs south of Tetherow Crossing subdivision would be rehabilitated and reseeded as would hill climbs and shooting target areas at the Steamboat Rock formation.
2. Work with the City of Redmond to provide trail connectivity between the Redmond area and the Steamboat Rock block.
3. In consultation with Deschutes County Road department and Crooked River Ranch, upgrade and provide maintenance for the emergency exit route. Consider realigning this route and exit point onto Lower Bridge Road if it provides a safer route and improved resource and recreation management on BLM-administered lands.
4. Designate shared use trails in the main block. The goals of the trail system would include:
   A. Include a reduction in the number of access points, and provision of designated trailheads.
   B. Any access points needed solely for administrative access (e.g., at power line corridors) may be gated and not available as public access points.
   C. New roads or trails would be created as needed to link existing roads back to common access points or trailheads.
   D. Trails would be routed to avoid private lands and minimize conflicts with adjacent landowners.
   E. Provide multiple loops and a variety of difficulty levels and trail conditions.

[17]This area, due to multiple access points and private property boundaries, would be difficult to close.

<u>Objective R – 4:</u> Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

<u>Allocations/Allowable Uses:</u>
1. The Deschutes River corridor adjacent to Crooked River Ranch is designated Closed to motor vehicles.
2. The Crooked River corridor adjacent to Crooked River Ranch is limited to designated roads only.
3. The Deschutes River corridor located south of Lower Bridge Road is designated Closed to motor vehicles.
4. Small parcels located northwest of Redmond are designated Closed to motor vehicles.

<u>Guidelines:</u>
1. The Deschutes and Crooked River corridors adjacent to Crooked River Ranch is designated Non-motorized Recreation Exclusive and managed for non-motorized trail use and river access.
2. The Deschutes River corridor located south of Lower Bridge Road is designated Non-motorized Recreation Exclusive and managed for non-motorized trail use and river access.
3. Small parcels located northwest of Redmond are designated Non-motorized Recreation Exclusive.
4. Provide a designated trail system within the main Steamboat Rock block. Emphasis on road and trail system development in this area would be on reducing density from the current range of approximately 8 miles per square mile to a lower range that provides understandable and useable recreation opportunities and reduces social and resource conflicts.
5. A separate trail system for non-motorized use would be designated along the Deschutes River in the main Steamboat Rock block. Non-motorized recreationists may also use the other designated roads and trails in the area.

Tumalo Recreation Area

Roads would be retained or developed in the Tumalo block only to the extent necessary to create or access parking areas, trailheads or developed sites, or to serve administrative use. Roads not needed for administrative access may be closed and rehabilitated or modified to serve as trails. Designated trails would be developed in the area.

<u>Objective R – 2:</u> Provide designated access points (includes entry points, parking areas, trailheads, and/or staging areas) to enhance visitor experience, protect resources, and minimize conflicts with adjacent landowners.

<u>Guidelines:</u>
Identify designated access points, parking areas and trailheads to support the non-motorized trail system. Limit the number of access points through trail layout and rehabilitation efforts.

<u>Objective R – 4:</u> Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among public land visitors and adjacent land owners.

<u>Rationale:</u>
Non-motorized trail use is one of the recreation needs identified specifically for the region by the State Outdoor Recreation Needs Assessment (Oregon State Parks). The area has been used consistently for equestrian use by individuals and permittees, and contains a user created trail system that links to adjacent Deschutes National Forest land.

Allocations/Allowable Uses:
The Tumalo area would be closed to motorized use.

Guidelines:
1. The Tumalo area would be designated as Non-motorized Recreation Exclusive.
2. Trail system goals for the area would include:
   A. Roads would be retained in this area only to the extent necessary to create or access parking areas and trailheads.
   B. Roads not needed for administrative access would be either closed or converted to designated trails
   C. Trails would be available for year-round use
   D. Provide links to trail systems on adjacent lands
   E. Provide a variety of loops that offer a diversity of trail experiences and serve to disperse users and reduce user conflicts
   F. Trails would take advantage of scenic and interpretive opportunities.
3. Designate a system of non-motorized trails in both the main Tumalo Block and the area south of Tumalo Reservoir.
4. Work with Deschutes National Forest, Deschutes County and others to provide regional trail link opportunities between Bend and Sisters, and between Tumalo and Cline Buttes.

Transportation and Utilities

Objective TU - 1: Provide new or modified rights-of-way for transportation/utility corridors[18] and communication/energy sites to meet expected demands and minimize environmental impacts.

Allocations/Allowable Uses:
1. Designate all existing right-of-way routes as local corridors for future collocation of compatible projects.

Guidelines:
1. Locate and design new rights-of-way to minimize fragmentation of public lands, and only construct new projects when the use of existing alignments would have substantially less desirable environmental impacts than new construction.
2. Consolidate transportation and utility systems within existing corridors if possible to reduce habitat loss, degradation and fragmentation caused by new construction.

Objective TU – 2: Provide an integrated, functional, safe, efficient, transportation system to:
- **Support approved land uses that cannot be met on private, state, or county lands**
- **Provide links between local communities**
- **Reduce or minimize conflicts with adjacent landowners**
- **Support approved common guidelines of joint jurisdictions**
- **Balance public access needs with resource protection**

Rationale:
FLPMA authorizes the Secretary of the Interior to grant, issue, or renew rights-of-way over, upon, under, or through public lands for "reservoirs, canals, pipelines, impoundment, storage, transportation, or distribution of water; systems for generation, transmission, and distribution of electric energy, systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communication; and roads, trails, highways, railroads, or other means of transportation

[18]The designation of corridors shall not preclude the granting of separate rights-of-way over, upon, under or through the public lands where the authorized officer determines that confinement to an existing corridor is not appropriate.

or other systems or facilities which are in the public interest and which require rights-of-way over, upon, under, or through such lands." Each right-of-way grant must "Minimize damage to scenic and esthetic values, fish and wildlife habitat and otherwise protect the environment; require compliance with applicable air and water quality standards; require compliance with State standards for public health and safety, environmental protection, and citing, construction, operation, and maintenance of or for rights-of-way for similar purposes if those standards are more stringent than applicable Federal standards..." Each right-of-way grant is subject to terms and conditions to "(i) Protect Federal property and economic interests; (ii) manage efficiently the lands which are subject to the right-of-way or adjacent thereto and protect the other lawful users of the lands adjacent to or traversed by such right-of-way; (iii) protect lives and property; (iv) protect the interests of individuals living in the general area traversed by the right-of-way who rely on the fish, wildlife, and other biotic resources of the area for subsistence purposes; (v) require location of the right-of-way along a route that will cause least damage to the environment, taking into consideration feasibility and other relevant factors; and (vi) otherwise protect the public interest in the lands traversed by the right-of-way or adjacent thereto."

Objectives in granting rights-of-way and temporary use permits are to (43 CFR 2800) (1) protect the natural resources associated with the public lands and adjacent private or other lands administered by a government agency, (2) prevent unnecessary or undue environmental damage to the lands and resources, (3) promote the utilization of rights-of-way in common with respect to engineering and technological compatibility, national security and land use plans and (4) coordinate, to the fullest extent possible, all actions taken pursuant to this part with State and local governments, interested individuals, and appropriate quasi-public entities."

Allocations/Allowable Uses:

1. Do not allow activities in transportation corridors and airport safety zones that would not meet the requirements of these areas.
2. In all areas, construction, placement or maintenance of roads or trails without authorization, contract, or approved operating plan would be prohibited.

Guidelines:

3. Use existing travel routes where possible to provide access and meet road density objectives; however, new alignments may be considered if they provide better resource management, reduce social conflicts, provide better recreation opportunities or if existing routes are determined to be unfeasible.
4. Apply minimum design standards for roads to accomplish transportation and resource management objectives. Manage the road system to minimize disturbance to wildlife habitat and reduce conflicts with non-motorized recreational activities.
5. Provide adequate road maintenance for safe vehicle use (which does not require passenger car or recreational vehicle standards), and minimize the proliferation of roads and braided road systems.
6. Maintain roads providing access to trailheads, staging areas, picnic areas, campgrounds or other developed sites to a standard that provides safe access for passenger cars and recreational vehicles (campers, trailers, etc.).
7. Where grantees have other existing rights-of-way in the area of a new proposal, they would vacate the existing right or provide other reasonable compensation as a condition of the new authorization, if it is determined to be in excess of access needs.
8. Public access along transportation and utility corridors would be managed to meet recreational and travel management objectives.

Access

9. Designation of access points to public lands would provide safe ingress and egress from state highways and county roads. The network of local roads through public

lands would be dependent upon administrative needs, recreational use and travel management objectives.

10. For areas where motorized use is designated as Limited or Closed, access points/trailheads/and staging areas would be identified and developed based on the following criteria:
    A. Access points off paved public roads (arterials, not expressways) as a first priority.
    B. Second priority would be given to developing access points from collector roads, and
    C. Low priority would be given to developing motorized access points from local or subdivision roads.
11. Designated motorized access points/staging areas would be located away from residences or other sensitive land uses, to the extent practicable. Authorized rights-of-way may be designated as the primary public access point, or in an effort to reduce social conflicts, could be closed to general public use.
12. Obtain permits from respective jurisdictions for all designated access points.
13. Retain public use of rights-of-way that provide access to the Middle Deschutes and Crooked River.
14. Minimize conflicts between landowners and users of public lands by relocating trails and parking areas away from private property boundaries, wherever feasible.
15. Plan cooperatively with the Oregon Department of Transportation, County Road Departments, and other agencies to designate grade-separated crossings for recreation trails on public lands. Emphasis would be placed on the need for safe trail crossings of Millican/West Butte Road/Highway, State Highway 126, State Highway 20, O'Neil Highway, Johnson Market Road, and the Powell Butte Highway.
16. In consultation with Deschutes County Road department and Crooked River Ranch, upgrade and provide maintenance for the emergency exit route. Consider realigning this route and exit point onto Lower Bridge Road if it provides a safer route and improved resource and recreation management on BLM-administered lands.

Roads[19]

17. All local roads that are not needed to meet specific management objectives are available for designation as system roads or for closure following site specific analyses.
18. Roadways may be closed that meet the following criteria:
    A. Repeated law enforcement violations exist.
    B. Extremely difficult to maintain at prescribed maintenance levels.
    C. Public safety hazards exist.
    D. Resource damage cannot be mitigated.
    E. Necessary to accomplish other resource objectives.
    F. User created roads not designated for use as a trail or needed for administrative access.
    G. Local roads that "dead end" or do not provide connectivity with the designated transportation system.
19. Existing road systems would be designated to create loop routes that return to the same access point. BLM may develop new roads to create understandable loops that rely on fewer access points.
20. Motorized access points not selected for designation, but required for other uses, may have locked gates installed. Examples may include utility access roads, grazing access roads, or local roads needed for administrative access.
21. Motorized access points may have gates or cattle guards installed to allow for continued grazing activities and to insure visitor safety.
22. Plan cooperatively with the Oregon Department of Transportation, County Road Departments, and other agencies to designate grade-separated crossings for recreation trails on public lands. Emphasis would be placed on the need for

[19] User Created Roads are unauthorized travel ways created though public lands since passage of FLPMA, based on evidence found on aerial photos and maps of that period. Local Roads are defined as minimum standard roads that existed through public lands prior to passage of FLPMA, based on evidence found on aerial photos and maps of that period.

safe trail crossings of Millican/West Butte Road/Highway, State Highway 126, State Highway 20, O'Neil Highway, Johnson Market Road, and the Powell Butte Highway.

23. Rights-of-way determined not to be a necessary component of the transportation system may be closed to the general public to reduce dumping, illegal activities, and cross-country travel.

Objective TU - 3: During the design and application process for proposed new or expanded rights-of-way, incorporate mitigating measures in the plan of development for land restoration, habitat improvement, recreation opportunities, and visual resources.

Rationale:
The planning area contains a high density of roads, railroads, canals, power line, and pipelines. As Central Oregon continues to develop, requests for rights-of-way across public land is expected to continue. The presence of these facilities has impacted natural resource and scenic values. Appropriate mitigation during design and development of new or expanded rights-of-way would help compensate for long-term and cumulative impacts to natural resources.

Guidelines:
1. An environmental analysis would determine cumulative effects of the proposed project and appropriate mitigating measures.
2. BLM's contrast rating system would be used to assess visual resource impacts and develop appropriate mitigation measures or project design changes (see also Visual Resources Section).
3. Restoration or improvement work would normally occur adjacent to or in the immediate vicinity of the development.
4. Treatments or mitigations may include activities such as seeding, planting, thinning, fencing, and road closures, road and trail realignment, road and trail development, provision of grade-separated crossings, placement of signs, volunteer agreements, etc.
5. Specific mitigation requirements would be determined and mutually agreed upon between the applicant and BLM during the design and application phase.

Objective TU – 4: Identify and develop a long-term transportation system for military training use that meets specific training objectives, maximizes benefits to other users, including recreation use of public lands, and minimizes impact to natural resources.

Rationale:
Repeated use of a road or other staging area by tanks and other heavy equipment can damage the facilities. Site hardening and surfacing or grading roads can minimize the damage caused by this equipment.

Guidelines:
For repeated activities involving heavy equipment (greater than 10,000 GVW), provide surfacing and maintenance that protects the roadbed.

Objective TU - 5: Consolidate transportation and utility systems with consideration for ecological and recreational values, while providing for regional transportation systems and meeting regional objectives.

Allocations/Allowable Uses:
1. Designate the collector road network and transportation/utility corridors as shown on FEIS Map 2.
2. Designate a transportation corridor, approximately ½ mile wide and extending from approximately the end of 19th St in Redmond to Deschutes Mkt Rd. This includes a corridor connection to Quarry Avenue that would allow for a future Federal Highway interchange.

3. Designate a corridor between the existing Antler road north of State Highway 126 and connecting with the existing State Highway 126 outside of the Redmond Airport runway protection zone for future realignment of Highway 126.

Objective TU-6: Provide motorized access to facilitate reasonable entry and operations for administrative purposes.

Rationale:
To meet BLM administrative needs for land and resource management activities, public access restrictions may not apply or may be temporarily modified (see FEIS Map 3 for Travel Management Designations). Administrative access would be required in cases of access required by law or regulation, to provide a more cost-effective means of protecting, restoring, or studying natural resources, and to construct, maintain, and access private property or facilities. Examples of such administrative and management activities include but may not be limited to: emergency access (i.e. fire suppression, hazmat clean-up, law enforcement), rights-of-way and facilities construction/maintenance and ingress/egress to private in-holdings, research/education, monitoring/inventory, military training, land treatments, authorized mineral material sites, and other activities allowed under written authorization. As provided by Federal law, BLM would also coordinate with tribal staff in order to meet needs of tribal members for access to traditional cultural use areas located within "Closed" or "Limited" designations.

Allocations/Allowable Uses:
1. Vehicle use off of designated roads/trails is not allowed:
   A. In WSAs and ISAs at any time of the year (access on designated roads in the Badlands WSA only for approved activities).
   B. In the Peck's Milkvetch ACEC during March 1 - August 15.

Guidelines:
1. Groups and personnel granted administrative access would be guided by provisions and requirements in the specific contract, permit, or agreement which would stipulate what types of activities and travel would be allowed, and under what conditions.
2. Administrative access includes but is not limited to:
   A. Access to designated Closed areas (seasonally or year-round).
   B. Access on designated or existing road systems that are closed (seasonally or year-round).
   C. Access off designated roads and trails.
   D. Access into caves that are closed (seasonally or year-round).
3. Administrative access authorization would include mitigation measures to protect resources and to rehabilitate impacts caused by temporary motorized access or activities. Some of these mitigations could include, but are not limited to:
   A. closure and rehabilitation of temporary access routes
   B. activities/travel over snow or frozen ground
   C. activities/travel limited by season or soil moisture conditions
   D. use of low-impact equipment and technique
   E. use of gates and signs to preclude general access.
4. Decisions regarding access authorization and special requirements would be decided on a case-by-case basis. The authorizing officer would consider the resource values involved, potential effects of the activity, cost vs. benefit, and appropriate/reasonable mitigation measures to be applied. Access recommendations would normally be made during project planning through an interdisciplinary team process and with the appropriate level of NEPA analysis.
5. Grazing permittees/lessees must apply for a permit to provide supplemental livestock feed, salt, or nutrients, or to construct new fences or other range improvements. The BLM would decide during the permit process whether or not off-road vehicle use will be allowed for these activities. If allowed, written authorization and conditions would be included in the permit/lease. The annual grazing billing process would also

provide an opportunity to include or change written access authorizations prior to turnout.

6. Motorized vehicle use off of designated roads/trails would generally be approved when:
   A. Moving cattle in to or out of a pasture, and checking for stragglers a day or two later.
   B. Checking/repairing fences prior to turnout.
   C. Checking for breaks in fence or open gates after finding strays.
   D. Checking all perimeter fences/gates once per month (special authorization would be required for more frequent access).
   E. Hauling water to troughs that are off-road.

Land Ownership

Public lands have been classified for retention or disposal pursuant to the Section 7 of the Taylor Grazing Act (43 U.S.C. 315f) and other authorities described in Appendix A.

Objective LO – 1(Z-1): Identify lands for retention based on resource values and overall management objectives. Lands allocated for retention are identified as having high public resource values. They include areas that would generally be retained in public ownership, and where emphasis would be placed on increasing public land holdings.

Rationale: Emphasize retention of large blocks for scenic, wildlife, and recreational purposes for open space needs between communities and large continuous blocks to the east.

Allocations/Allowable Uses:

1. Classify the lands in FEIS Map 6 as Z-1 for retention (approximately 323,931 acres). Blocks of public lands identified as Z-1 include Tumalo, Cline Buttes, Northwest, Bend/Redmond Core, Smith Rocks, Mayfield, Badlands, Horse Ridge, Reservoir West, Reservoir East, Southeast, and Highway. In La Pine, Z-1 lands would be north and east of Wickiup Junction. Other, smaller parcels of public land include Grizzly Mountain, Ochoco Reservoir, and in La Pine along the Little Deschutes River.
2. In designated transportation corridors, until a site-specific NEPA analysis for that designated use has been completed, or other information indicates that the corridor is not longer needed for that use, do not authorize new uses that would preclude uses for which the corridor was designated.

Guidelines:

1. Retain lands in the more urban areas to provide for wildlife and more intensive recreational uses. Retain lands in the more rural areas to provide for wildlife and moderate recreational uses.
2. Retention designations would provide for protection and management of resources for public benefits that include but are not limited to:
   A. Retain public lands along stream corridors, including headwaters with upland buffers.
   B. Retain public lands with visible highland features including Cline Buttes, Smith Rocks, and Grizzly Mountain.
   C. Retain public lands that connect large blocks of public lands for wildlife corridors, for access, and for recreation trails.
   D. Retain large blocks of public ownership to maintain and protect the critical mass of intact ecosystems.
   E. Retain public lands that provide trail corridors or maintain opportunities for longer distance trail loops or regional trail corridors in rapidly developing areas.

Objective LO – 2(Z-2): Identify parcels that are generally to retain, but may be disposed of through exchange for lands with higher public values primarily for the purposes of connectivity, with a secondary emphasis on consolidation (blocking up).

Rationale:
Emphasizes exchanging isolated blocks to block up or connect larger blocks. Identifies fringe blocks between large blocks that may be exchanged to reconfigure the land pattern to provide for connectivity between large blocks. In La Pine, a large area remained Z-2 to provide the opportunity to change the public land pattern to provide for deer migration, specifically between east Deschutes National Forest and west Deschutes National Forest.

Allocations/Allowable Uses:
1. Classify the lands in FEIS Map 6 as Z-2 for retention with an option to exchange (approximately 62,753 acres). Isolated and fringe public parcels have also be identified as Z-2 to provide connectivity between larger blocks and eliminate trail and road entries onto private lands in the rural areas. Parcels are located at Steamboat Rock, Mayfield to Badlands and Reservoir West and Reservoir East to the Maury Mountains.
2. Areas to block up include east and south of Juniper Acres, Horse Ridge, Bend/Redmond, Mayfield, and Reservoir West. The isolated parcels generally around Prineville would be used for blocking or connecting and of the locations above.
3. The majority of the public lands in La Pine are Z-2, extending south from Wickiup Junction to the boundary of the project area. Parcels were not specifically selected to correspond with private parcels desired for acquisition.

Guidelines:
1. Disposals involving exchange when the private parcels and public parcels are in the same general area is preferred; but other areas in the planning area may be acceptable if the exchange accomplishes important overall management objectives.
2. The public parcels around Prineville would be available for exchange for parcels throughout the planning area.

Objective LO – 3(Z-3): Identify lands for disposal that generally do not provide substantial resource, public, or tribal benefits that may not be cost effective for the BLM to manage or that would represent a greater public benefit in other ownership.

Rationale:
Lands classified for disposal are those lands that, based on current available information, no longer serve general public purposes by being retained in public ownership. Often these are isolated blocks, or those that have encumbrances that no longer make them desirable land holdings.

Allocations/Allowable Uses:
Classify the lands in FEIS Map 6 as Z-3 for disposal, unless new information indicates the lands should be retained in public ownership (approximately 15,186 acres). Parcels suitable for disposal include eight in the Northwest, eight south of Steamboat Rock, three at Cline Buttes, one west of Redmond, two along Highway 97, eight around O'Neal, 15 north of Prineville, twelve north of Highway 380, nineteen between Prineville and Prineville Reservoir, three east of Prineville Reservoir, three in Alkali Flat, two southeast of Bend, four near Burgess Road in La Pine, and one at the intersection of Highway 97 with Highway 31.

Guidelines:
1. Use proceeds of sales (as permitted by BACA Bill) to acquire lands for the purpose of improving the BLM's land ownership pattern. Priority acquisitions are identified in Appendix D.

2. Lands would be available for sale or exchange if the encumbrances are resolved and the public would be better served. No exchanges would occur until satisfactory resolution of encumbrances.
3. The lands in La Pine would have a first priority for community use, and then open to the general public.
4. First priority for all land disposals would be to satisfy the State of Oregon's entitlement to in-lieu selection lands for the purposes of providing for school funding.

Objective LO – 4: Provide land for community needs and uses consistent with public land management mandates (community expansion).

Rationale:
Local land use planning and other community planning groups have identified public lands for potential community expansion needs.

The United States, through BLM, owes the State of Oregon, through DSL, several thousand acres of land, called "in lieu" lands. BLM is seeking in this plan to repay DSL by providing parcels identified as Community Expansion. When communities request lands that are Community Expansion, BLM would request that DSL consider requesting those lands as "in lieu". If DSL acquired the lands, they could then transfer them to the communities that requested them, which would provide public lands for community expansion while also relieving BLM of its debt.

Allocations/Allowable Uses:
1. Classify the lands in FEIS Map 6 for disposal for Community Expansion (approximately 3,612 acres).
   A. The public lands identified for community expansion near Redmond are located south of Redmond Airport, and south of Redmond and east of Highway 97.
   B. Public lands identified for a park are east of Highway 97 between Redmond and Bend.
   C. Public lands identified for a park are east of Prineville, at Barnes Butte.
   D. Parcels selected public facilities and parks are between La Pine and Wickiup Junction.

Guidelines:
1. Lands would be available for community expansion that would provide a greater public benefit being used for community expansion than for other public benefits. These lands would include but are not limited to lands with the following important characteristics:
   A. Lands integrate the needs identified in Federal and State and local development and resource plans, and the plans of non-profit groups when selecting public lands.
   B. Sufficient public lands would be selected for ancillary facilities outside the urban growth boundaries that compliment them, for example, airport clear zones.
   C. Public lands would be maintained as a development buffer between communities, thus retaining community identities.
2. When public lands are selected for community purposes, they would first be evaluated for compatibility with in lieu selection criteria by Oregon Division of State Lands prior to transfer for community purposes.
3. The lands outside of Redmond and south of the north boundary line of Township 16 (called the sawtooth lands) would be available only for parks and other open space purposes. This does not preclude transportation uses.
4. The lands in La Pine would provide trails/connectors from Rosland Pit to public lands to the south.

<u>Objective LO - 5:</u> Adjust land ownership patterns to improve the effectiveness of land management, wildlife habitats, and recreation. Provide connectivity for wildlife and recreation between larger blocks of lands, in urban areas and where no public access currently exists. Acquire isolated private parcels in large blocks of public lands.

<u>Rationale:</u>
Many privately held parcels of land provide unique or special values or benefits that would contribute to the overall mission of the BLM. These values or benefits include but are not limited to natural or scenic resource values, public access to existing non-accessible public lands, significant archaeological resources and areas of traditional cultural significance, or to reduce the potential for future fragmentation of habitats that could result from granting access to private lands through BLM-managed lands. Targeting a list of properties desirable for acquisition promotes a basin-wide approach to important resource management such as restoration of Threatened and Endangered species habitats. Identifying these properties allows for more efficient collection of funds to sponsor individual or joint acquisition procedures and facilitate more streamlined land exchanges and emphasizes selection of areas or specific parcels which would provide connectivity between, access to, or block up public lands.

<u>Allocations/Allowable Uses:</u>
Designate the lands in FSEIS Map 6 as parcels of interest for acquisition. Parcels of interest include those between Deschutes National Forest and Clines Buttes, Tumalo and Cline Buttes, Mayfield and Badlands and Reservoir West, and Reservoir East and Maury Mountains.

<u>Guidelines:</u>
1. Block up large blocks of public lands.
2. Align boundaries to recognizable features and topography.
3. Exchange isolated parcels that do not meet objectives and guidelines.
4. When other agencies have interests in public parcels, dispose of the parcels to the agency with the greatest interest and administrative capabilities, or develop management agreements indicating the lead agency and the responsibilities of all agencies.
5. Base decisions on land acquisition or disposal primarily on natural land characteristics, ecological factors, and recreational and other uses.
6. Acquisitions would occur only with willing land owners
7. Acquisition priority would be the urban areas for wildlife and ecological purposes then for recreation purposes, and secondarily in the rural area for the same purposes. Less emphasized would be acquisition to consolidate public lands in Millican Valley, Horse Ridge, and La Pine.
8. Lands would be identified for acquisitions according to, but not limited to, the following factors:
   A. lands along stream corridors, including headwaters with upland buffers.
   B. lands with visible highland features including Cline Buttes, Smith Rocks, and Grizzly Mountain.
   C. lands that connect large blocks of public lands for wildlife corridors, for access, and for recreation trails.
   D. lands that would block up public ownership to maintain and protect the critical mass of intact ecosystems.
   E. lands that would block up public ownership to reduce social conflicts and maintain legal access and provide trail or road corridors, including private lands along Route 8 in the Badlands WSA.
   F. lands that provide new or add to existing recreation opportunities that are in short supply (e.g., acquisition of lands at ODOT Pit on State Highway 20 to ensure long-term use as an OHV play area and staging area for events).
   G. parcels to acquire should (1) facilitate access to public land and resources, (2) maintain or enhance important public values and uses, or (3) maintain or

enhance local social and economic values in public ownership, or (4) facilitate implementation of other aspects of the approved Upper Deschutes RMP.

9. Prioritize parcels for acquisition to meet management objectives based on the potential for imminent development. These objectives could include the following considerations (note: these are not in order of priority):
   A. Reduce the number of developed in holdings
   B. Improve wildlife values including habitat for special status species, travel corridors, etc. In prioritizing parcels for acquisition consider lands that have multiple wildlife values, contain habitats of special status species, are in-holdings and/or contribute to effective habitat management practices such as:
      i. Parcels that contain sage grouse habitat;
      ii. Parcels located in the La Pine deer and elk travel corridor, especially ones that block-up ownership and/or contain riparian or wetland habitats.
      iii. Parcels located along the Crooked River (and adjacent uplands) south of Prineville (to benefit riparian dependent species and potential bighorn sheep re-introduction).
      iv. Parcels located in the Alkali Butte area that would help connect federal ownership between the BLM-administered lands in the Reservoir East area with Forest Service administered lands located in the Maury Mountains.
      v. Parcels that contain important habitat for special status species and other species of high public interest or concern.
   C. Improve or increase riparian or wetland habitats.
   D. Improve recreation opportunities, including new or improved trail links, expanded existing recreation opportunities that are limited or in high demand, and access to lands that currently have no legal access. These opportunities may include, but are not limited to the following examples:
      i. Acquire lands in the Horse Ridge and Skeleton Fire areas to maintain or provide new trail systems;
      ii. Acquire lands surrounding Badlands WSA to better manage wilderness values and provide adequate parking/trailheads;
      iii. Acquire land in Dry Canyon at Cline Buttes to maintain trail system connectivity and improve parking/staging areas;
      iv. Acquire land in Cline Buttes to provide better trail opportunities and reduce social conflicts;
      v. Retain use of ODOT pit area on State Highway 20,
      vi. Provide unique recreation and river access opportunities via acquisition of in holdings along the Deschutes and Crooked River; including the Hollywood Road area at CRR.
      vii. Provide for better management of special management areas/sites such as ACECs, WSAs, etc.

Public Health and Safety

<u>Objective PHS-1:</u> Minimize risk of errant firearm discharge toward users of BLM-administered land and adjacent public land that experience high levels of recreational visitation or commercial use now or within the life of this plan.

<u>Rationale:</u>
BLM has been given the authority and direction to manage firearm discharge and reduce threats to public health and safety from multiple sources. The Federal Land Policy and Management Act of 1976 (FLPMA), BLM's enabling legislation, directs "In managing the public lands, the Secretary shall...regulate... the use, occupancy, and development of the public lands...(43 U.S.C. §1732(b)." The same section furthermore directs, with consultation from state fish and game departments, "...the Secretary concerned may designate areas of public land ... where, and establish periods when, no hunting or fishing will be permitted for reasons of public safety, administration, or compliance with

provisions of applicable law." Additional direction can be found in the BLM Manual, and the BLM Strategic Plan. The BLM Manual states one of the goals of the Bureau's visitor service effort shall be to: Make every reasonable attempt to provide the visitor with conditions conducive to having a safe, healthy, and rewarding experience (BLM Manual 8300.06(4)(a)(3)." The BLM Strategic Plan directs the agency to "Serve current and future publics by reducing threats to public health and safety, and property (BLM Strategic Plan, 2000-2005)."

Unregulated firearm discharge poses a threat to human life when large numbers of people are present. With Central Oregon human populations expected to dramatically increase over the life of this plan, many blocks of BLM-administered land will experience a corresponding increase in the overall amount and concentration of recreational visitation. Beyond numbers alone, the Guidelines section below provides additional attributes that may influence the need for a firearm discharge closure.[20]

Allocations/Allowable Uses:
See Tables PRMP-7 and PRMP-8 for specific closures and conditions.

Guidelines:

1. **Area of High visitation** – BLM-administered lands, including lands adjacent to other city, county, state and federal agencies that experience heavy concentrations of visitors engaged in non-shooting activities, now and in the near future, many be closed to all firearm discharge[21] or firearm discharge unless legally hunting[22]. Decisions concerning these firearm discharge closures would consider numerous factors including but not limited to:
   A. Incidences of dangerous firearm discharge (e.g. BLM firearm discharge citations, reports of recreationists being hit, or nearly hit by firearm discharge)
   B. Type of recreational activity
   C. Compatibility of activitie
   D. Type and size of recreational groups
   E. Geography and topography
   F. Presence of facilities (parking lots, bathrooms, roads, trails, interpretive signs and exhibits)
   G. Land status of surrounding properties
   H. Ease of closure enforcement.
2. **BLM-administered land** – BLM-administered land considered for closure to all firearm discharge, or firearm discharge unless legally hunting, would be evaluated for the present and near future intensity of recreational use and other factors identified in the preceding paragraph.
3. **Other Public Land** - City, county, state and federal agencies managing land adjoining BLM-administered land where the non-shooting public visits in heavy concentrations may request a closure of firearm discharge on adjoining BLM-administered land. These agencies must have previously implemented a firearm discharge closure on their adjoining land, and the closure must be established under agency law or

[20] All closures provide for the authorized officer to make exceptions to the closure on a case-by-case basis.

[21] A closure to all firearm discharge would not apply to:
1. BLM personnel including but not limited to: Acting in defense or protection of an individual, dispatching a critically injured animal for humane purposes, or dispatching a dangerous or damage-causing animal, and
2. Other government personnel in emergency situations, and
3. Discharge of projectiles with a limited range where, should the shooter miss their target, the projectile is likely to hit the ground before hitting other unintended targets including but not limited to: A bow or compound bow and arrow, a slingshot, a BB gun, or a paintball gun, and
4. Discharge of weapons utilizing "blank" ammunition where no projectile is discharged including but not limited to: Blanks for dog training purposes, or by the military for official training purposes.

[22] Hunting is defined as "To take or attempt to take any wildlife by means involving the use of a weapon or with the assistance of any mammal or bird (ORS 496.004 (10))."

regulation. Many factors would be considered in the establishment of these closures including those identified in the preceding paragraph.

4. **Border closures of large parcels of BLM-administered land** - At the request of a government entity, BLM would consider extending an existing public land closure of all firearm discharge, or firearm discharge unless legally hunting, into large contiguous parcels of BLM-administered land. Border closure distances would consider ease of boundary identification, and local conditions described above; and would generally be between 150 yards and one mile in depth.
5. **Small isolated parcels** - Isolated BLM parcels adjoined on at least 1 side by public lands closed to firearm discharge would be considered for closure to all firearm discharge, or firearm discharge unless legally hunting, in their entirety if:
   A. The parcel is about 360 acres in size, or smaller, or
   B. More than half of the isolated parcel is 1/2-mile in length or width, or narrower.

Objective PHS – 2: In non-motorized areas, provide for a recreation experience compatible with the desired recreation setting and a reduced chance of experiencing people engaged in firearm discharge activities.

Rationale:
Recreationists visiting areas closed to all motorized use are expected to possess a relatively heightened sensitivity to the activity of firearm discharge; these closures to all firearm discharge, or firearm discharge unless legally hunting, compliment the non-motorized recreation experience and emphasize use compatibility. Recreation experience closures to all firearm discharge substitute hunting and target shooting opportunities for a greater likelihood to recreate in a natural setting with a reduced chance for user conflict. Recreation experience closures to firearm discharge unless legally hunting maintain hunting opportunities but still provide some reduction in user conflict.

Allocations/Allowable Uses:
See Tables PRMP-7 and PRMP-8 for specific closures and conditions.

Guidelines:
1. Closed to Motorized Vehicles – Areas designated non-motorized exclusive would be closed to all firearm discharge, or firearm discharge unless legally hunting.
2. Decisions concerning these firearm discharge closures would consider numerous factors including but not limited to:
   A. Incidences of dangerous firearm discharge (e.g. BLM firearm discharge citations, reports of recreationists being hit, or nearly hit by firearm discharge)
   B. Type of recreational activity
   C. Compatibility of activitie
   D. Type and size of recreational groups
   E. Geography and topography
   F. Presence of facilities (parking lots, bathrooms, roads, trails, interpretive signs and exhibits)
   G. Land status of surrounding properties
   H. Ease of closure enforcement.
3. Areas adjacent to other public lands or private lands zoned for agricultural or forest uses may remain open to firearm discharge if consistent with adjacent land management direction.

Objective PHS – 3: Protect developed facilities, or natural and cultural resources from the impacts of firearm discharge.

Rationale:
Developed facilities, or natural and cultural resources may also require protection from the impacts of firearm discharge, especially in regard to unique resources, or in areas of repeated problems. Wildlife protection is the most obvious, for example, raptors and

bats can be disturbed by the sounds of firearm discharge, and can be killed by firearm projectiles. Geologic and cultural features can also be damaged or destroyed by firearm projectiles. For instance, blazed trees within the proposed Wagon Road ACEC have already been impacted by visitors discharging firearms. Developed facilities can also be incompatible with firearm discharge, like the example of an electrical substation sited on BLM-administered land.

Allocations/Allowable Uses:
See Tables PRMP-7 and PRMP-8 for specific closures and conditions.

Guidelines:
1. BLM-administered lands with reoccurring firearm discharge problems (identified by staff specialists and/or general public), or lands containing important developed facilities, or natural and cultural resources (including but not limited to unique natural resources, sensitive species, geologic features, and historical and archaeological remains) may be closed to all firearm discharge or firearm discharge unless legally hunting.

Objective PHS - 4: In coordination with local governments, reduce risk of errant firearm discharge in and around residentially zones[23] areas adjacent to BLM-administered lands.

Rationale:
Unregulated firearm discharge occurring adjacent to residential areas, especially high density residential areas, can pose a threat to human life. That threat, actual or perceived, varies among the many subdivisions and communities adjacent to BLM-administered land within the planning area. Under this objective, local citizens and their elected officials would initially be required to assess the threat to human life and the need for a firearm discharge closure on private land adjacent to BLM-administered land. City, county, and state governments retain the authority to regulate firearm discharge upon their respective lands, and each entity would examine current firearm discharge concerns and existing management goals. This approach is intended to promote public awareness of the firearm discharge issue, provide for an open discussion of the costs and benefits of proposed closures, and increase support for, and joint enforcement (BLM and local governments) of, any closures that are ultimately implemented. With private land closures in place, the involved city or county may then request BLM implement a complimentary closure on BLM-administered land.

Guidelines:
1. **Private land -** Firearm discharge closures would have to be lawfully established under formal land use processes.
2. **Boundary/iscolated parcel closure -**Decisions concerning placement of a boundary closure, or closure of an isolated parcel, would consider numerous factors including but not limited to:
   A. Incidences of dangerous firearm discharge (e.g. BLM firearm discharge citations, reports of recreationists being hit, or nearly hit by firearm discharge)
   B. Type of recreational activity
   C. Compatibility of activitie
   D. Type and size of recreational groups
   E. Geography and topograph
   F. Presence of facilities (parking lots, bathrooms, roads, trails, interpretive signs and exhibits)
   G. Land status of surrounding properties
   H. Ease of closure enforcement.

[23] May apply to other types of land use zones with non-conforming uses, and high-density residential developments in non-residential zones.

3. **Border closures of large parcels of BLM-administered land -** At the request of a government entity, BLM would consider extending an existing private land closure of all firearm discharge into large contiguous parcels of BLM-administered land. Border closure distances would consider ease of boundary identification, and local conditions described above; and would generally be between 150 yards and one mile in depth.
4. **Small isolated parcels** - Isolated BLM parcels adjoined on at least 2 sides by residentially-zoned private land that have been closed to all firearm discharge would be considered for closure to all firearm discharge in their entirety if:
   A. The parcel is about 360 acres in size, or smaller, or
   B. More than half of the isolated parcel is 1/2-mile in length or width, or narrower.
5. **BLM-administered lands within or adjoining City Limits, Urban Growth Boundaries (UGBs), or Unincorporated Communities** - Cities within the planning area have closed all lands within either their city limits or UGBs to all firearm discharge. Unincorporated communities may also implement similar closures. Utilizing whichever boundary has been closed to all firearm discharge, a city or unincorporated community (via county government) may request that:
   A. Large adjoining parcels of BLM-administered land would be considered for a border closure to all firearm discharge as described in Guideline 3 above, or;
   B. Isolated parcels of BLM-administered land would be considered for closure to all firearm discharge in their entirety as described in Guideline 4 above.

Table PRMP-7: Areas Closed to all firearm discharge

Location	Object. 1	Object. 2	Object. 3
Bend/Redmond Block (Immediately west of Cline Falls State Park, Redmond Caves, isolated 40-acre parcel with white bridge along Hwy. 97, Young Avenue isolated parcel, BPA substation, southwest of McGrath Road including Historic Roads ACEC, west of N. Unit Canal and north of Hwy. 126, west of N. Unit Canal and south of Hwy. 126 for approx. 1 mile)	X	X	X
Cline Buttes Block (2 triangular isolated pieces east of Middle Deschutes River, Jaguar Road isolated parcel, Tumalo Canal ACEC, 3 canyons west of Barr Road and south of Hwy. 126 (corresponds with areas where only non-motorized trails are allowed))	X	X	X
Horse Ridge Block (40-acre and 80-acre peninsulas on the west side of the Conestoga Hills subdivision, north of Rickert Road and south of Hwy. 20)	X	X	X
La Pine Block (8 isolated parcels north of La Pine)	X	X	X
Mayfield Pond Block (Airport allotment isolated parcel)	X	X	X
North Millican Block (Dry river canyon east of Hwy. 20 (immediately south of Badlands WSA))	X		X
Northwest Block (Fremont Canyon Bouldering Area)	X	X	X
Prineville Block (Barnes Butte)	X	X	X
Prineville Reservoir Block (160 acres surrounded by Prineville Lake Estates, Units 1&2 subdivision)	X	X	X
Steamboat Rock Block (All isolated pieces)	X	X	X
Tumalo Block (1025-acre parcel south and east of Tumalo Reservoir)	X	X	X

Table PRMP-8 Areas Closed to firearm discharge unless legally hunting

Location	Object. 1	Object. 2	Object. 3
Badlands Block (Entire Badlands Block except 1/4 mile around Badlands Rock from March 1 to August 31)	X	X	X
Cline Buttes Block (Main block – All BLM-administered land south of Hwy. 126, and east of Barr Road except where a firearm discharge closure already exists)	X	X	X
Horse Ridge Block (Between new and old Highway 20, Horse Ridge proper (approx. SE 2/5ths of the block))	X	X	X
La Pine Block (4 isolated parcels in southern section of block, near Little Deschutes River)	X	X	X
Mayfield Block (½ mile around Mayfield Pond, Main block – south of Alfalfa Market Road)	X	X	X
Millican Plateau Block (Powell Butte RNA, contiguous and west of the Lower Crooked WSR, west side of Lower Crooked River north of WSR section, west of Millican/West Butte Road for 2 miles south from northernmost point of peninsula)	X	X	X
Northwest Block (3 isolated 40-acre parcels, 1 isolated 80-acre parcel, 1 isolated 120-acre parcel)	X	X	X
Prineville Block (Powell Buttes)	X	X	X
Prineville Reservoir Block (Isolated and limited contiguous BLM-administered lands east of the Crooked River, north of the WSR segment, contiguous and east of Lower Crooked WSR and contiguous and west of BOR/Prineville Reservoir)	X	X	X
Smith Rock Block (All BLM-administered lands in the Block)	X	X	X
Steamboat Rock Block (Large parcel – north of Lower Bridge Road, Middle Deschutes WSR, south of Lower Bridge Road outside of the WSR corridor, isolated pieces along Middle Deschutes and Crooked Rivers north of WSR boundaries, western portion of Steelhead Falls WSA outside Middle Deschutes WSR)	X	X	X
Tumalo Block (Entire block except where a firearm discharge closure already exists)	X	X	X

Objective PHS - 5: To protect resource values, preserve public health, safety, and welfare, minimize user conflicts, and maintain a consistent and cooperative working relationship between local, state, and federal law enforcement resources without the duplication of new federal law and/or regulations.

Rationale:
Currently BLM rangers can only enforce limited Oregon state and local laws. This limited ability reduces BLM law enforcement's effectiveness, requires increased time and support from state, county, and city law enforcement officers, and diminishes the level of public safety on BLM-administered lands. This objective would establish supplementary rules for federal enforcement of existing state laws on federal lands. The public is already familiary with existing state laws. With this improved authority BLM

law enforcement rangers would be better prepared to respond to and handle violations on BLM-administered land, improve cooperation with law enforcement officers working in adjacent jurisdictions, and further public health and safety.

Allocations/Allowable Uses:

1. To enhance this streamlining, the following supplementary rules to CFRs would be established to allow federal officers to enforce existing state laws on federal lands within the FEIS/PRMP planning area:
   A. Operation and use of a motor vehicle on public lands in violation of Oregon State motor vehicle laws.
   B. Possession and or use of alcoholic beverages in violation of any Oregon State alcohol liquor laws.
   C. Taking possession of, occupying, or otherwise using public lands for residential purposes without a permit from the Bureau of Land Management.
   D. Possession and or use of a firearm in violation of any Oregon State firearm laws.

Objective PHS – 6: Reduce opportunities for illegal dumping of residential, commercial, industrial, and hazardous waste throughout the planning area, especially in habitual dumping areas.

Rationale:
Numerous meetings of the Public Health and Safety Issue Team provided a number of basic observations. First, habitual dumping areas seem most likely to be observed near urban or rural residential areas. Next, most habitual dumping areas can be found along user-created travel ways (opposed to the designated road system). A third observation connected dumping activities with full-sized vehicle access.

Guidelines:

1. Restrict or eliminate access to user-created travel ways leading to habitual dumping areas. While dumping is widespread throughout the planning area, the following sites have been identified as being especially problematic:
   A. South of Prineville along Millican/West Butte Road;
   B. South of Prineville at Juniper Canyon
   C. South of Prineville off Remington Road;
   D. South of O'Neil Highway and west of the North Unit Canal
   E. East of Redmond and west of the North Unit Canal;
   F. South of Redmond along Airport Avenue;
   G. Northeast of Bend off of the Powell Butte Highway;
   H. Immediately north and south of Alfalfa Market Road;
   I. Barr Road in the southern portion of Cline Buttes
   J. Lands at the State Highway 126/Barr Road/Buckhorn Road intersection
   K. Steamboat Rock area west of Terrebonne and South of Crooked River Ranch;
   L. Numerous locations in La Pine.

Objective PHS – 7: Protect public health and safety, maintain appropriate recreation opportunities, and reduce the risk of wildland fire associated with high use, habitual problem areas and/or special management considerations.

Rationale:
Historically, unmanaged campfires have escaped beyond their desired confines, serving as an ignition source for wildland fires. Undesired effects of these fires include threats to human life, property, and natural and cultural resources. These threats are especially significant in urban interface areas synonymous with much of the planning area, where high densities of people and residences can be found. Both communities and individuals have made specific requests for campfire closures as part of the RMP process. Additionally, some areas are managed for recreational experiences that do not include campfires, or campfires may conflict with the values for which an area is managed.

Finally, parcels adjacent to the Middle Deschutes and Lower Crooked Wild and Scenic Rivers are closed to campfires for consistency with the existing management direction for the discussed previously special areas.

Allocations/Allowable Uses:

1. The following areas are closed to campfires seasonally, from June 1 to October 15th. If determined necessary, the fire closures could be extended based on existing conditions:
   A. All BLM parcels in the Steamboat Rock block;
   B. Harper Road parcel in Cline Buttes.
2. The following areas are closed to campfires year-round:
   A. Powell Butte RNA
   B. Horse Ridge RNA
   C. Wagon Roads ACEC
   D. Tumalo Canal ACEC
   E. BLM parcels north and south of Highway 126 and adjacent to Cline Falls State Park
   F. Redmond Caves parcel
   G. All designated parking areas, staging areas, and trailheads unless specifically authorized and posted.

Archaeology

Objective A - 1: Protect "at-risk," significant archaeological resources from accidental or intentional loss due to human activities and natural causes.

Allocations/Allowable Uses:

The locations of "at-risk," significant archaeological resources would be withdrawn from the activities of surface disturbing mineral material development. "At-risk," significant archaeological resources would include, but not be limited to, the area around Redmond Caves, identified segments of the Horner and Bend-Prineville historic roads, an identified segment of the old Tumalo canal, the area in the vicinity of Pictograph (Stout) Cave, and the area near Steelhead Falls.

Guidelines:

1. Treatment of "at-risk" resources would be based on Table PRMP-9, severity and immediacy of threats to "at-risk" resources.
2. Limit uses and activities at those locations where the use or activity would diminish the historic value of a resource. Future limitations would proceed from least to greatest limitations: 1) sign and post restrictions; 2) fence area; 3) close area to specific uses; and, 4) close area to all use.
3. Wildland fire within or threatening "at-risk," significant archaeological resources would be fought aggressively.

Objective A - 2: Increase the public's opportunity to learn about and enjoy the cultural, educational, and recreational uses of heritage resources by interpreting the identified "at-risk," significant archaeological resources found within the planning area.

Rationale:

1. The Federal Land Policy and Management Act (FLPMA) directs the BLM to manage heritage resources on public lands in a manner that will provide for their proper use.
2. The Archaeological Resources Protection Act (ARPA) requires Federal land managers to provide for public education regarding archaeological resources.
3. BLM Manual Section 8111 establishes an agency policy for utilizing any heritage property considered appropriate for interpretation and educational use by members of the general public.

4. BLM Strategic Plan Performance Goal Code 01.03.04.01 takes into account proactive measures to manage "At-risk" and/or threatened archaeological and historic properties on public lands.
5. BLM Workload Measures/Program Elements "AE" and "AL" take into account the costs associated with preparation of public education and interpretive products that teach public lands users about resource values.

Guidelines:

1. Prioritize interpretative development based on combined evaluations of:
   A. Severity and immediacy of threats (see Table PRMP-9)
   B. Significance of heritage properties as noted in Table PRMP-10
   C. Opportunities for partnerships/cost sharing (see Table PRMP-11).
   D. Opportunities for interpretive and public education products as noted in Table PRMP-12 ("At-risk," significant archaeological resources that have yet been discovered can also be factored into the table for prioritization).
2. Pursue partnerships with local Indian tribes, scientific and educational organizations, historical and archaeological societies, communities and interested individuals to study, protect, and interpret "at-risk," significant archaeological resources.
3. Interpretive development would be based on prehistoric and historic theme and developed in consultation with local Indian tribes and other interested parties

Table PRMP-9: Severity and Immediacy of Threats to Significant "At-Risk" Resources.

Historic Tumalo Canals								
	Soil Compaction	Vandalism	Artifact Collection	Erosion	Surface Disturbance	Dumping	Fire	Total
Severity of threat	2	1	1	2	2	1	1	10
Immediacy of threat	3	1	2	2	2	1	1	11
Total	----------							**21**
Historic Horner Road								
Severity of threat	3	1	1	1	3	1	1	11
Immediacy of threat	3	1	1	1	3	2	1	12
Total	----------							**22**
Historic Bend-Prineville Road								
Severity of threat	3	1	1	2	2	1	1	11
Immediacy of threat	1	1	1	1	1	1	1	7
Total	----------							**18**
Steelhead Falls								
Severity of threat	1	1	1	1	1	1	1	7
Immediacy of threat	1	1	1	1	1	1	1	7
Total	----------							**14**
Redmond Caves								
Severity of threat	2	3	1	1	1	3	3	14
Immediacy of threat	2	2	2	1	2	3	2	14
Total	----------							**28**
Pictograph (Stout) Cave								
Severity of threat	1	2	2	1	2	1	2	11
Immediacy of threat	1	1	1	1	1	1	1	7
Total	----------							**18**

Numerical ranking of threat where, Low=1; Moderate=2; High=3
Severe = intense, serious, extreme, unrelenting. Immediate = direct/indirect.

Table PRMP-10: Priority ranking of "at-risk" significant archaeological resources

At-Risk Resources	Severity & Immediacy of Threats	Significance of Heritage Property	Opportunities for Partnerships/ Cost-Sharing	Opportunities for Interpretive & Outreach Products	Weighted Ranking (max. 500)
Weight	30%	50%	10%	10%	100%
Horner Road	3	3	3	5	320
Tumalo Canals	3	3	3	5	320
Redmond Caves	4	1	4	5	260
Bend/Prineville Road	2	2	2	2	200
Steelhead Falls	2	1	2	2	150
Pictograph (Stout) Cave	2	1	1	2	140

Weighted ranking is determined by multiplying severity and immediacy of threats, heritage property significance, and opportunities by their respective weight percentages. (Example): Horner Road: 3x30%; 3x50%; 3x10%; and 5x10% = 320.

RANKING KEY

Severity/Immediacy of Threats:
5 = 35-42
4 = 27-34
3 = 19-26
2 = 11-18
1 = 0-10

Potential Significance of Heritage Property
5 = A, B, C, D, & Discretionary
4 = A, B, C, D
3 = Three of A, B, C, or D
2 = Two of A, B, C, or D
1 = One of A, B, C, or D

Opportunities for Partnerships/Cost-Sharing
5 = 100% of participation/funding likely
4 = 80% of participation/funding likely
3 = 60% of participation/funding likely
2 = 40% of participation/funding likely
1 = 20% of participation/funding likely

Opportunities for Interpretive & Public Outreach Products
5 = 5 or more products
4 = 4 products
3 = 3 products
2 = 2 products
1 = 1 products

Table PRMP-11: Opportunities for Partnerships and Cost-Sharing

	Redmond Caves	Steelhead Falls	Horner Road	Bend-Prineville Road	Tumalo Canals	Pictograph (Stout) Cave
City of Redmond	X					
CTWS	X	X				X
Deschutes County			X	X		
Deschutes NF	X					
ASCO	X	X	X	X	X	X
Deschutes Co. Hst. Soc.			X	X	X	
Tumalo Irrigation Dist.					X	
BLM Rec. Program	X	X	X		X	
Other Interested Parties						
Total	5	3	4	3	4	2

Numerical ranking of Partnership/cost-sharing opportunities where, 1-2 opportunities =Low; 3-4 opportunities=Moderate; greater than 4 opportunities=High.

Table PRMP-12: Opportunities for Interpretive/Public Outreach Products

	Redmond Caves	Steelhead Falls	Horner Road	Bend-Prineville Road	Tumalo Canals	Pictograph (Stout) Cave
Signs	X	X	X	X	X	
Kiosks			X		X	
Self-guided Tours	X		X	X	X	
Brochures	X		X		X	
Interpretive Trail	X		X		X	
Tribal Input	X	X				X
Total	5	2	5	2	5	1

Numerical ranking for development of Interpretive/Public Outreach products where, 1-2 products =Low; 3-4 products=Moderate; greater than 4 products=High.

Continued Management Direction

The management direction contained in this section does not constitute new management direction for the Upper Deschutes Resource Management Plan. It contains overriding direction from regulations, manuals and handbooks, and unrevised management direction from the Brothers/La Pine RMP. This direction has been incorporated into a format consistent with the Proposed Management Plan, and will be seamlessly incorporated into the Final Resource Management Plan.

Ecosystem Health And Diversity

Vegetation

Noxious Weeds

Objective V – CMD1: Maintain noxious weed-free plant communities or restore plant communities with noxious weed infestations through the use of broad-scale integrated weed management strategies. During planning for vegetation management and other ground disturbing activities, consider opportunities to manage undesirable non-native or invasive species.

Rationale:
The rapid expansion of noxious and other invasive species in portions of the planning area is one of the greatest threats to the integrity of native plant communities. Noxious weeds reduce the value of native plant communities in several ways.

Guidelines:

1. All land management activities and projects would assess the risk of introducing or spreading weeds. Integrated weed management strategies would be incorporated into the planning, design, implementation, monitoring, and follow-up actions of all ground-disturbing projects and activity plans.
2. Integrated weed management strategies would incorporate some or all of these objectives: detection, inventory, prevention, containment, control, and eradication of noxious weeds. Strategies may also target other undesirable plant communities as appropriate and practicable.
3. A balanced ecosystem approach for management of undesirable vegetation could include one or more of the following techniques: cultural, manual, mechanical, prescribed fire, competitive seeding, biological, and chemical.
4. When possible, grazing management practices would be designed to help control noxious weeds and other undesirable plants (such as cheatgrass, medusahead and thistles).
5. Opportunities would be sought to form partnerships with other public agencies and adjacent landowners to develop regionally effective and cost-efficient weed management strategies.
6. All treatments would be in accordance with policy and guidelines in the following current or subsequent programmatic vegetation management plans: (1) "Vegetation treatment on BLM-administered lands in Thirteen western States" (FEIS BLM-91-022-4320 1991) and (2) "Prineville District Integrated Weed Management Environmental Assessment (EA #OR-053-3-062)," both available for review at the BLM Prineville District Office.

7. Where possible, weed management within the planning area would be prioritized as follows:
   A. Prevent new infestations by limiting weed seed dispersal, minimizing soil disturbance, and properly managing desirable vegetation.
   B. Detect and eradicate new invaders
   C. Target roadways, watercourses, campgrounds, utility corridors and other high disturbance areas for a prevention and containment program.
   D. Emphasize control of large-scale infestations (limiting the spread of noxious weeds and reducing the infestation level).
   E. Focus initial efforts on small, manageable units with a component of desirable native plants (or desirable non-native plants), and then focus on the remaining infestation. Start from the outside and work toward the center of the infestation.
8. In high risk areas, prevention measures would include provisions in all land management activities, projects and agreements to inspect or certify that vehicles, equipment, livestock, supplies, and materials entering, using, or transporting across public lands are free of noxious weed seed or other reproductive parts of noxious weeds. Precautions would include ensuring use of weed-free hay/feed for livestock and weed-free seed in seeding projects.
9. Consider limiting season of use for ground disturbing activities to prevent the spread of weeds during and immediately after the flowering and seed production period.
10. Consideration would be given to potential for spread of cheatgrass and other undesirable plants that could occur with disturbance from land uses or vegetation treatments, particularly within the lower elevation pumice sand community types.

Riparian and Aquatic

<u>Objective V – CMD2:</u> Management actions within riparian areas would include measures to protect or restore natural functions[24]. Management techniques would maintain or improve current good to excellent stream bank stability and riparian vegetative condition. Riparian habitat needs would be considered in developing livestock grazing systems and pasture designs and would be evaluated according to the Fundamentals of Rangeland Health.

<u>Rationale:</u>
FLPMA directs and requires BLM to comply with State water quality standards and manage public land in a manner that will preserve and protect certain land in its natural condition. In addition to FLPMA, numerous laws, regulations, policies, Executive orders, and MOUs and agreements direct BLM to manage its riparian/wetland areas for biological diversity, and the productivity, and sustainability for the benefit of the Nation and its economy. The Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington meet the requirements and intent of 43 Code of Federal Regulations, Subpart 4180 (Rangeland Health).

<u>Guidelines:</u>
1. Livestock grazing would be modified where the standard for riparian-wetland function is not being achieved, or where measurable progress is not made toward achieving the standard.
2. BLM policies relating to riparian/wetland areas include the following:
   A. Focus management on entire watersheds using an ecosystem approach and involving all interested landowners and affected parties;

[24] As defined by Executive Orders 11988 and 11990 and the Oregon-Washington Riparian Plan (1987) and the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington.

B. Achieve riparian/wetland area improvement and maintenance objectives through the management of existing and future uses;
C. Prescribe riparian/wetland management based on site-specific physical, biological, and chemical condition and potential; and

3. Use interdisciplinary teams to inventory, monitor, and evaluate management of riparian/wetland areas and to revise management where objectives are not being met.

Wildlife

Objective W – CMD1: Ensure that actions are consistent with the conservation needs of special status species and do not contribute to the need to list special status species or jeopardize the continued existence of listed species (see Chapter 3 for current list of special status species). Specific guidance is provided in Special status species Manual Section 6840. Seek opportunities to conserve and improve special status species and habitats for native animals and wildlife in the development of land use plans, activity plans, and in other BLM authorized, funded or approved activities (BLM Manual 6840-Special Status Species Management, Endangered Species Act).

Rationale:
Protection and recovery of threatened and endangered species is required by the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) as amended. Conservation and protection of habitats for designated special status species, and other state or federally protected species, is directed by Bureau policy in BLM Manual 6840. The Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington provide a clear statement of agency policy and direction to promote healthy sustainable rangeland ecosystems, restore and improve public rangelands and to provide sustainable resources to support the livestock industry. The Bureau is directed under Executive Order No. 13186 to protect, restore, enhance and manage habitat of migratory birds and prevent the loss or degradation of remaining habitats on BLM. Also, this executive order directs the BLM to "ensure that environmental analysis of federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern."

Allocations/Allowable Uses:

Habitat Modification

1. Vegetative habitats could be maintained or improved using a variety of techniques, such as mowing of shrubs, prescribed burning, planting, livestock grazing and commercial and non-commercial tree cutting.

Disturbance Actions

2. Avoid or mitigate for impacts from activities authorized in or near a federally listed or proposed species during seasonally sensitive periods (i.e. – breeding, nesting, winter roosting, etc.). Mitigation may include but not be limited to seasonal use restrictions and/or distance buffers around sensitive sites.
3. Human activities, such as recreation, range management, timber operations and mining would not be allowed within 1/4 to 1/2 half mile of active bald eagle nest sites and nearby perches from January 1, to August 31. Winter roosts would be managed similarly with the exception of different seasonal restriction dates.

Guidelines:

Habitat Modification

1. Vegetation management actions that occur within habitats of federally proposed or listed species would maintain or improve the conditions that support those species and/or be consistent with landform, climate, and biological and physical characteristics of the ecosystem (B/LP RMP, p.121).
2. In situations where data are insufficient to make an assessment of proposed actions, surveys of potential habitats would be made before a decision is made to take any action that could affect special status species (B/LP RMP p.122).
3. Maintain existing shrub-steppe habitats in the existing sage grouse range in order to sustain sage grouse populations and protect options for the future (Information Bulletin (IB) No. OR-200-334).

Disturbance Actions

4. Restrict activities that may cause disturbance to federally listed or proposed species. Disturbance activities include, but are not limited to, human presence from walking to riding a motorized vehicle, and creating loud noises (chain sawing, blasting), on-site or at a distance (1/4 – 1 mile). During seasonal use periods, limit activities within 1/4 to 1/2 mile (and up to 1 mile if blasting) of bald eagle nests, perches and roosts (See Table PRMP-1, Seasonal Restriction and Distance Buffers, for a list of other species that have required seasonal restrictions, seasonal restriction dates and distance buffers).
5. New roads and trails would be located away from important habitats[25] (i.e. located at least 1/4 mile away from bald eagle habitats).
6. Sensitive wildlife sites (i.e. raptor nests and roosts, great blue heron rookeries, etc.) would be managed to minimize disturbance by maintaining seasonal closures. For nest sites, seasonal closures could be ended early if, through monitoring, the nest is determined to be unoccupied. However, the closure period must include dates that would allow late nesting birds. Prior to disturbing activities, surveys would be conducted to determine presence/ absence of special status species. Allow the action to proceed if field exam indicates the nest is inactive.
7. Conduct periodic surveys of potential raptor habitats and monitor active and historic sites to determine occupancy and management consistency (B/LP RMP, modified, p. 97).
8. Where possible, design or redesign, travel routes to contribute to the conservation of special status species, and relocate roads and trails away from important habitats.

Objective W – CMD2: Restore, maintain, or enhance those resources necessary to support, as site potential and authorities allow, a full compliment of native species in their historical distributions.

Rationale:

As directed under the Federal Land Policy and Management Act of 1976 public lands would be managed in a manner that protects ecological values, maintains their natural condition and provides food and habitat for wildlife. As directed in BLM Manual 6840 - Special Status Species Management, the BLM would take actions that progress towards the conditions indicating attainment of the Fundamentals of Rangeland Health (described in 43 CFR 4180.1) and associated Standards (43 CFR 4180.2).

Allocations/Allowable Uses:

Habitat modification

1. Vegetative habitats would be maintained or improved using a variety of techniques, such as, mowing of shrubs, prescribed burning, livestock grazing and/or commercial timber harvest, non-commercial tree cutting and planting and seeding.

[25] "Important habitat" is a general term that includes seasonal habitats, such as winter ranges and breeding sites; habitat structure, such as snags and down logs; and unique features, such as cliffs and caves.

Disturbance Actions

2. Avoid or minimize actions that may cause disturbance to important or seasonally important wildlife habitats.

Guidelines:

Habitat Modification

1. In order to restore native plants, areas disturbed during project construction would be seeded with a mix of native grasses, forbs, and shrubs to meet site-specific needs or habitat requirements.
2. Non-native species could be used when they would contribute to the recovery of the site, contribute to soil conservation, and/or prepare the site for eventual occupation by native plant species and would not impede the growth of native plants.
3. Permitted activities would be restricted in all areas where vegetation manipulation (human or naturally caused) occurs and results in sensitive soil and plant conditions, or the site already has sensitive soils and/or plant conditions. These permitted activities include, but are not limited to, livestock grazing, off-road vehicle travel, recreational events, construction of new roads and trails, and timber harvests.
4. Range developments would be designed to achieve both wildlife and livestock grazing management objectives**.**
5. Where natural springs exist and are developed, the development would provide a more dependable water source for wildlife as well as livestock. Water troughs would accommodate use by wildlife and livestock, and would be constructed with wildlife escape devices. The spring area and the overflow would be fenced to exclude livestock trampling.
6. Where pipelines are developed to deliver water more than two miles from an existing water source, the water system would be designed to provide water for wildlife between July and October.

Disturbance Actions

7. Manage important wildlife habitats to minimize human disturbance by maintaining seasonal closures throughout the sensitive period (See Table PRMP-1 for a list of species that may require seasonal restrictions, the restriction dates, and distance buffers).
8. In seasonally important wildlife habitats (winter range, nest sites, roosts, etc.), major construction and maintenance work would be scheduled to avoid or minimize disturbance to wildlife (B/LP RMP, p. 97).
9. Timber sales would be designed to provide sufficient cover to maintain the existing deer migration corridor through the La Pine area.

Existing laws, policies and plans

10. Fish and wildlife habitat management impacts would continue to be evaluated on a case-by-case basis as part of project-level planning (i.e., grazing, recreation and timber management plans, right-of-way applications, etc.).
11. Evaluations would consider the significance of the proposed projects and the sensitivity of fish and wildlife habitats in the affected areas. Stipulations would be attached as appropriate to assure compatibility of projects with management objectives for fish and wildlife habitat.

<u>Objective W – CMD3:</u> Maintain and restore special habitat components or features that provide important contributions to a variety of species. These features include, but are not limited to caves, cliffs, and playas.

<u>Rationale:</u>
The special habitat components or features described here were identified as critical to the long-term conservation of a variety of species by Wisdom et al. (2000) in Source Habitats for Terrestrial Vertebrates of Focus in the Interior Columbia Basin, and by Quigley and Arbelbide (1997) in Assessment of Ecosystem Components (ICBEMP Prop. Dec., p. 64 – modified). The Federal Cave Resources Protection Act of 1988 directs the agency to: Prohibit any person who, without prior authorization from the Secretary knowingly destroys, disturbs, defaces, mars, alters, removes or harms any significant cave or alters the free movement of any animal or plant life into or out of any significant cave located on Federal lands.

The Interim Cave Management Policy (Instruction Memorandum No. OR-95-021) provides for the following:

1. Where known or potential adverse impacts from human use to threatened, endangered, and/or sensitive plants or animals, cultural resources, biological deposits (i.e. middens, skeletal remains, etc.), or geologic/paleontologic/mineral features are present, then the responsible authorized officer shall act to protect these resources. Such actions could include information/education, closures (seasonally or yearlong), written authorization for activities, or other appropriate measures.
2. On public lands administered by the BLM, no new surface disturbing activities would be authorized within a 350 foot radius of a cave opening or any known cave passages which may adversely impact any significant or potentially significant cave resource value.

The Bald Eagle Protection Act:
Provides for the protection of bald and golden eagles by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds. Take includes pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting or disturbing bald and golden eagles.

<u>Allocations/Allowable Uses:</u> See Special Management Areas – Caves and specific species management direction.

<u>Guidelines:</u>
Habitat Modification

1. When approving habitat modification activities, determine the importance of special habitat features to special status species, and maintain the integrity of the site.
2. Where possible, avoid or minimize changes to special habitat features.

Disturbance Actions

3. Minimize activities that could influence wildlife use of special habitat features by using one or more techniques appropriate to the species' needs and status. These techniques could include:
   A. Seasonal restrictions
   B. Distance buffers
   C. Signs
   D. Closures
   E. Relocating disturbance (i.e. moving trails, etc.
4. Identify, and, where appropriate, maintain, restore or enhance wetland habitats such as playas, springs, and other riparian areas.

<u>Objective W – CMD4:</u> Maintain a current inventory of wildlife resources throughout the planning area that facilitates on-going management as well as future planning needs.

<u>Rationale:</u>

1. FLPMA [Section 201 (43 U.S.C. 1711) a] directs BLM to prepare and maintain on a continuing basis an inventory of all public lands and their resource values (BLM manual 6600 Authority).
2. The National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321-17: 83 Stat.852: p.1, 91-190) directs federal agencies to use ecological information in the planning and development of resources-oriented projects.
3. BLM Manual 6840 – Special Status Species Management, directs the Field Office Manager to conduct and maintain current inventories for special status species on public lands.
4. BLM Fish and Wildlife 2000 directs field offices to identify and monitor key wildlife habitats.

<u>Guidelines:</u>

Habitat Modification

1. Map the habitat of all special status species and species of local importance. Periodically update the maps as new information becomes available and as habitats change relative to land management actions and natural events.

Disturbance Actions

2. Map the locations of active and historic important wildlife habitats (i.e. raptor nests, deer, elk and pronghorn winter range, sage grouse leks, etc.).
3. Periodically monitor these habitats and survey potential habitats for additional activity.
4. Map the land use activities that may cause negative impacts to these habitats.

Maintain and improve existing and potential habitat

5. Conduct literature searches and identify potential habitat altering actions that may have a negative impact on important wildlife resources and develop mitigating measures to lessen the negative affects.
6. Conduct literature searches and identify potential disturbance related actions that may have a negative impact on important wildlife species and develop mitigating measures to lessen the negative affects.
7. Conduct and record systematic inventories of populations and distributions of listed and special status species, and species of public interest.
8. Conduct monitoring and evaluation studies on listed and special status species, and species of public interest on a regular periodic basis.

Hydrology

Watershed/Hydrologic Function

<u>Objective H – CMD1:</u> Maintain productivity and minimize accelerated erosion. Soil and plant conditions support infiltration, soil moisture storage and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity and the timing and duration of flow.

<u>Rationale:</u>

FLPMA directs the BLM to manage the public lands for long-term needs of future generations for renewable and non-renewable resources, including watershed. This includes management of the various resources without permanent impairment of the productivity of the land and the quality of the environment.

Guidelines:

1. Take corrective actions, where practicable, to resolve erosive conditions. Surface disturbance at all project sites are to be held to a minimum.
2. Disturbed soil would be rehabilitated to blend into the surrounding soil surface and reseeded as needed with a mixture of grasses, forbs, and browse as applicable to replace ground cover and reduce soil loss from wind and water erosion.

Water Quality

Objective H – CMD2: Ensure water quality complies with State Standards and achieves, or is making significant progress toward achieving, established BLM objectives for watershed functions.

Rationale:

The Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington meet the requirements and intent of 43 Code of Federal Regulations, Subpart 4180 (Rangeland Health). Those Standards and Guidelines are hereby incorporated by reference to this section, and are not repeated here.

Guidelines:

1. In accordance with Rangeland Health Assessments, modify livestock grazing where the standard for watershed function is not being achieved, or where measurable progress is not made toward achieving the standard.
2. Allotments would be evaluated according to the Fundamentals of Rangeland Health.

Objective H – CMD3: Water quality would be maintained or enhanced consistent with or exceeding Oregon's water quality management plans and would meet or exceed Oregon's Forest Practices Act.

Rationale:

The "Federal Water Pollution Control Act" (commonly known as the "Clean Water Act" [CWA]) of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters. Mandates of the Act establish the EPA as administrator and the states (e.g., Oregon) as implementers of the Act. The BLM is responsible to manage the requirements of the Act on land they administer, but primacy in implementing the Act is retained by Oregon. BLM is required to maintain water quality where it presently meets EPA-approved Oregon State water quality standards and improve water quality on public land where it does not meet standards. State developed total maximum daily loads (TMDLs) and State approved water quality management plans are required for waterbodies in sub basins and watersheds containing water quality limited segments (Appendix E) (as defined by section 303(d) of the CWA) where water quality is not meeting standards. In addition to the Act, numerous laws, regulations, policies, and Executive orders direct BLM to manage for water quality for the benefit of the Nation and its economy.

Water quality is important not only for human use but also for proper ecosystem function. Management practices such as grazing, mining, recreation, timber harvesting, and other forms of vegetation management for restoring and maintaining water quality would be designed for healthy sustainable and functional rangeland ecosystems as described in Standards for Rangeland Health, 1997.

Guidelines:

1. The BLM would comply with the Federal CWA and the State DEQ's program by employing the joint USFS and BLM protocol for addressing CWA section 303(d) listed waters. One goal of the strategy is to address all waters on BLM-administered lands generally within the timeline established by the State of Oregon DEQ. The BLM would

take actions relative to 303(d) listed water bodies in accordance with the protocol as outlined in Appendix E (Protocol for 303(d) listed Streams).

2. Surface water and groundwater quality, as influenced by agency actions, complies with State water quality standards.

Air Quality

<u>Objective AQ - CMD1:</u> Meet the National Ambient Air Quality Standards (NAAQS) as described in the Clean Air Act.

<u>Rationale:</u>
Out of all of the possible management activities considered, smoke produced from wild and prescribed fires would be the main factor affecting air quality. Smoke may limit a land manager's ability to use larger and more frequent wildland fire for restoration and maintenance of fire-dependent ecosystems.

The CAA requires Federal agencies to comply with all Federal, state, and local air pollution requirements. The CAA also requires each state to develop a state implementation plan to ensure that the national ambient air quality standards are attained and maintained for the criteria pollutants. The ODEQ is responsible for producing the state implementation plan, but delegates the smoke management portion to the Oregon Department of Forestry. As part of the state implementation plan, the Oregon Department of Forestry developed instructions and requirements for wildland and prescribed fire emissions in the smoke management plan. Federal agencies are required to ensure that their actions conform to state implementation plans.

The national ambient air quality standards are described in the CAA and have been established for six pollutants. Of these six criteria pollutants, natural resource management activities largely affect only oneóthe production of particulate matter. Most particulate matter produced from fire is less than 10 micrometers (PM10) in diameter, which is the size class that is regulated. Because fire and smoke are a natural part of forest and rangeland ecosystems, PM10 produced from fire does not seriously affect these ecosystems. At the current time, PM2.5 is being studied by the State of Oregon, and ODEQ data is being collected to determine attainment status. This study should be completed within the next couple of years. However, it does have effects on human health.

<u>Guidelines:</u>

1. Guidelines are provided for federal agencies in the Smoke Management Guide for Prescribed and Wildland Fire, 2001 Edition. The following smoke management and emission reduction techniques should be considered in project specific NEPA when:
   A. Air quality is raised as a significant issue in scoping,
   B. The project includes burning,
   C. The project includes significant road construction, road use or other soil disturbing procedures where fugitive dust may be a concern,
   D. The project includes significant machinery operation in close proximity to publicly accessible areas,
   E. The project may have any impact on air quality in a Class I area,
   F. The project may have any impact on sensitive vistas or visibility in a Class I area
   G. The area is in close proximity to a non-attainment area, or
   H. The project would make a significant amount of firewood available to the public.
2. The appropriate level of analysis for each project would vary with the size of the project. If an air quality analysis is deemed unnecessary, the NEPA document should state that potential air quality impacts were considered but were determined to be inconsequential, and a justification for this statement must be included.

NEPA Analysis of Air Quality

3. A complete disclosure of air quality impacts in a NEPA document should include the following information:
   A. Description of the air quality environment of the project area
   B. Description of alternative fuel treatments considered and reasons why they were not selected over prescribed fire.
   C. Quantification of the fuels to be burned (areas, tons, types).
   D. Description of the types of burning planned (broadcast, piles, understory, etc)
   E. Description of measures taken to reduce emissions and emission impacts.
   F. Estimation of the amount and timing of emissions to be released.
   G. Description of the regulatory and permit requirements for burning.
   H. Modeled estimates of where smoke could go under certain common and worst case meteorological scenarios and focusing on new or increased impacts on down wind communities, visibility impacts on Class I areas, etc.

Smoke Management Techniques

4. Air quality protection and smoke management may include the following techniques:
   A. Reducing the Amount of Emissions
      i. Reduce the area burned through project design.
         a. Burn concentrations of fuels rather than burning 100 percent of the area
         b. Isolate fuels that have the potential to smolder for long periods of time (large logs, snags, deep pockets of duff) with fire line, lighting patterns that avoid these areas, use of snow or natural barriers, scattering fuels, or spraying targeted fuels with foam or other fire retardant material prior to burning.
         c. Mosaic burning to exclude more moist areas or mimic natural ignition patterns.
      ii. Reduce the fuel load to reduce overall emissions or eliminate the need for burning.
         a. Mechanical removal of fuels including yarding of whole trees, logging slash, or brush removed for offsite utilization.
         b. Mechanical processing such as chipping, mowing or other masticating of biomass, redistributing to increase soil contact and speed decomposition processes
         c. Firewood sales where the public has easy access.
         d. Biomass used for energy conversion at cogeneration facilities.
         e. Biomass utilization for pulp, methanol, wood pellets, garden bedding, or specialty forest products.
         f. Ungulate grazing and browsing live or brushy fuels to reduce fuel loading prior to burning, or to increase the burn frequency.
      iii. Reduce the fuel consumed in prescribed fire.
         a. Burn when large wood fuels are moist and unlikely to consume.
         b. Burn with moist litter and duff conditions in forest ecosystems.
         c. Schedule burns immediately before a precipitation event based on weather forecasts to limit consumption of large fuels.
         d. Burn before large fuels cure, within 3-4 drying months of a harvest activity in forest types.
      iv. Schedule burning before new fuels appear.
         a. Burn before litter falls or greens-up. Less fuel would be available for consumption, so fewer emissions.
      v. Increase combustion efficiency. Burn to shift the majority of consumption away from the smoldering phase of combustion and into the more efficient flaming phase to reduce emissions.
         a. Burn clean, dry piles.
         b. Burn pattern design to use backing fire, which moves more slowly with more complete combustion than head fire.
         c. Burn under dry conditions to increase combustion efficiency in target fuel size classes.

d. Rapid mop-up to reduce smoldering phase of combustion.
e. Aerial ignition/mass ignition to speed combustion.
f. Use of air curtain incinerators, large metal containers or pits in which combustion is aided by powerful fans to force additional oxygen into combustion process.

B. Redistribute the Emissions
i. Burn when dispersion is good with an unstable atmosphere.
ii. Share the air shed with other agencies and smoke producers to reduce the likelihood of smoke impacts, by coordinating with ODF in compliance with the Smoke Management Plan for Oregon.
iii. Avoid sensitive areas, burning when winds are favorable to carry smoke away from highways, populated areas, and scenic vistas.
iv. Burn larger units in smaller subunits over several days to limit short-term emissions.
v. Burn more frequently, managing fuel accumulation and producing fewer emissions with each burn.

Special Management Areas

Special Management Areas within the Upper Deschutes Plan area include Areas of Critical Environmental Concern (ACEC), Research Natural Areas (RNA), Wilderness Study Areas (WSA), and Caves. Each of these areas has special management direction that reflects the values for which each of these areas or sites are managed. Specific management direction that is provided for Wild and Scenic Rivers and river corridors within the planning area boundary remains in place is provided in the Upper Deschutes Wild and Scenic River and State Scenic Waterway Comprehensive Management Plan and the Middle Deschutes and Lower Crooked Rivers Management Plan prepared since the adoption of the B/LP RMP.

Areas of Critical Environmental Concern

General

ACECs are areas designated for special management. In the Upper Deschutes area, some of the ACECs designated in the past have additional overlying designations. These include the two RNAs (which are also ACECs), the Badlands WSA (a portion of which is also an ACEC), and the Chimney Rock segment of the Lower Crooked Wild and Scenic River (a portion of which is an ACEC).

Objective SMA – CMD1: Retain existing and/or designate ACECs where relevance and importance criteria are met and special management is required to protect the identified values. Management activities and resource uses within ACECs would not impair the values for which the ACEC was designated.

Rationale:
An ACEC is a special designation created by Congress in the 1976 Federal Land Policy and Management Act (FLPMA). Under FLPMA, the Secretary of the Interior and the BLM were directed to designate ACECs within the public lands where special management attention is required to protect and prevent irreparable damage to important cultural, historic or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. All RNAs are required by national policy to be designated ACECs.

Allocations/Allowable Uses:
1. The following would continue to be designated as ACECs:
   A. Wagon Roads – 75 acres

B. Badlands – 16,684 acres
C. Horse Ridge RNA/ISA – 609 acres
D. Powell Butte RNA – 510 acres
E. Peck's Milkvetch – 4,703 acres

2. Unless specifically addressed in other guidance, uses that would not impair the values for which the ACEC was designated would be allowed.

Guidelines:

1. Evaluate proposed uses within ACECs to determine whether those values for which the ACEC was designated would be adversely affected. During proposed use evaluations, consider the context, intensity, and duration of modifications to resource conditions that contribute to the values for which the ACEC was designated.
2. For proposed uses that would adversely affect ACEC values, unless not allowed by other guidance, consider modifications that could allow the use to occur while mitigating the adverse effects.

Objective SMA – CMD2: Provide public information concerning ACECs (boundaries, management guidelines, reasons for designation, etc.) to increase public awareness of the location and importance of specific ACEC values.

Guidelines:

1. Identify perimeter and locations of ACECs
2. Improve public understanding of ACEC values through methods including but not limited to websites, maps and brochures, signing, field tours, and news releases.
3. Develop programs to increase adoption and other volunteer stewardship activities.

Area Specific

Badlands ACEC

Objective SMA – CMD1a: Continue designation of the core Badlands area as an ACEC to provide for continued protection if the WSA designation is dropped by Congress.

Rationale:

The continuing designation of the Badlands as a WSA is not within the authority of the BLM to determine. Congress can designate this area as a WSA or release this area for other uses. If the WSA designation is dropped by Congress, the ACEC designation would continue to provide protection for old growth juniper, geologic formations, pictographs, and primitive recreation opportunities.

Allocations/Allowable Uses:

1. **ACEC Area:** 16,684 acres would continue to have ACEC designation.
2. **General:** See Badlands WSA. If the Badlands WSA designation is discontinued, the allocations/allowable uses and guidelines for the Badlands WSA would continue to apply to the Badlands ACEC except that the closure to mineral leasing would change to a closure to surface occupancy within the ACEC.

Peck's Milkvetch ACEC

Objective SMA – CMD1b: Provide conditions that emphasize and protect or enhance populations of Peck's milkvetch or its habitat.

Rationale:

The ACEC encompasses the central known habitat for Peck's milkvetch (*Astragalus peckii*), a Federal candidate plant. The high levels of public use of the area pose potential threats to this species.

Allocations/Allowable Uses:

1. **ACEC Area:** The existing 4,073-acre ACEC would continue to be designated.
2. **Fire Management:** See ACECs under Management Direction.
3. **Vegetative Treatments:** See ACECs under Management Direction
4. **Forest and Range Products:** See ACECs under Management Direction.
5. **Minerals:** Mineral material mining, development of mining claims, and geophysical exploration would be restricted as necessary based on site-specific analysis to protect the special values of this ACEC. Approved plans of operation would have stipulations to protect special values. Surface occupancy for fluid mineral leasing would not be allowed.
6. **Livestock grazing:** See ACECs under Management Direction
7. **Recreation:** No restrictions specific to this ACEC. See Recreation sections.
8. **Firearm Discharge:** No restrictions specific to this ACEC. See Public Health and Safety sections.
9. **Rights-of-Way:** See ACECs under Management Direction.
10. **Land Ownership:** See ACECs under Management Direction.

Wagon Roads ACEC

Objective SMA – CMD1c: Highlight and protect the integrity of the segment of the historic Huntington Road located in Township 17, Range 12, Section 1 (see "existing ACEC" shown on DEIS Map 7) and provide for its use as an interpretive resource.

Rationale:
The ACEC contains one of the few known, relatively intact segments of Huntington Road; a mid 19th century military route between The Dalles and Fort Klamath (Klamath Falls), Oregon. The BLM and Deschutes County Historical Society entered into a partnership and interpreted the road and its historical features for the benefit of the public in 1993. The BLM, in accordance with the National Cultural Programmatic Agreement (1997) and the Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon, considers this segment of Huntington Road as eligible to the National Register. The high levels of public use in the area pose potential threats to the integrity of this feature; therefore the ACEC designation has been determined relevant.

Allocations/Allowable Uses:
1. **ACEC Area:** Continue existing segment of the southern-most portion of the existing Wagon Roads ACEC (located south of McGrath Road) that constitutes approximately 1.25 miles of public land located in Township 17, Range 12, Section 1 (see FEIS Map 1). This ACEC would cover about 90 acres, including a 300-foot distance on either side of the road to protect associated historic features.
2. **Fire management:** Wildland fire would be fought aggressively if within, or threatening the ACEC. Fire lines would not be constructed within the ACEC and surface disturbance would be kept to the minimum amount necessary. Prescribed fire would not be allowed.
3. **Vegetation treatments:** See Management Direction.
4. **Forest and Range Products:** Firewood cutting would not be allowed.
5. **Livestock grazing**: Livestock grazing and associated developments would be allowed provided that livestock are not allowed to concentrate in the ACEC and developments do not impair ACEC values.
6. **Minerals:** Development of mining claims and geophysical exploration would be allowed with restrictions designed to prevent impairment of archaeological and interpretive values. Mining for mineral materials would not be allowed.
7. **Recreation:** All forms of non-motorized, primitive recreation would be permitted except for horseback riding and non-motorized vehicle use along the road alignment south of McGrath road. OHV use along the historic road south of McGrath Road would not be allowed.

8. **Firearm discharge:** See Special Management Areas under Management Direction.
9. **Roads and rights-of-way:** See Special Management Areas under Management Direction.
10. **Land Ownership:** See Special Management Areas under Management Direction.

Guidelines:
1. Periodic field examinations would assess the condition of the ACEC.
2. The fence that surrounds Section 1 in which the ACEC is located would be examined periodically. Segments of the fence needing repair would be mended as necessary by the BLM or adjacent grazing permittee.
3. The partnership between the BLM and the Deschutes County Historical Society for interpretive development and educational products for the ACEC would continue.
4. Opportunities for the designation of a pedestrian trail system with interpretive signs would be pursued.

Research Natural Areas

Objective SMA – CMD2: Provide components of the national system of RNAs. The Natural Heritage Act calls for the establishment of a "discrete and limited system" of natural heritage conservation areas, which have "substantially retained their natural character" and which "represent the full range of Oregon's natural heritage resources."

Rationale:
Horse Ridge RNA: The RNA provides representation of the western juniper/big sagebrush/threadleaf sedge community, filling the cell need for this community as identified in the Oregon Natural Heritage Plan.

Powell Buttes RNA: The RNA provides representation of the western juniper/big sagebrush/bluebunch wheatgrass and juniper/bunchgrass communities, primarily on a south slope, filling the cell needs for these communities as identified in the Oregon Natural Heritage Plan.

Allocations/Allowable Uses:
1. **RNA Areas:** Continue designation of the 609-acre Horse Ridge RNA/Instant Study Area (ISA) and 510-acre Powell Buttes RNA.
2. **Fire management:** Consistent with the District's Fire Management Plan, prescribed fire would be allowed as well as suppression activities, provided restrictions or stipulations are designed to maintain or enhance natural vegetation communities. Fire management direction provided in the Horse Ridge ACEC/RNA Natural Area Management Plan (1996) would continue to apply.
3. **Vegetative treatments:** Vegetative treatments would generally not be allowed. See the Horse Ridge ACEC/RNA Natural Area Management Plan (1996) for management direction for introduced plant species.
4. **Forest and Range Products:** Generally, harvesting of wood products and special forest and range products would not be allowed. See the Horse Ridge ACEC/RNA Natural Area Management Plan (1996) for additional management direction.
5. **Livestock grazing:** Would not be allowed.
6. **Minerals**:
   A. Plans of operation must be submitted and approved prior to any development of mining claims in the Powell Butte RNA. Approved plans of operation would have stipulations to protect the values of this RNA.
   B. The Horse Ridge RNA area is withdrawn from locatable mineral entry under the 1872 mining laws.
   C. Surface occupancy for fluid mineral leasing would not be allowed. Geophysical exploration would be restricted to protect the natural values for which the RNA was designated.

D. Rockhounding and the collection of decorative stone would not be allowed.
7. **Recreation:** OHV use would not be allowed.
8. **Rights-of-way**: New rights of way would not be allowed.
9. **Land Ownership**: See RNAs under Management Direction.

Guidelines:
The Horse Ridge RNA is also an ISA and would be managed in accordance with the 1995 "Interim Management Policy for Lands under Wilderness Review" (IMP).

Wilderness Study Areas

Objective SMA – CMD3: Manage Wilderness Study Areas to maintain wilderness suitability consistent with the 1995 "Interim Management Policy for Lands under Wilderness Review" (IMP).

Rationale:
Steelhead Falls and Badlands WSAs are existing WSAs located in the planning area. BLM policy (H-8550-1) is to manage these areas under the interim management policy (IMP) until Congress either designates these lands as Wilderness or releases them for other purposes.

Allocations/Allowable Uses:
All Wilderness Study Areas recommended to Congress maintain that designation until Congressional action is taken.

Badlands WSA

Objective SMA – CMD4a: Provide conditions the emphasize and protect primitive recreation opportunities, geologic formations, a prehistoric river canyon, pictographs, and old-growth juniper woodlands.

Rationale:
The WSA is an area of statewide interest. There are ongoing occurrences of firewood, furniture wood and decorative stone theft and from vandalism to cultural resources.

Allocations/Allowable Uses:
1. **WSA Area:** 29,545 acres
2. **Fire management:** Prescribed fire and suppression activities would be allowed consistent with the District's Fire Management Plan and with the non-impairment standard of the IMP.
3. **Vegetative treatments**: Treatments would be allowed that meet the non-impairment standard of the IMP.
4. **Forest and Range Products**: Generally, harvesting of wood products and special forest and range products would not be allowed except in conjunction with restoration treatments.
5. **Minerals:**
   A. Development of mining claims and geophysical exploration would be allowed with restrictions designed to prevent impairment of wilderness suitability. Approved plans of operation must meet the non-impairment standard of the IMP.
   B. The Badlands WSA designation closes the area to mineral leasing. If the WSA designation is dropped, mineral leasing would be allowed in the Badlands ACEC but would be closed to surface occupancy.
   C. Decorative stone collection would not be allowed. See Special Management Areas under Management Direction for Rockhounding.
6. **Livestock grazing:** Livestock grazing would be managed according to the non-

impairment standards of the IMP.
7. **Recreation:** See WSAs under Management Direction.
8. **Firearm discharge:** See WSAs under Management Direction.
9. **Rights-of-way:** See WSAs under Management Direction.
10. **Land Ownership:** See WSAs under Management Direction.

Steelhead Falls WSA

See Visual Resources and Recreation under Management Direction. Continued management direction for the Steelhead Falls WSA is provided in the Middle Deschutes and Lower Crooked Rivers Management Plan.

Caves

The following nominated caves[26] within the planning area have been determined to be Significant under the FCRPA (with the year of determination):
1. Horse Butte Indian Cave (1995
2. Pictograph (Stout) Cave (1995
3. Redmond Cave (1995)

Objective SMA – CMD4: Manage caves nominated or determined to be significant with an emphasis on educational, research, and protection of cave resources. Manage activities and use to not impair the nominated values for which the cave may be determined significant.

Rationale:
The Federal Cave Resources Protection Act of 1988 directs the agency to:
1. Secure, protect, and preserve significant caves on Federal lands for the perpetual use, enjoyment, and benefit of all people; and
2. Foster increased cooperation and exchange of information between governmental authorities and those who use caves located on Federal lands for scientific, education, or recreational purposes.

It is the policy of the United States that Federal lands be managed in a manner which protects and maintains, to the extent practical, significant caves.

This Act prohibits any person who, without prior authorization from the Secretary knowingly destroys, disturbs, defaces, mars, alters, removes or harms any significant cave or alters the free movement of any animal or plant life into or out of any significant cave located on Federal lands.

Allocations/Allowable Uses:
1. Recreational or other human activities are allowed in caves consistent with protecting other cave resource values.
2. Where known or potential adverse impacts from human use to threatened, endangered, and/or sensitive plants or animals, cultural resources, biological deposits (i.e., middens, skeletal remains, etc.), or geologic/paleontologic/mineral features are present, then the responsible authorized officer shall act to protect these resources.
3. On public lands administered by the BLM, no new surface disturbing activities would be authorized within a 350 foot radius of a cave opening or any known cave passages which may adversely impact any significant or potentially significant cave resource value.

[26] Lands containing six caves nominated for significance were transferred to the State of Oregon in 1997 as part of the in-lieu land selection process, and are no longer under federal management.

4. For use/activity-specific allocations/allowable uses, see Special Management Areas under Continued Management Direction.

Guidelines:

1. Determine significance for nominated caves according to the following FCRPA criteria (43 CFR Part 37.11(c)):
   A. **Biota**: The cave provides seasonal or yearlong habitat for organisms or animals or contains species or subspecies of flora or fauna native to caves, or are sensitive to disruption, or are found on State or Federal sensitive, threatened, or endangered species lists.
   B. **Cultural**: The cave contains historic properties or archeological resources or other features that are included in or eligible for inclusion in the National Register of Historic Places because of its research importance for history or prehistory, its historical associations, or other historical or traditional significance.
   C. **Geologic/Mineralogic/Paleontologic**: The cave possesses one or more of the following features: (1) Geologic or mineral features that are fragile, or that exhibit interesting formation processes, or that are otherwise useful for study; (2) Deposits of sediments or features useful for evaluating past events; (3) Paleontological resources with potential to contribute useful educational and scientific information.
   D. **Hydrologic**: The cave is part of a hydrologic system or contains water that is important to humans, biota, or development of cave resources.
   E. **Recreational**: The cave provides or could provide recreational opportunities or scenic values.
   F. **Educational or Scientific**: The cave offers opportunities for educational or scientific use; or, the cave is virtually in a pristine state, lacking evidence or contemporary human disturbance or impact; or, the length, volume, total depth, pit depth, height, or similar measurements are notable.
2. Survey nominated and potentially significant caves under BLM jurisdiction to determine significance. Periodically update list of significant caves based on results.

Land Uses

Livestock Grazing

Objective LG – CMD1: Provide for continued livestock grazing, while reducing conflicts with and meeting needs of other uses and resources.

Rationale:
BLM planning manuals direct BLM to reduce threats to public health, safety, and property as well as provide guidance for grazing management.

FLPMA, Public Rangeland Improvement Act (PRIA), Taylor Grazing Act, and other acts, direct the management of public land for multiple use and sustained yield. Desired outcomes may take social and economic values into consideration (p. III-5, BLM H-1601-1 Land Use Planning Handbook). FLPMA directs the BLM to improve forage conditions, with resulting benefits to wildlife, watershed protection, and livestock production.

The Standards for Rangeland Health (1997 BLM) direct the BLM to modify or discontinue livestock grazing prior to the start of the next grazing year if livestock are found to be a significant contributing factor to failure to attain a Standard. The Standards address watershed function (upland and riparian), ecological processes, water quality, and habitat for native, T&E and locally important species.

Allocations/Allowable Uses:
All areas currently closed to livestock grazing would stay closed (see FEIS Map 5).

Guidelines:

1. Up to about 4,700 AUMs may be allocated (amount adjusted from B/LP RMP – see explanation in Chapter 3 Livestock Grazing section) in the La Pine area as a result of increased forage production following timber treatments, on a temporary, non-renewable basis, and only if supported by monitoring and subsequent analysis by an interdisciplinary team. Make these AUMs available first for wildlife and riparian objectives, and then to livestock grazing.
2. Monitor and evaluate allotments consistent with the schedule in the Oregon Rangeland Handbook (H-1734-2); and maintain current grazing systems as identified in Appendix G of the FEIS
3. Restrict or prohibit livestock grazing and rangeland projects in ACECs, WSAs, and Wild and Scenic Rivers, if the use is not compatible with the values for which the areas are designated. See full description of objectives and guidelines in the Special Management Areas section.
4. Prevent BLM-permitted livestock from straying onto private land in closed range, where requested by private landowner.
5. Leave currently unallotted (no permitted livestock grazing) areas in the northern portion of the planning area unallotted.
6. Allow temporary non-renewable grazing use in vacant allotments.

Objective LG – CMD2: Promote healthy sustainable rangeland ecosystems, accelerate restoration and improvement of public rangelands to properly functioning conditions...and provide for the sustainability of the western livestock industry and communities that are dependent upon healthy, productive public rangelands.

Rationale:
In 1997 the Oregon/Washington BLM adopted The Standards for Rangeland Health and Guidelines for Grazing Management ("The Standards"), and incorporated the Standards into existing land use plans. The Standards meet the intent of 43 CFR 4180 (the rangeland health regulations), which contains the objective stated above.

Allocations/Allowable Uses:
1. Allow livestock grazing when it is managed such that upland soils, riparian-wetland areas, ecological processes (nutrient cycling, energy flow, hydrologic cycle), and water quality support healthy, diverse and productive populations and communities of native plants and animals.

Guidelines:
1. Involve diverse interests in rangeland assessment, planning and monitoring.
2. Conduct monitoring using a qualitative method of assessment to identify critical, site-specific problems or issues using interdisciplinary teams of specialists, managers, and knowledgeable land users.
3. Base the season, timing, frequency, duration and intensity of livestock grazing use on the physical and biological characteristics of the site and the management unit in order to: (a) Provide adequate cover (live plants, plant litter and residue) to promote infiltration, conserve soil moisture and to maintain soil stability in upland areas; (b) Provide adequate cover and plant community structure to promote stream bank stability, debris and sediment capture, and floodwater energy dissipation in riparian areas; (c) Promote soil surface conditions that support infiltration; (d) Avoid sub-surface soil compaction that retards the movement of water in the soil profile; (e) Help prevent the increase and spread of noxious weeds; (f) Maintain or restore diverse plant populations and communities that fully occupy the potential rooting volume of the soil; (g) Maintain or restore plant communities to promote photosynthesis throughout the potential growing season; (h) Promote soil and site conditions that provide the opportunity for the establishment of desirable plants; (i) Protect or restore water quality; and (j) Provide for the life cycle requirements, and maintain or restore the habitat elements of native (including T&E, special status, and locally important species) and desired plants and animals.

4. Tailor grazing management plans to site-specific conditions and plan objectives.
5. Coordinate livestock grazing with the timing of precipitation, plant growth and plant form. Soil moisture, plant growth stage and the timing of peak stream flows are key factors in determining when to graze. Response to different grazing strategies varies with differing ecological sites.
6. Consider nutritional and herd health requirements of the livestock when designing grazing management systems.
7. Integrate grazing management systems into the year-round management strategy and resources of the permittee(s). Consider the use of collaborative approaches (e.g., Coordinated Resource Management, Working Groups) in this integration.
8. Consider competition for forage and browse among livestock, big game animals, and wild horses in designing and implementing a grazing plan.
9. Provide periodic rest from grazing for rangeland vegetation during critical growth periods to promote plant vigor, reproduction and productivity.
10. Consider the potential for conflict between grazing use on public land and adjoining land uses in the design and implementation of a grazing management plan.
11. When implementing grazing systems, consider the kind and class of animals managed, indigenous wildlife, wild horses, the terrain and the availability of water, to: (a) Promote livestock distribution; (b)Encourage a uniform level of proper grazing use throughout the grazing unit; (c)Avoid unwanted or damaging concentrations of livestock on stream banks, in riparian areas and other sensitive areas such as highly erodible soils, unique wildlife habitats and plant communities; and (d) Protect water quality.
12. Construct and maintain roads and trails used to facilitate livestock grazing in a manner that minimizes the effects on landscape hydrology (avoid concentrating overland flow, prevent sediment transport, and retain subsurface flows).

Minerals

Objective MN – CMD1: Provide for leasable, locatable, and mineral material prospecting, exploration, and development on BLM-administered lands, while protecting other resource values.

Rationale:

1. The Mining Law of 1872 as amended provides citizens of the United States the opportunity to explore for, discover, and purchase certain valuable (locatable) mineral deposits on those federal lands open for that purpose.
2. The Mineral Leasing Act of 1920 as amended authorizes the BLM to grant leases for development of deposits of coal, phosphate, potash, sodium, sulfur and other leasable minerals on federal public domain lands open for this purpose and on lands having federal reserved minerals.
3. The Materials Act of 1947 as amended authorizes the BLM to sell mineral materials at fair market value and to grant free-use permits for mineral materials to non-profit organizations and other Federal, state, and local government agencies.
4. The Geothermal Steam Act of 1970 as amended authorizes the BLM to grant leases for geothermal exploration and development on federal public lands open for this purpose.
5. The Federal Land Policy and Management Act of 1976 (FLPMA) directs the management of public land for multiple use and to prevent unnecessary or undue degradation of the land.
6. 43 CFR Parts 3100, 3200, 3600, and 3800 regulate onshore oil and gas leasing, geothermal leasing, mineral materials disposal, and mining claims under the general mining laws respectively.

Allocations/Allowable Uses:

1. Public lands open to mineral uses may be explored and developed for mineral resources in accordance with the 43 CFR Parts 3000 through 3800:
   A. Where not withdrawn from mineral entry or otherwise closed to the development of mineral resources;
   B. In a manner that would not cause unnecessary or undue degradation of the landscape; and
   C. In a manner consistent with applicable land use plans and Federal and state laws with respect to (1) air and water quality, (2) noise, (3) solid and liquid waste disposal, (4) fisheries, wildlife, and plant habitat, and (5) cultural and paleontological resources.
2. The following activities would be allowed:
   A. Approximately 396,185 acres are available for locatable mineral entry under the 1872 mining laws.
   B. Approximately 366,640 acres are available for mineral leasing.
   C. All surface disturbances on mining claims including disturbances resulting from casual use and operations under a notice or plan must be reclaimed. Reclamation shall include but is not limited to:
      i. Saving of topsoil for final application after reshaping of disturbed areas has been completed;
      ii. Measures to control erosion, landslides, and water runoff, and the spread of noxious weeds;
      iii. Measures to isolate, remove, or control toxic materials;
      iv. Reshaping of the area disturbed, application of the topsoil, and re-vegetation of the disturbed areas, where reasonably practicable; and
      v. Rehabilitation of fisheries and wildlife habitat.
   D. Surface occupancy for fluid mineral leasing is not allowed on approximately 16,480 acres surrounding Prineville Reservoir.
   E. Reserved Federal mineral estate (Federally owned minerals in non-Federally owned lands) may be explored and developed for mineral resources.
   F. Coal, coal bed methane, oil shale, and tar sands are considered to be absent from the planning area and are not addressed in this plan.

Guidelines:

General

1. Manage leasable, saleable and locatable mineral operations, including exploration, drilling, casual use, and operations under a notice or plan of operations so as to prevent unnecessary or undue degradation of public lands, i.e., cause no disturbance greater than what would normally result from actions of a prudent operator in usual, customary, and proficient operations of similar character while taking into consideration the effects of the operations on other resources and land uses.
2. Manage all mining operations to protect wildlife winter range and sensitive plant and animal habitat, riparian areas, and visual resources through seasonal and other restrictions.
3. Monitor and inspect all mining sites to ensure compliance with notices and plans of operation including reclamation requirements.
4. Conveyances of mineral interest owned by the United States, where the surface is or will be under non-Federal ownership would be made to the existing or proposed owner after finding:
   A. That there are no known valuable mineral deposits in the land, or
   B. That the reservation of mineral rights in the United States would interfere with or preclude non-mineral development of the land and that such development is a more beneficial use of the land than mineral development.

Special Management Areas

5. Mineral material site development is not allowed in ACECs, WSAs or RNAs listed as closed to this use.

6. Mineral material site development is restricted in ACECs, WSAs and RNAs not listed as closed to this use in a manner that preserves the values for which these areas are designated.
7. Fluid mineral leasing is not allowed in WSAs
8. Fluid mineral leasing and locatable mineral development are restricted in all ACECs and RNAs to protect the values for which these areas are designated.
9. Locatable mineral development is restricted in WSAs to prevent impairment of the suitability of these areas for inclusion into the wilderness system.

Objective MN - CMD2: Make public lands available for recreational rock collecting consistent with the Federal Land Policy and Management Act (FLPMA) requirements for outdoor recreation opportunities while:

1. **Protecting the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archeological values;**
2. **Preserving and protecting public lands in their natural condition, where appropriate; and**
3. **Providing food and habitat for fish, wildlife, and domestic animals.**

Rationale:

Legal Authorities

1. The Federal Land Policy and Management Act of 1976 (FLPMA) directs the management of public land for multiple use and to prevent unnecessary or undue degradation.
2. 43 CFR Subpart 3622 provides for the non-commercial collection of petrified wood from public lands for personal use.
3. 43 CFR Subpart 8365.1-5 provides for the non-commercial collection of rocks, mineral specimens, and common invertebrate fossils, and semi-precious gemstones from public lands for non-commercial use.

Allocations/Allowable Uses:

1. Per 43 CFR 8365.1-5 (b)(2), except on developed recreation sites and areas, or where otherwise prohibited and posted, the collection of rocks, invertebrate fossils and mineral specimens including petrified wood shall be in reasonable amounts for noncommercial use only.
2. Per 43 CFR 3622.4(a)(1), Collection of petrified wood without charge is restricted to 25 pounds plus one piece per person per day and may not exceed 250 pounds per year. Quotas from multiple persons may not be pooled to remove pieces larger than 250 pounds. No petrified wood specimen weighing more than 250 pounds shall be removed without a permit from the authorized officer.
3. Per 43 CFR 3622.4(a)(2) and 43 CFR 8365.1(a)(3), no person shall use explosives or mechanical devices (except metal detectors) to aid in the collection of rock materials.
4. Any commercial use would require a permit.
5. Continue management of the North Ochoco Reservoir, Eagle Rock, and Fischer Canyon sites for recreational rockhounding.

Guidelines:

1. Develop a rockhounding management plan for North Ochoco Reservoir.
2. Monitor rockhounding sites through visitor use surveys, photographs, and periodic soil and vegetative condition inventories to determine disturbance attributable to recreation. Use baseline data to determine limits of acceptable change.

Forest, Range and Woodland Products

Objective FP – CMD1: Manage forests, woodlands, and rangelands to provide for social and economic values, including wood products, consistent with ecosystem sustainability and other resource management objectives.

Rationale:
The Federal Land Policy and Management Act declares that the public land be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use.

Allocations/Allowable Uses
1. Manage approximately 41,110 acres of commercial forestland in the La Pine block and approximately 1,080 acres of commercial forestland in the northern area in a sustainable manner to ensure the availability of forest products in perpetuity for social/economic needs.
2. Allow harvest of up to 2,000 cords of firewood and other wood products from the approximately 170,000 acres of juniper woodlands within the planning area.
3. Harvest may be accomplished by a variety of manual and mechanized techniques including chainsaw, pick-up trucks, feller-bunchers, skidders, portable chippers, and other wheeled or tracked equipment.
4. A range of silvicultural systems would be considered to achieve resource objectives as appropriate to site-specific conditions. Appropriate prescriptions would include, but not be limited to, seed tree, shelterwood, patch cuts, uneven-aged management, and salvage.

Guidelines
1. Forest product outputs for the next 30-40 years in the La Pine area would be limited to relatively minor quantities in accordance with current direction in the Brothers/La Pine RMP.
2. Cutting areas would be designed to blend with the natural landscape and topography.
3. Wood product harvest, site preparation, silvicultural operations, and associated activities would be conducted according to Equipment Operating Guidelines and Best Management Practices for protection of soil and water resources (see Appendix F). BLM Handbook and Manual guidelines/management direction for machine operations and resource protection would also be followed where applicable.

Objective FP – CMD2: Help achieve the goals and objectives of the Oregon Parks and Recreation Department - La Pine State Park Master Plan. Offer BLM's expertise in helping to maintain and restore healthy and functioning forest, meadow, and riparian ecosystems within La Pine State Park.

Rationale:
BLM retains title to timber on 1,768 acres within La Pine State Park. This land was formerly public domain land that was conveyed to Oregon Parks and Recreation Department in the mid 1960s within two patents issued (pursuant to OR 01533 and OR 16986) under authority of the Recreation and Public Purposes Act. As a condition of the conveyance, BLM retained title to all present and future vegetative resources on these parcels.

Guidelines:
1. Manage the BLM-owned vegetative resource, including timber harvest and fuels reduction, in La Pine State Park considering direction provided in the Oregon Parks and Recreation Department - La Pine State Park Master Plan.
2. Because the vegetative resource is federally owned, vegetative treatments proposed on BLM patent lands within the State Park would also be managed in accordance with the guidelines in the Upper Deschutes RMP and with the appropriate level of analysis required by the National Environmental Policy Act.

Military Uses

Objective MU – CMD1: Allow OMD uses and rights necessary to accomplish the authorized activity in a safe and generally unimpeded manner while meeting the objectives of this Management Plan.

Rationale:
Conditions of use for military training in the planning area have been continuously approved for more than 20 years through a variety of use authorizations, and are brought forward as continued management direction. While the area within which these uses have been allowed would be modified by management direction this RMP, the conditions for use within the core training area designated below does not change.

Use of combat vehicles and training activity of personnel pose risks to public lands and disturbance of visitors and adjacent landowners. BLM policy (Instruction Memorandum No. 2001-030) notes that "Requests for use of the public lands for military activity are not given any special status. Proposals made to the BLM and OMD must be considered within the BLM's existing processes, including land use planning, compliance with the National Environmental Policy Act of 1969 (NEPA), other natural resource and cultural resource laws and Executive Orders, and standard public participation practices. To reduce such risks to resources and other uses the military is responsible for rehabilitation activities, resource protection, and other mitigations as specified or authorized in 43 CFR Part 2920.7 Terms and Conditions as part of authorized uses.

Allocations/Allowable Uses

Designated Training Area

1. Unless otherwise provided for by specific waiver, the following actions would be prohibited in any designated training areas:
   A. Possession or use of live (projectile firing) ammunition by military units during training on BLM-administered lands would be prohibited,
   B. Use of wheeled or tracked vehicles, except on designated roads, within ¼ mile of private property boundaries, or within 500' of Highway 126 or the Powell Butte Highway.
   C. Wheeled or tracked vehicles on the Pacific Gas Transmission Co. pipeline except at designate crossings identified in the terms and conditions of use authorization.
   D. Heavy equipment surface excavation outside of the existing Clay Pit area (Core Training area F).
   E. Enclosure of roads or trails commonly in public use.

Core Training Area

2. Areas A-F would be open for use year round to the following uses.
   A. Area A: Open to dismounted soldiers, wheeled and tracked vehicles off road
   B. Area B: Open to dismounted soldiers, wheeled and tracked vehicles off road.
   C. Area C: Vehicles restricted to designated roads only. Dismounted soldiers permitted off road
   D. Area D: North of Morrill Road Tracked vehicles restricted to designated roads. Dismounted soldiers and wheeled vehicles permitted off road. South of Morrill Road All vehicles restricted to designated roads Dismounted Soldiers permitted off road
   E. Area E: Vehicles restricted to designated roads only. Dismounted soldiers permitted off road.
   F. Area F: Open to dismounted soldiers, wheeled and tracked vehicles off road. Additional restrictions may be added after consultation.

Guidelines:

1. BLM-administered lands within the designated training areas, not withdrawn for

exclusive use by the military, would be open to and shared with the public except when OMD and the BLM agree that the security of OMD resources or public and/or OMD personnel safety would be at risk as a result of the intermingling of military and civilian activities.

A. Restricted access to public lands during military operations would be temporary and procedures for establishing location and duration of closures would be established in the terms and conditions of the use authorization agreement between the BLM and the OMD

2. OMD would be responsible for mitigation or restoration of BLM-adminstered resources within the training area.
   A. All military maneuvers involving more than company level, exceeding 72 hours of field time, and utilizing over 2000 acres of BLM-administered lands and all restoration activity must be approved by the BLM via terms and conditions of permit and/or approval of the responsible BLM official for site specific/time specific activity
3. All military activity would be consistent with direction provided by the following documents and references cited therein:
   A. Oregon Military Department, Salem Oregon, March 1995, Environmental Assessment: Fielding the Bradley Fighting Vehicle and Cavalry Fighting Vehicle and Other Proposed Federal Actions at the Central Oregon Training Site by the Oregon National Guard.
   B. Oregon Military Department, Salem Oregon, October 2001,Biak Training Center Integrated Natural Resources Management Plan and Environmental Assessment (INRMP).
   C. Oregon Military Department, Salem Oregon, March 15, 2002, Integrated Cultural Resources Management Plan for the Oregon Army National Guard (ICRMP), report number 198. ICRMP on file with BLM Prineville District.
4. Amendments to existing or new NEPA decisions that support authorization of military activities would not require amendment to the FEIS/PRMP unless they modified specific objectives or allowable uses.
5. OMD would provide the BLM with a quarterly training summary of units(s) that would be using any of the designated training area 30 days prior to use of the area. This summary would include but not be limited to: the designated area to be used, the training unit identification, and unit contact.
6. Military use would be reviewed by BLM and OMD staff on a yearly basis.

Visual Resources

<u>Objective VR - CMD1:</u> Manage all BLM-administered lands in the planning area to meet the following Visual Resource Management Classes:

1. **VRM Class 1 areas – Manage VRM Class 1 lands to preserve the existing character of the landscape. Natural, ecological changes dominate; the level of change provided by management actions should be very low and not attract attention. (See also Wilderness Study Area section)**
2. **VRM Class 2 areas – Retain the existing character of landscapes. Manage landscapes seen from high use travel routes, recreation destinations, special management areas, or that provide a visual backdrop to communities for low levels of change to the characteristic landscape. In these areas, management activities may be seen but should not attract the attention of the casual observer. Changes should repeat the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic landscape.**
3. **VRM Class 3 areas – Partially retain the existing character of the landscape. Manage VRM Class 3 lands for moderate levels of change to the characteristic landscape. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic**

landscape.

4. **VRM Class 4 areas – Allow major modifications of existing character of landscapes. Manage VRM Class 4 lands for moderate levels of change to the characteristic landscape. Management activities may dominate the view and be the major focus of viewer attention. Every attempt will be made to minimize the effect of management actions through careful location, minimal disturbance, and repeating the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.**
5. **VRM Class 5 areas – Areas in need of rehabilitation from a visual resource standpoint.**

Allocations/Allowable Uses:

1. The Horse Ridge ACEC/RNA/ISA is identified as VRM Class I in the Brothers Grazing Management Program EIS. Both the Badlands and Steelhead falls WSA are also designated as VRM Class 1 by National Policy adopted after the B/LP RMP was adopted in 1989.
2. BLM-administered lands in the Horse Ridge, Crooked River corridor, Middle Deschutes corridor, and Prineville Reservoir area are designated as VRM Class 2.
3. BLM-administered lands in the Mayfield area, portion of Horse Ridge, Millican Plateau, North Millican, and Prineville Reservoir are designated as VRM Class 3.
4. Portions of BLM-administered lands in South Millican, North Millican and Millican Plateau areas are designated as VRM Class 4.

Recreation

Objective R – CMD1: Manage off-highway motorized vehicle use on BLM-administered land to provide visitor satisfaction, protect natural resources, provide visitor safety, and minimize conflicts among various users and neighbors.

Rationale:

FLPMA provides for recreation use of public land as an integral part of multiple use management. Federal regulations (43 CFR Part 8340) and BLM planning guidance require the BLM to designate all BLM-administered lands as either Open, Limited, or Closed in regard to Off-Highway Vehicle use. These designations are to help meet public demand for OHV activities, protect natural resources, ensure public safety, and minimize conflicts among users.

Allocations/Allowable Uses:

Closed to motor vehicles:

1. Horse Ridge RNA/ISA
2. Smith Rock area
3. The airport allotment and Rickard Road areas
4. Barnes Butte area
5. Redmond Caves
6. Jaguar Road and Harper Road parcels (Middle Deschutes)
7. Small area closures in Dry Canyon (Cline Buttes) and adjacent to La Pine State Park
8. Upper Deschutes River consistent with Wild and Scenic River Plan
9 Middle Deschutes River consistent with Wild and Scenic River Plan
10. Lower Crooked River consistent with Wild and Scenic River Plan

Guidelines:

Cline Buttes

1. An area management (i.e., trails) plan would be prepared for the Cline Buttes area.

Millican Valley OHV Area

2. The following guidelines would continue to apply to the boundaries of the existing Millican Valley OHV area:
   A. Facilities would be built when needed for public safety and resource protection. Toilets are considered needed for resource protection when high use levels are reached.
   B. Facilities would be located at least one-quarter mile from known raptor nests.
   C. Installation of OHV related facilities above buried pipelines would be avoided. Where unavoidable, BLM would complete necessary project mitigation to ensure that proper pipeline functioning is retained.
   D. BLM would coordinate with the Deschutes and Ochoco National Forests to provide outreach programs and form partnerships with local schools, user groups, and other organizations. Outreach programs may include "Right Rider", "Tread Lightly" and other programs which promote appropriate outdoor ethics.
   E. Cattle guards would be placed where designated trails cross fences. Gates would be installed next to cattle guards to accommodate recreational horse use and other uses.
   F. Trails, camping areas, warm up areas, and other facilities would be located away from Highway 20 to the extent feasible.
   G. Event stipulations would be reviewed annually with the users to determine needed deletions, additions and revisions.
   H. The decision record establishes the Millican Valley OHV area as a designated use area for Class 1, 2, and 3 OHV users.
   I. New trails and developments would be designed and constructed to avoid or minimize conflicts with known raptor and sage grouse areas. Existing trails and developments would be managed to avoid or minimize conflicts with those areas which may be known or identified in the future. Management in these areas may include trail closure, trail relocation, or season of use restrictions
   J. The spread of noxious weeds would be monitored along designated trails and staging areas. Infestation sites would be controlled using the most appropriate methods as identified in the BLM Prineville District Integrated Weed Management Plan. These methods could include the use of herbicides. This plan is available for review at the Prineville District office.
   K. During the course of public information programs, users of the Millican Valley Area would be provided information about protecting wildlife habitat, rangeland improvements, avoiding excess noise and activity in the presence of livestock, and the importance of keeping gates closed. These same measures would be incorporated into Special Recreation Permits and bonding requirements for organized events.
   L. Public use information would be available at key points including all trailheads and staging areas. These locations would have bulletin boards that display information about motorized and non-motorized trail riding, natural history, resource protection, and how to avoid private lands.
   M. Trail maintenance would be the level necessary to promote visitor safety, resource protection, and to maintain trail difficulty ratings.
   N. Roads and/or trails located on private property that is acquired through exchanges, sales, or acquisition of easements would be evaluated for addition to the road and trail system. Priority would be given to roads that provide key linkages or provide loop opportunities, or roads and trails that would replace other routes with resource or safety concerns.

North Millican Area:

3. Increase the diversity of motorized recreation opportunities by providing trails or sites specifically for Class 1, 2, and 3 vehicles (motorcycles, quads, and jeeps/pickups).
4. A designated trail segment located near the east side of the narrow portion of the North Area would be closed to motorized use during some years from February 1 to August 31, for wildlife habitat protection.

5. The cinder pit in North Millican would be developed as a staging area. This staging area would have a graveled parking area, loading ramp, and an information bulletin board.
6. The BLM would continue to pursue a cooperative agreement to manage the area known as the ODOT pit. If acquired, the BLM would develop the site as a permanent casual-use staging area, warm up area, and the hill climb areas behind the play area would be closed, but the play area itself would be Open year-round. Improvements may include vault toilet, load up ramp, information kiosk, etc.
7. A primitive campground would be located in the North Millican area; typical improvements would include a cindered road loop, vault toilet, and a group gathering area with a fire pit. A staging area would be associated with the camping area.
8. Warm up areas would be developed with the staging areas (one at the Cinder Pit, another at the north end of the North area).
9. The cinder pit hill climb would remain open for OHV use.
10. The hill climb located near Highway 20 and adjacent to the ODOT gravel pit would remain closed to public use.
11. Consider development of camping facilities to support recreation use in the SE portion of the planning area.

Objective R – CMD2: Provide identifiable non-motorized recreation opportunities to provide visitor satisfaction, protect natural resources, and minimize conflicts among various users and neighbors.

Rationale:
FLPMA provides for recreation use of public land as an integral part of multiple use management. Non-motorized trails and regional trails are identified as a regional need in the current SCORP needs assessment.

Allocations/Allowable Uses:
The Airport Allotment, Rickard Road area, and Smith Rock Block are designated Closed to motor vehicles.

Objective R – CMD3: Provide for projects, programs and permits that promote a diverse range of recreation opportunities. Provide for individual, group, and competitive event recreational use that could not be reasonably accommodated on private land.

Rationale:
FLPMA provides for recreational use of public land as an integral part of multiple use management. However, on an individual basis, visitors may lack the skills or equipment to achieve their recreational goals. Visitors may also wish to recreate on BLM-administered lands in groups, or engage in competitive events; activities which may lead to resource impacts or other management concerns. Demand for these types of activities is increasing within the planning area, and is expected to continue to increase with the implementation of trail management direction in the FEIS/PRMP.

Allocations/Allowable Uses:
Special Recreation Permits are required for all commercial and competitive uses on BLM-administered lands.

Transportation and Utilities

<u>Objective TU – CMD1:</u> Provide new or modified rights-of-way for transportation/utility corridors and communication/energy sites to meet expected demands and minimize environmental impacts.

<u>Rationale:</u>
The Federal Land Policy and Management Act, Section 503 (43 U.S.C. 1763) provides criteria applicable for the designation of right-of-way corridors. In order to minimize adverse environmental impacts and the proliferation of separate rights-of-way, the utilization of rights-of-way in common shall be required to the extent practical, and each right-of-way or permit shall reserve to the Secretary concerned the right to grant additional rights-of-way or permits for compatible uses on or adjacent to rights-of-way granted pursuant to this Act. Any existing transportation and utility corridors may be designated as transportation and utility corridors pursuant to this subsection without further review.

Federal regulations contained in 43 CFR Subpart Sec. 2806.1, provide guidance for the designation of right-of-way corridors. The authorized officer of BLM may, based upon his/her motion or receipt of an application, designate right-of-way corridors across any public lands in order to minimize adverse environmental impacts and the proliferation of separate rights-of-way.

<u>Allocations/Allowable Uses:</u>
1. All transportation/utility corridors identified by the Western Regional Corridor Study are designated as transportation/utility corridors. Existing communications sites in the planning area are identified.
2. Areas of critical environmental concern, wilderness study areas, and Wild and Scenic Rivers are designated as right-of-way exclusion areas.
3. All areas identified as having special status plant or animal species are designated as avoidance areas.

<u>Guidelines:</u>
1. BLM-administered lands would continue to be available for rights-of-way, including multiple use and single use utility/transportation corridors, following existing routes, and roads.
2. Corridor widths vary depending on the number of parallel facilities, but are a minimum of 1,000 feet on each side of the existing centerline, unless adjacent to exclusion areas.
3. Applicants are encouraged to locate new facilities adjacent to existing facilities to the extent technically and economically feasible and meet resource objectives.
4. All right-of-way applications would be reviewed using the criteria of following existing corridors wherever possible and to avoid the proliferation of separate rights-of-way.
5. All areas having high or sensitive (VRM classifications 1-3) visual qualities would be avoided or appropriate mitigation measures taken.
6. Each right-of-way would be limited to the area necessary for operation and maintenance. The project would consider the protection of public safety and would do no unnecessary damage to the environment.
7. Each right-of-way would contain terms and conditions requiring compliance with environmental quality standards applicable to Federal or State law.
8. Each right-of-way grant or permit would reserve to the BLM the right to issue additional rights for compatible uses on or adjacent to the project.

Land Ownership

<u>Objective LO – CMD1:</u> Classify lands for Retention (Z-1) based on resource values and overall management objectives. Lands allocated for retention are identified as having high public resource values. They include areas that would generally be retained in public ownership, and where emphasis would be placed on increasing public land holdings.

<u>Rationale:</u>
Public lands in Central Oregon represent a variety of resource values, including but not limited to native or natural species dominance, archaeological values, special or unique plant and animal habitats, support for wildlife populations, recreational opportunities, solitude and open space, providing undeveloped space between burgeoning population areas.

<u>Allocations/Allowable Uses:</u>
1. Those public lands in Wild and Scenic River areas, identified for retention in the Middle Deschutes/Lower Crooked River (Chimney Rock Segment) Management Plan and designated in the Brothers/La Pine Resource Management Plan would remain Z-1.[27]
2. Retain in federal ownership all habitat essential for the survival and recovery of any federally listed or proposed species or BLM sensitive species, including historic habitat that has retained it's potential to sustain listed species and is deemed to be essential for species survival (BLM Manual 6840- Special Status Species Management). However, trading of land to acquire habitats of equal or better in value would be considered.

<u>Objective LO – CMD2:</u> Classify parcels that are generally to retain, but may be disposed of through exchange for lands with higher public values (Z-2).

<u>Rationale:</u>
Lands identified for exchange offer flexibility for acquisition of lands that have important resource values or that may improve the administration of existing lands. The BLM retains the option to consider the disposal of all properties for the best interests of the public under the appropriate review process. Retention is directly consistent with objectives that emphasize developing a land pattern for the protection of resources. Retention also indirectly benefits acquiring land in a pattern to benefit resources.

<u>Guidelines:</u>
1. Parcels generally having the potential for high public resource values to retain, may be exchanged for private parcels with higher public resource values, or that would block up larger blocks of public lands, or that would provide connectivity between larger blocks of public lands. These parcels, identified as Z-2, may be disposed of only through a beneficial exchange.
2. Do not dispose of lands that contain special status species habitats unless the parcel to be disposed of would have a conservation easement, and/or the parcel to acquire contains similar resources of equal or better quality for special status species.

<u>Objective LO – CMD3:</u> Classify lands for disposal that generally do not provide substantial resource, public, or tribal benefits, that may not be cost effective for the BLM to administer, or that would represent a greater public benefit in other ownership (Z-3)[28].

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[27] Early in the process these public lands were placed outside the scope because they had more recent plans that met Congressional mandates. However, specific acquisition parcels were not identified in the river plans; and have, consequently, been identified in this plan.

[28] All lands identified as Z-3 on the Final UDRMP Land Ownership map and identified by legal description in Appendix D are classified for disposal under the Taylor-Grazing Act

Rationale:
Many BLM-administered lands are isolated parcels that have limited resource values or no public or administrative access. Lands adjacent to growing communities often are categorized as the least productive lands, and therefore are high priority for expansion of urban growth boundaries when compared with lands of higher productivity. Community expansion was provided for in the Brothers/La Pine RMP and was identified as an appropriate need throughout the Upper Deschutes EIS/RMP alternative development process.

Lands that share boundaries with private lands are sometimes subject to inadvertent trespass. While the bulk of a parcel may represent one or more public values, inadvertent trespass that includes part of a structure, for instance, has lost public value. If the trespass was inadvertent, such as in an erroneous survey conducted under earlier standards; or, if the cost to remedy the trespass is not commensurate with the restored values, disposal of these properties would be facilitated. Current legislation (BACA Bill) allows for funds generated from sales of Z-3 lands identified in BLP to be retained by the BLM and applied to state-wide land acquisition purposes.

Allocations/Allowable Uses:
1. Selected public lands identified as Z-3 in Brothers/La Pine RMP would continue as Z-3 and qualify for retention of funds in accordance with the BACA bill. These lands include isolated parcels between Bend and Redmond, isolated parcels around Prineville, and isolated parcels northwest of La Pine (see FEIS Map 6).

Guidelines
1. Trade or sell small, isolated parcels to acquire lands adjacent to and/or surrounded by larger parcels of BLM or other federal, state or county administered lands.
2. Lands allocated for potential disposal in land tenure Zone 3 in this RMP may be retained if the consultations, clearances, reports, or future site specific Environmental Assessments show any resource values worthy of permanent Federal retention. Any exchange, sale, or transfer of public lands would be subject to appropriate analysis under NEPA, with applicable cultural, botanical or special status species clearances, as well as required mineral reports.
3. BLM retains the options to reconsider the disposal of all properties for the best interests of the public under the appropriate review process. Disposal is consistent with objectives that emphasize developing a land pattern for the protection of resources also furthers objectives that emphasize acquiring public land to benefit resources.
4. Designate as Z-3 any parcels determined to be unsuitable for retention through subsequent site-specific analysis.

Objective LO – CMD4: Provide land for community needs and uses consistent with public land management mandates.

Rationale:
Public lands abut or surround many of the expanding communities in the basin, including the City of Redmond and the community of La Pine. Under State land use law, BLM administered lands are often the most "urbanizable" lands adjacent to urban growth boundaries because they lie in the path of progress and are often classified as "non-resource lands" in the state land use planning process. In La Pine, BLM administered lands are within and around the community, making them highly desirable for urban infrastructure and to supply future needs for parks and open spaces.

Guidelines:
1. Public land would be available for community expansion when a bona-fide need for land has been identified through an urban reserve or other appropriate study.

Such studies would consider unique resource values on those public lands but not recognized or prioritized by State Land Use urbanization processes.

2. Identify lands for community expansion that have particular value to communities for future infrastructure or other expansion needs, (including expansion of urban growth boundaries) or when another agency may have greater administrative capabilities in regard to particular parcels. These lands are highlighted for, but are not restricted to these uses, and would always have an underlying value of either retention or disposal related to the agency's overall land ownership objectives. Sale or exchange of that land could occur in support of land acquisition objectives of the agency, regardless of the prospective buyer's purpose.

Objective LO – CMD5:
Use easements to compliment acquisitions, in lieu of acquisition for conservation or access as appropriate to further public management objectives.

Guidelines:

1. Pursue easements or access agreements for public lands identified for retention that do not have public access.
2. Maintain or improve access to public lands whenever possible during realty actions.

Objective LO – CMD6: All withdrawals affecting the planning unit would be reviewed periodically to insure the lands being utilized are consistent with the purpose for which the lands were withdrawn.

Guidelines:

1. Lands found suitable for return to the public domain shall be restored to entry and managed according to management prescriptions for lands having similar resource values.
2. All new withdrawal proposals would be considered on a case-by-case basis, including land use needs of other Federal agencies.

Public Health and Safety

Federal Register firearm closures have been established to protect wildlife resources and other natural and cultural features, reduce vandalism, and to improve public safety. These closures include raptor closures at Badlands Rock and Fryrear Road, and high use closure at Rosland OHV area. These closures would be continued as presently in force.

Allocations/Allowable Uses:
See Table PRMP-13 below (Closure Guidelines per Federal Register).

Table PRMP-13: Closure Guidelines per Federal Register

Closure Area[1]	Closure Type	Closure Period	Purpose	Federal Register
Badlands Rock	Closed to shooting[2]	March 1 to August 31	Reduce negative impacts to a nesting pair of prairie falcons.	June 9, 2000 Vol. 65, No. 112
Fryrear Road Area	Closed to shooting[2]	January 1 to August 31	Protect nesting golden eagles.	January 16, 1998 Vol. 63, No. 11
Rosland OHV Area	Closed to shooting[2]	Year round	Increase visitor safety and public satisfaction and to reduce impacts to soils, vegetation, wildlife, and cultural resources.	August 27, 1998 Vol. 63, No. 166

[1] All existing closures provide for the authorized officer to make exceptions to the closure on a case-by-case basis.

[2] Shooting is defined as the discharge of firearms. A firearm is defined as a weapon, by whatever name known, which is designed to expel a projectile by the action of powder and which is readily capable of use as a weapon.

Archaeology

<u>Objective A – CMD1:</u> Locate, protect and preserve archaeological resources in accordance with existing legal authorities and policies, with a special emphasis on "at-risk" significant archaeological resources.

<u>Rationale:</u>

1. The Federal Land Management and Policy Act (FLPMA), directs the BLM to administer archaeological resources on public lands in a manner that will protect them and provide for their proper use.
2. The Archaeological Resources Protection Act (ARPA), as amended, defines and protects archaeological resources on Federal lands, establishes a permit system for resource recovery, requires agencies to survey lands under their jurisdiction that are likely to contain the most scientifically valuable archaeological resources, and establishes civil and criminal penalties for an individual(s) that violate the Act.
3. The National Historic Preservation Act (NHPA), as amended, provides a national policy for historic preservation, establishes a National Register of Historic Places (NRHP) designation for important properties, protects sites from destruction without appropriate data recovery, and requires that historic properties be utilized in agency missions when warranted.
4. Executive Order 11593, directs Federal agencies to inventory public lands and to nominate eligible properties to the NRHP.
5. BLM 8100 provides management policy and use allocations for the disposition and utilization of agency-administered heritage resources.

<u>Guidelines:</u>

1. Follow the guidance provided in the National Cultural Programmatic Agreement (1997) and the Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon (1998).
2. Survey 50 acres annually in areas considered to be of high probability for the location and discoverability of significant archaeological sites.
3. The National Register criteria for evaluation is as follows:
   A. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
      i. that are associated with events that have made a significant contribution to the broad patters of our history; or
      ii. that are associated with the lives of persons significant in our past; or
      iii. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
      iv. that have yielded, or may be likely to yield, information important in prehistory or history.

Implementation and Monitoring

Introduction

The Proposed Resource Management Plan provides a long-term vision for how BLM-administered lands in the plan area would function on the local, regional, and national landscape into the future. It establishes land allocations and allowable uses to meet specific goals and objectives for management of natural resources and land uses. A lot of hard work and community involvement has led to this management framework, and how this plan is applied to the ground and whether it is working as expected are important facets of making that long-term vision a reality.

An implementation and monitoring schedule helps to focus priorities in order to leverage multiple resources, identifies key partnerships where mutual interests can be met with minimum costs, and provides specific interests an opportunity to focus their resources on areas of specialized interest.

This section describes the process by which an implementation and monitoring schedule will be established for the Final Resource Management Plan. The Final Resource Management Plan will be published with the Record of Decision, and a final implementation and monitoring schedule would be completed shortly afterwards.

Collaborative Approach and Regional Framework

The Upper Deschutes Resource Management Plan was developed using a community and consensus - based process. That approach will also be applied to develop an implementation and monitoring schedule for the objectives and anticipated outcomes of the Upper Deschutes Resource Management Plan.

The Deschutes basin is the focus of many basin-wide interests. In times of increasing public interest and changing public funds, integrating these efforts is critical. For instance, the recently completed Deschutes sub-basin assessment has been drafted for the Northwest Power Planning Association to help focus restoration priorities and funding throughout the basin. Watershed councils in the Upper Deschutes and Crooked River watersheds are also working on securing funding for basin-wide priorities like water quality monitoring and watershed restoration activities such as containment or eradication of noxious weed populations. Many of these efforts are complementary and could be integrated with implementation and monitoring of many of the objectives of the Upper Deschutes Resource Management Plan.

Implementation & Monitoring Schedule

Successfully implementing the long-term vision of the Upper Deschutes Resource Management Plan will be supported by a strategic implementation and monitoring framework that includes descriptions of the following:

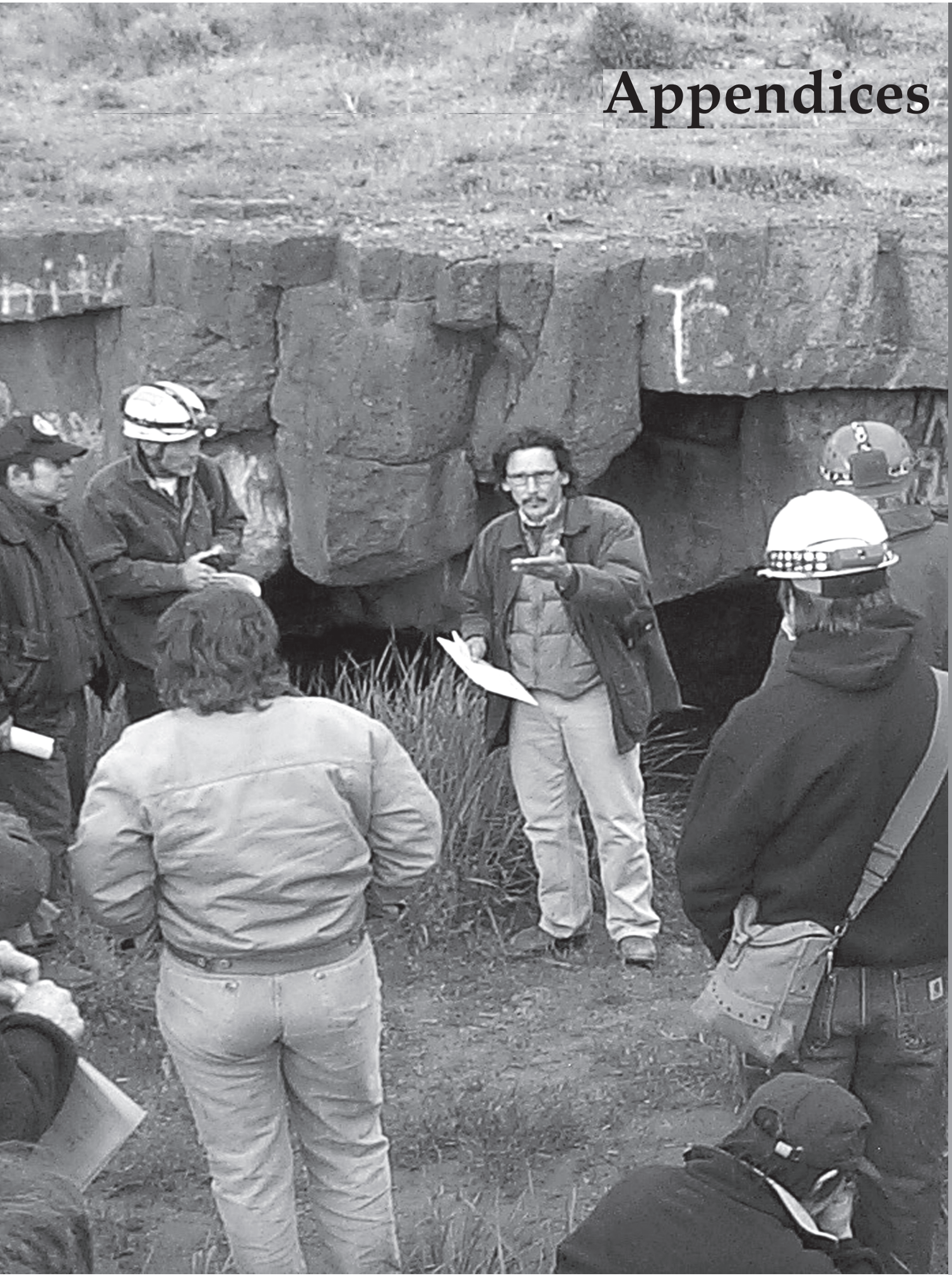
1. task & resource estimates to get to on-the ground implementation
2. priority areas for resource focus
   A. relative costs/benefits of choices between focus area
   B. resource/community benefits/needs
   C. partnership opportunities
   D. funding strategies
3. partnerships

A. stewardship opportunities
B. opportunities for administration or cost sharing
C. volunteers
D. complementary basin or regional efforts

4. effective measures for establishing periodic "course corrections"
   A. adaptive management
   B. plan maintenance
   C. regional and basin-wide monitoring frameworks
   D. appropriate data collection and analysis
      i. project implementation, RMP consistency
      ii. effectiveness of projects/plan guidance in meeting plan objectives

This strategic framework will be developed with stakeholder involvement following a Record of Decision for the Final Upper Deschutes Resource Management Plan.

Appendices



Appendix A
Plan Decisions

Based on broad direction provided by FLPMA and other legal mandates, regulation, policy or direction, the Upper Deschutes Resource Management Plan makes the following decisions:

Ecosystem Health and Diversity

Vegetation

The Resource Management Plan will, where not otherwise addressed by the Brothers-LaPine RMP, identify desired future conditions for vegetative resources, including the desired mix of vegetative types, structural stages, landscape and riparian functions, and provide for native plant, fish, and wildlife habitats. It designates priority plant species and habitats, including Special Status Species and populations of plant species recognized as significant for at least one factor such as density, diversity, size, public interest, remnant character, or age. Included in the decisions are the location and arrangement of lands that provide an emphasis on native wildland habitats and processes; wildlife habitat connectivity between BLM -managed and National Forest lands, and uplands and riparian areas. The plan identifies allowable actions needed to achieve desired vegetation conditions.

Areas of Traditional Cultural Significance

The Resource Management Plan recognizes important tribal cultural use areas, and will establish criteria for determining allowable activities and access to those areas.

Fish and Wildlife

The Resource Management plan, working in close coordination with State and federal wildlife agencies, describes desired population and habitat conditions for major habitat types that support a wide variety of species. The Resource Management Plan designates priority species and habitats, including Special Status Species, and populations of fish or wildlife species recognized as significant (called "locally important") for at least one factor such as density, diversity, size, public interest, remnant character, or age. The RMP identifies actions that could include seasonal or area-wide use restrictions needed to achieve desired population and habitat conditions while maintaining a thriving natural ecological balance and multiple-use relationships

Special Management Areas

The Resource Management Plan identifies the long-term desired condition, distribution and location of areas with special management emphasis. Such areas may contain unique or representative vegetation, geologic, wildlife, scenic, recreational, or cultural values.

For areas which meet the relevance, importance, and special management criteria for Areas of Critical Environmental Concern as specified in 43 CFR 1610.7-2(b),the plan identifies goals, standards, and objectives for each area. Constraints and mitigation measures (also see BLM Manual 1613) are also identified in allowable uses that are needed to protect the area and prevent irreparable damage to resources or natural systems.

Hydrologic Function and Water Quality

The Resource Management Plan identifies desired future conditions for water quality and quantity within the planning area. The RMP incorporates standards or goals under the Clean Water Act and as a result of the Water Quality Restoration and Water Quality Management Plan process that will be running concurrently with this planning process. The Resource Management Plan identifies watersheds that may need special emphasis because of human health concerns, aquatic or upland ecosystem health, or public uses. It determines area-wide use restrictions or other protective measures to meet tribal, State, and local water quality requirements, and measures.

Fire Management

Fire is an important ecological component, as well as a primary public safety concern within the urban/wildland interface area. The Resource Management Plan identifies the following to achieve desired outcomes:

a. Areas where wildland fire is not desired at all. In these areas, emphasis should be placed on prevention, detection, rapid response, use of appropriate suppression techniques and tools, and non-fire fuels treatment. Fire suppression may be required to prevent unacceptable resource damage or to prevent loss of life and property.

b. Areas where unplanned fire is likely to cause negative effects, but these effects can be mitigated or avoided through fuels management (e.g., prescribed fire), prevention of human caused fire, or other strategies.

c. Areas where fire is desired to manage ecosystems but where there are constraints because of the existing vegetation condition due to fire exclusion (i.e., more substantial non-fire fuels treatments may be necessary prior to use of prescribed fire).

d. Areas where fire is desired, and where there are no constraints associated with resource conditions or social, economic, or political considerations (i.e., where natural and management-ignited fire may be used to achieve desired objectives, such as to improve vegetation or watershed condition).

e. Broad treatment levels in areas 1.a. through 1.d., above.

f. General restrictions on wildland fire management practices (including both fire suppression and fuels management) if any are needed to protect other resource values. Restrictions may vary by area in 1.a. through 1.d., above, and may be structured to allow the local manager the flexibility to apply restrictions on a seasonal or annual basis, based on resource conditions, weather factors, and operational capability.

Air Quality

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

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

Land Uses

Livestock Use

The Resource Management Plan identifies criteria to use in identifying lands available or not available for livestock grazing (see 43 CFR 4130.2 (a)) and will consider the following factors:

a. Other uses for the land that are not compatible with livestock grazing such as areas of concentrated recreational use or Recreation and Public Purposes Act leases
b. The potential for livestock grazing to introduce or spread noxious weeds.
c. The presence of other resources that may require special management or protection, such as special status species, or ACECs.
d. Threats to public health, safety, or property from livestock straying onto busy roads or private property.
e. Voluntary relinquishment of the grazing preference and permit for an allotment.

The RMP will display both existing permitted use and future anticipated use with full implementation of the land use plan. Where information is not available, the plan will guide subsequent decisions regarding levels of permitted grazing use, and provide guidelines for allotment-specific implementation decisions regarding season of use, range developments, and other livestock grazing management practices.

Mineral Use

The Resource Management Plan identifies the following, consistent with the goals, standards, and objectives for natural resources within the planning area:

a. Areas open or closed to the operation of the mining laws, mineral material disposal, and nonenergy leasing; and

b. In open areas, any area-wide terms, conditions, or other special considerations needed to protect resource values.

Commercial Forest Uses

The Resource Management Plan identifies desired healthy forest conditions (for forest/woodland types found within the planning area, the suite of management actions (including appropriate harvest, reforestation, and forest development methods) and associated best management practices, that can be applied to meet desired future conditions and underlying land use allocations. The plan also identifies areas that are available and have the capacity for planned, sustained-yield timber harvest or special forest product harvest. A probable sale quantity (PSQ) determination will not be made for this planning cycle. Due to the beetle epidemic of the 1980s which decimated a majority of the mature timber in the La Pine area, the Brothers/La Pine Resource Management Plan directed a focus on salvage of dead timer and reduction of fire hazard. Once this is accomplished, no commercial timber harvest, except for periodic salvage, will be expected to occur in the La Pine portion for 30- 40 years.

Long Term Leases and Land Use Permits (Military Use)

The Resource Management Plan determines the long term desired condition and set criteria when appropriate for where and under what conditions land use authorizations

such as major leases and land use permits may be granted (see 43 CFR 2920). This includes authorization of areas and conditions of use for long-term use buy the Oregon Military Department.

Visual Resources

Land use plan decisions will designate Visual Resource Management (VRM) classes in accordance with manual definitions as follows:

- Class I - the objective of this class is to preserve the existing character of the landscape. This class 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.
- Class II - the objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer.
- Class III - the objective of this class is to partially retain the existing character of the landscape. The level of change to the character should be moderate.
- Class IV - the objective of this class is to provide for management activities which require major modification of the existing character to the landscape

Recreation

The Resource Management Plan determines long term desired recreational settings and identifies the allowable kinds and levels of recreation that balance the public's recreation demands with the natural resource capabilities within the planning area. Decisions include the location and arrangement of recreation facilities and Off Highway Vehicle designations that will provide for mixed or segregated motorized and non-motorized activities with a variety of recreational development levels. The Resource Management Plan identifies the general management strategies, including major actions, limitations, and restrictions required to maintain recreational values. The RMP designates the High Desert Special Recreation Management Area and specific subunits within that area.

Motorized Uses

The Resource Management Plan determines long-term desired conditions for motorized uses, including where those uses are designated as "open," "limited," or "closed" to OHVs (43 CFR 8342.1). The Resource Management Plan will establish criteria by which motorized road and trail densities can be developed for specific areas including but not limited to:

a. wildlife habitat, population goals, and objective
b. other land uses
c. resource conditions
d. recreational goals and objectives

The Resource Management Plan does not establish specific local road and trail systems that will be used long-term, that decision will be made after specific area management plan. It does establish interim road and trail designations that utilize existing, known mapped features that do not present expected resource damage with continued use until site-specific designations are completed.

Millican OHV Area Litigation

The Central Oregon Forest Committee v. Kenna, Civil No. 98-29-ST (D. Or.), litigation decision, the courts required that "The BLM shall analyze the impacts of its Millican

Valley Off-Highway Vehicle Management Plan or the successor to said Plan in an Environmental Impact Statement. This EIS shall consider the cumulative impacts of OHV use consistent with this Courts's opinion, as encompassed by the Findings and Recommendations of November 5, 1909, as undertaken in the EIS which will accompany the Prineville District's land use plan amendment for the "urban interface" area. In the event that BLM determines that completion of the urban interface EIS is unattainable, the BLM shall meet all requirements for analyzing cumulative impacts in another EIS[1].

The Urban Interface Environmental Impact Statement (EIS) has, as described earlier, been replaced by the Upper Deschutes Resource Management Plan. The Upper Deschutes Resource Management Plan has an expanded scope and different scale than the original Urban Interface EIS. Within the context of this Resource Management Plan the following elements of the litigation have been addressed:

a. areas where OHV use is allowed within the planning area, including conditions of use within those areas that, when followed, would have generally predictable effects on resources in accordance with the Resource Management Plan Environmental Impact Statement .
b analyze, in an EIS, the expected cumulative effects of allocating lands for various levels of motorized uses across the planning area, including uses in the Millican Valley area combined with consideration of adjacent National Forest, BLM, and private land uses on mule deer winter range and sage grouse habitat.

Land Ownership (Tenure)

The Resource Management Plan determines, consistent with the zoning concepts described in the Proposed Management Plan, the desired location and arrangement of BLM-administered lands across the planning area. These classifications are consistent with the goals, standards, and objectives for natural resources, efficiency in land management, consolidation of ownership, and community expansion within the Upper Deschutes Resource Management Plan. Decisions include:

a. Lands that are available for disposal under a variety of disposal authorities, provided they meet the criteria provided in FLPMA (Section 203 and 206) or other statutes and regulations (see Land Use Planning Handbook Section II.B.2).

b. Criteria under which proposed FLPMA Section 205 acquisitions of land, or interests in land, would occur as described in Land Use Planning Handbook Section II.B.2.

c. Proposed withdrawal areas (see 43 CFR 2300).

d. Land classification is outlined in 43 CFR 2400. Under Section 7 of the Taylor Grazing Act of 1934, as amended (43 U.S.C. 315f) lands may be classified. Actions under the following laws require land classification: Recreation and Public Purposes Act for sales (see 43 CFR 2740) and for leases (see 43 CFR 2912); Desert Land Entries (see 43 CFR 2520) Indian Allotments (see 43 CFR 2530), and Carey Act Grants (see 43 CFR 2610); Airport and Airway Improvement Act (see 43 CFR 2640); and State Grants (see 43 CFR 2620). To the extent that the land use planning procedures pursuant to 43 CFR 1600 (Planning, Programming, and Budgeting) differ from applicable classification procedures under 43 CFR 2400, the latter procedures shall be followed and applied. The analysis that supports classification decisions is normally the same analysis utilized in the land use planning/NEPA process to make decisions concerning the disposal or retention of public lands.

[1] – COFIC v. Kenna, Final Judgement, Page 2.

Transportation and Access

The Resource Management Plan determines the long term desired condition for regional and local transportation infrastructure within BLM administered lands across the planning area. Decisions include the location and arrangement of existing and potential future important transportation corridors across the planning area. Important transportation corridors include both regional (inter-county or intra- and inter-state transportation), and local (intra-county or primary access points to public lands). These transportation corridors generally include primary (arterials and collectors) transportation systems at both scales, rather than secondary road systems (local or casual use roads). Criteria for determining appropriate road densities based on uses and values will be established. Where appropriate, additional guidelines for the granting of legally required rights-of-way to private land inholdings are established. The plan identifies right-of-way corridors with potential to expand, avoidance areas, and exclusion areas, along with any general terms and conditions that may apply (see 43 CFR Part 2800).

Archaeological Resources

The Resource Management Plan establishes long-term desired conditions for archaeological resources. It identifies area-wide criteria or site-specific use restrictions that apply to special archaeological resources that may affect the location, timing, or method of development or use of other resources in the planning area. It identifies measures to pro-actively manage, protect, and preserve significant "at risk" cultural and heritage resources as well as areas of traditional cultural significance for their various uses as noted in the BLM 8100 manual.

Public Health and Safety

The Resource Management Plan will determine the long-term desired conditions for firearm activities. Decisions include conditions under which firearm discharge would be allowed and includes decisions on specific areas where such use would be prohibited. Decisions to resolve issues concerning illegal dumping, and safety conflicts with livestock will be addressed primarily through decisions concerning transportation and access and livestock land use.

Appendix B
Planning Criteria/Legislative Constraints

The following is a list of major legal authorities relevant to BLM land use planning.
1. The Federal Land Policy and Management Act (FLPMA), as amended, 43U.S.C. 1701 et seq., provides the authority for BLM land use planning. The Federal Land Transaction Facilitation Act of 2000 (FLTLA, common name BACA) 43 USC 2301, is the authority to deposit the proceeds of land sales and land exchange equalization payments into a special account in the Treasury, which then become available for the purchase of lands.

a. Sec. 102 (a) (7) and (8) and 103(c) sets the policy of the United States concerning the management of BLM managed lands.
b. Sec. 201 requires the Secretary of the Interior (the Secretary) to prepare and maintain an inventory of all BLM managed lands and their resource and other values; and, as funding and workforce are available, to determine the boundaries of the public lands, provide signs and maps to the public, and provide inventory data to State and local governments.
c. Sec. 202 (a) requires the Secretary, with public involvement, to develop, maintain, and when appropriate, revise land use plans that provide by tracts or areas for the use of the BLM managed lands.
d. Sec. 202 (c) (9) requires that land use plans for BLM managed lands be consistent with tribal plans and, to the maximum extent consistent with applicable Federal laws, with State and local plans.
e. Sec. 202 (d) provides that all public lands, regardless of classification, are subject to inclusion in land use plans, and that the Secretary may modify or terminate classifications consistent with land use plans.
f. Sec. 202 (f) and Sec. 309 (e) provide that Federal agencies, State and local governments, and the public be given adequate notice and an opportunity to comment on the formulation of standards and criteria for, and to participate in, the preparation and execution of plans and programs for the management of the public lands.
g. Sec. 302 (a) requires the Secretary to manage the BLM managed lands under the principles of multiple use and sustained yield, in accordance with, when available, land use plans developed under Sec. 202 of FLPMA, except that where a tract of BLM managed lands has been dedicated to specific uses according to any other provisions of law, it shall be managed in accordance with such laws.
h. Sec. 302 (b) recognizes the entry and development rights of mining claimants, while directing the Secretary to prevent unnecessary of undue degradation of the public lands.
i. Sec. 505(a) requires that "...each right-of-way shall contain terms and conditions which will ... minimize damage to the scenic and esthetic values..."

2. The National Environment Policy Act (NEPA), as amended, 42 U.S.C. 4321 et seq., requires the consideration and public availability of information regarding the environmental impacts of major Federal actions significantly affecting the quality of the human environment. This includes the consideration of alternatives and mitigation of impacts.

3. The Clean Air Act, as amended, 42 U.S.C. 7418, requires Federal agencies to comply with all Federal, State and local requirements regarding the control and abatement of air pollution. This includes abiding by the requirements of State Implementation Plans.

4. The Clean Water Act, as amended, 33 U.S.C. 1251, establishes objectives to restore and maintain the chemical, physical, and biological integrity of the Nation's water.

5. The Federal Water Pollution Control Act, 33 U.S.C. 1323, requires the Federal land manager to comply with all Federal, State, and local requirements, administrative authority, process, and sanctions regarding the control and abatement of water pollution in the same manner and to the same extent as any non-governmental entity.

6. The Safe Drinking Water Act, 42 U.S.C. 201, is designed to make the Nation's waters "drinkable" as well as "swimable." Amendments establish a direct connection between safe drinking water, watershed protection, and management.

7. The Endangered Species Act (ESA), as amended, 16 U.S.C. 1531 et seq.:

a. Provides a means whereby the ecosystems upon which endangered and threatened species depend may be conserved and to provide a program for the conservation of such endangered and threatened species (Sec. 1531 (b), Purposes).

b. Requires all Federal agencies to seek the conservation of endangered and threatened species and utilize applicable authorities in furtherance of the purposes of the Endangered Species Act (Sec. 1531 (c) (1), Policy).

c. Requires all Federal agencies to avoid jeopardizing the continued existence of any species that is listed or proposed for listing as threatened or endangered or destroying or adversely modifying its designated or proposed critical habitat (Sec. 1536(a), Interagency Cooperation).

d. Requires all Federal agencies to consult (or confer) in accordance with Sec. 7 of the ESA with the Secretary of the Interior, through the Fish and Wildlife Service and/or the National Marine Fisheries Service, to ensure that any Federal action (including land use plans) or activity is not likely to jeopardize the continued existence of any species listed or proposed to be listed under the provisions of the ESA, or result in the destruction or adverse modification of designated or proposed critical habitat (Sec. 1536 (a), Interagency Cooperation, and 50 CFR 402).

8. The Pacific States Bald Eagle Recovery Plan (USFWS 1986) covers the states of Washington, Oregon, Idaho, Montana, Wyoming, California and Nevada. The Plan established recovery population goals, habitat management goals, and 47 management (recovery) zones. The High Cascades Zone (zone 11) includes the Upper Deschutes Planning Area. The Pacific States Bald Eagle Recovery Plan described specific criteria for the Pacific Recovery Area (PRA) as necessary for delisting:

9. The Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271 et seq., requires the Federal land management agencies to identify river systems and then study them for potential designation as wild, scenic, or recreational rivers.

10. The Wilderness Act, as amended, 16 U.S.C. 1131 et seq., authorizes the President to make recommendations to the Congress for Federal lands to be set aside for preservation as wilderness.

11. The Antiquities Act, 16 U.S.C. 431-433, protects cultural resources on Federal lands and authorizes the President to designate National Monuments on Federal lands.

12. The National Historic Preservation Act (NHPA), as amended, 16 U.S.C. 470, expands protection of historic and archaeological properties to include those of national, State, and local significance and directs Federal agencies to consider the effects of proposed actions on properties eligible for or included in the National Register of Historic Places.

13.The Archaeological Resources Protection Act of 1979 (ARPA), as amended, defines and protects archaeological resources on Federal lands, establishes a permit system for resources over 100 years old, and requires agencies to provide for public education and continuing inventory of Federal lands.

14. Executive Order 11593 of 1971, directs Federal agencies to inventory public lands and to nominate eligible properties to the National Register of Historic Places.

15. Executive Order Preserve America of 2003, directs Federal agencies to provide leadership in preserving America's heritage by actively advancing the protection, enhancement, and contemporary use of historic properties owned by the Federal Government, and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties.

16. Native American Graves and Repatriation Act of 1990, 25 U.S.C. 3001, provides protection of Native American grave sites and associated artifacts.

17. Executive Order 11953 (1971) directs Federal agencies to inventory public lands and to nominate eligible properties to the National Register of Historic Places.

18. Executive Order 13287 (2003) directs Federal agencies to efficiently and effectively advance historic preservation objectives in the pursuit of their missions.

19. The Middle Oregon Treaty signed June 25, 1855, ratified March 8, 1859 (12 STAT 963), reserved rights for the Confederated Tribes of Warm Springs to fish, off-reservation, at usual and accustomed stations and to hunt, gather resources, and pasture animals on public lands in common with other citizens of the United States.

20. The American Indian Religious Freedom Act, 42 U.S.C. 1996, establishes a national policy to protect and preserve the right of American Indians to exercise traditional Indian religious beliefs or practices.

21. The Recreation and Public Purposes Act, as amended, 43 U.S.C. 869 et seq., authorizes the Secretary of the Interior to lease or convey BLM managed lands for recreational and public purposes under specified conditions.

22. The Mineral Leasing Act, as amended, 30 U.S.C. 181 et seq., authorizes the development and conservation of oil and gas resources.

23. The Onshore Oil and Gas Leasing Reform Act, 30 U.S.C. 181 et seq., provides:
    a. Potential oil and gas resources be adequately addressed in planning documents;
    b. The social, economic, and environmental consequences of exploration and development of oil and gas resources be determined; and
    c. Any stipulations to be applied to oil and gas leases be clearly identified.

24. The General Mining Law, as amended, 30 U.S.C. 21 et seq., allows the location, use, and patenting of mining claims on sites on public domain lands of the United States.

25. The Mining and Mineral Policy Act, 30 U.S.C. 21a, establishes a policy of fostering development of economically stable mining and minerals industries, their orderly and economic development, and studying methods for disposal of waste and reclamation.

26. The Taylor Grazing Act, 43 U.S.C. 315, "[T]he Secretary of the Interior is authorized, in his discretion, by order to establish grazing districts or additions thereto... of vacant unappropriated and unreserved lands from any part of the public domain...which in his opinion are chiefly valuable for grazing and raising forage crops[.]..." The Act also provides for the classification of lands for particular uses.

27. The Public Rangelands Improvement Act, 43 U.S.C. 1901, provides that the public rangelands be managed so that they become as productive as feasible in accordance with management objectives and the land use planning process established pursuant to 43 U.S.C. 1712.

28. Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), 49 Fed. Reg. 7629, requires that each Federal agency consider the impacts of its programs on minority populations and low income populations.

29. Executive Order 13007 (Indian Sacred Sites), 61 Fed. Reg. 26771, requires Federal agencies to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions to:

a. Accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners; and

b. Avoid adversely affecting the physical integrity of such sacred sites.

30. Executive Order 13175 (consultation and Coordination with Indian Tribal Governments) provides, in part, that each Federal agency shall establish regular and meaningful consultation and collaboration with Indian tribal governments in the development of regulatory practices on Federal matters that significantly or uniquely affect their communities.

31. Executive Order 13112 (Invasive Species) provides that no Federal agency shall authorize, fund or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk or harm will be taken in conjunction with the actions.

32. Secretarial Order 3206 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act) requires DOI agencies to consult with Indian Tribes when agency actions to protect a listed species, as a result of compliance with ESA, affect or may affect of Indian lands, tribal trust resources, or the exercise of American Indian tribal rights.

33. The Federal Cave Resources Protection Act, 16 USC 4306, requires federal agencies to identify, protect and maintain significant caves.

Appendix C
Management Guidance Continued in this Document

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Vegetation Noxious Weeds	Prineville District Integrated Weed Management EA (1994)	Vegetation Treatment on BLM Lands EIS (1991)
Wildlife Special Status Species	Vegetative habitats could be maintained or improved using a variety of techniques, such as mowing shrubs, prescribed burning, livestock grazing and commercial and non-commercial tree cutting. Vegetation management actions that occur within habitats of federally listed or proposed species would maintain or improve the conditions that support those species and/or be consistent with landform, climate, and biological and physical characteristics of the ecosystem (B/LP RMP, p.121) In situations where data are insufficient to make an assessment of proposed actions, surveys of potential habitats would be made before a decision is made to take any action that could affect special status species (B/LP RMP p. 122). Prior to any action that may negatively affect important habitats of special status species develop a conservation strategy for that species. Until such a strategy could be developed, inventory key features and close (seasonally or permanently) areas (caves, cliffs, adjacent roads) where necessary to manage for bats or other special status species (B/LP RMP modified, p. 97). Management activities in the habitat of listed, candidate threatened, or endangered and sensitive species would maintain or improve habitat conditions and/or not prevent or retard attainment of future desirable habitat conditions (B/LP RMP modified, p. 121). Conduct periodic surveys of potential raptor habitats and monitor active and historic sites to determine occupancy and management consistency (B/LP RMP, modified, p. 97). Vegetative habitats would be maintained or improved using a variety of techniques, such as mowing shrubs, prescribed burning, livestock grazing and/or commercial timber harvest and non-commercial tree cutting.	Conservation and protection of habitats for designated special status species, and other state or federally protected species, is directed by Bureau policy in BLM Manual 6840 Maintain existing sagebrush-steppe habitats in the existing sage grouse range in order to sustain sage grouse populations and protect options for the future (Information Bulletin (IB) No. OR-200-334). As directed in BLM Manual 6840 - Special Status Species Management, the BLM would take actions that progress towards the conditions indicating attainment of the Fundamentals of Rangeland Health (described in 43 CFR 4180.1) and associated Standards (43 CFR 4180.2). The Bald Eagle protection Act: Protection of Bald and Golden Eagles provides for the protection of bald and golden eagles.

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Non-Special Status Species	All new fences for the control of livestock would be built to standard Bureau wildlife specifications to allow wildlife passage and existing fences would be modified as appropriate (BLP RMP, p. 97), with the exception of fences built specifically to keep ungulates out of an area. Fish and wildlife habitat management impacts would continue to be evaluated on a case-by-case basis as part of project-level planning (i.e., grazing, recreation and timber management plans, right-of-way applications, etc.) (BLP RMP, p. 97). Evaluations would consider the significance of the proposed projects and the sensitivity of fish and wildlife habitats in the affected areas. Stipulations would be attached as appropriate to assure compatibility of projects with management objectives for fish and wildlife habitat (BLP RMP, p. 97). Permitted activities would be restricted in all areas where vegetation manipulation (human or naturally caused) occurs and results in sensitive soil and plant conditions, or the site already has sensitive soils and/or plant conditions. These permitted activities include, but are not limited to, livestock grazing, off-road vehicle travel, recreational events, construction of new roads and trails, and timber harvests. Range developments would be designed to achieve both wildlife and livestock grazing management objectives. Where natural springs exist and are developed, the development would provide a more dependable water source for wildlife as well as livestock. Water troughs would accommodate use by wildlife and livestock, and would be constructed with wildlife escape devices. The spring area and the overflow would be fenced to exclude livestock trampling (B/LP RMP, 87-88). Where pipelines are developed to deliver water more than two miles from an existing water source, the water system would be designed to provide water for wildlife between July and October (B/LP RMP, p. 97). Manage important wildlife habitats to minimize human disturbance by maintaining seasonal closures throughout the sensitive period (B/LP RMP, p. 97). In seasonally important wildlife habitats (winter range, nest sites, roosts, etc.), major construction and maintenance work would be scheduled to avoid or minimize disturbance to wildlife (B/LP RMP, p. 97). Timber sales would be designed to provide sufficient cover to maintain the existing deer migration corridor through the La Pine area (B/LP RMP, p. 97).	Conservation and protection of habitats for designated special status species, and other state or federally protected species, is directed by Bureau policy in BLM Manual 6840 Maintain existing sagebrush-steppe habitats in the existing sage grouse range in order to sustain sage grouse populations and protect options for the future (Information Bulletin (IB) No. OR-200-334). As directed in BLM Manual 6840 - Special Status Species Management, the BLM would take actions that progress towards the conditions indicating attainment of the Fundamentals of Rangeland Health (described in 43 CFR 4180.1) and associated Standards (43 CFR 4180.2). The Bald Eagle protection Act: Protection of Bald and Golden Eagles provides for the protection of bald and golden eagles.

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	BLM policy, law, regulation
Special habitat components		The Federal Cave Resources Protection Act of 1988 provides for the protection of cave resources including the free movement of any animal or plant life into or out of any significant cave located on Federal lands. The Interim Cave Management Policy (Instruction Memorandum No. OR-95-021) provides guidelines for the protection of cave resources
Special and Non-special Status Species		As directed under the Federal Land Policy and Management Act (FLPMA) of 1976 public lands would be managed in a manner that protects ecological values, maintains their natural condition and provides food and habitat for wildlife. The Bureau is directed under Executive Order No. 13186 directs the bureau to protect, restore, enhance and manage habitat of migratory birds and prevent the loss or degradation of remaining habitats on BLM and to evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern." Requirements for documenting individuals, populations, and distributions of both special and non-special status species as well as their habitat are found in the following direction: FLPMA [Section 201 (43 U.S.C. 1711) a] directs BLM to prepare and maintain on a continuing basis an inventory of all public lands and their resource values (BLM manual 6600 Authority). The National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321-17: 83 Stat.852: p.1, 91-190) directs federal agencies to use ecological information in the planning and development of resources-oriented projects. BLM Manual 6840 – Special Status Species Management, directs the Field Office Manager to conduct and maintain current inventories for special status species on public lands. BLM Fish and Wildlife 2000 directs field offices to identify and monitor key wildlife habitats.

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	BLM policy, law, regulation
Hydrology Riparian conditions, Watershed/ Hydrologic Function, and Water Quality		The Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington meet the requirements and intent of 43 Code of Federal Regulations, Subpart 4180 (Rangeland Health). These standards provide for modifying grazing where the standard for riparian-wetland function is not being achieved, or where measurable progress is not made toward achieving the standard. The BLM will comply with the Federal Clean Water Act (CWA) and the State DEQ's program by employing the joint USFS and BLM protocol for addressing CWA section 303(d) listed waters. One goal of the strategy is to address all waters on BLM-administered lands generally within the timeline established by the State of Oregon DEQ. The BLM will take actions relative to 303(d) listed waterbodies in accordance with the protocol as outlined in Appendix E (Protocol for 303(d) listed Streams).
Soils		FLPMA requires that corrective actions take place, where practicable, to resolve erosive conditions and that surface disturbance at all project sites be minimized. FLIPMA also provides guidance for soil rehabilitation after disturbances

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	BLM policy, law, regulation
Special Management Areas		
Areas of Critical Environmental Concern (ACECs)	Area designated Peck's Milkvetch ACEC under Brothers/La Pine RMP would remain an ACEC or become part of a larger ACEC. Livestock grazing is allowed providing restrictions or stipulations are designed to maintain or enhance special values. A portion of the Wagon Road ACEC will remain an ACEC (see Common to 2-6 for changes in configuration) Horse Ridge and Powell Butte RNA/ACECs would retain status. Badlands would remain an ACEC and WSA (unless congress designates Badlands as Wilderness).	FLPMA provides Criteria for Selecting ACECs
Wilderness Study Areas		Continuation of management in Badlands and Steelhead Falls Wilderness Study Areas under interim rules, BLM policy (H-8550-1) until Congress either designates these lands as wilderness or releases them for other purposes.
Caves	The following nominated caves within the planning area have been determined to be Significant under the FCRPA (with the year of determination): Horse Butte Indian Cave (1995), Pictograph (Stout) Cave (1995), Redmond Cave (1995).	Make determinations of Significance for those caves nominated for significance within the planning area, according to FCRPA criteria (43 CFR Part 37.11(c)).

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Land Use Commercial Forestland	Manage approximately 41,111 acres of commercial forestland in the La Pine block and approximately 977 acres of commercial forestland in the northern area in a sustainable manner to ensure the availability of forest products in perpetuity for social/economic needs. Allow harvest of up to 2,000 cords of firewood and other wood products from the approximately 170,000 acres of juniper woodlands within the planning area. Harvest can be accomplished by a variety of manual and mechanized techniques including chainsaw, pick-up trucks, feller-bunchers, skidders, portable chippers, and other wheeled or tracked equipment. Forest product outputs for the next 30-40 years in the La Pine area would be limited to relatively minor quantities in accordance with current direction in the Brothers/La Pine RMP. Cutting areas would be designed to blend with the natural landscape and topography. Manage the BLM-adminstered vegetative resource, including timber harvest and fuels reduction, in La Pine State Park considering direction provided in the Oregon Parks and Recreation Department - La Pine State Park Master Plan. Because the vegetative resource is federally owned, vegetative treatments proposed on BLM patent lands within the State Park would also be managed in accordance with the guidelines in the Upper Deschutes RMP and the appropriate level of analysis required by the National Environmental Policy Act.	

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Livestock Grazing	All areas currently closed to livestock grazing would stay closed. Restrict or prohibit livestock grazing and rangeland projects in ACECs, WSAs, and Wild and Scenic Rivers, if the use is not compatible with the values for which the areas are designated. Prevent BLM-permitted livestock from straying onto private land in closed range, where requested by private landowner.	FLPMA, Public Rangeland Improvement Act (PRIA), Taylor Grazing Act, and other acts, direct the management of public land for multiple use and sustained yield. Desired outcomes may take social and economic values into consideration (p. III-5, BLM H-1601-1 Land Use Planning Handbook). FLPMA directs the BLM to improve forage conditions, with resulting benefits to wildlife, watershed protection, and livestock production. The Standards for Rangeland Health (1997 BLM) direct the BLM to modify or discontinue livestock grazing prior to the start of the next grazing year if livestock are found to be a significant contributing factor to failure to attain a Standard. The Standards address watershed function (upland and riparian), ecological processes, water quality, and habitat for native, T&E and locally important species.
Mining	396,185 acres are available for locatable mineral entry under the 1872 mining laws. 366,640 acres are available for mineral leasing. 301,078 acres available for saleable materials Surface occupancy for fluid mineral leasing is not allowed on 16,480 acres surrounding Prineville Reservoir. Reserved Federal mineral estate (Federally owned minerals in non-Federally owned lands) may be explored and developed for mineral resources.	• The Mining Law of 1872 as amended provides guidance for exploring for, discovering, and purchasing locatable mineral deposits on federal lands open to those activities. • The Mineral Leasing Act of 1920 as amended authorizes the BLM to grant leases for development of deposits of coal, phosphate, potash, sodium, sulfur and other leasable minerals on federal public domain lands open for this purpose and on lands having federal reserved minerals. • The Materials Act of 1947 as amended authorizes the BLM to administer mineral materials. • The Geothermal Steam Act of 1970 as amended authorizes the BLM to grant leases for geothermal exploration and development on federal public lands open for this purpose. • FLPMA (1976) directs the management of public land to prevent unnecessary or undue degradation of the land. • 43 CFR Parts 3100, 3200, 3600, and 3800 regulate onshore oil and gas leasing, geothermal leasing, mineral materials disposal, and mining claims under the general mining laws respectively.

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Rockhounding	Develop a rockhounding management plan for North Ochoco Reservoir. Monitor rockhounding sites through visitor use surveys, photographs, and periodic soil and vegetative condition inventories to determine disturbance attributable to recreation. Use baseline data to determine limits of acceptable change.	43 CFR Subpart 3622 provides for the non-commercial collection of petrified wood from public lands for personal use. 43 CFR Subpart 8365.1-5 provides for the non-commercial collection of rocks, mineral specimens, and common invertebrate fossils, and semi-precious gemstones from public lands for non-commercial use.
Military	Military training would be continued on BLM lands within the plan area. .	Military use would be under permit or lease as authorized by FLPMA and reaffirmed in the CFR and BLM Manual and handbook. Military operations would meet environmental requirements as per 32 CFR 650, 651 OMD would compliance with the standard terms and conditions as specified or authorized in 43 CFR Part 2920.7 Terms and Conditions.
Recreation	The following areas are designated as Closed to motorized vehicles: • Airport Allotment • Horse Ridge and Powell Butte RNAs • Smith Rock block • Southern portion of the Wagon Road ACEC The following river sections are designated Closed to motorized vehicles: • Little Deschutes Parcel • Middle Deschutes consistent with Wild and Scenic River Plan • Lower Crooked River consistent with Wild and Scenic River Plan An area management plan would be prepared for the Cline Buttes area	

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Transportation and Utilities	All transportation/utility corridors identified by the Western Regional Corridor Study would be designated as transportation/utility corridors. Potential wind energy development sites and existing communications sites in the planning area have been identified. Areas of critical environmental concern, wilderness study areas, and Wild and Scenic Rivers would be designated as right-of-way exclusion areas. All areas identified as having special status plant or animal species would be designated as avoidance areas.	Federal regulations contained in 43 CFR 2806.1, provide guidance for the designation of right-of-way corridors.
Land Ownership	About 191,038 acres identified as Z-1 in B/LP RMP would continue to be Z-1 under all alternatives. These lands include Wild and Scenic River areas. About 1,590 acres identified as Z-2 in B/LP RMP that would continue to be Z-2 under all alternatives. About 1,640 acres of public lands identified as Z-3 in B/LP RMP would continue as Z-3, including isolated parcels between Bend and Redmond, around Prineville, and northwest of La Pine. About 740 acres of land identified for community expansion in Brothers/La Pine are identified as suitable for community expansion in all alternatives. There are 28,580 acres of land identified as suitable for acquisition in B/LP RMP that have also been identified as suitable for acquisition under Alternatives 2-7. **Note:** All parcels and areas selected for acquisition would remain the same throughout the alternatives, although the emphasis on the order or timing of the acquisition may vary according to each alternative. Private parcels to acquire should (1) facilitate access to public land and resources, (2) or maintain or enhance important public values and uses, or (3) maintain or enhance local social and economic values in public ownership by: • Reducing the number of developed inholdings that may cause resource or social conflicts • Improving wildlife values • Improving or increasing habitat of special status species • Improving or increasing riparian or wetland habitats • Improving wildlife travel corridors • Improving recreation opportunities • Providing new or improved trail links • Providing access to public lands that currently have no legal access • Providing new or expanding existing recreation opportunities that are limited or in high demand • Providing for better management of special management areas/sites such as ACECs, WSAs, etc.	Any process for obtaining private parcels (sale or exchange, donation, or easement) would involve willing participants. Retain in federal ownership all habitat essential for the survival and recovery of any federally listed or proposed species or BLM sensitive species, including historic habitat that has retained it's potential to sustain listed species and is deemed to be essential for species survival (BLM Manual 6840- Special Status Species Management). However, trading of land to acquire habitats of equal or better in value would be considered.

Issue Category	Source	
	Brothers/La Pine RMP plus subsequent decisions Brothers/La Pine RMP	**BLM policy, law, regulation**
Public Health and Safety	Pursuant to 43 CFR 9212.2 (a) "To prevent wildfire or facilitate its suppression, an authorized officer may issue fire prevention orders that close entry to, or restrict uses of, designated public land," the following sections of river are closed to campfires seasonally, from June 1 to October 15th: 1. Within ½ mile of the River's edge along the Lower Crooked River from the Highway 97 bridge to Lake Billy Chinook, 2. Within ½ mile of the River's edge along the Middle Deschutes River from Highway 20 bridge to Lake Billy Chinook. If determined necessary, the fire closures could be extended based on existing conditions.	
Archaeology	As described under special management areas a portion of the Wagon Road ACEC will remain an ACEC. At a minimum, survey 50 acres annually in areas considered to be of high probability the location and discoverability of significant archaeological sites.	Executive Order 11593 directs Federal agencies to inventory public lands and to nominate eligible properties to the NRHP. BLM 8100 provides management policy and use allocations for the disposition and utilization of agency-managed heritage resources. Follow the guidance provided in the National Cultural Programmatic Agreement (1997) and the Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon (1998).

Appendix D
Land Ownership Summary

Public Lands[1] Currently Withdrawn

A withdrawal is a formal action that accomplishes one or more of the following actions:

1. Transfers total or partial jurisdiction of Federal land between Federal agencies.
2. Segregates (closes) Federal land to some or all of the public land laws and/or mineral laws. Segregation may be withdrawn from operation of the general land laws and closed to non-metalliferous mining (cement quality limestone, diatomite etc.), but open to metal mining (gold, silver, mercury etc.); or withdrawn from operation of the general land laws and the mining laws; or withdrawn from the general land laws..
3 Dedicates land for a specific public purpose.

Three major categories of formal withdrawals exist: (1) Congressional Withdrawals, (2) Administrative Withdrawals, and (3) Federal Power Act or Federal Energy Commission Withdrawals (FERC).

1. Congressional Withdrawals are legislative withdrawals made by Congress in the form of public laws (Acts of Congress).
2. Administrative Withdrawals are made by the President (E.O. - Executive Order), Secretary of the Interior (S.O. - Secretarial Order), or other authorized officers of the executive branch of the Federal government.
3. Federal Power Act or FERC withdrawals are power project withdrawals established under the authority of the Federal Power Act of 1920. Such withdrawals are automatically created upon filing of an application for a hydroelectric power development project with FERC.

See Table D-1 for list of existing withdrawals.

Recreation and Public Purposes Act

Recognizing the strong public need for a nationwide system of parks and other recreational and public purposes areas, the Congress enacted the Recreation and Public Purposes Act (R&PP). The act authorizes the sale or lease of public lands for recreational or public purposes to State and local governments and to qualified nonprofit organizations. Examples of typical uses under the act are historic monument sites, campgrounds, schools, fire houses, law enforcement facilities, municipal facilities, landfills, hospitals, parks, and fairgrounds. The act applies to all Public Lands, except lands with national forests, national parks and monuments, national wildlife refuges, Indian lands, and acquired lands. BLM may sale or lease only the amount of land required for efficient operation of the projects described in an applicant's development plan.

In the Upper Deschutes planning area R&PP has been used for sewage treatment facilities in Bend, Redmond, and La Pine; golf courses; libraries; parks, and shooting ranges. Current and pending R&PP leases and transfers are included in Table D-1. In the future, it is anticipated that R&PP will be used for sewage treatment facility expansions, municipal parks, and expansion of state parks.

[1] Source: All acreage was determined from the Master Title Plats or estimates from the Central Oregon Public Lands map, 1998, and may differ from the acreage determined with GIS. Totals are to the nearest 10 acres.

Table D-1 Current Public Lands Withdrawals, R&PP Leases, and Pending Transfers.

Agency	Location T. R. S.	Acreage	Purpose	Serial Number
BLM	T.19S., R.14E., Sec. 15 & 22	600	Western Juniper Natural Area	PLO 2956
BOR	T.17S., R. 16E., Sec. 1	1,120	Irrigation	>43 Ochoco Reclamation Project
BOR	T.17S., R.16E., Sec. 12	40	Irrigation	53′ Crooked River Reclamation Project
BOR	T.17S., R.16E., Sec. 10, 11, & 24	320	Irrigation	58′ Crooked River Reclamation Project
BOR	T. 17S., R.17E., Sec. 3 & 4	840	Irrigation	>43 Ochoco Reclamation Project
BOR	T. 17S., R.17E., Sec. 4	80	Irrigation	>46 Prineville Reservoir Reclamation Project
BOR	T. 17S., R.17E., Sec. 9, 10, & 19	320	Irrigation	53′ Crooked River Reclamation Project
BOR	T.17S., R.17E., Sec. 9	40	Irrigation	58′ Crooked River Reclamation Project
BOR	T.17S., R.17E., Sec. 9	40	Irrigation	PLO 2829 Crooked River
BOR	T.16., R.17E., Sec. 31, 32, & 33	360	Irrigation	>43 Ochoco Reclamation Project
BOR	T.16S., R.17E., Sec. 24, 23, 26, 27, 28, 31, & 32	520	Irrigation	53′ Crooked River Reclamation Project
BOR	T.16S., R.17E., Sec. 24, 31, & 34	200	Irrigation	58′ Crooked River Reclamation Project
BOR	T.16S., R.17E., Sec. 34	80	Irrigation	PLO 2829 Crooked River
BPA	T.15S., R.13E., Sec. 18	40	Electric Substation Site	OR 01989 PLO 821
City of Redmond	T.14S., R.12E, Sec. 24	160	R&PP: Water Facility	OR 054445
COSSA	T.19S., R.15E., Sec. 28, 29, & 33	500	R&PP: Shooting Range	OR 48823
FAA	T.15S., R.13E., Sec. 21	120	Radio Signal Site	PLO2141
FERC	T.13S, R.12E., Sec. 3, 4, 9, 10, 11, 13, & 14	440	Power Site	Res 425
FERC	T.13S, R.12E., Sec. 28 & 33	100	Power Site	Res 480
FERC	T.13S.,R.12E, Sec. 27	40	Power Site	Res 25
FERC	T.13S., R.12E., Sec. 5, 6, 7, 8, 17, 20, 21, 27, 28, 33, & 34	1,685	Power Site	Res 26
FERC	T.12S., R.12E., Sec. 32	280	Power Site	Res 26

Agency	Location T. R. S.	Acreage	Purpose	Serial Number
FERC	T.12S., R.12E., Sec. 33	120	Power Site	Res 63
FERC	T.15S., R.12E., Sec. 1 & 12	320	Power Site	Res 26
FERC	T.14S., R.12E., Sec. 9, 10, 11, 14, 26, & 35	560	Power Site	Res 26
FERC	T.19S., R.17E.,Sec. 12	120	Power Site	Res 64OR 9629
Military	T.18S., R.13E., Sec. 11	160	Training	OR 39055
Military	T.15S., R.14E., Sec. 31	76	Training	OR 39055
Oregon State Parks	T.14S., R.17E., Sec. 32	40	R&PP: Public Recreation Area: Fishing	OR 6091 OR 03888 PLO 1286
Local Park	T.14S., R.16E., Sec. 28	160	P&PP: Local Park	OR 11369
	Total Acres	9,166		

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Table D-2 Public Lands for Disposal (Z-3, or Community Expansion through Sale, Exchange, or Transfer)

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
Crook County													
Grizzly Mountain	T 13 S, R 15 W.M., Oregon												
	Section 3:	NW1/4SW1/4	40	X	X	X		X	X	X	X		
	15:	NW1/4NW1/4,N1/2SW1/4	120	X	X	X		X	X	X	X		
	24:	E1/2E1/2,SE1/4SW1/4,SW1/4SE1/4	240	X	X	X		X	X	X	X		
	25:	W1/2NE1/4, NE1/4NW1/4, W1/2SW1/4	200	X	X	X		X	X	X	X		
	26:	SE1/4NE1/4, E1/2SW1/4, SE1/4	280	X	X	X		X	X	X	X		
	27:	NW1/4NE1/4	40	X	X	X		X	X	X	X		
	28:	SE1/4SW1/4, SE1/4	200	X	X	X		X	X	X	X		
	32:	NW1/4NE1/4	40	X	X	X		X	X	X	X		
Allen Creek	T 13 S, R 16 E, W.M., Oregon												
	Section 19:	Lot 3, NE1/4SW1/4	81.34	X	X	X		X	X	X	X		
	20:	S1/2S1/2, NW1/4SW1/4	200	X	X	X		X	X	X	X		
	21:	N1/2NE1/4, SE1/4NE1/4, NE1/4SE1/4	160	X	X	X		X	X	X	X		
	29:	NW1/4NE1/4, NE1/4NW1/4, SW1/4	240	X	X	X		X	X	X	X		
	30:	SE1/4	160	X	X	X		X	X	X	X		
	32:	W1/2	320	X	X	X		X	X	X	X		
O'Neil	T 14 S, R 14 E W.M., Oregon												
	Section 5:	SW1/4NW1/4, NW1/4SW1/4	80	X									
	9:	E1/2SE1/4	80									X	
	10:	SE1/4NE1/4	40									X	
	24:	N1/2N1/2, SW1/4NW1/4	200									X	
	28:	SE1/4NE1/4, S1/2	360								X		
Northwest of Prineville	T 14 S, R 15 E W.M., Oregon												
	Section 18:	S1/2NE1/4, N1/2SE1/4	160									X	
	30:	N1/2NE1/4, S1/2SE1/4	160									X	
Northeast of Prineville	T 14 S, R 16 E W.M., Oregon												
	Section 1:	Lots 1-3, S1/2NE1/4, SE1/4	322.46	X	X	X		X	X	X	X		
	12:	E1/2, SW1/4NW1/4, SW1/4	520	X	X	X		X	X	X	X		
	14:	N1/2N1/2, SW1/4NW1/4, W1/2SW1/4, SE1/4SE1/4	320	X	X	X		X	X	X	X		
	22:	NE1/4NE1/4	40	X	X	X		X	X	X	X		
	[*]'28:	NE1/4SW1/4, NW1/4SE1/4, S1/2SE1/4	160	[X]		[X]	X	[X]	[X]	X	[X]		

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
North Ochoco Reservoir	T 14 S. R 17 E, W.M. Oregon												
	Section 26:	NW1/4SE1/4	40									X	
	32:	All	640				X		X				
	34:	NW1/4NW1/4	40									X	
Powell Buttes N of HWY 26	T 15 S, R 14 E, W.M., Oregon												
	Section 3:	E1/2NE1/4, NE1/4SE1/4	120								X		
Southwest of Prineville	T 15 S, R 15 E, W.M., Oregon												
	Section 31:	Lot 4, SE1/4SW1/4	79.9	X			X	X	X				
Southeast of Prineville	T 15 S, R 16 E, W.M., Oregon												
	Section 2:	SE1/4SW1/4, SE1/4	200									X	
	10:	NE1/4NE1/4	40									X	
	22:	E1/2	320	X	X	X	X	X	X		X		
	30:	SW1/4NE1/4, SE1/4SW1/4, W1/2SE1/4, SE1/4SE1/4,	200	X	X	X	X	X	X				
	32:	NW1/4NE1/4, NW1/4, N1/2SW1/4, SW1/4SW1/4	320	X	X	X	X	X	X				
	34:	All	640			X	X				X		
South Ochoco Reservoir	T 15 S, R 17 E, W.M., Oregon												
	Section 2:	Lot 2	41.89									X	
	12:	SE1/4SW1/4, SW1/4SE1/4	80									X	
	14:	N1/2SW1/4, SW1/4SW1/4	120									X	
	24:	NE1/4NE1/4	40									X	
	28:	All	640	X	X		X		X		X		
	32:	All	640	X	X		X		X		X		
	34:	W1/2NW1/4, S1/2	400	X	X		X		X		X		
East of Ochoco Reservoir	T 15 S, R 17 E, W.M., Oregon												
	Section 6:	S1/2SE1/4	80									X	
	8:	N1/2NE1/4, W1/2NW1/4	160									X	
	18:	NE1/4SW1/4	40									X	
Shumway	T 16 S, R 14 E, W.M., Oregon												
	Section 33:	NE1/4NE1/4	40								X		

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
Davis Road Subdivision	T 16 S, R 16 E, W.M., Oregon												
	Section 2:	Lot 1	37.28	X	X	X	X	X	X		X		
	4:	Lots 1-3, SE1/4NE1/4	161.86	X	X	X	X	X	X		X		
	6:	Lot 5, NW1/4SE1/4, SE1/4SE1/4	119.04	X				X			X		
		[NW1/4SE1/4, SE1/4SE1/4]	[80]		[X]	[X]	[X]		[X]				
	12:	SE1/4NE1/4	40	X			X		X		X		
	13:	S1/2SE1/2	80	X			X		X		X		
	21:	NE1/4, E1/2NW1/4, NE1/4SW1/4, NE1/4SE1/4	320	X									
		[NE1/4, NE1/4SW1/4]	[200]					[X]	[X]				
	22:	SW1/4SW1/4	40	X			X	X	X		X		
	23:	SW1/4NE1/4, NE1/4NW1/4, E1/2SW1/4	160	X			X	X	X		X		
	24:	S1/2SE1/4	80	X			X		X				
	26:	NE1/4, E1/2NW1/4, NE1/4SW1/4, N1/2SE1/4,SE1/4SE1/4	400	X			X	X	X				
	27:	SE1/4SW1/4	40				X						
		[E1/2NE1/4]	[80]			[X]					[X]		
		{SE1/4SW1/4, E1/2NE1/4}	{120}	{X}				{X}	{X}				
	28:	E1/2NW1/4, E1/2SW1/4, NW1/4SE1/4, S1/2SE1/4	280	X									
		[NW1/4SE1/4, S1/2SE1/4]	[120]					[X]	[X]				
North Prineville Reservoir	T 16 S, R 17 E, W.M., Oregon												
	Section 2:	W1/2NW1/4, SE1/4NW1/4, N1/2SW1/4	200								X		
	4:	Lot 4	38.94	X	X		X		X		X		
	6:	Lot 1, Lot 2, Lot 5, Lot 8, S1/2NE1/4, SE1/4	396.29	X	X		X		X		X		
		[Lot 5, Lot 8]	[87]			[X]							
	7:	Lot 2, Lots 4-11, E1/2SW1/4, N1/2SE1/4	501.18	X	X		X		X				
	8:	N1/2, N1/2S1/2	480	X	X		X		X				
	9:	All	640	X	X		X		X				
	15:	N1/2, NW1/4SW1/4, SE1/4SE1/4	400	X	X				X				
	16:	NE1/4, S1/2NW1/4	240	X	X		X		X				
	17:	W1/2SW1/4	80	X	X		X		X				
	Section 18:	Lot 1, Lot 2, E1/2NW1/4, SE1/4SW1/4, NE1/4SE1/4, S1/2SE1/4	330.8	X	X		X		X				
	21:	NW1/4NE1/4, N1/2NW1/4	120		X								
East Prineville Reservoir	T 16 S, R 18 E, W.M., Oregon												
	Section 20:	SW1/4SW1/4	40								X		
	31:	SW1/4NE1/4	40	X							X		
	32:	NE1/4SW1/4	40	X							X		

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
Alkali Flat	T 17 S, R 17 E, W.M., Oregon												
	Section 17:	E1/2NW1/4, NE1/4SW1/4	120								X		
	19:	SE1/4SW1/4, SW1/4SE1/4	80								X		
	20:	SE1/4NW1/4	40								X		
	30:	W1/2NE1/4	80								X		
	Total Z-3 Acres			11190	9510	5450	7830	5800	11350	3680	9100	1520	0
	Total CE Acres			160	0	160	0	160	160	0	160	0	0
	Total Disposal Acres for Crook County			11350	950	5610	7830	5960	11510	3680	9260	1520	0

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
Deschutes County													
Northwest Area	T 14 S, R 11E, W.M., Oregon												
	Section 4:	W1/2SW1/4	80								X		
	5:	W1/2SW1/4, SE1/4SE1/4	120								X		
	8:	SW1/4NW1/4, E1/2SW1/4	120								X		
	18:	SE1/4SE1/4	40								X		
	19:	NW1/4NW1/4	40								X		
	20:	SW1/4NW1/4	40								X		
	28:	SW1/4NE1/4, S1/2NW1/4, NW1/4SE1/4	160								X		
	29:	N1/2S1/2	160								X		
Steamboat Rock	T 14 S, R 12 E, W.M., Oregon												
	Section 22:	E1/2NE1/4, SW1/4NE1/4,W1/2 W1/2, SE1/4SW1/4, W1/2SE1/4	400								X		
		[NE1/2NE1/4, SW1/4NE1/4,W1/2 W1/2, SE1/4SW1/4, W1/2SE1/4]	[360]	[X]									
	27:	N1/2NW1/4, SW1/4NW1/4	120	X							X		
	34:	N1/2SW1/4, SW1/4SW1/4, E1/2SE1/4	200	X									
		[E1/2 SE1/4]	[80]								[X]		
	35:	SE1/4SW1/4, SE1/2	200	X									
Terrebonne	T 14 S, R 13 E, W.M., Oregon												
	Section 29:	Lot 1, Lot 4, SE1/4NE1/4, NE1/4NW1/4, E1/2SE1/4	205	X	X	X		X	X		X		
	30:	Lot 6, SW1/4NE1/4NW1/4, W1/2SE1/4NW1/4, W1/2NE1/4SW1/4, SE1/4SW1/4	110.69	X	X			X			X		
	31:	E1/2 W1/2	160	X	X			X			X		

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
Cline Buttes	T 15 S, R 12 E, W.M., Oregon												
	Section 1:	SE1/4NW1/4	40	X									
	2:	SW1/4NE1/4, N1/2SW1/4, SW1/4SW1/4	160	X							X		
	3:	SE1/4NW1/4, N1/2SE1/4	120	X							X		
	*9:	SW1/4, S1/2SE1/4	240					X	X				
	[*]10:	SW1/4SW1/4	40	X				[X]	[X]				
	11:	NW1/4NW1/4	40	X							X		
	*15:	W1/2	320					X	X				
	T 15 S, R 12 E, W.M., Oregon												
	Section 17:	NE1/4SW1/4	40								X		
	20:	SE1/4SW1/4, NW1/4SE1/4	80								X		
	29:	N1/2NW1/4	80								X		
	30:	NE1/4NE1/4	40								X		
Redmond	T 15 S, R 13 E, W.M., Oregon												
	*Section 1:	the portion west of North Unit main canal	520					X	X	X			
	*12:	the portion west of North Unit main canal	480					X	X	X			
	*13:	the portion west of North Unit main canal	300					X	X	X			
	18:	SE1/4NE1/4	40									X	
	*21:	E1/2SE1/4SW1/4, W1/2SW1/4SE1/4	40	X	X								
	*23:	E1/2SE1/4	80	X									
		[the portion of E1/2SE1/4 west of North Unit main canal]	[60]					[X]	[X]				
	24:	The portion west of North Unit main canal	160					X	X				
	*26:	NE1/4NE1/4, SW1/4NW1/4NE1/4, S1/2NE1/4, S1/2	450	X									
		[E1/2NE1/4NW1/4NE1/4 (that portion west of North Unit main canal), SE1/4NW1/4NE1/4 (that portion west of North Unit main canal), S1/2SW1/4NW1/4NE1/4, SW1/4NE1/4 (that portion west of North Unit main canal), S1/2 (that portion west of North Unit main canal)]	[300]					[X]	[X]				
	*32:	NW1/4NE1/4 (that portion lying west of the railroad track), SE1/4NW1/4 (that portion lying west of the railroad track and south of the golf course), NE1/4SW1/4, S1/2SW1/4, SE1/4	306									X	
	*33:	All	640	X	X					X	X		
		[N1/2, N1/2S1/2]	[480]					[X]					
	*34:	All	640	X									
		[W1/2W1/2]	[160]		[X]								
		{N1/2, N1/2S1/2}	{480}					{X}					
	*35:	All	640	X									
		[NW1/4NE1/4, N1/2NW1/4]	[120]						[X]				

Parcels	Legal Description		Acreage	Alt. 1	Alt. 2	Alt.3	Alt. 4	Alt. 5	Alt. 6	Draft Alt. 7	Prop. Alt. 7	CT All	CT 2-7
Deschutes Junction	T 16 S, R 12 E, W.M., Oregon												
	Section 11:	11: SW1/4SE1/4	40									X	
	*12:	SE1/4SE1/4	40									X	
	*13:	SW1/4NE1/4, SE1/4SW1/4, SE1/4	240	X									
		[SW1/4NE1/4, SE1/4SW1/4, SE1/4 (that portion within one-quarter mile of the railroad track)]	[160]		[X]			[X]	[X]	[X]	[X]		
	*24:	NW1/4NE1/4 (that portion within one-quarter mile east of the railroad track), E1/2NW1/4 (that portion within one-quarter mile of the RR track), NE1/4SW1/4 (that portion within one quarter mile east of the railroad track)	128.7										
	34:	NW1/4SE1/4	40									X	
South of Redmond Airport	T 16 S, R 13 E, W.M., Oregon												
	*Section 4:	All	364.97	X	X								
	*5:	All	366.35	X	X								
	*6:	Lot 1, Lot 2 (that portion within one quarter mile east of the railroad track), SE1/4SW1/4, SE1/4 (that portion within one quarter-mile of the railroad track	155.17									X	
		[SE1/4 (that portion east of one quarter-mile east of the railroad track)]	[65.31]	[X]	[X]	[X]							
	*7:	Lot 2, Lot 3, Lot 4 (that portion within one quarter mile of the railroad track), W1/2NE1/4 (that portion within one-quarter mile east of the railroad track), E1/2NW1/4 (that portion within one-quarter mile of the railroad track), E1/2SW1/4 (that portion within one-quarter mile east of the railroad track)	225.5									X	
		[Lot 4 (that portion east of one quarter-mile east of the railroad track), NE1/4 (that portion east of one quarter-mile east of the railroad track), E1/2NW1/4 (that portion east of one quarter-mile east of the railroad track), E1/2SW1/4 (that portion east of one quarter-mile east of the railroad track), SE1/4]	[358.4]	[X]	[X]								
	*8:	All	640	X	X								
	*9:	All	640		X								
	*18:	NW1/4NW1/4 (that portion within one-quarter mile east of the railroad track)	11.2					X	X	X	X		
Bend Airport	T 17 S, R 13 E, W.M., Oregon												
	Section 20:	SW1/4SE1/4	40						X				
	21:	W1/2SW1/2	80						X				
	28:	N1/2NW1/4, SW1/4NW1/4, NW1/4SW1/4	160						X				
	29:	E1/2NE1/4, SW1/4NE1/4, E1/2NW1/4, SW1/4NW1/4, E1/2SW1/4, SE1/4	480						X				
Horse Butte	T 18 S, R 13 E, W.M., Oregon												
	Section 21:	N1/2NE1/4, W1/2, SW1/4SE1/4	440								X		
	29:	S1/2SW1/4	80								X		
	32:	NE1/4NW1/4	40								X		

La Pine	T 21 S, R 10 E, W.M., Oregon												
	Section 33:	W1/2SE1/4	80	X	X				X	X	X		
	34:	SW1/4SE1/4, E1/2SE1/4	120	X	X				X	X	X		
	35:	E1/2SE1/4	80		X					X	X		
	T 21 S, R 11 E, W.M., Oregon												
	Section 29:	SW1/4SW1/4	40	X									
	T 22 S, R 10 E, W.M., Oregon												
	*Section 1:	Tract 37,	477.32		X					X		X	
		[W1/2NE1/4, NW1/4 (that portion lying east of the railroad track), SW1/4 (that portion lying east of the railroad track), W1/2SE1/4]	[317.82]			[X]							
	*2:	Lot 6	9.21		X	X				X		X	
		[Lot 5]	[30.81]						[X]				
	3:	Lot 1, Lot 2	80.83	X	X				X	X	X		
	5:	N1/2SE1/4	80	X	X				X	X	X		
	*10:	SE1/4NE1/4, NE1/4SW1/4, NW1/4SE1/4	120						X				
	*11:	NE1/4 (that portion lying east of Hwy 97)	89.99		X	X				X	X		
		[NE1/4NW1/4 (that portion lying west of Huntington Rd), SW1/4NW1/4 (that portion lying west of Huntington Rd)]	[60]						[X]				
	T 22 S, R 10 E, W.M., Oregon												
	Section 12:	N1/2, S1/2 (that portion lying east of the Burlington Northern rail road)	603.8		X					X	X		
		[W1/2SW1/4 (that portion of the lying east of the Burlington Northern rail road)]	[40]	[X]									
		{W1/2NE1/4, NW1/4, SW1/4 (that portion lying east of the Burlington Northern Railroad) W1/2SE1/4}	{460}			{X}							
	*13:	E1/2W1/2	160		X	X							
	*15:	W1/2	320										
		Lot 1 (that portion E of Hwy 97), E1/2NW1/4 (that portion E of Hwy 97), E1/2NE1/4SW1/4, NW1/4NE1/4SW1/4 (that portion E of Hwy 97), E1/2NW1/4SW1/4 (that portion E of Hwy 97), W1/2NE1/4SW1/4SW1/4 (that portion E of Hwy 97), W1/2SW1/4SW1/4 (that portion E of Hwy 97), SE1/4SW1/4SW1/4, E1/2SE1/4SW1/4, E1/2W1/2SE1/4SW1/4	100							X	X		
		N1/2N1/2, SW1/4NW1/4	200			X							
		N1/2NW1/4	80			X							
	Section *6:	All	620.68		X								
	*7:	Lots 1-4, E1/2W1/2	296.4		X					X	X		
	Total Z-3 Acres			1600	910	490		630	1560	530	3490	116	0
	Total CE Acres			5100	5830	1040		3520	2810	3720	2420	740	0
	Total Z-3 and CE Acres for Deschutes			6700	6740	1530		4150	4370	4250	5910	856	0
Planning Area Totals													
	Total Z-3 Acres			12790	10420	5940		6430	12910	4210	12590	1636	0
	Total CE Acres			5260	5830	1200		3680	2970	3720	2580	740	0
	Total Disposal Acres			18080	16250	7140		10110	15880	7930	15170	2376	0

* Lands designated as Community Expansion throughout those alternatives where the parcel is selected.
[*] with a subsequent [X] identifies specific parcels that are Community Expansion.
[legal] with [acres] with [X] identifies a different area than the area previously identified in the section.
{legal} with {acres} with {X} identifies a deferent area than the two areas previously identified in the section.

Lands Identified for Acquisition

The following private lands have been proposed for acquisition in Alternatives 2-7. Lands will only be acquired from willing landowners. Refer to Table 4 for the legal descriptions of those public lands that would be considered for acquisition.

After the table, general areas and lineal features where acquisitions will be considered are described.

Table D-3 Private Lands Considered for Acquisition–Common to 2-7

Crook County

Parcels	Legal Description	Acreage
East of the McKay Creek intersection with Allen Creek, for wildlife	T. 13 S., R. 15 E., Sec. 25, ENE, WNW, SENW, ESW, SE; Sec. 26, NENE. T. 13 S., R. 16 E., Sec. 19, N, SSW, SE; Sec. 29, ENE, SWNE, WNW, SENW, SE; Sec. 30, N, SW.	 440 40 560 400 480
Smith Rocks	T. 14 S., R. 14 E., Sec 6, NNE.	 40
West of Old Dry Creek, for wildlife	T. 14 S., R. 16 E., Sec. 1, WNW, SENW, SW; Sec. 11, all; Sec. 12, NNW, SENW; Sec. 14, SNE, SENW, ESW, NSE, SWSE	 280 640 120 280
Barnes Butte	T. 14 S., R. 16 E., Sec. 28, WSW, NESE.	 160
Powell Buttes for visuals, recreation, and wildlife	T. 16 S., R. 14 E., Sec. 1, SWSW; Sec. 12, NENE, WW, NSE, SWSE. T. 16 S., R. 15 E., Sec. 6, NWSE; Sec. 7, SWNW, NWSW.	 40 280 40 80
Four miles north of Alfalfa, for recreation purposes	T. 16 S., R. 14 E., Sec. 35, SW.	 160

1 mile south of Swartz Canyon, for wildlife, recreation, and to block up	T. 16 S., R. 15 E., Sec. 26, SESW, SWSE; Sec. 35, NWNE, NENW.	 80 80
Prineville Reservoir, for wildlife, recreation, and to block up	T. 16 S., R. 16 E., Sec. 36, N, SW, ESE. T. 16 S., R. 17 E., Sec. 13, SWNE, SNW, NSW; Sec. 29, WNE, ENW, SWNW, WSW, WSE; Sec. 32, WNE, SENE, NW, NSE; Sec. 33, ENW, NESW; Sec. 34, ESW, WSE, SESE; Sec. 35, WNW, ESW, WSE. T. 17 S., R. 17 E., Sec. 3, NNE; Sec. 8, NE, ESW, SWSW.	 600 200 360 400 120 200 160 80 280
4 miles NE of Alfalfa, for wildlife, recreation, and to block up	T. 17 S., R. 15 E., Sec. 16, all.	 640
Horse Butte, for wildlife, recreation, and to block up	T. 17 S., R. 15 E., Sec. 36, all.	 640
One mile south of Williamson Creek, to block up	T. 18 S., R. 16 E., Sec. 18, WNE, SNW, NSW.	 240
	Subtotal	8,120

Deschutes County

Parcels	Legal Description	Acreage
Fremont, Squaw, McKenzie, Deep, and Buckhorn canyons to block up and provide a corridor for wildlife and recreation	T. 14 S., R. 11 E., Sec. 3, NWNE, ENW; Sec. 4, N; Sec. 5, ENE, SWNW, NESE; Sec. 6, ENE, SE; Sec. 7, E, EW; Sec. 8, WNE, NNW, SENW, NSE; Sec. 9, NE, SENW, ESW, SE; Sec. 10, NWNW; Sec. 13, WNE, NW, NSW, NWSE; Sec. 16, NW, NWSW; Sec. 17,ENE, ESE, SWSE; Sec. 20, NNE, ENW, NSW, NWSE; Sec. 21, NWNW; Sec. 22, SSE; Sec. 24,SNE, SNW, NENW, SW, SE; Sec. 25, all; Sec. 29, N; Sec. 33, NESE; Sec. 34, NSW; Sec. 35,NE; Sec. 36, N.	 120 320 160 240 480 280 440 40 360 200 200 280 40 80 560 640 320 40 80 160 320
Adjoining the Grasslands to block up for management and for wildlife corridor	T. 14 S., R. 11 E., Sec. 2, NWNE, NW.	 200
One mile north of Big Falls, to block up and provide a corridor for wildlife and recreation	T. 14 S., R. 12 E., Sec. 3, SWSW; Sec. 4, SSE.	 40 80
One mile southeast of Odin Falls for Deschutes River recreation access	T. 14 S., R. 12 E., Sec. 36, NESW, NWSE.	 80
Within a mile of Buckhorn Road for recreation trails	T. 14 S., R. 12 E., Sec. 29, the private lands within the S half; Sec. 32, NNW, NESW; Sec. 33, SWNE, SENW, ESW.	 40 120 160
Area north of Smith Rocks State Parks for recreation trails	T. 14S., R. 13 E., Sec. 1, NW; Sec. 2, SENE, WSW, SESW, NSE, SWSE.	 160 280

Two miles southwest of O'Neil, for proposed recreation canal trail	T. 14S., R. 13 E., Sec. 25, ESE, that portion East of the North Unit Canal; Sec. 36, E, that portion East of the North Unit Canal.	 80 160
In close proximity to Hwy 126 for recreation trails	T. 15 S., R. 11 E., Sec. 1, SNE, SWSW; Sec. 2, NWNW; Sec. 3, SENE, NESE, SESW; Sec. 5, ENW, NESW.	 120 40 120 120
Cline Buttes to block-up core	T. 15 S., R. 11 E., Sec. 11, SESE; Sec. 12, SWSW; Sec. 13, NWNW; Sec. 14, NENE; Sec. 24, SSW; Sec. 25, NNW. T. 15 S., R. 12 E., Sec. 8, SESW; Sec. 17, WNE, ENW, SSW, WSE; Sec. 20, NE, NW, NSW, SWSW; Sec. 21 WNW.	 40 40 40 40 80 80 40 320 440 80
South of Cline Buttes for recreation trails	T. 15 S., R. 12 E., Sec. 20, ESE, SWSE; Sec. 21, SWSW; Sec. 28, N, NS; Sec. 29, NE, SNW, NSW, NSE, SESE; Sec. 30, WNE, SENE, ENW, NESE; Sec. 32, NNE.	 120 80 480 440 240 80
East of Cline Buttes on the Deschutes River for river access	T. 15 S., R. 12 E., Sec. 25, NW, that portion west of the river; Sec. 36, NW, that portion west of the river; Sec. 35, SSE, that portion west of the river.	 80 80 40
One mile SE of Roberts Field	T. 15 S., R. 13 E., Sec. 36, WNE, NNW, SWNW, WSW, SESW.	 280
1 mile north of Tumalo Dam, for wildlife, recreation, and to block up	T. 16 S., R. 11 E., Sec. 4, SWSW; Sec. 16, NWNE, NNW, SENW, NESW; Sec. 17, NWNE.	 40 200 40
East of Cline Buttes on the Deschutes River for river access	T. 16 S., R. 12 E., Sec. 9, SESW, SWSE, that portion west of the river.	 20

Northeast of Bend, adjacent to North Unit Canal, for recreation trail	T. 17 S., R. 12 E., Sec. 11, SENE, ESE; Sec. 12, WNW, SENW; Sec. 14, ENE.	 120 120 80
Mayfield Pond area to block up and for recreation	T. 17 S., R. 13 E., Sec. 10, NW; Sec. 23, WNE, NENW, NESW, NWSE; Sec. 29, NWNE.	 160 200 40
Four miles north of Alfalfa, for recreation purposes	T. 17 S., R. 14 E., Sec. 2, WNW; Sec. 3, NENE.	 80 40
Two miles south of Dodds Road and adjacent to Hwy 20 as addition to proposed wilderness and travel links	T. 18 S., R. 13 E., Sec. 24, W, that portion East of Hwy 20; T. 18 S., R. 14 E., Sec. 16, N; Sec. 36, ENE, SWNE, WSW, WSE.	 160 320 280

Millican area, for travel route linkages and connectivity	T. 19 S., R. 13 E.,	
	Sec. 13, SNE, SE;	240
	T. 19 S., R. 14 E.,	
	Sec. 3, SSW, SWSE;	120
	Sec. 18, WSW;	80
	Sec. 19, WNE, SENE, S;	440
	Sec. 20, SWNW, NESW, NSE, SESE;	200
	Sec. 21, SSW;	80
	Sec. 22, SS, NESE;	200
	Sec. 24, SESE;	40
	Sec. 25, WNE, SENE, WSW, SESW, NSE, SWSE;	360
	Sec. 26, ESESE;	20
	Sec. 27, NWNE;	40
	Sec. 28, NW, NSW;	240
	Sec. 29, NE;	160
	Sec. 33, ENE, SWNE, SWNW, SE;	320
	Sec. 35, all;	640
	Sec. 36, WNW, SWSENW, SW, ESE.	330
	T. 19 S., R. 15 E.,	
	Sec. 12, SE;	160
	Sec. 13, NNE;	80
	Sec. 14, all;	640
	Sec. 17, S;	320
	Sec. 18, NESE;	40
	Sec. 20, NNE;	80
	Sec. 30, SNW, S;	400
	Sec. 31, WW;	160
	Sec. 34, NSE, that portion north of Hwy 20;	30
	Sec. 35, S, that portion north of Hwy 20.	140
	T. 20 S., R. 14 E.,	
	Sec. 2, SN;	160
	Sec. 3, SNE, WSE;	160
	Sec. 10, W.	320
	T. 20 S., R. 15 E.,	
	Sec. 16, all;	640
	Sec. 17, S.	320
	Subtotal	19,740

Jefferson County

Parcels	Legal Description	Acreage
East of Squaw Creek	T. 13 S., R. 11 E., Sec. 34, ENE, SE; Sec. 35, SNE, ESW, SWSW, WSE.	 240 280
One mile SW of Steelhead Falls, to block up and provide a corridor for wildlife and recreation (Wild and Scenic River trail linkage)	T. 13 S., R. 12 E., Sec. 33, NWNE.	 40
Adjacent to Crooked River National Wild and Scenic River for recreation access and river management	T. 13 S., R. 12 E., Sec. 10, SWNE, NWNW, ESE; Sec. 13, SWSW; Sec. 24, NWNE, NENW, ESE; Sec. 25, ENE, NESE. T. 13 S., R. 13 E., Sec. 30, WNW.	 160 40 160 120 80
	Subtotal	1,120
	Total	28,580

In addition to the specific sites above, acquisitions would be desirable in certain general areas and along lineal features. These general areas and lineal features follow:

Crook County:

1. Southeast of Smith Rocks State Park for wildlife and recreation connectivity; parcels not identified though based on canal and river proposed trail system.
2. Powell Buttes for access with several options under consideration.
3. Five miles southeast of Prineville Reservoir, to block up and provide a corridor for wildlife and recreation between Alfalfa Flat and the Maury Mountains.

Deschutes County:

1. Southeast of Smith Rocks State Park, between Smith Rocks and O=Neil to block up and provide a corridor for wildlife and recreation. Parcels not identified, though based on canal and river proposed trail system.
2. Three miles north of Old Tumalo Dam adjacent to Highway 30, to block up and provide a corridor for wildlife and recreation between Tumalo and Cline Buttes.
3. In the area around Fremont and McKenzie Canyons, to block up and provide a corridor for wildlife and recreation between the Grasslands and Cline Buttes.
4. Four miles north and 3 miles southwest of Alfalfa to block up and provide a corridor for wildlife and recreation.
5. La Pine, for the purpose of developing and east-west wildlife migration corridor and squaring up corners.

Jefferson County: None

Klamath County: La Pine, for the purpose of developing and east-west wildlife migration corridor and squaring up corners.

Appendix E
303(d) Listed Streams and Protocol for Addressing Impaired Waters on BLM-Administered Lands

303(d) Listed Streams by Sub-basin

Stream Name	River Mile	Approximate Location	Listed Parameter
Little Deschutes Sub-basin			
Crescent Creek	0-26.1	Mouth to Crescent Lake	Temperature
Little Deschutes River	54-78		Temperature
	0-54		Dissolved Oxygen
Paulina Cr.	0-13.2	Mouth to Paulina Lake	Temperature
Upper Deschutes Sub-basin			
Deschutes River	126.4-162.6	Upstream of Squaw to upstream of Tumalo	Temperature, pH
	189.4-222.4	Sunriver to Upstream of Bull Bend	Sediment, turbidity, dissolved oxygen
Squaw Creek	0-21		temperature
Lower Crooked Sub-basin			
Crooked River	0-51	Mouth to Baldwin Dam	Bacteria (fecal coliform), pH, temperature
	51-70	Baldwin Dam to Prineville Reservoir	Total Dissolved Gas
McKay Creek	0-14.7	Mouth to Little McKay Cr.	Temperature
Marks Creek	0-17.1		Temperature
Mill Creek	0-11.5	Mouth to E./W. Forks	Temperature
Ochoco Cr.	0-36.4	Mouth to Camp Branch	Temperature
Upper Crooked Sub-basin			
Crooked River	82.6-109.2	Upstream of Deer Cr. to N. Fk. Crooked River	Temperature, pH
Bear Creek	0-34.3	Mouth to Headwaters	Temperature

Protocol for 303(d) listed Streams

BLM will validate the 303(d) listing of its waterbodies.

BLM will review the current 303(d) list (Table 2-10) and listing rationale to determine if the waterbody was correctly listed. BLM will provide the State with documentation or evidence if the waterbody was erroneously placed on the list while it actually meets the water quality standard for which it was listed.

BLM will assess the effect of its management actions on the water quality parameter for which a waterbody is 303(d) listed.

BLM management activities will be assessed for their effects on water quality for the standard for which it was listed. This will be done at the site-specific scale during evaluations of GMAs.

BLM will document and present evidence to the State where sufficiently stringent management measures (Appendix O) have been implemented to bring listed segments into compliance in a reasonable timeframe. For such situations, development of a TMDL and WQMP are not needed. EPA's current interpretation of this are measures that would allow the waterbody to meet the water quality standard within two years.

For waterbodies that remain on the 303(d) list and are affected by BLM management activities, BLM will develop or adjust management actions necessary to restore water quality and meet Oregon water quality standards. BLM will work with the State agencies and local tribes to set priorities and timelines for addressing listed waterbodies.

BLM will develop water quality restoration plans (WQRP), to address the water quality parameter at issue for lands it administers. A draft WQRP for the Upper Deschutes and Little Deschutes sub-basins, completed jointly with the Deschutes National Forest, is currently on file in the Prineville District BLM office. The expected completion date for the final WQRP is October, 2004. The remainder of the planning area will be addressed in the WQRP for the Lower and Upper Crooked River sub-basins, to be completed jointly with the Ochoco National Forest. BLMs WQRPs may be developed before or after the State's Total Maximum Daily Load standards (TMDLs) and Water Quality Management Plans (WQMPs), depending upon the State's timeframes. Once the State's WQMP is developed, the BLM's WQRP must incorporate the WQMPs management measures to meet the TMDL's load allocation. Any WQRP developed prior to a WQMP would have to be adjusted if needed to incorporate the management measures of the WQMP.

BLM will submit WQRPs to the State for coordination purposes. If WQRPs are developed prior to TMDLs and WQMPs, submission of the WQRP is a means for the BLM to provide the State with information that may be incorporated into the TMDL and WQMP. After WQMPs are developed, submission of the WQRP provides an opportunity for the State and BLM to jointly review BLM's management activities for compliance with the management measures of the WQMPs.

BLM will implement WQRPs upon their completion, with adjustments as necessary.

Appendix F
Best Management Practices and Road Standards for Proper Drainage

Introduction

The following Best Management Practices, considered to be the most applicable to the planning area, were derived from a number of sources including: BLM OR/WA Manuals and Handbooks, Oregon Forest Practice Rules (Oregon Department of Forestry, 1980), Moll (1999), the US Forest Service San Dimas Technology Center, and internal RMP scoping comments.

Road Construction and Maintenance Guidelines

For additional, more detailed specifications concerning all aspects of road design, construction and maintenance refer to BLM Manuals 9113 - Roads, and 5420 - Preparation For Sale (Timber).

New BLM system road construction would focus on redesigning existing road systems for better access efficiency, recreation use, reduction in conflicts with adjacent landowners, and resource protection. Road system management would include maintaining existing roads, seasonal closures, permanent closures and rehabilitation of roads. Existing system roads would be maintained for proper water drainage and long-term service.

Any new roads would be designed to minimum standards consistent with the proposed use and traffic safety (see Table F-1). An in-depth field review for each feasible location should be performed prior to construction. For each feasible location, consider environmental impacts and resource value impacts, including suitability of soil and geology, potential for road surface erosion, and impacts due to extension of the drainage network on water quality and quantity. Consult hydrologists and fisheries biologists for stream crossings. Surfaced roads would include some county roads, roads receiving heavy use by the public, and some approved road rights-of-way. When designing long-term road networks, existing roads would be incorporated to the maximum extent possible unless new roads offer better long term conditions for resource conservation, visual resources, recreation or reductions in conflicts with adjacent landowners.

Geometric Standards-Design speeds, travelway widths, and maximum grades for various combinations of estimated average daily traffic (ADT), functional classification, and terrain types are shown in Table F-1 below:

Table F-1. Road Standards

Functional Classification	Estimated 20 yr. ADT	Terrain	Design Speed		Travelway Width		Maximum Grade	
			Preferred	Minimum	Preferred	Minimum	Preferred	Minimum
Resource	Less than 20	Level & Rolling	30	*	14	*	8	10
		Mountainous	15	*	14	*	8	16
Local	Less than 100	Level & Rolling	40	30	20	20	6	10
		Mountainous	20	15	14	12	8	15
	More than 75	Level & Rolling	50	40	24	20	6	10
		Mountainous	30	15	24	20	8	14
Collector	50-150	Level & Rolling	50	30	24	20	6	8
		Mountainous	30	20	24	20	8	12
	More than 100	Level & Rolling	50	40	24	20	6	8
		Mountainous	30	20	24	20	8	12

*If preferred design speed and travelway width are not feasible for specific resource roads, alternate values are determined by District Resource Specialists.

Road location would be designed to follow the terrain to minimize excavation to the essential amount needed to meet necessary road standards. Whenever possible, roads would be located away from streams, meadows, and riparian areas. Appropriate drainage structures would be incorporated into construction or reconstruction design.

Cut and fill slopes would be revegetated, preferably with native vegetation, to stabilize the slopes and reduce erosion. Seeding or planting would be done the first fall season following construction of long-term roads.

A local road with a design speed of 20 mph or less should be outsloped for sections where the grade does not exceed 6%. Outsloping roads is not recommended unless the subgrade materials are resistant to erosion and traffic volume is extremely low. All other roads should be crowned to ensure proper drainage.

Side ditches should be constructed adjacent to, and parallel with, the roadway shoulder. The ditch collects runoff from the roadway and from adjacent upslope areas. The shape and dimensions of the ditch are selected to carry adequately the anticipated runoff from a major storm without saturation of subgrade or surfacing material.

Where overtopping of the road could occur, a dip or grade roll should be designed to ensure that the overtopping flow crosses the road at a point that minimizes erosion (erodible-resistant surfacing is often added), and so that flow is not diverted along the road or away from its natural flow path.

For low-volume roads, surface cross drains provide an economical alternative to using ditches and culverts. Surface cross drains can be designed into any shape road surface template to divert water collecting on and running down the traveled surface. Surface dips are not recommended for grades over ten percent because of the steepness of the dip approach grade that would be required. Cross drains may also be used to relieve ditches and the inside edge of insloped roadways without ditches. Ditch dams are used to direct ditch water into the cross drain. Surface cross drains should be located at intervals

close enough to prevent volume concentration that causes surface erosion or unstable slopes. Cross drains should be constructed with an outslope grade of 3 to 5 percent or equal to the existing out-slope grade. In colder climates where snow and ice create driving hazards, the outslope grade should be reduced. For drivable dips, the minimum freeboard should be 150 millimeters with a roll-out length of at least 6 meters. If the dip is unarmored, freeboard should be increased to allow for the tendency of the dip to lose its shape due to traffic. Drain dips and drivable water bars negotiable by high-clearance vehicles have steeper rollout grades. The above values should be adjusted according to local climate.

Locate cross drains far enough above stream crossings to avoid releasing drainage water directly into stream channels. Whenever possible cross drains should be located to release water on convex slopes or other stable areas that will disperse water rather than channeling it. Surface and ditch water should be diverted and dispersed before it enters streams using lead-out ditches, settlement ponds, ditch dams, surface shaping, or other measures. Cross drains and outlets should be armored where soils are highly erodible or provide poor traffic support during wet weather use.

Dip orientation (skewed or perpendicular to the road centerline) depends on the type of traffic expected, length of the dip, and road grade. If dips are shorter and the traffic will include larger trucks with longer frames, then the dips should be oriented perpendicular to the direction of traffic. Dips skewed from perpendicular to centerline more effectively drain steep road grades, are more comfortable for vehicle occupants, and, if long enough, will not cause severe twisting of truck frames.

Culverts would be designed for all streams to pass a 100-year flood. Culverts would be designed for minimum impact on aquatic life. Open bottom shapes should be used if it is necessary to maintain the character of the streambed and would be the preferred option for fish-bearing streams. If a closed bottom shape is used in a fish-bearing stream, the type, size and gradient of the culvert should be assessed using the most current method of design for fish passage (for example, a software application for Windows called "FishXing," developed by the Six Rivers National Forest Watershed Interactions Team available from the Stream Systems Technology Center (www.stream.fs.fed.us/fishxing) or from the USDA-Forest Service San Dimas Technology and Development Center). Rock or other appropriate lining would be provided for culvert outlet basins.

Waterbars would be installed on skid trails and temporary roads where there is potential for erosion due to soil type, terrain features, or future human uses. Waterbars are typically used in closed-off areas with little traffic, and should be oriented to lead the flow from the surface. One rule of thumb is to add five to the percent road grade and orient the waterbar at that many degrees off perpendicular.

All roads would be maintained during logging, mining, or other activities involving heavy vehicles or multiple trips. Roads would be maintained during and immediately after use periods as needed to control erosion and road degradation. Maintenance activities could include reconstruction, snow plowing, grading, cleaning ditches and culverts, installing new drainage structures, and replacing surfacing. Maintenance frequency would depend on traffic, weather, road condition, and soil type. During heavy industrial use, roads would be monitored during wet conditions and temporarily closed, if necessary, to prevent excessive damage.

All necessary road permits and road use agreements would be obtained before beginning industrial operations. Individual road use permits, agreements, contracts, and right-of-way grants would provide detailed stipulations for road use and maintenance for specific roads.

Temporary access roads would be closed and stabilized by a combination of the following methods: signing, blocking, disguising, scarifying, waterbarring, seeding, and mulching.

Design drainage ditches, waterbars, drain dips, culvert placement, etc. in a manner that will disperse run-off and minimize cut and fill erosion. Design of drainage ditches, waterbars, etc. will be done in a manner to ensure safety for road users.

Blocking and disguising would utilize large logs, branches, stumps, and/or boulders found in the local vicinity. Tees cut from adjacent areas may also be imported to facilitate road closures and rehabilitation.

Closed and obliterated road beds would be recontoured to match the adjacent natural slope and would be seeded with native seed.

Background of Road Influences on Hydrology

Proper drainage, from a watershed standpoint, is minimizing the cumulative volume-distance quantity of displacement by appropriate road and drainage feature location and design, coupled with appropriate routine maintenance. Three main components of proper drainage provision are: road location and design; drainage feature type, location, and design; and appropriate routine maintenance. Proper drainage provision is accomplished on each unique road segment by ensuring location and design of road alignments and drainage features minimize changes to natural disposition of precipitation and groundwater. Road location must consider alignments, template geometry, aspect, location on hillside, geology, climate, vegetation, operational requirements, season of use, and management activities on surrounding terrain. Drainage feature considerations include type, spacing and shaping, applicability of drainage schemes to site conditions, including investigation of opportunities on the ground for minimizing water concentrations and their effects on areas adjacent to the road segment.

Appropriate routine maintenance ensures such drainage provision remains functional. Drainage features are tailored to site specific characteristics on each unique segment, within limitations dictated by access needs and safety requirements. Every opportunity is considered for minimizing water concentrations and related effects on surroundings by treatments that isolate contributing areas, whether on adjoining road segments or different parts of the cross section template on the same segment.

The simplest, most economical, and most effective technique for minimizing water displacement due to the typical segment involves addition of surface cross drainage. Here, the total water volume displaced may not be reduced much, but it is broken into smaller increments, travels a shorter distance during displacement, and is more quickly and easily absorbed into down slope locations, potentially lowering cumulative volume distance displacement. Surface cross drains consist of surface shaping and devices designed to capture water that collects on, and drains down, the road and release it in a manner that minimizes effects to adjacent areas and the watershed (USDA Forest Service, 1998b). Surface shaping includes broad-based (drivable) dips, waterbars, and rolls in profile (twist of crown or inslope templates to outslope and back again). Devices include open top or slotted culverts (Kochenderfer, 1995), metal waterbars, and rubber water diverters (USDA Forest Service, 1998c). (See USDA Forest Service, 1998 for design figures).

Machine Operations (i.e. logging, mining, utility and facility installations)

Machine operations would be timed to minimize adverse impacts to other resources. Timing of operations on a daily and seasonal basis would include such concerns as sensitive soils, proximity to residences and recreational sites/designated trails, cultural resources, and special status plant and animal species.

Operations would be designed and implemented to minimize the loss of site productivity caused by soil compaction, displacement, or erosion.

Areas with sensitive soils or ground resources of special concern would be protected by logging with low-impact harvest techniques such as: designated skid trails; directional felling; boom mounted shears; harvester/forwarders; smaller, more maneuverable or low ground pressure equipment; logging during the dry season (between June 1 and October 31); and logging over a protective cover of snow and/or frozen ground.

Tractor skidding would normally be limited to slopes of less than 35%. Soil moisture conditions would be monitored and operations would be suspended before excessive compaction or displacement occurs.

Landings would be the minimum size commensurate with safety and equipment requirements. Landing locations would be selected outside specified buffer areas for streams, riparian areas, raptor nests, residential areas, and other sensitive sites. Landings would be located to avoid creating excessive excavation and sidecast or slope stability problems.

Previously disturbed areas and existing openings would be used where practicable to establish landing sites.

Some key landing sites may be retained and dedicated for future timber harvest operations.

Machine slash piling, other than on landings, would be avoided if there are other feasible options available such as whole tree or leave-tops-attached yarding, lop and scatter, or prescribed fire. Where machine piling is necessary, it would be accomplished with a crawler tractor or skidder equipped with a brush rake type blade to minimize soil displacement and provide soil-free piles.

Perennial stream crossings would be avoided during operations involving heavy equipment for logging, road construction or related activities.

Designated trails would be avoided during operations involving heavy equipment for logging, road construction or related activities to the maximum extent feasible. If avoidance is not possible, provisions for designating crossings, rerouting or temporary closure of designated trails will be made to ensure safety and reduce conflicts. Trails damaged during operations would be restored following operations.

Provide variable width no-cut or modified prescription management zones for perennial streams, springs, seeps, wet meadows, and other areas which could substantially affect water quality in perennial waters.

Where forest productivity is emphasized, landings, temporary roads and primary skid trails would be scarified following use. Scarification would be to a depth of at least 12 inches. Mounds and berms would be smoothed to the original contour.

Appendix G
Livestock Grazing Management Summary

Allot #	Allotment Name	Acres	AUMs	Alternative 1	2	3	4	5	6	7	Management Category C1	C2	C3	C4	C5	C6	C7	Tot	Grazing System	Vacant (Y or N)
0072	Miltenberger (Alfalfa)	1,670	82	G	G	G	-	-	G	G	U	I	M	I	C	I	M	M	E	N
5001	Whitaker	114	7	G	G	G	-	-	G	*/R	U	I	M	M	C	C	C	C	SD	N
5002	Sanowski	71	10	G	G	G	-	-	G	*/R	U	I	M	M	C	I	C	M	SD	N
5003	Broaddus-Carder	15	2	G	G	G	-	-	G	*/R	U	M	C	I	M	C	C	C	SD	Y
5004	Lamb	44	6	G	G	G	G	-	G	G	U	M	C	M	C	C	M	C	SD	N
5006	Emmrich	211	20	G	G	G	-	-	G	*	U	M	M	I	M	C	C	C	SD	Y
5007	Harsch	1,310	19	G	G	G	-	-	G	*	U	I	M	M	I	M	C	M	DR	N
5011	Alkali	467	12	G	G	G	G	G	G	G	U	M	C	C	M	C	I	C	SS	N
5012	Lynch	2,911	83	G	G	G	-	-	G	*/R	U	I	M	I	C	M	C	M	DR	N
5018	Wierleske	798	49	G	G	G	89%	-	G	G	U	I	M	I	M	M	M	M	SF	N
5019	Dunham North	3,136	191	G	G	G	G	G	G	G	M	I	I	M	M	M	I	I	DR	N
5022	Airport	760	62	G	G	G	-	-	G	R	I	I	M	I	C	I	M	M	E	N
5023	Riverside South	80	5	G	G	G	G	G	G	G	U	I	C	C	I	M	I	M	SS	N
5024	Keystone	353	10	G	G	G	G	G	G	G	U	I	C	C	M	M	I	M	SD	N
5026	Couch	815	30	G	G	G	-	-	G	G	U	I	C	M	I	C	M	M	SD	Y
5031	Mayfield-Harris	1,010	68	G	G	G	-	-	-	*/R	I	M	M	M	M	I	M	M	DR	N
5032	Barrett	200	24	G	G	G	G	-	G	G	U	M	C	M	M	C	M	C	SD	N
5050	Gray Butte	807	28	G	G	G	G	-	G	*/R	U	I	I	C	M	M	C	M	SS	N
5051	Sherwood Canyon	1,125	51	G	G	G	G	-	G	G	U	I	I	M	I	C	M	M	SD	N
5052	Smith Rock	164	9	G	G	G	G	-	G	*/R	U	I	I	C	I	C	C	M	SD	N
5061	McWeizz	5,027	348	G	G	G	-	-	G	*/R	U	I	I	I	M	C	C	M	SD	Y
5064	Williams (Desch. Co.)	841	44	G	G	G	G	G	G	G	U	M	C	M	M	M	M	C	DR	N
5065	Lower Bridge	6,050	310	G	G	G	G	-	G	G	U	I	M	I	I	M	M	I	DR	N
5066	Pine Ridge	392	34	G	G	G	-	-	G	G	U	I	C	M	M	C	M	C	SD	N
5067	Fisher	254	14	G	G	G	-	-	G	*/R	U	I	M	C	I	C	C	C	SD	Y

Allot #	Allotment Name	Acres	AUMs	Alternative 1	2	3	4	5	6	7	Management Category C1	C2	C3	C4	C5	C6	C7	Tot	Grazing System	Vacant (Y or N)
5068	Stevens Freemont	675	46	G	G	G	-	-	G	*/R	U	M	M	C	M	C	C	C	SD	Y
5069	Squaw Creek	120	17	G	G	G	-	-	G	*/R	U	I	M	M	I	C	C	M	SD	Y
5070	Lafollette Butte	3,664	190	G	G	G	-	-	G	*/R	U	I	M	M	I	C	C	M	DR	Y
5071	Odin Falls	3,795	252	G	G	G	-	-	G	*/R	U	I	M	I	I	M	C	M	SD	Y
5072	Struss	1,726	143	G	G	G	-	-	G	*/R	U	M	I	M	M	C	C	C	DR	Y
5073	Cline Butte	10,671	700	G	G	G	G	-	G	*/R	I	M	I	M	M	I	M	M	DR	N
5075	Desert Springs	2,227	112	G	G	G	G	-	G	*	C	M	I	M	M	M	M	M	WS	N
5076	Buckhorn Canyon	664	68	G	G	G	G	-	G	G	I	I	C	C	M	I	M	M	DR	N
5078	Home Ranch	3,773	193	G	G	G	96%	-	G	-	I	I	I	I	M	I	C	I	DR	N
5079	Whiskey Still	1,415	100	G	31%	31%	-	-	31%	*/R31%	I	I	I	I	M	I	M	I	E	N
5080	Maston	3,624	209	G	G	G	-	-	G	G	U	I	M	I	M	M	M	M	DR	N
5081	Paulus	164	14	G	G	G	G	-	G	G	U	I	C	C	M	C	M	C	SD	N
5082	Bull Flat	199	7	G	G	G	-	-	G	G	C	M	C	C	M	C	M	C	SD	Y
5084	Blackrock	187	24	G	G	G	-	-	G	*/R	U	M	M	M	C	C	C	C	DR	Y
5086	Lone Pine Canyon	119	5	G	G	G	G	G	G	G	U	I	C	C	C	C	M	C	SD	N
5088	Montgomery	157	17	G	G	G	G	-	G	G	U	I	C	M	M	C	M	C	SD	N
5089	Knoche	160	6	G	G	G	-	-	G	G	U	I	M	M	C	M	M	M	SD	N
5092	Red Cloud	578	33	G	G	G	G	-	G	G	U	I	I	M	M	M	M	M	DR	N
5093	Cronin	346	19	G	G	G	-	-	G	G	U	I	C	M	M	I	M	M	SS	N
5094	Brown (Powell Butte)	231	15	G	G	G	G	-	G	G	U	I	C	C	M	C	M	C	SD	N
5096	Foster	319	24	G	G	G	G	G	G	G	M	I	C	C	M	C	M	C	SD	N
5107	Cain Fields	37	36	G	G	G	-	-	G	G	U	M	C	M	C	C	I	C	SD	N
5108	Zell Pond	1,215	75	G	G	G	93%	74%	-	G	U	I	I	I	M	C	M	M	SD	N
5109	Hohnstein-Tatti	4,901	262	G	G	G	G	G	-	G	U	I	M	M	C	M	M	M	SD	N
5110	Bruckert	119	35	G	G	G	-	G	-	G	U	I	C	C	C	C	I	C	SD	N
5111	Cook	1,929	49	G	G	G	-	-	G	*/R	U	I	M	I	C	C	C	M	SD	N
5112	Driveway	3,258	240	G	G	G	G	-	G	G	U	I	M	M	C	M	M	M	R;W	N
5113	Hacker-Hassing	4,220	99	G	G	G	99%	-	G	G	U	I	I	I	C	M	M	M	DR	N
5114	Weigand	3,084	177	G	G	G	G	-	G	G	U	I	I	M	C	M	M	M	DR	N
5115	Allen	3,565	110	G	G	G	G	-	G	G	U	I	I	M	C	I	I	I	DR	N

Allot #	Allotment Name	Acres	AUMs	Alternative 1	2	3	4	5	6	7	Management Category C1	C2	C3	C4	C5	C6	C7	Tot	Grazing System	Vacant (Y or N)
5116	Crenshaw	12,528	635	G	G	G	G	G	G	R	I	M	I	M	C	M	M	M	DR	N
5117	Pipeline	8,280	513	G	G	G	G	-	G	G	U	I	I	M	C	M	I	M	DR	N
5119	McDonald	40	50	G	G	G	G	-	G	G	U	M	C	C	C	C	I	C	SD	N
5120	Hutton	4,062	231	G	G	G	G	-	G	G	U	I	I	M	C	M	I	M	W	N
5121	Oertle	2,318	120	G	G	G	G	-	G	G	U	I	M	M	C	M	I	M	DR	N
5122	Howard	669	68	G	G	G	G	-	G	R	C	I	M	M	C	M	M	M	DR	N
5123	West Salt Creek	517	51	G	G	G	G	G	G	G	U	I	C	C	M	M	I	M	DR	N
5125	Mayfield Pond	5,615	305	G	G	G	G	-	G	G	I	I	I	M	C	M	I	I	DR	N
5127	Powell Butte	14,842	680	G	G	G	G	-	G	G	U	I	I	M	M	M	M	M	DR	N
5130	Pilot Butte	323	104	G	G	G	G	G	G	G	U	I	C	C	M	M	I	M	SD	N
5132	North Stearns	8,535	403	G	G	G	G	81%	-	G	U	I	I	I	M	M	M	I	DR	N
5133	Long Hollow	364	17	G	G	G	G	G	G	G	U	I	C	C	M	C	I	C	SD	N
5134	South Stearns	10,021	583	G	G	G	G	G	G	G/R	I	I	I	M	M	M	I	I	DR	N
5135	Dry Creek	6,134	334	G	G	G	99%	51%	G	R	M	I	I	I	M	M	M	I	DR	N
5136	Davis	4,661	352	G	G	G	99%	-	G	R	M	M	I	I	I	M	M	I	WS	N
5138	Plateau	5,255	252	G	G	G	G	G	-	G	M	I	M	M	M	M	M	M	DR	N
5140	Salt Creek	12,455	1,364	G	G	G	G	G	G	G	M	I	M	M	I	M	I	I	DR;W	N
5141	Sanford Creek	4,809	375	G	G	G	G	G	G	G	U	I	C	C	I	M	I	M	DR	N
5142	Carey	1,740	46	G	G	G	G	35%	G	R	U	I	M	I	I	M	M	I	DR	N
5143	Deer Creek	2,655	171	G	G	G	G	G	G	G	U	I	M	C	I	M	I	M	WS	N
5145	Eagle Rock	2,291	162	G	G	G	G	93%	G	G	U	I	I	C	I	M	I	I	DR;W	N
5176	McCabe	230	10	G	G	G	-	-	G	G	U	C	C	C	M	C	M	C	E	Y
5177	Reynolds	1,751	101	G	G	G	G	G	G	G	U	I	C	C	M	C	M	C	SD	N
5178	Grizzly Mountain	756	69	G	G	G	-	-	G	G	C	M	C	C	I	C	M	C	SD	Y
5179	Lytle Creek	119	8	G	G	G	-	-	G	G	C	I	C	C	M	C	M	C	SD	N
5180	Golden Horseshoe	198	14	G	G	G	-	-	G	G	C	I	C	C	M	C	M	C	SD	N
5182	F. Jones	698	77	G	G	G	-	-	G	G	U	I	C	C	M	C	M	C	SD	Y
5198	Laire-gove	490	15	G	G	G	-	-	G	G	I	C	C	C	C	C	M	C	SD	Y
5201	Alfalfa Market Road	2,468	141	G	G	G	G	-	G	R	U	M	I	M	C	M	M	M	SS	N
5204	Sinclair	574	28	G	G	G	G	G	G	*/R	I	I	M	M	M	C	C	C	SD	N

Allot #	Allotment Name	Acres	AUMs	Alternative 1	2	3	4	5	6	7	Management Category C1	C2	C3	C4	C5	C6	C7	Tot	Grazing System	Vacant (Y or N)
5205	Dodds Road	2,256	75	G	G	G	-	86%	-	*/R	I	M	M	M	M	M	M	M	DR	N
5206	Arnold Canal	603	18	G	G	G	-	G	-	*/R	U	I	M	M	C	C	C	C	DR	Y
5207	Michaels	1,315	38	G	G	G	G	G	-	*	I	I	M	M	M	M	M	M	DR	N
5208	Barlow Cave	11,035	600	G	G	G	G	G	G	G	U	I	M	M	I	M	M	M	DR	N
5209	Lava Beds	16,249	508	G	G	G	G	G	-	*	I	I	M	M	M	I	M	I	SS	N
5210	Horse Ridge	22,285	1,624	G	G	G	G	G	G	G	U	I	M	M	I	M	I	I	DR	N
5211	Pine Mountain	5,401	320	G	G	G	G	G	G	G	U	I	I	M	I	M	M	I	DR	N
5212	Millican	29,472	2,887	G	G	G	G	G	G	G	U	I	I	M	I	M	I	I	DR	N
5213	Rambo	15,765	670	G	G	G	G	G	G	R	U	I	I	M	I	M	M	I	DR	N
5214	Williamson Creek	12,946	754	G	G	G	G	G	G	G	U	I	I	M	I	M	I	I	DR	N
5216	Grieve	80	4	G	G	G	G	-	G	G	I	M	M	M	C	C	M	C	SD	N
5224	Coffelt North	483	15	G	G	G	G	G	G	G	U	M	C	C	M	M	I	C	SS	N
5228	Dunham South	2,804	163	G	G	G	G	G	G	G	U	I	C	C	I	M	I	M	DR	N
5231	West Butte	17,136	1,781	G	G	G	G	G	G	G	U	I	M	M	I	M	I	I	DR	N
5233	Scott	4,825	536	G	G	G	G	G	G	G	U	I	C	C	I	M	I	M	DR;W	N
5234	Haughton	2,491	193	G	G	G	G	G	G	G	U	I	C	C	M	M	I	M	DR;W	N
5252	Meisner	64	34	G	G	G	-	-	G	G	U	M	M	M	C	M	M	C	SD	Y
5257	South Alkali	84	5	G	G	G	G	G	G	G	U	M	C	C	M	C	I	C	SS	N
5261	Hudson	656	44	G	G	G	G	G	G	G	U	I	C	C	M	M	I	M	SD	N
7502	A&L Sheep	6,027	1,012	G	G	G	G	-	G	G	U	M	C	M	M	M	M	C	E;D;DR;RR	Y
7504	Brown (La Pine)	552	93	G	G	G	G	-	G	G	U	M	C	M	C	M	I	C	E;D;DR;RR	N
7509	Cliff	1,885	88	G	G	G	95%	61%	G	R	U	M	M	I	M	M	M	M	E;D;DR;RR	N
7514	Cooper	313	27	G	G	G	G	-	G	*/R	U	M	C	M	M	C	C	C	A	N
7515	Helliwell	361	60	G	G	G	G	G	G	G	U	M	M	C	M	C	M	C	A	N
7530	Griffith	28	32	G	G	G	G	G	G	G	U	M	C	C	C	C	M	C	A	N
7538	Hogan	172	26	G	G	G	-	-	G	*/R	U	I	M	M	I	C	C	M	A	Y
7552	Miltenberger (La Pine)	4,612	656	G	G	G	G	84%	G	G	C	M	C	M	C	M	M	C	E;D;DR;RR	N
7554	Morgart	79	11	G	G	G	G	G	G	G	I	I	C	C	M	I	M	M	A	N
7559	Poole	1,373	180	G	G	G	G	G	G	G	U	M	M	M	M	M	M	M	E;D;DR;RR	N
7571	Smith, E.V.	153	26	G	G	G	G	-	G	G	U	M	C	M	C	C	M	C	A	Y

Allot #	Allotment Name	Acres	AUMs	Alternative 1	2	3	4	5	6	7	Management Category C1	C2	C3	C4	C5	C6	C7	Tot	Grazing System	Vacant (Y or N)
7572	Smith, W.C.	41	7	G	G	G	G	-	G	G	U	M	C	M	C	C	M	C	A	N
7574	Kellems	196	34	G	G	G	G	-	G	G	U	M	C	M	M	C	M	C	E;D;DR;RR	Y
7575	Stearns	425	73	G	G	G	58%	35%	G	G	U	M	C	I	M	M	M	M	E;D;DR;RR	N
7582	Williams (Jeff. Co.)	99	7	G	G	G	G	G	G	G	U	I	C	M	M	C	M	C	A	N
7586	Yager	344	33	G	G	G	-	-	G	R	U	M	M	I	C	M	M	M	E;D;DR;RR	N
7594	LeBeau	26	6	G	G	G	G	-	G	G	U	M	C	C	M	C	M	C	A	N
7595	Finley	1,304	72	G	G	G	G	-	G	G	U	M	C	M	M	M	M	C	E;D;DR;RR	N
7597	Long Prairie	719	240	G	G	G	G	G	G	G	U	M	M	C	M	M	M	C	E;D;DR;RR	N
9999	Unallotted (La Pine)	23,524	6,800	G	G	G	94%	-	G	G	U	M	M	I	C	C	M	C	A	Y

AUMs
These figures represent livestock active preference forage allocation, expressed in animal unit months (AUMs)

Alternatives
G Open for livestock grazing (entire allotment) under direction in this alternative
- Livestock grazing discontinued (mandatory)
* Livestock grazing discontinued if permit is voluntarily relinquished.
R Reserve forage allotment (RFA) if the permit is voluntarily relinquished.
G/R Open or RFA if the permit is voluntarily relinquished.
*/R Livestock grazing discontinued or RFA if the permit is voluntarily relinquished.
XX% Percent of acres remaining open (or RFA) for livestock grazing (discontinued in remainder of allotment)

Management Category
The scores C, M, and I generally mean Custodial, Maintain, and Improve. See further descriptions, below, and in Affected Environment, Livestock Grazing.

Criteria 1-7 definitions
C1 Standards for rangeland health. C = meeting all standards, M = not meeting one or more standards, but livestock not a factor, U = Unknown, rangeland health not assessed yet, and I = not meeting one or more standards and livestock are known or expected to be a factor
C2 Forage production present and potential. C = potential is low, and present is near potential, M = potential is moderate to high, present is near potential, and I = potential is moderate to high and present is low to moderate
C3 Potential conflicts with recreation, other uses. C = low, M = moderate, I = high.
C4 Potential conflicts with adjacent land use or busy roads. C = low, M = mod, I = high
C5 Threatened, endangered, or sensitive species, high priority watersheds, or other important resources. C = no or not known at this time, M = some present or expected, and I = numerous present
C6 Current livestock grazing management. C = satisfactory or is only logical practice, M = satisfactory, I = Unsatisfactory.
C7 Prudent investor's willingness to invest. C = no, M = maybe, I = yes

Grazing System
These are the systems proposed to be implemented under Brothers/La Pine RMP direction, and subsequent direction contained in District Rangeland Program Summaries. This direction has been implemented as funding and priorities allow, during allotment evaluation, permit renewal, or rangeland health assessment.

A Any system which maintains existing trends in ecological condition
DR Deferred rotation
E Early
EX Exclusion
R Rotation
SD Short duration
SF Summer/fall
SS Spring/summer
W Winter
WS Winter/spring

Vacant This refers to whether or not a grazing operator currently holds the permit. If not, the allotment is considered vacant and there is a "Y" in this column.

Appendix H
Visual Resource Inventory Process
Upper Deschutes RMP

Introduction

The visual resource analysis consists of a scenic quality evaluation, sensitivity level analysis, and a consideration of distance zones. Based on these factors, BLM-administered lands are placed into one of four visual resource classes. These inventory classes represent the relative value of visual resources, with Class I and II being the most valued, Class III representing a moderate value, and Class IV being of least value. In addition, areas can be identified through the RMP process as Class V – areas where the natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications. This classification also applies to areas where there is potential to increase an area's visual quality; Class V is often used as an interim classification until objectives of another VRM Class can be reached.

The establishment of VRM classes on public land is based on an evaluation of the landscape's scenic qualities, public sensitivity toward certain areas, and the location of affected land from major travel corridors (distance zoning).

Desired Future Condition

Landscapes seen from high use travel routes, recreation destinations, and special management areas will be managed to maintain or enhance their appearance. Landforms that provide a visual backdrop to communities will also be managed to maintain or enhance their appearance. To the casual observer, results of management activities in these areas either will not be evident or will be visually subordinate to the existing landscape.

Landscapes will be enhanced by opening views to distant peaks, unique landforms, or other features of interest. Variety will be introduced to uniform landscapes by creating openings and edges between juniper woodland and sagebrush grassland. Landscapes containing negative visual elements, including braided or extremely dense road networks, garbage piles, unstable cut or fill slopes, open pits, or a preponderance of damaged trees or stumps, etc. will be rehabilitated.

Management activities on highly visible landforms that form a community backdrop will not be evident. In these areas, vegetation management will only be approved if it protects and improves visual quality.

Rationale

Section 102(8) of FLPMA declares that public land will be managed to protect the quality of scenic values and, where appropriate, to preserve and protect certain public land in its natural condition. NEPA, Section 101(b), requires Federal agencies to "assure for all Americans...esthetically pleasing surroundings." Section 102 of NEPA requires agencies to "utilize a systematic, interdisciplinary approach which would ensure the integrated

use of...environmental design in the planning and decision making process." Guidelines for the identification of VRM Classes on public lands are contained in BLM Manual Handbook 8410-1, Visual Resource Inventory.

Characteristics of the Planning Area

The planning area is located within the Columbia Plateau Physiographic Province (Illustration 5 – Physiographic Province Map, Manual 8410 – Visual Resource Inventory). This physiographic province is characterized by incised rivers, extensive plateaus, and anticlinal ridges. The planning area itself consists of gently sloping to flat lands covered in Sagebrush - grassland and Juniper. This general visual character is punctuated by the Deschutes River Canyon and the Crooked River Canyon; and by numerous buttes (e.g., Cline Buttes, West Butte, Grey Butte, and others). Other visual features of the planning area include smaller canyons such as Squaw Creek, several dry canyons, and several large water bodies, including Prineville Reservoir and Ochoco Reservoir. The BLM lands are generally seen against a longer distance backdrop of high peaks and forest lands to the west (Cascade Range – Deschutes National Forest), to the north and east (Gray Butte – Crooked River National Grasslands, Ochoco Mountains – Ochoco National Forest), and to the south (Pine Mountain – Deschutes National Forest). Other key visual elements of the planning area include the rock cliffs and upland spires along the Crooked River at Smith Rock State Park and adjacent BLM lands. Pronounced cliffs and river views are also apparent along the Chimney Rock Segment of the Crooked River south of Prineville.

Portions of the major river canyons in the planning area are designated as Federal Wild and Scenic Rivers. The Lower Crooked (Chimney Rock Segment) Wild and Scenic River is classified as a Recreational River. This stretch of river is located below Prineville Reservoir in Crook County. The Middle Deschutes Wild and Scenic River between Lake Billy Chinook and Odin Falls is classified as a Scenic River. The Crooked River between Lake Billy Chinook and Ogden Wayside is classified as a Recreational River. These two stretches of river are located adjacent to Crooked River Ranch in Deschutes and Jefferson Counties. While the Upper Deschutes Wild and Scenic River does not flow through BLM lands in La Pine, a small portion of BLM lands between Forest Road 4360 and La Pine State Park are located within the Wild and Scenic River corridor.

The visual resource management guidelines for the Chimney Rock segment of the Crooked River are defined as a Retention Visual Quality Objective (VQO) or Partial Retention VQO. These correspond roughly to BLM's Visual Resource Management Class II and Class III. The Middle Deschutes and Crooked Wild and Scenic River stretches adjacent to Crooked River Ranch are designated as VRM Class I within the canyon, and Class II for the surrounding upland above the rim. The VRM Classes for a portion of the Middle Deschutes Wild and Scenic River were superceded by BLM Instruction Memorandum 2000-096, which applied a VRM Class I to the Steelhead Falls WSA. The Upper Deschutes Wild and Scenic River/State Scenic Waterway Plan (1996) applied a Partial Retention VQO to the 79 acres of BLM lands within the Upper Deschutes W&S River – this corresponds roughly to BLM's VRM Class III designation.

Other features that play a role in the area's visual quality and diversity include large tracts of rural ranch and farmland that generally preserve open views and provide a pastoral setting. The area still retains a large number of older buildings and vestiges of earlier ranching, agricultural, and land settlement activities that are valued for their historic and visual interest. Many irrigation canals are located on BLM lands, and these also provide some visual interest, particularly during the summer, when they are at full flow. Isolated geologic features such as lava tubes, lava blisters, and individual large juniper trees, etc. also have high visual interest.

When compared to the visual character of the Cascade peaks and slopes or the Deschutes and Crooked River canyons, the majority of BLM lands have much less pronounced visual quality – these are not lands that are going to appear on many travel postcards. However, given the rapid development of Central Oregon, these lands are highly valued for their visual quality in that they are not developed and provide a natural backdrop for local communities and a buffer between rapidly developing areas.

The presence of large stands of juniper is seen by some people to be a visual benefit, particularly for residents whose homes are screened and somewhat isolated by existing juniper stands. The planning area contains many large stands of old-growth juniper, which when viewed individually, have great visual interest, character and diversity; however, at a regional scale, these old-growth stands are not highly distinguishable.

Visual Resource Management (VRM) Mapping Process

Existing Visual Quality

Based on the characteristics of the physiographic province and the local area, the elements in the following table (Table H-1) were used to develop a scenic quality overlay (map) for the planning area:

Table H-1. Characteristics of the physiographic province and the local area.

	Landform	Water	Cultural Modifications	Adjacent Scenery
Class A – combines the most outstanding characteristics of each rating factor.	High vertical relief such as prominent cliffs, spires, or large rock outcrops or a concentration of surface variation such as ridges, canyons, or lava tubes	Clear and clean appearing still, or cascading white water, any of which are a dominant factor in the landscape	Landscape free from esthetically undesirable or discordant sights and influences or modifications add favorably to visual character	Adjacent scenery greatly enhances visual quality
Class B – Area in which there is a combination of some outstanding features and some that are fairly common to the physiographic region.	Mesas, buttes, or interesting size or shaped landforms, though not dominant or exceptional	Flowing or still water, but not dominant in the landscape	Cultural modifications distinctive, though somewhat similar to others in the region	Adjacent scenery moderately enhances visual quality
Class C – Area in which the features are fairly common to the physiographic region.	Low hills or gently sloping to flat lands with few interesting or detailed landscape features.	Water is absent or not noticeable	Modifications are so extensive that scenic qualities are mostly nullified or substantially reduced.	Adjacent scenery has little or no influence on overall visual quality

Sensitivity Level Analysis

Each viewer of BLM managed public lands in the planning area has different perceptions formed by individual influences. To some, the BLM lands are a desert wasteland, to others a place to recreate, to others a source of income, and to still others, a defense against unchecked growth and urbanization. The high growth rates and development in the area has led to many public concerns over visual quality and the role of the landscape in providing community identity and in maintaining a quality of life standard in central Oregon. Many land use issues have recently become publicized as visual resource and quality of life issues, including: the placement of cell phone towers; the recent construction of a highly visible golf driving range north of Bend; and the proposed piping of water formerly transported in surface canals. The common element of these issues is the public concern for visual quality and a desire to retain the special, intrinsic and appreciated qualities of the natural backdrop surrounding local communities.

Given the urban nature of the planning area, and the fragmented public land pattern of the BLM parcels, these BLM lands are highly visible on a daily basis to a large number of residents and visitors. While these viewers may not have expectations for pristine views as seen in a national park or other highly managed area; these views are common, continuous, and experienced by large numbers of viewers who have a high degree of ownership and concern about the visual character of landforms that come to define their community (e.g., Cline Buttes, Powell Buttes, etc.). As the area continues to grow and develop, the use volume, or number of viewers will increase (thus increasing the visual sensitivity), and the relative scarcity of undeveloped, natural landscapes will increase (again increasing the visual sensitivity).

Most of the higher elevation or moderate to high slopes category BLM managed land in the planning area are regularly seen by a multitude of public viewpoints, including State Highways, County Roads, State or local parks, and community areas. These lands are often highly recognized landscape features that give identity to local communities such as Powell Butte and Cline Buttes. While these areas may not be of extreme visual quality when viewed in the context of the physiographic region, their prominence as a community backdrop in a rapidly growing and developing area makes them of high sensitivity – i.e., the public generally has a high degree of concern for scenic quality in these highly visible and prominent areas.

In other cases, areas of BLM managed land have specific values and identity for a variety of recreationists. These areas include the Steelhead Falls area along the Deschutes River, the Horse Ridge area, Dry River Canyon, the Deep Canyon area, and the Badlands WSA. In these areas, visitors generally are seeking a natural setting and some degree of solitude and generally have a relatively high degree of concern for visual quality.

The factors referenced in BLM Manual 8410-1 relating to Sensitivity Levels include type of user (e.g., recreational vs. commuter), amount of use, public interest (local, statewide, national), adjacent land uses, and special areas.

In general the following criteria were used to establish Sensitivity Levels for the Upper Deschutes Planning Area:

High Sensitivity

1. Landforms that form community backdrops or are prominent at a regional scale
2. Areas with congressional or state designations, or areas that could be perceived by the public as having the same type of designations and protections...i.e., Wild and Scenic River corridors and the remaining public land river parcels that are outside these designated corridors. WSAs also fall into this category.

3. Areas that serve as recreation destinations for a variety of user groups and are used by out of area visitors on a regular basis. These would include river corridors, BLM lands adjacent to State Park units, dry canyons with defined and well used trail systems, etc.

Moderate Sensitivity

The Sensitivity Level is Moderate for most of the remainder of the planning area. These areas would be those that receive moderate to low levels of recreational use, or high levels of use that are primarily higher speed, motorized trail use, or are used nearly exclusively by local residents.

Low Sensitivity

This includes lands that receive little if any recreation use, and are mostly used only by adjacent residents. Areas of low sensitivity also include BLM lands that are isolated small parcels that have no legal public access, or are not recognizable by the majority of the public as being public land. Areas of BLM managed land that are so fragmented by inholdings or convoluted ownership boundaries that the public land is not recognizable may also be designated as Low sensitivity.

Key Observation Points

Due to the relatively high development density throughout the planning area, when compared to the other resource areas in the BLM Prineville District, nearly all BLM lands are visible from residences, use areas or public roads. Key observation points (KOPs) are identified in the RMP process to establish distance zones, which in turn lead to differentiating areas of different visual sensitivity (i.e., areas that are seen in the distance can typically absorb greater degrees of alteration and visual contrast). Since the planning area is so heavily developed, these key observation points may overlap to the extent that little, if any differentiation is made based on distance zones.

Key Observation Points were mapped and viewsheds generated using Arcinfo for most of these points (redundant points located close together were not all used). The list of KOPs is as follows:

Roads

1. State Highway 20
2. State Highway 97
3. State Highway 126
4. State Highway 27 (includes National Back Country Byway)
5. State Highway 31 (Outback State Scenic Byway)
6. State Highway 26
7. Paulina Lake Highway (Forest Road 21)
8. South Century Drive
9. Finley Butte Road (Forest Road 22)
10. The Millican Road was added during the RMP alternative development process when the decision to pave the road was made through legislative action.

Parks

1. Smith Rocks State Park
2. Prineville Reservoir State Park
3. Cline Falls State Park
4. Tumalo State Park
5. Pilot Butte State Park

6. Ochoco Wayside/Ochoco Lake State Park
7. Peter Skene Ogden Wayside State Park
8. La Pine State Park
9. Rosland Campground

Note: The scattered State Parks parcels along State Highway 97 between Bend and Redmond (approximately 600 acres in about 8 parcels) were not identified as Key Observation Points. Based on discussions with State Parks officials, these parcels have no current development plans, and are not signed or identified as State Park parcels to the public. In general, these parcels receive custodial management and serve only as open space buffers along the highway corridor to maintain a more natural or rural appearance between Bend and Redmond.

Water Bodies

1. Deschutes River
2. Crooked River
3. Squaw Creek
4. Mayfield Pond
5. Reynolds Pond
6. Ochoco Reservoir
7. Prineville Reservoir
8. Little Deschutes River

Special Management Areas

1. Tumalo Canal ACEC
2. Huntington Wagon Road ACEC

Distance Zones

Based on BLM Manual Handbook 8410-1, Visual Resource Inventory, distance zones are defined as follows:

Foreground/Middleground = 0 to 5 miles

Background = 6 to 15 miles

Seldom Seen = area beyond 15 miles or areas within F/M that cannot be seen

Distance zones and seen areas were generated from Key Observation Points. However, given the multitude of key observation points, there were few areas that fall outside the foreground view of at least some KOPs.

Visual Resource Management (VRM) Classes

Class 1 – Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to wilderness areas, wild and scenic rivers (primarily those classified as scenic), and other similar situations. In the UDRMP area, two areas receive VRM Class 1 designations:

Steelhead Falls WSA
Badlands WSA

Class 2 – Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape. Contrasts are seen, but must not attract attention.

Class 3 – Contrasts to the basic elements caused by a management activity are evident, but should remain subordinate to the existing landscape.

Class 4 – Any contrast attracts attention and is a dominant feature of the landscape in terms of scale, but it should repeat the form, line, color, and texture of the characteristic landscape.

Class 5 – The classification is applied to areas where the natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications. The classification also applies to areas where there is potential to increase the landscape's visual quality. It would, for example, be applied to areas where unacceptable cultural modification has lowered scenic quality; it is often used as an interim classification until objectives of another class can be reached.

Appendix I
Minerals

Historic Mineral Activity and Mineral Potential

Historic Mineral Activity in the Upper Deschutes Planning Area

Locatable Minerals

Locatable minerals are those minerals for which mining claims can be located, such as precious and base metals, and some nonmetallic minerals that possess unique properties (uncommon variety minerals). Exploration for locatable minerals in the Upper Deschutes planning area has been sporadic. Presently, there are 26 mining claims and 7 millsite claims within the planning area and two notices have been filed under the BLM Surface Management Regulations (43 CFR 3809).

Bear Creek Butte: Minor amounts of mercury have been produced from the Clarno Formation in the southeastern part of the planning area. Prospecting began in the late 1920s and by the late 1950s, the US Bureau of Mines had recorded a total of 30 flasks of mercury from the Platner and Oronogo mines, though the actual output was probably larger (Brooks, 1963).

Terrebonne: Diatomite was mined on private land a few miles west of Terrebonne in the 1950s and continued until the reserves were depleted (Orr and others, 1992). There are 20 diatomite claims on adjoining public lands but no notice or plan level operations are occurring.

Leasable Minerals

Leasable minerals are those minerals for which a person must obtain a lease from the Federal government in order to produce the mineral. Generally, leasable minerals include deposits that occur over large areas, such as the energy minerals–oil and gas, coal, and geothermal resources. Lake bed evaporite minerals such as sodium and potassium are also leasable. Owing to the prevalence of volcanic and volcaniclastic sedimentary rocks in the planning area, coal, coal bed methane, oil shale and tar sands and considered to be absent from the planning area and will not be addressed. Currently, no areas within the planning area are leased and no exploration is occurring. This situation could change as technology improves or if energy prices rise dramatically.

Oil and Gas: Minimal oil and gas exploration has occurred historically in the planning area.

Geothermal: There is a geothermal anomaly within the planning area in the vicinity of Powell Buttes that was investigated by Brown and others, (1980). Their work indicates a potential for boiling-temperature fluids at a depth of about 1000 meters. More geophysical exploration and deep drilling are required to prove the existence of an economically viable geothermal system.

Salable Minerals

Salable minerals are common variety minerals such as sand, gravel, rock, and cinders that generally are purchased from the Federal government. Over the past 10 years, nearly 1,000,000 cubic yards of sand, gravel, and rock have been produced from quarries and pits for construction and maintenance of county roads and state highways. Sales of sand

and gravel to individuals have averaged about 2,500 cubic yards per year. During the same period of time, cinder production has varied from about 200 to1,000 cubic yards per year (mostly for use on county roads). Theft of slab lava (a decorative stone) has been a problem in the Cline Buttes area for many years. Over the past 5–8 years, the demand for decorative stone has gone from a few to several hundred tons per a year.

Mineral Potential

Classification

The mineral potential classification system, as described in BLM Manual 3031, Illustration 3, is used to evaluate the potential for locatable, leasable, and salable minerals in the resource area. Potential refers to the potential for occurrence of specific mineral resources rather than their economic viability.

Level of Potential

O. The geologic environment, the inferred geologic processes, and the lack of mineral occurrences do not indicate potential for accumulation of mineral resources.

L. The geologic environment and the inferred geologic processes indicate low potential for accumulation of mineral resources.

M. The geologic environment, the inferred geologic processes, and the reported mineral occurrences or valid geochemical/geophysical anomaly indicate moderate potential for accumulation of mineral resources.

H. The geologic environment, the inferred geologic processes, the reported mineral occurrences and/or valid geochemical/geophysical anomaly, and the known mines or deposits indicate high potential for accumulation of mineral resources. The "known mines and deposits" do not have to be within the area that is being classified but have to be within the same type of geologic environment.

ND. Mineral(s) potential not determined due to lack of useful data. This notation does not require a level-of-certainty qualifier.

Level of Certainty

A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.

B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

Mineral Potential in the Planning Area

No areas of critical mineral potential exist in the planning area. The potential for energy derived from the burning of biomass generated by juniper treatments is covered in the Vegetation sections.

Locatable Minerals

Map S-20 displays the areas of varying potential for locatable minerals. The mineral potential areas were developed from known geologic settings, inferred geologic processes, current and historical mining activity, and extrapolation of known mineral deposits or mineralization into areas of similar geologic setting.

Base and Precious Metals

There is a high potential (H-C) for the occurrence mercury in the southeast part of the planning area near Bear Creek Butte based on historical production and the proven existence of cinnabar mineralization (Brooks, 1963). However, the deposits tend to be localized and small and there is no direct evidence to suggest the presence of large scale cinnabar deposits. The northeastern part of the planning area has a moderate potential (M-B) for some base and precious metals due to the occurrence of such materials elsewhere in the John Day and Clarno Formations.

Diatomite

Diatomite is an accumulation of microscopic siliceous skeletons of aquatic plants (diatoms) that proliferate in shallow, silica-rich lake water. In the resource area, diatomite occurs about 5 miles east of Terrebonne in a late Miocene or early Pliocene lake bed (Orr and others, 1992). Based on the known occurrence of diatomite on private lands, a high potential (H-C) for the existence of diatomite is inferred for adjoining BLM-administered lands.

Leasable Minerals

Oil and Gas

No oil or gas has been discovered within the planning area and exploration has been minimal. The central and western parts of the planning area have a low potential for oil and gas (L-B) because of the predominantly young volcanic geology (Map S-18, Oil and Gas Potential). The eastern part of the planning area where the John Day and Clarno formations crop out, there is a moderate potential (M-B). Oil and gas have been discovered in or below these formations northeast of the planning area near the John Day River.

Geothermal Energy

The central and western parts of the planning area are considered to have a moderate (M-B) geothermal potential owing to the young volcanic geology and the area's proximity to the Cascade Volcanoes and Newberry Caldera (Map S-13, Geothermal Potential). There is a geothermal anomaly within the planning area in the vicinity of Powell Buttes that was investigated by Brown and others, (1980). Their work indicates a potential for boiling-temperature fluids at a depth of about 1000 meters and more work is required to prove the existence of an economically viable geothermal system. Based on this information, the Powell Buttes area is considered to have a high (H-C) potential for geothermal development.

Salable Minerals

Common variety mineral materials such as sand, gravel, rock, and cinders may be purchased or acquired by free use permits from the BLM. Most of the planning area has a moderate potential for the occurrence of mineral materials (Map S-21, Mineral Material Potential). The high potential areas are in and around existing mineral material sites. Most of the high potential areas occur in areas with cinder cones, alluvial deposits of

sand and gravel (La Pine area) and volcanic rock outcrops known to have a sufficient quality for utilization in asphalt. The Badlands basalt flow also has a high potential for mineral materials in the form of ropy slab lava. However, the collection of slab lava in the Badlands ACEC/WSA would not be allowed in any alternative.

Mineral Development Scenarios

Introduction

This appendix describes the reasonable foreseeable development scenarios for development of leasable, locatable, and salable mineral commodities. The purpose of the reasonably foreseeable development scenario is to provide a model that predicts the level and type of future mineral activity in the planning area, and will serve as a basis for cumulative impact analysis. The reasonably foreseeable development first describes the steps involved in developing a mineral deposit, with presentation of hypothetical exploration and mining operations. The current activity levels are discussed in Chapter 2 of this document. Future trends and assumptions affecting mineral activity are discussed here, followed by the prediction and identification of anticipated mineral exploration and development.

Scope

The development scenarios are limited in scope to BLM-administered lands within the planning area. The reasonable foreseeable development is based on the known or inferred mineral resource capabilities of the lands involved, and applies the conditions and assumptions discussed under Future Trends and Assumptions. Changes in available geologic data and/or economic conditions would alter the reasonable foreseeable development, and some deviation is to be expected over time.

Leasable Mineral Resources

Reasonably Foreseeable Development of Oil and Gas

Future Trends and Assumptions

Based on the history of past drilling and foreseeable development potential in the planning area, activity over the next 15–20 years would continue to be sporadic. It is anticipated that oil and gas activity would consist of the issuance of a few leases, a few geophysical surveys, and perhaps the drilling of one or two exploratory holes. This could occur almost anywhere in the district, but more likely would occur in the eastern part of the planning area.

Because of the low potential for development of hydrocarbons, (even though the potential for occurrence is moderate in some areas), the discovery of a producible oil and gas field during this planning cycle is not expected. However, to comply with the Supplemental Program Guidance for Fluid Minerals (Manual Section 1624.2), the potential surface impacts associated with the discovery and development of a small oil/gas field are given in the following sections.

Geophysical Exploration

Geophysical exploration is conducted to determine the subsurface structure of an area. Three geophysical survey techniques are generally used to define subsurface characteristics through measurements of the gravitational field, magnetic field, and seismic reflections.

Gravity and magnetic field surveys involve small portable measuring units which are easily transported via light off-road vehicles, such as four-wheel drive pickups and jeeps, or aircraft. Both off-road and on-road travel may be necessary in these two types of surveys. Usually a three man crew transported by one or two vehicles is required. Sometimes small holes (approximately 1 inch by 2 inches by 2 inches) are hand dug for instrument placement at the survey measurement points. These two survey methods can make measurements along defined lines, but it is more common to have a grid of discrete measurement stations.

Seismic reflection surveys are the most common of the geophysical methods, and they produce the most detailed subsurface information. Seismic surveys are conducted by sending shock waves, generated by a small explosion or through mechanically beating the ground surface with a thumping or vibrating platform, through the earth's surface. The thumper and vibrator methods pound or vibrate the ground surface to create a shock wave. Usually four large trucks are used, each equipped with pads about 4-foot square. The pads are lowered to the ground, and the vibrators are electronically triggered from the recording truck. Once information is recorded, the trucks move forward a short distance and the process is repeated. Less than 50 square feet of surface area is required to operate the equipment at each recording site.

The small explosive method requires that charges be detonated on the surface or in a drill hole. Holes for the charges are drilled utilizing truck-mounted or portable air drills to drill small-diameter (2–6 inches) holes to depths of 100–200 feet. Generally 4–12 holes are drilled per mile of line and a 5–50-pound charge of explosives is placed in the hole, covered, and detonated. The resulting shock wave is recorded by geophones placed in a linear fashion on the surface. In rugged terrain, a portable drill carried by helicopter can sometimes be used. A typical drilling seismic operation may utilize 10–15 men operating 5–7 trucks. Under normal conditions, 3–5 miles of line can be surveyed daily using this method. The vehicles used for a drilling program may include heavy truck mounted drill rigs, track-mounted air rigs, water trucks, a computer recording truck, and several light pickups for the surveyors, shot hole crew, geophone crew, permit man, and party chief.

Public and private roads and trails are used where possible. However, off-road cross-country travel is also necessary in some cases. Graders and dozers may be required to provide access to remote areas. Several trips a day are made along a seismograph line, usually resulting in a well defined 2-track trail. Drilling water, when needed, is usually obtained from private landowners.

The surface charge method utilizes 1–5-pound charges attached to wooden laths 3–8 feet above the ground. Placing the charges lower than 6 feet usually results in the destruction of vegetation, while placing the charges higher, or on the surface of deep snow, results in little visible surface disturbance.

It is anticipated that 2 notices of intent involving seismic reflection and gravity/magnetic field surveys would be filed under all alternatives.

Drilling Phase

Once the application for a permit to drill is approved, the operator may begin construction activities in accordance with stipulations and conditions. When a site is chosen that necessitates the construction of an access road, the length of road may vary, but usually the shortest feasible route is selected to reduce the haul distance and construction costs. Environmental factors or a landowner's wishes may dictate a longer route in some cases. Drilling activity in the planning area is predicted to be done using existing roads and constructing short (approximately 0.25 mile) roads to access drill site locations.

Based on the history of past drilling and the low to moderate potential for oil and gas, exploration will probably continue to be sporadic. During the life of this plan, 1-2 exploratory wells for oil and gas are expected to be drilled in the eastern part of the planning area where the potential is moderate. The success rate of finding oil or gas is predicted to be no greater than 10% based on the average exploratory well success rate in the U.S.

During the first phase of drilling, the operator would move construction equipment over existing maintained roads to the point where the access road begins. No more than 0.25 mile of moderate duty access road with a cinder or gravel surface 18 to 20 feet wide is anticipated to be constructed. The total surface disturbance width would average 40 feet with ditches, cuts, and fill. The second part of the drilling phase is the construction of the drilling pad or platform. The likely duration of well development, testing, and abandonment is predicted to be less than 12 months per drill site. The total disturbance for each exploratory well and any new road constructed to the drill site is expected to be up to 6 acres. Thus, the total surface disturbance caused by exploratory drilling over the life of the plan is expected to be up to12 acres.

Field Development and Production

No field development is expected to occur during the life of the plan. However, the following scenario describes operations and impacts associated with field development and production.

Small deposits of oil or gas discovered in the planning area would probably not be economic to develop. The minimum size that would be economic would be a field containing reserves of 50–60 billion cubic feet (BCF) of gas with a productive lifespan of 10 years. The total area of such a field would be 200 acres with the array of development wells spanning 160 acres. The field would require four development wells in addition to the discovery well. Each development would require 0.25 miles of road. Development well access roads would be cinder or gravel surfaced and would have a width of about 20 feet. The width of the surface disturbance associated with roads would average 40 feet. Produced gas would be carried by pipelines over a distance of 30 to 60 miles. The width of surface disturbance for pipelines would average 30 feet. Any produced oil would be trucked to refineries outside of Oregon.

For development of a single 50-60 BCF field, the total surface disturbance would be 8 acres for well pads, 5 acres for roads, 13 acres for field development and up to 600 acres for pipelines. The total surface disturbance caused by 1-2 exploration wells and the development of one oil/gas field over the life of the plan would be up to 650 acres.

Plugging and Abandonment

Wells that are completed as dry holes are plugged according to a plan designed specifically for the down hole conditions of each well. Plugging is accomplished by the placing of cement plugs at strategic locations downhole and up to the surface. Drilling mud is used as a spacer between plugs to prevent communication between fluid bearing zones. The casing is cut off at least 3 feet below ground level and capped by welding a steel plate on the casing stub. After plugging, all equipment and debris would be removed and the site would be restored as near as reasonably possible to its original condition. It predicted that the 1-2 exploratory wells drilled would be plugged and abandoned.

Reasonably Foreseeable Exploration and Development of Geothermal Resources

Future Trends and Assumptions

With environmental protection and enhancement being a major consideration in the Pacific Northwest, clean, low-impacting energy sources are becoming more important. The abundant geothermal resources thought to be present in the Northwest are essentially undeveloped. As the demand for environmentally-friendly energy sources increases, the known geothermal resource in the Powell Buttes area would likely attract renewed attention.

Geophysical/Geochemical Exploration

As with oil and gas, geothermal geophysical operations can take place on leased or unleased public land. Depending upon the status of the land (leased/unleased), the status of the applicant (lessee/nonlessee), and the type of geophysical operation proposed, (drilling/nondrilling), several types of authorizations can be used if the proposed exploration exceeds "casual use," as defined in 43 CFR 3200.1. In all cases, the authorizations require compliance with NEPA and approval by the authorized officer. As with oil and gas, the operator is required to comply with all terms and conditions of the permits, regulations, and other requirements, including reclamation, prescribed by the authorized officer. Monitoring for compliance with these requirements would be done during the execution of the operations and upon completion.

In addition to the geophysical methods discussed in the Oil and Gas section, the following exploration techniques are often employed in geothermal prospecting:

Microseismic: Small seismometers are buried at a shallow depth (hand-dug holes) and transmit signals from naturally-occurring, extremely minor seismic activity (micro-earthquakes) to an amplifier on the surface. Stations are located away from roads to avoid traffic "noise." These units are often backpacked into areas inaccessible to vehicles.

Resistivity: Induced polarization techniques are used to measure the resistance of subsurface rocks to the passage of an electric current. A vehicle-mounted transmitter sends pulses of electrical current into the ground through two widely spaced electrodes (usually about two miles apart). The behavior of these electrical pulses as they travel through underlying rocks is recorded by "pots" (potential electrodes), small ceramic devices that receive the current at different locations. The electrodes are either short (2–3 feet) rods driven into the ground, or aluminum foil shallowly buried over an area of several square feet. Two or three small trucks transport the crew of 3–5 people to transmitting and receiving sites.

Telluric: A string of "pots" record the variations in the natural electrical currents in the earth. No transmitter is required. Small trucks are used to transport the crew and equipment.

Radiometric: Radioactive emissions (generally radon gas) associated with geothermal resources are usually measured using a hand-held scintillometer, often at hot spring locations. Another method used involves placing plastic cups containing small detector strips sensitive to alpha radiation either on the surface or in shallow hand-dug holes. If holes are dug, they are covered, and the cups left in place for 3–4 weeks. At the end of the sampling period, the cups are retrieved and all holes are backfilled. These surveys can be conducted on-foot or with the aid of light vehicles.

Geochemical Surveys: Geochemical surveys are usually conducted at hot springs by taking water samples directly from the spring. Sampling for mercury associated with geothermal resources is often done by taking soil samples using hand tools. These surveys can be conducted on-foot or with the aid of light vehicles.

Temperature Gradient Drill Hole Surveys: Temperature gradient holes are used to determine the rate of change of temperature with respect to depth. Temperature gradient holes usually vary in diameter from about 3.5 to 4.5 inches, and from a few hundred feet to about 5,000 feet in depth. They are drilled using rotary or coring methods. Approximately 0.1 to 0.25 acre per drill hole would be disturbed. A typical drill site could contain the drill rig, most likely truck-mounted, water tank(s), fuel tank, supply trailer, and a small trailer for the workers. Drilling mud and fluids would be contained in earthen pits or steel tanks. Water for drilling would be hauled in water trucks, or if suitable water sources are close, could be piped directly to the site. Water consumption could range from about 2,000 to 6,000 gallons per day, with as much as 20,000 gallons per day under extreme lost circulation conditions.

Other equipment that would be utilized includes large flatbed trucks to haul drill rod, casing, and other drilling supplies, and in some cases, special cementing and bulk cement trucks. Two or three small vehicles would be used for transporting workers. In most cases, existing roads would be used. It is estimated that short spur trails (usually less than a few hundred yards long) would be bladed for less than 10 percent of these holes. All holes would be plugged and abandoned to protect both surface and subsurface resources, including aquifers, and reclamation of disturbed areas would be required, unless some benefit to the public could be gained–for example, a water well or camping area. Depending upon the location and proposed depth of the drill hole, detailed plans of operation that cover drilling methods, casing and cementing programs, well control, and plugging and abandonment may be required.

Based the needed exploratory work identified by Brown and others (1980) to determine economic viability in the Powell Buttes area, it is anticipated that notice(s) of intent will be filed to drill up to 20 temperature gradient holes in that area.

Drilling and Testing

Drilling to determine the presence of, test, develop, produce, or inject geothermal resources can be done only on land covered by a geothermal resources lease.

A typical geothermal well drilling operation would require 2–4 acres for a well pad, including reserve pit, and 0.5 mile of moderate duty access road with a surface 18–20 feet wide, totaling up to 40 feet wide with ditches, cuts, and fills. Existing roads would be used whenever possible. Total surface disturbance for each well, and any new road is expected to be no more than 6 acres. In some cases, more than one production well could be drilled from one pad. Well spacing would be determined by the authorized officer after considering topography, reservoir characteristics, optimum number of wells for proposed use, protection of correlative rights, potential for well interference, interference with multiple use of lands, and protection of the surface and subsurface environment. Close coordination with the State would take place. It is anticipated that the duration of well development, testing, and if dry, abandonment, would be 4 months. Prior to abandonment, the operator would be required to plug the hole to prevent contamination of aquifers and any impacts to subsurface and surface resources. Plugging is accomplished by the placing of cement plugs at strategic locations downhole and up to the surface. Depending upon the formations encountered, drilling mud could be used as a spacer between plugs to prevent communication between fluid bearing zones. The casing is cut off at least 6 feet below ground level and capped by welding a steel plate on the casing stub. After plugging, all equipment and debris would be removed, and the site would be restored as near as reasonably possible to its original condition. A dry hole

marker is often placed at the surface to identify the well location. If the surface owner prefers, the marker may be buried. Any new roads not needed for other purposes would be reclaimed.

It is estimated that 4–6 exploratory wells would be drilled under all alternatives.

Geothermal Power Plant Development

Although not expected, a 24-megawatt power plant could be constructed within the Powell Buttes area under all alternatives during the life of this plan. It is anticipated that the developed geothermal resource would be water dominated and that the geothermal power conversion system would be either single or double flash, or binary cycle. Before geothermal development could occur, site-specific baseline studies and environmental analyses, with public involvement, would be done. The scenario below describes the level of disturbance that would likely occur from the development of a 24 megawatt power plant: Five to seven production wells and one or two injection wells would be drilled. It is anticipated that access would be provided by existing roads, and the construction of short (0.5 to 1-mile long) roads with a surface of 18 to 20 feet wide, totaling up to 40 feet wide with ditches, cuts, and fills. Surface disturbance from well pad and road construction would probably range from 2 to 6 acres per well. The power plant facility, including separators, energy converters, turbines, generators, condensers, cooling towers, and switchyard, would involve an estimated 5 to 10 acres. Pipelines and powerlines would disturb an additional 3 to 6 acres. If a water cooling system is employed, one to three water wells, requiring about 0.25 acre per well, would be drilled, unless the cooling water was obtained from the geothermal steam condensate. Depending upon location, terrain, geothermal reservoir characteristics, and type of generating facility, total surface disturbance for a 24 megawatt (gross) geothermal power plant, and ancillary structures, would probably range from about 25 to 75 acres, or about 1 to 3 acres per megawatt. After construction, approximately one-third to one-half of the disturbed area would be revegetated. Prior to abandonment, 30–50 years later, the remaining disturbed area would be reclaimed.

Direct Use of Geothermal Energy

Low- and moderate-temperature (50–300 degrees F) geothermal resources have many direct use applications. Direct applications and potential development scenarios include space heating and cooling of residences and businesses, applications in agriculture, aquaculture, and industry, and recreational and therapeutical bathing. Depending upon the type of use and magnitude of the operation, surface disturbance could range from a few acres for a well and greenhouses or food processing facilities to tens of acres for larger agricultural or aquacultural developments. It is anticipated that two wells would be drilled to heat one greenhouse operation or some of the residential areas near Powell Buttes under all alternatives during the life of this plan.

Locatable Mineral Resources

Reasonably Foreseeable Exploration and Development Scenarios

Future Trends and Assumptions

Reclamation science would continue to advance due to experience and research. More detailed design effort would be placed on the reclamation of mined lands in the future. This would result in an overall increase in reclamation costs but those costs would pay dividends in the long-term with increased reclamation success.

The economics of mining in the planning area would be driven by the relationship between production costs and the market price of the commodity. While production costs can be controlled or anticipated through management and technology, the price of mineral commodities (especially of gold) could vary widely. The overall profitability of an operation (and hence the level of activity at the prospecting, exploration, and mining phases for development of ore bodies) would be closely related to the price of the mineral commodity.

No chemical heap-leaching operations are forecasted during the plan period. If such an operation is proposed during the life of the plan, it would be subjected to environmental review under a plan of operations pursuant to regulations found in 43 CFR 3809.

Casual Use, Notices, Plans of Operations, Use and Occupancy

There are 3 levels of use defined by the 43 CFR 3809 regulations–casual, notice, and plan of operations. Generally, casual use means activities resulting in negligible, if any, disturbance of public lands or resources. Mechanized earth-moving equipment or truck-mounted drills are not allowed under casual use. Notice-level operations involve surface-disturbing exploration operations of 5 acres or less. Casual use and notice-level operations do not involve Federal actions that require compliance with NEPA. A plan of operations is required for all non-exploration mining activity that is not casual use, regardless of the number of acres disturbed. A plan is also required for all exploration activities that disturb over 5 acres, bulk sampling which will remove 1,000 tons or more of presumed ore for testing, or for any surface-disturbing operations greater than casual use in certain SMAs and lands/waters that contain federally-proposed or listed T&E species or their proposed or designated critical habitat. The approval of plans of operation is a Federal action that requires NEPA compliance. Mining claim occupancy associated with notice- or plan-level operations, also requires compliance with NEPA.

Details of plan of operations filing and processing requirements can be found in 43 CFR 3809.400. Generally, plans must include a detailed description of all operations, including a map showing all areas to be disturbed by mining, processing, and access, all equipment that would be used, periods of use, and any necessary buildings or structures. A detailed reclamation plan to meet the standards found in 43 CFR 3809.420, and a monitoring plan to monitor the effect of operations are also required. An interim management plan showing how the project area would be managed during periods of temporary closure to prevent unnecessary and undue degradation must also be submitted. The operator also must submit a reclamation cost estimate. The BLM may require operational and baseline environmental information, and any other information, needed to ensure that operations will not cause unnecessary and undue degradation.

When a plan of operations is received, BLM would review it to make sure that it is complete. Where necessary, the BLM would consult with the State to ensure operations would be consistent with State water quality requirements. In addition, the BLM would conduct any consultation required under the "National Historic Preservation Act" or "Endangered Species Act." Onsite visits would be scheduled when necessary. BLM could require changes to the plan of operations to ensure that the performance standards found in 43 CFR 3809.420 would be met, and that no unnecessary or undue degradation of lands or resources would occur. In addition, site specific mitigating measures would be imposed when necessary. A financial guarantee covering the estimated cost of reclamation, as if BLM were to contract with a third-party, would have to be provided before operations could begin. The financial guarantee would have to be sufficient not only to cover costs of reclamation, but also costs associated with interim stabilization and compliance with Federal, state, and local environmental requirements while third-party contracts would be developed and executed.

BLM approval is necessary to occupy public land for more than 14 calendar days in any 90-day period within a 25-mile radius of the initially occupied site. Details for the submittal and approval of use and occupancy are contained in 43 CFR 3710. As defined in these regulations, occupancy means full or part-time residence on the public lands. It also means activities that involve residence; the construction, presence, or maintenance of temporary or permanent structures that may be used for such purposes; or the use of a watchman or caretaker for the purpose of monitoring activities. Residence or structures include, but are not limited to, tents, motor homes, trailers, campers, cabins, houses, buildings, and storage of equipment or supplies. Also included are fences, gates, and signs intended to restrict public access.

Permanent structure means a structure fixed to the ground by any of the various types of foundations, slabs, piers, or poles, or other means allowed by building codes. The term also includes a structure placed on the ground that lacks foundations, slabs, piers, or poles, and that can only be moved through disassembly into its component parts or by techniques commonly used in house moving. The term does not apply to tents or lean-tos.

The disposal of sewage and gray-water would be subject to the rules and regulations of the ODEQ. The disposal of garbage and other debris would be subject to all appropriate local, state, and Federal rules and regulations. Likewise, the drilling of any water wells would be subject to all ODWR requirements. Permanent structures would be subject to all state and county permitting. Copies of all required local and state approvals and permits would be filed with the BLM prior to allowing any occupancy.

Background on the Development of a Locatable Minerals Mine

The development of a mine from exploration to production can be divided into four stages. Each stage requires the application of more discriminating (and more expensive) techniques over a successively smaller land area to identify, develop, and produce an economic mineral deposit. A full sequence of developing a mineral project involves reconnaissance, prospecting, exploration, and mine development.

Reconnaissance: Reconnaissance-level activity is the first stage in exploring for a mineral deposit. This activity involves initial literature search of an area of interest, using available references such as publications, reports, maps, aerial photos, etc. The area of study can vary from hundreds to thousands of square miles. Activity that would normally take place includes large scale mapping, regional geochemical and geophysical studies, and remote sensing with aerial photography or satellite imagery. These studies are usually undertaken by academic or government entities, or major corporations. The type of surface-disturbing activity associated with reconnaissance-level mineral inventory is usually no more than occasional stream sediment, soil, and rock sampling. Minor off-road vehicle use could be required.

Prospecting: A prospecting area is identified when reconnaissance reveals anomalous geochemical or geophysical readings, a unique geologic structure or feature, or the occurrence of typical mineral bearing formations. Historical references to mineralization can also lead to the identification of a prospecting area. This area could range from a single square mile to an entire mountain range of several hundred square miles.

Activity that would take place in an effort to locate a mineral prospect includes more detailed mapping, sampling, geochemical and geophysical study programs. Also, this is the time when property acquisition efforts usually begin and most mining claims are located in order to secure ground while trying to make a mineral discovery. Prospecting on an annual basis is considered a minimum requirement under the mining laws to secure a claim.

Types of surface disturbing activity associated with prospecting would involve more intense soil and rock chip sampling using mostly hand tools, frequent off-road vehicle use, and placement and maintenance of mining claim monuments. This activity is normally considered "casual use" (43 CFR 3809.5) and does not require BLM notification or approval.

Exploration: Upon location of a sufficiently anomalous mineral occurrence, or favorable occurrence indicator, a mineral prospect is established and is subjected to more intense evaluation through exploration techniques. Activities that take place during exploration include those utilized during prospecting but at a more intense level in a smaller area. In addition, activities such as road building, trenching, and drilling are conducted. In later stages of exploration, an exploratory adit or shaft may be driven. If the prospect already has underground workings these may be sampled, drilled, or extended. Exploration activities utilize mechanized earth-moving equipment, drill rigs, etc., and may involve the use of explosives.

Typical exploration projects in the planning area could include: in-stream dredging with portable suction dredges, exploratory drilling which could include construction of new roads, use of explosives to sample rock outcroppings, and excavation of test pits. If the exploration project disturbs 5 acres or less, it is conducted under a notice (43 CFR 3809.301) which requires the operator to notify BLM 15 days before beginning the activity. A copy of each notice received is sent to the Oregon Department of Geology and Mineral Industries (DOGAMI) for their review. If the project disturbs more than 5 acres, it is conducted under a plan of operations (43 CFR 3809.401) and requires NEPA compliance before approval.

Mine Development: If exploration results show that an economically viable mineral deposit is present, activity would intensify to obtain detailed knowledge regarding reserves, possible mining methods, and mineral processing requirements. This would involve applying all the previously utilized exploration tools in a more intense effort. Once enough information is acquired, a feasibility study would be made to decide whether to proceed with mine development and what mining and ore processing methods would be utilized.

Once the decision to develop the property is made, the mine permitting process begins. Upon approval, work begins on development of the mine infrastructure. This includes construction of the mill, offices, and laboratory; driving of development workings if the property is to be underground mined, or prestripping if it is to be open pit mined; and building of access roads or haulage routes, and placement of utility services. During this time additional refinement of ore reserves is made.

Once enough facilities are in place, actual mine production begins. Concurrent with production there often are "satellite" exploration efforts to expand the mine's reserve base and extend the project life. Reclamation of the property is conducted concurrently with, or upon completion of, the mining operation. Often subeconomic resources remain unmined and the property is dormant, waiting for changes in commodity price or production technology that would make these resources economic.

Activities that occur on these lands include: actual mining, ore processing, tailings disposal, waste rock placement, solution processing, metal refining, and placement of support facilities such as repair shops, labs, and offices. Such activities involve the use of heavy earthmoving equipment and explosives for mining and materials handling, exploration equipment for refinement of the ore reserve base, hazardous or dangerous reagents for processing requirements, and general construction activities.

The size of mines varies greatly and not all mines would require all the previously mentioned facilities and equipment. Acreage involved can range from less than 5 acres

to several hundred. Any mining that involves greater than casual use, regardless of the number of acres, requires the submittal of a plan of operations, and appropriate NEPA analysis, under 43 CFR 3809.401 and .411.

Diatomite

Diatomite was mined by the open pit method a few miles west of Terrebonne in the 1950s and continued until the reserves were depleted (Orr and others, 1992). Currently, there are 20 mining claims for diatomite on adjoining lands administered by the BLM. No notices or plans of operation have been filed for these claims. If diatomite is produced from adjacent BLM-administered lands, up to several hundred acres of ground disturbance could result. However, such large scale developments of diatomite are not expected during the life of this plan. Any development for production would require a plan of operations and compliance with NEPA.

Mercury

Minor amounts of mercury have been produced from the Clarno Formation in the southeastern part of the planning area. Prospecting began in the late 1920s and by the late 1950s, the US Bureau of Mines had recorded 30 flasks of total mercury production from the Platner and Oronogo mines, though the actual output was probably larger (Brooks, 1963). No claims presently exist for mercury within the planning area. Any development for production would require a plan of operations and compliance with NEPA.

Salable Mineral Resources

Reasonably Foreseeable Exploration and Development Scenarios

Future Trends and Assumptions

It is assumed that the demand for mineral materials will continue to increase in conjunction with the population growth in central Oregon. The mineral material supply from existing private and public sources in the planning area appears to exceed the foreseeable demand over the next 20 years. However, based on the distribution of public and private ownership, ODOT is not able to consistently offer a public mineral material source for its construction projects in order to increase bidder competition (ODOT, 1998). Owing to the existing supply and the distribution of ODOT's prospective mineral material sites across the planning area, it is assumed that 3-4 new mineral material sites will be developed in the next 20 years.

The development and reclamation of mineral material sites would be subject to the Guidelines for Development of Salable Mineral Materials section (in this Appendix).

Rock Quarry, Sand/Gravel/Cinder Pit Development

Existing material sites disturb approximately 15–20 acres of land each. This acreage is necessary for the mine itself, rock crushing operations, truck-turn around areas, access trails for bulldozers and drills, overburden stockpile sites, and aggregate stockpile areas. For access to a new quarry site, approximately 0.5 acre of land would be disturbed by new road construction.

It is expected that the existing mineral materials sites in this area would be utilized intermittently throughout the planning period and that 3-4 new sites would be developed. Any development of a new site or expansion of an existing pit that causes

surface disturbance beyond previously inventoried limits would require resource inventories, site-specific NEPA compliance, and development and reclamation plans.

After all useable material is removed from existing and future mineral material sites, reclamation work would be conducted according to an approved interdisciplinary plan. Upon depletion, reclamation work would be conducted on the material sites as well as on all unneeded access roads and trails. Oversized rock would be put back into the quarries or pits and where possible, cutslopes would be graded to conform to the existing topography. Stockpiled topsoil would be spread over sideslopes and floors, and seeded as directed by BLM. Access roads and trails would be graded for proper drainage, scarified and seeded.

Decorative Stone

It is anticipated that the Prineville District Office would receive 10-20 sale requests per year for decorative stone, such as slab lava and ropy lava. At this time, there are no designated areas for which sales contracts or free use permits are issued for decorative stone; sales contracts and free use permits are only available for cinder and pit run gravel. However, one or more areas may be designated for decorative rock gathering during the life of this plan. Prior to designation and prior to any road or trail construction, appropriate inventories and NEPA compliance would be conducted to prevent unnecessary and undue degradation. Reclamation plans would be developed for any designated collecting areas and their access roads and trails. In most cases, existing roads would provide access to areas where the stone is scattered on the surface. In these areas, the rock would be hand-picked and loaded directly onto pick-ups or flatbed trucks, or onto pallets and then loaded onto trucks. There would be both on and off-road vehicle travel. There is a possibility that temporary road or trail construction could be necessary to gain access in some areas.

Stipulations and Guidelines for Mineral Operations

The following are mineral leasing stipulations, and guidelines for locatable and salable mineral operations. The special stipulations may be used on a site-specific basis. Their use and details such as dates and buffer sizes may vary through the alternatives. The locatable mineral surface management guidelines and the salable mineral guidelines would apply throughout the alternatives.

Leasing Stipulations

Standard Leasing Terms

Standard leasing terms for oil and gas are listed in Section 6 of Offer to Lease and Lease for Oil and Gas Form 3100-11. They are:

Lessee shall conduct operations in a manner that minimizes adverse impacts to the land, air and water, to cultural, biological, visual and other resources, and to other land uses or users. Lessee shall take reasonable measures deemed necessary by lessor to accomplish the intent of this section. To the extent consistent with lease rights granted, such measures may include, but are not limited to, modification to citing or design of facilities, timing of operations, and specification of interim and final reclamation measures. Lessor reserves the right to continue existing uses and to authorize future uses upon or in the leased lands, including the approval of easements or rights-of-way. Such uses shall be conditioned so as to prevent unnecessary or unreasonable interference with rights of lessee.

Prior to disturbing the surface of the leased lands, lessee shall contact BLM to be apprised of procedures to be followed and modifications or reclamation measures that may be necessary. Areas to be disturbed may require inventories or special studies to determine the extent of impacts to other resources. Lessee may be required to complete minor inventories or short-term special studies under guidelines provided by lessor. If in the conduct of operations, T&E species, objects of historic or scientific interest, or substantial unanticipated environmental effects are observed, lessee shall immediately contact lessor. Lessee shall cease any operations that would result in the destruction of such species or objects until appropriate steps have been taken to protect the site or recover the resources as determined by BLM in consultation with other appropriate agencies.

Standard terms for geothermal leasing can be found on Offer to Lease and Lease for Geothermal Resources (Form 3200-24), Section 6, and are very similar to those described above for oil and gas leasing.

Powersite Stipulation (Form No. 3730-1) is to be used on all lands within powersite reservations.

Special Leasing Stipulations

The following special stipulations are to be utilized on specifically designated tracts of land as described under the various alternatives.

Recreation, Motorized Travel, and Visual Resources

A 30-day public notice period may be required prior to exception, modification, or waiver of recreation, motorized travel, and visual resource stipulations.

Resource: Designated recreation sites including, but not limited to campgrounds, OHV staging areas, and OHV play areas (CTA 2-7)

Stipulation: Surface occupancy and use is prohibited within developed recreation sites.

Objective: To protect developed recreation sites.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be mitigated adequately.

Modification: The boundaries of the stipulated area may be modified by the authorized officer if the recreation site boundaries are changed.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold no longer contains designated recreation areas.

Resource: Motorized Travel (varies by alternative)

Stipulation: Access, travel, and drill site construction will be limited in areas where motorized use is restricted. Areas classified as limited to existing roads and trails or designated roads and trails will limit access for mining activities to just those roads that are open under the designation. Access will not be allowed in areas closed to motorized vehicle use.

Objective: To protect important scenic and wildlife resources, and to enhance primitive recreational opportunities.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action are acceptable or can be mitigated adequately.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting the resource values.

Waiver: This stipulation may be waived if the motorized vehicle closure is lifted. A 30-day public notice period will be required prior to exception, modification, or waiver of this stipulation.

Resource: VRM Class I (Common to Alternatives 2-7)

Stipulation: Surface occupancy is prohibited in VRM Class I areas.

Objective: To preserve the existing character of the landscape.

Exception: None

Modification: None

Waiver: None

No exceptions, modifications, or waivers may occur because all VRM Class I lands within the planning area are in WSAs, which are already closed to mineral leasing (43 CFR Subparts 3800.0-3 and 3201.11).

Resource; VRM Class II (Common to Alternatives 2-7)

Stipulation: All surface-disturbing activities, semi-permanent and permanent facilities in VRM Class II areas may require special design including location, painting and camouflage to blend with the natural surroundings and meet the visual quality objectives for the area.

Objective: To control the visual impacts of activities and facilities within acceptable levels.

Exception: None.

Modification: None.

Waiver: This stipulation may be waived if the authorized officer determines that there are no longer VRM Class II areas in the leasehold.

Wildlife

Resource: Raptor nest sites including but not limited to Bald Eagle, Golden Eagle, Northern Goshawk, Coopers Hawk, and Great Grey Owl nests (Common to Alternatives 2-7, see Table PRMP-1).

Stipulation: Surface occupancy and use is prohibited in the spatial buffers during the dates shown for each raptor species in Table PRMP-1.

Objective: To protect raptor nest sites.

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not adversely affect the bird or its nest site.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that a portion of the area can be occupied without adversely affecting the species or its nest site.

Waiver: This stipulation may be waived if the authorized officer determines that there is no longer raptor nesting habitat on the leasehold. Consultation with the ODFW will be required prior to exception, modification, or waiver of this stipulation.

Resource: Deer, elk, and pronghorn winter range (emphasis on winter range varies by alternative).

Stipulation: Surface use is prohibited during the times listed in Table PRMP-1 within crucial deer, elk, and pronghorn winter range. This stipulation does not apply to the operation or maintenance of production facilities.

Objective: To protect deer, elk, and pronghorn winter range from disturbance during the winter use season and to facilitate long-term maintenance of deer/elk/pronghorn populations.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action are acceptable or can be mitigated adequately.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area no longer contain crucial winter range. This stipulation can be expanded to cover additional portions of the lease if additional habitat areas are identified, or if habitat use areas change. The dates for the timing restriction may be modified if new wildlife use information indicates that the dates in Table PRMP-1 are not valid for the leasehold.

Waiver: This stipulation may be waived if the authorized officer determines that the entire leasehold no longer contains crucial winter range. Consultation with the ODFW will be required prior to exception, modification, or waiver of this stipulation.

Resource: Sage-grouse lek sites (Common to Alternatives 2-7)

Stipulation: Surface occupancy and use is prohibited within 0.6 miles of known sage-grouse lek sites.

Objective: To protect sage-grouse lek sites.

Exception: An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that the proposed action will not affect the sage-grouse or its lek site.

Modification: The boundaries of the stipulated area may be modified if the authorized officer determines that a portion of the area can be occupied without adversely affecting the sage grouse or its lek site.

Waiver: This stipulation may be waived if the authorized officer determines that there is no longer a lek site on the leasehold.

Note: There are no standardized closures to surface occupancy and use in sage grouse nesting, brooding/rearing, or winter habitat areas. However, restrictions (including seasonal closures to surface use) could apply and would be determined by site-specific analyses.

Areas of Critical Environmental Concern/Special Management Areas

Resource: ACECs (varies by alternative).

Stipulation: Surface occupancy is prohibited within all ACECs.

Objective: To protect natural processes and historic, cultural, scenic, fisheries, and wildlife resources.

Exception: An exception to this stipulation may be granted by the authorized officer if the operator submits a plan demonstrating that impacts from the proposed action are acceptable or can be mitigated adequately.

Modification: The boundaries of the stipulated area may be modified if the ACEC boundaries are modified.

Waiver: This stipulation may be waived if the ACEC designation is lifted.

A 30-day public notice period will be required prior to exception, modification, or waiver of this stipulation.

Guidelines for Locatable Minerals Surface Management

43 CFR 3809–Standards for Exploration, Mining, and Reclamation

The following operational guidelines for mining activities have been compiled to assist the miner in complying with the 43 CFR 3809 regulations, which apply to all mining operations on BLM-administered lands. The manner in which the necessary work is to be done will be site specific and all of the following standards may not apply to each mining operation. It is the mining claimant's and operator's responsibility to avoid "unnecessary or undue degradation" and they must perform all necessary reclamation work. Refer to 43 CFR 3809 regulations for general requirements and performance standards. The BLM will provide site-specific guidelines for some mining proposals.

Operations in WSAs are regulated under 43 CFR 3802 and the wilderness IMP. WSAs are technically open to mineral location, but are severely restricted by the wilderness IMPs "no reclamation" standard.

Construction and Mining

Vegetation removal: Remove only that vegetation which is in the way of mining activities. Merchantable timber must be marked by BLM prior to cutting, and may not be used for firewood. It is recommended that small trees (less than 6 inches diameter at breast height [dbh]) and shrubs are to be lopped and scattered, or shredded for use as mulch. Trees over 12 inches dbh should be bucked and stacked in an accessible location unless they are needed for the mining operation.

Firewood: Firewood may not be cut and sold, or used off of the mining claims.

Topsoil: All excavations should have all productive topsoil (usually the top 6 to 18 inches) first stripped, stockpiled, and protected from erosion for use in future

reclamation. This also includes removal of topsoil before the establishment of mining waste dumps and tailings ponds if the waste material will be left in place during reclamation.

Roads: Existing roads and trails should be used as much as possible. Temporary roads are to be constructed to a minimum width and with minimum cuts and fills. All roads shall be constructed so as not to negatively impact slope stability. Access may be limited in some areas by off-highway vehicle restrictions.

Water quality: When mining will be in or near bodies of water, or sediment will be discharged, contact the ODEQ and U.S. Army Corps of Engineers. It is the operator's responsibility to obtain any needed suction dredging, streambed alteration, or water discharge permits required by Federal or state agencies. Copies of such permits shall be provided to the resource area manager if a notice or plan of operations is filed.

Claim monuments: Due to the history of small wildlife deaths, plastic pipe is no longer allowed for claim staking pursuant to state law. It is recommended that existing plastic pipe monuments have all openings permanently closed. Upon loss or abandonment of the claim, all plastic pipe must be removed from the public lands, and when old markers are replaced during normal claim maintenance, they are to be either wood posts or stone or earth mounds, consistent with state law.

Drill sites: Exploratory drill sites should be located near or adjacent to existing roads when possible without blocking public access. When drill sites must be constructed, the size of the disturbance shall be as small as possible in order to conduct drilling operations.

Dust and erosion control: While in operation, and during periods of temporary shut-down, exposed ground surfaces susceptible to erosion will need to be protected. This can be accomplished with seeding, mulching, installation of water diversions, and routine watering of dust producing surfaces.

Fire safety: All State fire regulations must be followed, including obtaining a campfire permit or blasting permit if needed. All internal combustion engines must be equipped with approved spark arresters.

Safety and public exclusion: The general public may not be excluded from the mining claim. In the interest of safety, the general public can be restricted only from specific dangerous areas (underground mines, open pits, or heavy equipment) by erecting fences, gates and warning signs. It is the operator's responsibility to protect the public from mining hazards. Gates or road blocks may be installed on existing or proposed roads only with the approval of the resource area manager.

Occupancy: All structures/trailers on mining claims must be used for mining purposes (must be reasonably incident to mining) and should be covered by a notice or plan of operation. Use of such a structure for residential purposes not related to mining or for recreation is not authorized.

Suction dredging: Filing either notice or plan of operations is required on all suction dredge operations. The operator must have the applicable ODEQ suction dredge permit prior to starting work, and a copy should be submitted to the resource area manager.

Tailings ponds: Settling ponds must be used to contain fines and any discharge into creeks must meet the ODEQ standards.

Trash and garbage: Trash, garbage, used oil, etc. must be removed from public land and disposed of properly. Do not bury any trash, garbage, or hazardous wastes on public

lands. Accumulations of trash, debris, or inoperable equipment on public lands are viewed as unnecessary degradation and will not be tolerated.

Cultural and paleontological resources: Operators shall not knowingly alter, injure, or destroy any scientifically important paleontological (fossil) remains or any historical or archaeological site, structure, or object on Federal lands. The operator shall immediately bring to the attention of the resource area manager, any paleontological (fossil) remains or any historical or archaeological site, structure, or object that might be altered or destroyed by exploration or mining operations, and shall leave such discovery intact until told to proceed by the resource area manager. The resource area manager shall evaluate the discovery, take action to protect or remove the resource, and allow operations to proceed within 10 working days.

Threatened and endangered species of plants/ animals: Operators shall take such action as may be needed to prevent adverse impacts to T&E species of plants and animals and their habitat which may be affected by operations. Special status species (Federal candidate/Bureau sensitive) of plants and animals, and their habitat, will be identified by the resource area manager, and shall be avoided wherever possible.

Areas of Critical Environmental Concern: Operators are required to prepare and have the BLM approve a plan of operations prior to conducting mining activities within ACECs. The plan of operations would specifically need to address methods to mitigate impacts to those relevant and important resource values for which the ACEC was designated.

Suitable Wild and Scenic Rivers: Areas within 0.25 mile of rivers recommended suitable as a wild river under the "Wild and Scenic Rivers Act," are closed to new mineral location. Mining activity occurring at the time of congressional designation would be allowed to continue, but must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impacts. Areas recommended as either scenic or recreational under the "Wild and Scenic Rivers Act" would allow new and existing mineral location to occur, but it must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impacts.

Reclamation

Reclamation of all disturbed areas must be performed concurrently with mining, or as soon as possible after mining permanently ceases. Reclamation shall include, but shall not be limited to: (1) saving of topsoil for final application after reshaping of disturbed areas has been completed; (2) measures to control erosion, landslides, and water runoff; (3) measures to isolate, remove, or control toxic materials; (4) reshaping the area disturbed, application of topsoil, and revegetation of disturbed areas, where reasonably practicable; and (5) rehabilitation of fisheries and wildlife habitat. When reclamation of the disturbed area has been completed, except to the extent necessary to preserve evidence of mineralization, the resource area manager must be notified so that inspection of the area can be made.

Equipment and debris: All mining equipment, vehicles, structures, debris, and trash must be removed from the public lands during periods of non-operation and/or at the conclusion of mining, unless authorization from the resource area manager is given to the operator or claimant in writing.

Backfilling & recontouring: The first steps in reclaiming a disturbed site are backfilling excavations and reducing high walls. Coarse rock material should be replaced first, followed by medium sized material, with fine materials to be placed on top. Recontouring means shaping the disturbed area so that it will blend in with the surrounding lands and minimize the possibility of erosion.

Seedbed preparation: Recontouring should include preparation of an adequate seedbed. This is accomplished by ripping or disking compacted soils to a depth of at least 6 inches in rocky areas and at least 12 inches in less rocky areas. This should be done following the contour of the land to limit erosion. All stockpiled settling pond fines, and then topsoil, are spread evenly over the disturbed areas.

Fertilizer: The resource area manager must be contacted to determine if fertilization will be necessary, and if so, the type and rate of application.

Revegetation: A resource area manager-approved revegetation prescription must be used to provide adequate revegetation for erosion control, wildlife habitat, and productive secondary uses of public lands.

Mulch: As directed by the resource area manager, during review of the notice or plan of operations, the disturbed area may require mulching during interim or final reclamation procedures. Depending on site conditions, the mulch may need to be punched, netted, or blown on with a tackifier to hold it in place. In some cases, erosion control blankets may be cost effective for use.

Roads: After mining is completed, all new roads shall be reclaimed, unless otherwise specified by the resource area manager. High wall and cutbanks are to be knocked down or backfilled to blend with the surrounding landscape. Remove all culverts from drainage crossings and cut back the fill to the original channel. The roadbed should be ripped to a minimum depth of 12 inches to reduce compaction and provide a good seedbed. The road must then be fertilized and seeded if necessary. When necessary, waterbars are to be used to block access and provide drainage.

Tailings ponds: The ponds should be allowed to dry out and the fines removed and spread with the topsoil, unless the fines contain toxic materials. If the ponds contain toxic materials, a plan will be developed to identify, dispose, and mitigate effects of the toxic materials. If necessary, a monitoring plan will also be implemented. The ponds should then be backfilled and reclaimed.

Guidelines for Development of Salable Mineral Materials

Proposed Operations

All proposed pits and quarries, and any exploration that involves surface disturbance, are required to have operating and reclamation plans that must be approved by the resource area manager. All proposals will undergo the appropriate level of review and compliance with NEPA.

Operating Procedures

Where practicable, the following requirements should be made a part of every contract or permit providing for the use of mineral material sites in the planning area:

- For additional information, see operating guidelines in “Common to Alternatives 2-7” in Volume 2, Chapter 2 and The Proposed Management Plan in Volume 3
- Oversized boulders shall not be wasted but shall be broken and utilized concurrently with the excavated material.
- The operator shall comply with local and state safety codes covering quarry operations, warning signs, and traffic control. All necessary permits must be obtained from state and county agencies.

- Use of the site for equipment storage and stockpiling rock material is allowed for the duration of the contract or permit. Use of the site beyond that time would be authorized under a special use permit.
- All topsoil shall be stockpiled or windrowed, as appropriate, for use in reclamation.
- Prior to abandonment, all material sites will be graded to conform with the surrounding topography. Oversize material that is not usable will be placed in the bottom of the pit and the pit would be filled, graded covered with topsoil. Reseeding, if necessary, will be done as prescribed by the resource area manager. Access roads no longer needed by the BLM will be abandoned and reclaimed as directed by the resource area manager.
- For additional information, see operating guidelines in the proposed Management Plan.

Quarry Design

Where in steep terrain in the operating area, quarry developments will require a series of benches to effectively maximize the amount of mineral materials to be removed in a safe manner. In most cases, bench height should not exceed 40 feet, and if the bench will be used by bulldozers to access other parts of the quarry, the width of the bench should be at least 25 feet. If the bench is not used by equipment, then this width can be reduced to approximately 10 feet.

Clearing of timber and brush should be planned at least 10 feet beyond the edge of the excavation limit. Most often the brush will be piled and burned at the site, or scattered nearby.

If at all possible, all topsoil and overburden should be stockpiled and saved for eventual quarry site reclamation. These piles may need to be stabilized by seeding in order to minimize erosion during the winter months. As a standard procedure, the excavation of the quarry floor should be designed with an outslope of approximately 3 percent in order to provide for adequate drainage of the floor. Compliance with this design should be made a requirement of all operators at the site.

Appendix J
Legal Description of Lands Designated for Military Training

Legal Land Description based on the US Public Land Survey System (USPLSS) for the area included in the Biak Training Center, Oregon National Guard.

T. 14 S., R. 14 E., Willamette Meridian and Baseline:
Sections: 30: E½SW¼; W½SE¼.
31: W½NE¼; E½W½; SE¼.
32: SW¼.

T. 15 S., R. 13 E., Willamette Meridian and Baseline:
Sections: 1: SE¼; to wit all that portion of the subsection including and east of North Unit Irrigation District
--- Main Canal.
12: E½; to wit all that portion of the subsection including and east of North Unit Irrigation District
--- Main Canal.
13: All; to wit all that portion of the section including and east of North Unit Irrigation District
--- Main Canal.
23: E½SE¼.
24: All.
25: All.
26: S½; S½NE¼; NE¼NE¼; SE¼NW¼NE¼; S½SW¼NW¼NE¼; E½NE¼NW¼NE¼.
33: E½E½.
34: All.
35: All.
36: SE¼, E½NE¼.

T. 15 S., R. 14 E., Willamette Meridian and Baseline:
Sections: 5: W½.
6: E½; E½NW¼; SW¼NW¼; SW¼.
7: All.
8: W½; S½SE¼.
9: S½SW¼.
16: W½.
17: All.
18: All.
19: All.
20: N½.
21: NW¼.
30: All.
31: All; to wit all portions excluding the withdrawn portion of SW¼ lying east of McCaffery Road.
32: W½, W½E½.

T. 16 S., R. 13 E., Willamette Meridian and Baseline:
Sections: 1: All.
2: All.
3: All.
4: E½.
9: NE¼; to wit all that portion of the subsection including, north, and east of the BPA power line
--- Right-of-Way.
10: All, to wit all that portion of the section including and east of GEN Phil Sheridan Road (also
--- known as the Sheridan Road).

11: All.
12: All.
13: All.
14: All.
15: All, to wit all that portion of the section including and east of GEN Phil Sheridan Road (also known as the Sheridan Road).
21: SE¼SE¼, to wit all that portion of the subsection including and east of GEN Phil Sheridan Road (also known as the Sheridan Road)..
22: All, to wit all that portion of the section including and east of GEN Phil Sheridan Road (also known as the Sheridan Road).
23: All.
24: All; to wit all that portion of the section north and west of Powell Butte Hwy.
25: W½; NW¼NE¼; to wit all those portions of the subsections north and west of Powell Butte Highway.
26: All.
27: All.
28: E½E½, to wit all that portion of the subsection including and east of GEN Phil Sheridan Road --- (also known as the Sheridan Road) and Road 6585-C (Pronghorn Road).
33: E½E½, to wit all that portion of the subsection including and east of Road 6585-C (Pronghorn --- Road).
34: All.
35: W½, W½E½.

T. 16 S., R. 14 E., Willamette Meridian and Baseline:
Sections: 5: W½; W½E½.
6: All.
7: All.
18: All.
19: All; to wit that portion of the section north and west of Powell Butte Highway.

T. 17 S., R. 13 E., Willamette Meridian and Baseline:
Sections: 1: All.
2: All.
3: All.
10: E½.
11: All.
12: All.
13: N½.
14: N½.
15: NE¼.

T. 17 S., R. 14 E., Willamette Meridian and Baseline:
Sections: 5: All.
6: All.
7: N½; SW¼.
8: N½.
18: NW¼.

Legal Land Description based on the US Public Land Survey System (USPLSS) for the area included in the Biak Training Center, Millican Plateau satellite area, Oregon National Guard.

T. 16 S., R. 15 E., Willamette Meridian and Baseline:

Sections:
- 1: W½W½; SE¼SW¼.
- 2: E½NE¼; SE¼: to wit all those portions of the subsections east of Millican County Road.
- 11: E½; E½W½; to wit all those portions of the subsections east of
- --- Millican County Road.
- 12: NW¼.
- 14: All; to wit all that portion of the section east of Millican County Road.
- 15: SE¼; to wit all that portion of the subsection east of Millican County Road.
- 22: E½; E½SW¼; to wit all those portions of the subsections east of Millican County Road..
- 23: W½; W½E½; SE¼SE¼.
- 24: E½E½; S½SW¼; SW¼SE¼.
- 25: W½; S½SE¼.
- 26: N½; N½S½; SW¼SW¼; SE¼SE¼.
- 27: All.
- 28: E½SE¼.
- 33: E½; E½NW¼; SW¼NW¼; SW¼.
- 34: All.
- 35: NE¼NE¼; NW¼NW¼; S½N½; S½.

T. 16 S., R. 16 E., Willamette Meridian and Baseline:

Sections:
- 18: SW¼SW¼.
- 19: SE¼NE¼; W½E½; W½.

T. 17 S., R. 15 E., Willamette Meridian and Baseline:

Sections:
- 1: All.
- 2: All.
- 3: All, to wit all that portion of the section east of Millican County Road.
- 10: All, to wit all that portion of the section east of Millican County Road.
- 11: All.
- 12: All.
- 13: All.
- 14: All.
- 15: All, to wit all that portion of the section east of Millican County Road.
- 22: All, to wit all that portion of the section east of Millican County Road.
- 23: All.
- 24: All, to wit all that portion of the section north of Prineville Reservoir County Road.
- 25: N½, to wit all that portion of the subsection north of Prineville Reservoir County Road.
- 26: All, to wit all that portion of the section north of Prineville Reservoir County Road.
- 27: All, to wit all that portion of the section north of Prineville Reservoir County Road and east of
- --- Millican County Road.

T. 17 S., R. 16 E., Willamette Meridian and Baseline:

Sections:
- 6: All.
- 7: All.
- 18: All.
- 19: All, to wit all that portion of the section north of Prineville Reservoir County Road.

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BUREAU OF LAND MANAGEMENT
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Prineville, Oregon 97554-2900

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Proposed Upper Deschutes Resource Management Plan and Final Environmental Impact Statement

Volume 3 – Proposed Upper Deschutes Resource Management Plan & Appendices

U.S. DEPARTMENT OF THE INTERIOR
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