STEENS MOUNTAIN TRAVEL MANAGEMENT PLAN

ENVIRONMENTAL ASSESSMENT
OR-05-027-021

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CHAPTER I: INTRODUCTION: Purpose of and Need for Action

The Burns District Bureau of Land Management (BLM) is currently preparing a Travel Management Plan (TMP) for the Steens Mountain Cooperative Management and Protection Area (CMPA). The TMP will augment the CMPA Transportation Plan, which is part of the Steens Mountain CMPA Resource Management Plan (RMP), using an updated route inventory to further define the motor vehicle route network within the CMPA. The TMP will also provide guidance on maintenance, improvement, and accessibility of these routes. Steens Mountain is located approximately 60 miles south of the City of Burns in Harney County, Oregon (see attached base map TP-1).

A. Background

The Steens Mountain Cooperative Management and Protection Act of 2000 (Steens Act) designated the CMPA and established Steens Mountain Wilderness, which consists of 170,084 acres of public land. Approximately 104 miles of motorized routes were closed to public use within wilderness. The Steens Act provides guidance that the CMPA be managed by the BLM to conserve, protect, and manage the long-term ecological integrity of Steens Mountain for future and present generations. Within the CMPA, cooperative and innovative management projects will be maintained and enhanced by the BLM, private landowners, tribes, and other public interests. Sustainable grazing and recreational use, including fishing and hunting, will be continued where consistent with purposes and objectives of the Steens Act. The Steens Act also requires the BLM address maintenance, improvement, and closure of roads and trails as well as travel access.

As indicated, a Transportation Plan was developed as part of the Steens Mountain CMPA RMP (August 2005) describing road/route inventory information, management goals, objectives, maintenance levels, route categories, and Best Management Practices (BMPs) for road/route management. The Transportation Plan (Appendix M of the RMP) also identifies the need to conduct specific on-the-ground route inventories and incorporate this information into the Transportation Plan. These inventories were completed with assistance from private landowners, grazing operators, members of the public, Oregon Natural Desert Association (ONDA) and Harney County Court. In December 2006 a TMP scoping document was distributed to gather comments and ideas from interested publics regarding road and travel issues to be addressed in the TMP Environmental Assessment (EA). This EA addresses issues identified in scoping comment letters and

includes updated inventory information on the CMPA Travel Plan Base Map (TP-1). Appendix M from the RMP is attached.

As a result of public comment, key issues identified include the following:

1. **Historical access should be retained** – Many respondents commented historical levels of motorized access should continue for private landowners, grazing operators and for public recreation. Maps TP-7 and TP-8 were added to the analysis to show routes in use for grazing administration and private property access. Public recreation use of improved and primitive routes is recognized and expected to increase on public lands in the future. This use is analyzed in the Recreation and Off-Highway Vehicle (OHV) sections of this EA.

2. **Protect ecological integrity by reducing motorized vehicle use** – Many comments favor reducing motor vehicle activity in the CMPA. Protection of wilderness characteristics and fish and wildlife habitat are among the leading reasons for these comments. Alternative C reduces motorized routes by about 45% and many of the chosen routes benefit Wilderness Study Areas (WSAs). The attached Minimum Decision Analysis identifies a range of grazing administration access within the wilderness area and associated impacts are evaluated in this EA. Impacts to fish and wildlife habitat and other resources are also discussed in detail in Chapter III of this EA.

3. **Close specific routes** – Some individuals suggested closing specific routes. These routes were specifically looked at by the BLM and some are identified for closure in the alternatives. The EA clarifies routes specifically named in the RMP Transportation Plan that continue to meet RMP objectives are not subject to closure under this EA. This includes the Steens Loop Road including routes to the overlooks and Fish Creek, Cold Springs, Grove Creek, Big Alvord Creek, Indian Creek, Three Springs, and Newton Cabin routes.

4. **Address hiking trails and snowmobile use** – Some individuals asked use and designation of hiking trails and snowmobile use be included in the TMP EA. While these activities are included in some transportation planning efforts, the CMPA RMP specifically says these activities will be addressed in a comprehensive recreation plan which is scheduled to start in 2007. This is explained in more detail below. Hiking trails currently recognized in the CMPA RMP were added to Map TP-1 for reader information.

The RMP (Page RMP-67) requires the BLM to prepare a comprehensive recreation plan to more fully address if (and what types) recreation facilities and services are needed to provide for resource protection, visitor safety, and a wide range of high quality recreational activities. Planning associated with designation or construction of new nonmotorized trails or expansion of snowmobile use would be addressed as part of that comprehensive plan. Management of trails and snowmobiles is beyond the scope of this EA because it will be analyzed in the Steens Mountain CMPA Recreation Plan. The BLM's current management policy related to both trails and snowmobile use in the

CMPA will remain in effect until completion of the recreation plan. Scoping for the comprehensive recreation plan will be initiated during 2007.

In January 2004, BLM prepared an EA to analyze landowner access to four private inholdings within Steens Mountain Wilderness. In June 2004, the BLM issued a decision providing a certain degree of motorized access to the inholdings; however, the decision is currently under appeal to the Interior Board of Land Appeals (IBLA). The BLM is waiting for IBLA to deliver its decision prior to making additional wilderness inholding access determinations.

B. Purpose of and Need for Action

The TMP will augment the CMPA Transportation Plan, which is part of the Steens Mountain CMPA RMP, using an updated route inventory to further define the motor vehicle route network within the CMPA. The TMP will also provide guidance on maintenance, improvement, and accessibility of these routes. The OHV designation for the CMPA is Limited to Designated Routes; therefore, accurate identification of routes is necessary to properly manage this OHV designation.

This EA analyzes potential effects on resources resulting from enacting each developed alternative and includes route inventory information called for in the RMP Transportation Plan. The motorized route network within the CMPA has been updated and mapped to facilitate this analysis. The RMP Transportation Plan decisions remain in place except some routes left open in the RMP are under review for reclassification as Permit Routes which if implemented, would close them to the public. Other routes shown on the RMP transportation maps, unless specifically named in the RMP Transportation Plan, are also subject to change under this analysis if they are not meeting RMP objectives. The RMP management actions with the specifically named routes are included in Section C below.

Objectives for developing the TMP include determining how best to manage travel in the CMPA while protecting resources including wilderness characteristics, providing for "reasonable" access to private lands, providing for sustainable livestock grazing, providing recreation opportunities, and otherwise meeting RMP land management objectives. Objectives specific to Transportation and Roads include: “Provide travel routes to and through BLM-managed lands as appropriate to meet resource objectives while providing for private and public access needs.” Also, “Manage roads and ways within the CMPA consistent with the Route Management Categories and Maintenance Levels” (RMP-61). The OHV objectives are: “Manage motorized (OHV) and mechanized (nonmotorized) vehicle use to protect resource values, promote public safety, provide OHV and mechanized vehicle use opportunities where appropriate and allowable, and minimize conflicts among various users” (RMP-64).

Decision Factors for Alternative Selection

How well do the alternatives provide for:

- Travel opportunities for primitive camping, hunting, fishing, hiking, and other recreation activities including driving for pleasure?
- Permit Routes adequate to meet grazing operational needs?
- Reasonable access for non-Federal landowners, right-of-way holders, and others with interests in BLM-administered land?
- Administrative access needs?
- Reasonable commercial activities including Special Recreation Permits (SRPs)?
- Social and economic values considerations?
- Preventing impairment of the WSAs
- Protection and enhancement of Steens Mountain Wilderness?
- RMP land management objectives and fiscal responsibilities?
- Tribal rights?

C. Conformance with Land Use Plans, Laws, Regulations and Policy

Section 112 of the Steens Act directs the BLM to prepare a comprehensive transportation plan for the Federal (public) lands included in the CMPA that addresses maintenance, improvement, and closure of roads and trails as well as travel access. A Transportation Plan was included in the RMP and specific route management direction includes the following:

- Keep the entire Steens Loop Road, including routes to the overlooks, open to motorized use at Maintenance Level 5, except the Rooster Comb section, which will be upgraded to Maintenance Level 3.
- Keep Fish Creek, Cold Springs, Grove Creek, Big Alvord Creek, Indian Creek, Three Springs, and Newton Cabin routes open where bounded on both sides by wilderness.
- Consider closing a portion of the Bone Creek route, in the transportation route inventory EA, as recommended by the Steens Mountain Advisory Council (SMAC).
- Keep open all cherry stem roads and ways associated with WSAs except as shown on Map 13 in the RMP.
- Retain Maintenance Level 3 as currently prescribed for the Moon Hill Road system.
- Close specific routes as shown on Map 13 in the RMP. Approximately 6 miles of routes will be closed.
- Assign Maintenance Level 3 to Kiger Wild Horse Overlook Road; Witzel/Yriarte Access Road; the road to Riddle Brothers Ranch; Virginia Valley Road to its junction with the private land in Section 9, Township 30 South, Range 35 East; Kiger Ridge Road between Fred Otley's driveway and the junction with private land in Section 16, Township 32 South, Range 33 East; and a portion of the Fence Creek Roads. Map 13 shows the location of these roads and their assigned maintenance levels.
- Assign Maintenance Level 4 to the road into Fred Otley's ranch.
- Use the existing gate and permit system to close Steens Loop Road to public motorized use from approximately November 15 to May 15 each year except to access the snowline on North Steens Loop Road for motorized and nonmotorized forms of winter recreation.
- Assign Maintenance Level 2 to all remaining open roads within the CMPA unless otherwise prescribed under a Cooperative Management Agreement. Consider

seasonal closures and road upgrades as needed to reduce damage to road surfaces, protect resources, or provide for public safety.

- Install a gate to seasonally close Moon Hill Road near Diamond Grain Camp Road from February 1 to May 15 each year to protect road surfaces and improve natural values. Install an additional gate on Moon Hill Road near the base of Moon Hill to protect higher elevation road surfaces. Closure of Moon Hill gate will correspond with the closure of the lower gate on North Steens Loop Road.
- Develop Cooperative Road Management Agreements or acquire voluntary easements with private landowners and other entities that provide recreation opportunities, improve natural values, or otherwise improve access.
- Allow motorized access to existing dispersed campsites unless precluded by special designation or other resource concerns.
- Allow the parking of motorized vehicles within 100 feet of centerline along many of the open routes unless precluded by special designation or other resource concerns.
- Limit motorized traffic and vehicle parking to existing disturbed areas adjacent to Steens Loop Road and the overlook roads from Jackman Park to Rooster Comb.
- Allow permitted motorized access along Riddle Brothers Ranch segment of Cold Springs Road.

Section 112 of the Steens Act also prohibits off-road motorized travel on BLM-administered lands with limited exceptions for emergencies, administration of public lands, fish and wildlife management or for construction or maintenance of agricultural or restoration projects and facilities. Off-road travel in wilderness or WSAs is provided through regulations and policy specifically addressing these designations. The following criteria are part of the RMP Transportation Plan and are used to identify situations when off-road travel within the CMPA, as provided for under Section 112 of the Steens Act, will be allowed. Grazing authorizations should indicate off-route travel must not create new observable routes.

1. Emergencies

    a. Search and Rescue: Motorized travel allowed anywhere and in any manner that benefits the search and rescue efforts.
    b. Fire Suppression:
        (1) Wilderness B as per District policy.[1]
        (2) WSAs B as per Fire Management Plan.[2]
        (3) Other CMPA public lands B currently no restrictions.

2. Administration

    a. Administration of authorized uses (grazing permits, landowner access, etc.). Refer to authorizations for Off-Highway Vehicle (OHV) allowances.

[1] Preauthorizes helicopter landings and bucket work for initial attack but chain saws, engines, etc., must be specifically approved.

[2] Preauthorizes all initial-attack, fire suppression tactics except caterpillar work.

b. BLM administration: Case-by-case as approved by the BLM Authorized Officer.

3. Construction and maintenance of facilities or restoration projects outside Wilderness and WSAs: Case-by-case as approved by the BLM Authorized Officer.

Section 111 of the Steens Act directs the BLM to manage all public lands included in the CMPA pursuant to the Federal Land Policy and Management Act (FLPMA) and other applicable provisions of law. Title II of the Steens Act establishes Steens Mountain Wilderness and includes direction to manage wilderness in accordance with the Steens Act, Wilderness Act (16 U.S.C. 1131 et seq.), and with guidelines set forth in Appendices A and B of House Report 101-405 of the 101st Congress.

Wilderness Guidance:

General Guidance: Section 202 of the Steens Act states**,** "*The Secretary shall administer the Wilderness Area in accordance with this title and the Wilderness Act (16 U.S.C. 1131 et seq.). Any reference in the Wilderness Act to the effective date of that Act (or any similar reference) shall be deemed to be a reference to the date of the enactment of this Act."*

Section 2(a) of the Wilderness Act states that wilderness areas, "*shall be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character . . . "*

In addition to the guidance described above, there are several provisions of laws established by Congress and existing BLM policy directives specifically addressing different types of management for motorized vehicle activities in wilderness which are described below for each major type of activity.

Emergencies and Administrative Functions: Title 43 of the Code of Federal Regulations, Part 6300 (43 CFR 6300) – Management of Designated Wilderness Areas, addresses administrative and emergency functions. Sections a and b of Subpart 6303 provides specific guidance related to use of motorized vehicles which states:

"As necessary to meet minimum requirements for administration of the wilderness area, the BLM may:

Use, build, or install temporary roads, motorized equipment, mechanical transport, structures or installations, and land aircraft, in designated wilderness.

Prescribe measures that may be used in emergencies involving the health and safety of persons in the area including but not limited to, the conditions for use of motorized equipment, mechanical transport, aircraft, installations, structures, rock drills, and fixed

anchors. BLM will require any restoration activities that we find necessary to be undertaken concurrently with the emergency activities or as soon as practicable when the emergency ends."

Public Access: Under 43 CFR 6300, Subpart 6302.20 provides general guidance related to the use of motorized and mechanized vehicles or equipment in wilderness and states the following:

"Except as specifically provided in the Wilderness Act, the individual statutes designating the particular BLM wilderness area, or the regulations of this part, and subject to valid existing rights, in BLM wilderness areas you must not:

- *Use motorized equipment; or motor vehicles, motorboats, or other forms of mechanical transport.*

- *Land aircraft, or drop or pick up any material, supplies or person by means of aircraft, including a helicopter, hang-glider, hot air balloon, parasail, or parachute."*

Grazing Management: Section 202(d)(1) of the Steens Act states that**,** "*Except as provided in section 113(e)(2), grazing of livestock shall be administered in accordance with the provision of section 4(d)(4) of the Wilderness Act (16 U.S.C. 1133(d)(4)), in accordance with the provisions of this Act, and in accordance with the guidelines set forth in Appendices A and B of House Report 101–405 of the 101st Congress."*
Section 4(d)(4) of the Wilderness Act states, "*…the grazing of livestock, where established prior to the effective date of the Act, shall be permitted to continue subject to reasonable regulations as are deemed necessary by the Secretary of Agriculture."*

Guidelines of Appendix A of House Report 101-405 of the 101st Congress, provides the following guidance related to use of motorized vehicles and equipment for grazing management activities in wilderness:

"There shall be no curtailments of grazing in wilderness areas simply because and area is, or has been designated as wilderness, nor should wilderness designations be used as an excuse by administrators to slowly 'phase out' grazing."

"The maintenance of supporting facilities, existing in an area prior to its classification as wilderness (including fences, line cabins, water wells and lines, stock tanks, etc.), is permissible in wilderness. Where practical alternatives do not exist, maintenance or other activities may be accomplished through the occasional use of motorized equipment. Such occasional use of motorized equipment should be expressly authorized in the grazing permits for the area involved. The use of motorized equipment should be based on a rule of practical necessity and reasonableness. For example, motorized equipment need not be allowed for the placement of small quantities of salt or other activities where such activities can reasonably and practically be accomplished on horseback or foot. On the other hand, it may be appropriate to permit the occasional use of motorized

equipment to haul large quantities of salt to distribution points. Moreover, under the rule of reasonableness, occasional use of motorized equipment should be permitted where practical alternatives are not available and such use would not have a significant adverse impact on the natural environment. Such motorized equipment uses will normally only be permitted in those portions of a wilderness area where they occurred prior to the area's designation as wilderness or are established by prior agreement."

"The use of motorized equipment for emergency purposes such as rescuing sick animals or the placement of feed in emergency situations is also permissible. This privilege is to be exercised only in true emergencies, and should not be abused by permittees."

"In summary, subject to the conditions and policies outlined in this report, the general rule of thumb on grazing management in wilderness should be that activities or facilities established prior to the date of an area's designation as wilderness should be allowed to remain in place and may be replaced when necessary for the permittee to properly administer the grazing program. Thus, if livestock grazing activities and facilities were established in an area at the time Congress determined that the area was suitable for wilderness and placed the specific area in the wilderness system, they should be allowed to continue. With respect to areas designated as wilderness prior to the date of this Act, these guidelines shall not be considered as a direction to reestablish uses where such uses have been discontinued."

One management objective for wilderness in the RMP is to manage livestock grazing in wilderness under the stipulations of the Congressional Grazing Guidelines provided by Appendix A of House Report 101-405 of the 101st Congress (Page RMP-75). Management direction for wilderness also provides for reasonable access to grazing permittees on established routes within Steens Mountain Wilderness for administration of grazing permits and specific authorizations would be analyzed in a separate EA (Page RMP-76).

Steens Mountain Wilderness and Wild and Scenic Rivers Plan (August 2005) provided for the continued use of Service/Permit Use Routes by livestock operators to administer their BLM grazing permits (Page P-51), pending site-specific analysis. Management direction (Page P-53) related to maintenance of range improvements in wilderness states, "*Existing grazing management projects will be maintained if they continue to support livestock grazing. Projects not functioning to support grazing, wildlife, or wild horses will be abandoned and the sites rehabilitated (e.g. removal of fencing in the No Livestock Grazing Area).”* The TMP EA would meet analysis needs to provide specific authorizations under both the CMPA RMP and Steens Mountain Wilderness and Wild and Scenic Rivers Plan.

Wild and Scenic Rivers:

The Wild and Scenic Rivers Act of 1968 requires protection of designated Wild and Scenic Rivers (WSRs) free-flowing character and protection and enhancement of identified Outstandingly Remarkable Values (ORVs).

Under the BLM's Manual 8351 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation and Management, May 1992, Sections .5(A)(2)(f) and (j) provide the following guidance related to livestock grazing and motorized travel on rivers with a "wild" classification which states, "*Agricultural uses is restricted to a limited amount of domestic livestock grazing and hay production to the extent practiced prior to designation"* and "*Motorized travel on land or water could be permitted but is generally not compatible with this river classification. Normally, motorized use will be prohibited in a wild river area. Prescriptions for management of motorized use may allow for search and rescue and other emergency situations."*

Wilderness Study Areas:

General Guidance: Under Section 204 of the Steens Act**,** WSAs within the Steens Mountain CMPA, "*shall continue to be managed under section 603(c) of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1782(c)) in a manner so as not to impair the suitability of the areas for preservation as wilderness."*

Under BLM Handbook 8550-1 – Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP) (July 1992), the introduction provides six practical effects of provisions in FLPMA with respect to "interim management" of lands under wilderness which are provided below:

- *"The general standard for interim management is that lands under wilderness review must be managed so as not to impair their suitability for preservation as wilderness. We will refer to this as the "nonimpairment" standard. This applies to all uses and activities except those specifically exempted from this standard by FLPMA (such as grandfathered uses).*
- *Permitted activities in WSAs (except grandfathered and valid existing rights) are temporary uses that create no new surface disturbance, nor involve permanent placement of structures.*
- *Those grazing, mining, and mineral leasing uses that existed on October 21, 1976, (the date FLPMA was approved) may continue in the same manner and degree as on that date, even if this would impair wilderness suitability.*
- *Lands under wilderness review may not be closed to appropriation under the mining laws in order to preserve their wilderness character.*
- *Valid existing rights must be recognized.*
- *All lands must be managed to prevent unnecessary or undue degradation."*

Emergencies and Administrative Functions: Guidance for emergencies is provided in Chapter I, Section B(12) of the IMP, which states, "*In emergencies such as fire or flood, any action necessary to prevent loss of life or property may be taken, even if the action will impair wilderness suitability. This may include search and rescue operations in cases of lost or injured persons, or removal of the deceased. Emergency actions will be conducted in the manner that least impairs wilderness suitability, and the resulting impacts will be reclaimed as soon as possible after the situation has ended. Within 7 days after the emergency action is*

completed, a record of the circumstances and the action taken will be placed in the WSA case file and a public notification will be mailed to all interested parties."

Use of motorized vehicles by BLM staff or representatives off of existing roads and ways for administrative functions would be subject to further site-specific approval unless provided for under emergencies.

Public Motorized Vehicle Use: Under Chapter III, Section H(11) of the IMP, any motorized vehicle travel by the public off existing roads or ways must be provided for in land-use planning decisions and subject to the nonimpairment standard. The Steens Mountain CMPA Record of Decision (ROD)/RMP (Page RMP- 65) limits the use of motorized vehicles by the public to designated routes which includes existing roads and ways.

Grazing Management: Grazing uses occurring on the date of approval of FLPMA (October 21, 1976) are considered grandfathered uses and may continue in the same manner and degree as on that date even if this impairs wilderness suitability. Chapter I, Section B(8)(d) of the IMP states, "*The manner and degree of a grazing use refers to the nature of physical and visual impacts the use caused as of October 21, 1976, including the condition of the range and the authorized livestock developments installed or under construction at that time. Continuation in the same manner and degree implies that grazing may continue on the lands authorized as of October 21, 1976, as long as the impacts of that use do not increase. Continuation of a grazing use in the same manner and degree does not include any logical adjacent geographic continuation."*

Under the Maintenance of Range, Wildlife, Wild Horse, Improvements in WSAs in the Burns District EA OR-020-05-08 (November 2005), effects associated with maintenance of reservoirs and fencing to naturalness, solitude, outstanding recreation resources, and other features were found to be minimal or beneficial to wilderness characteristics. Any motorized vehicle or equipment use associated with proposed maintenance of range improvements would need to comply with requirements of design elements of the EA (Pages 7 and 8).

Private Land Access: Chapter III, Section A (3)(c) of the IMP states, "*In cases of access to non-Federal lands where the BLM has determined that application of the nonimpairment standard would unreasonably interfere with the enjoyment of the landowner's rights. In each case, the BLM's decision will depend upon the nature of the rights conveyed and the site-specific conditions involved. The BLM is required by law to provide such access as is adequate to secure to the landowner the reasonable use and enjoyment of non-Federally owned land which is completely surrounded or isolated by public lands administered under FLPMA."*

<u>Parcels with Wilderness Characteristics:</u>

Under the Steens Mountain CMPA RMP/ROD (Page RMP-81), parcels with documented wilderness characteristics will be managed to protect those characteristics but are not

provided additional special management status. Parcels will be managed according to the RMP direction for surrounding non-WSA lands. The protections afforded by the CMPA (e.g. the mineral withdrawal, prohibition of cross-country motorized/mechanized vehicle use, right-of-way avoidance/exclusion areas, and Visual Resource Management [VRM] classifications) are considered to provide sufficient protection to meet the goal/objective.

D. Route Definitions

The RMP Transportation Plan identifies five route management categories. Route Management Categories describe the primary purposes and uses for the routes. Many routes fall under more than one management category. Most use by private landowners, grazing operators, and the public occurs on Common Use Routes and is provided under casual use; therefore, a formal use authorization is not required. Please refer to Appendix M (attached) for more detailed information contained within the RMP Transportation Plan. The RMP Transportation Plan route management categories are:

Common Use Routes: Routes open to the public but may be closed or have seasonal-use restrictions during certain sensitive periods to protect resource values such as road conditions. These include routes on BLM-managed land and private land where public access easements have been acquired.

Cooperatively Managed Routes: Routes across private, State, BLM-administered, or other agency land that is cooperatively administered and maintained. Routes may have specified levels of public use, season of use, and type of use. Administration and maintenance may be facilitated through a cooperative agreement.

Service/Permit Use Routes: Routes used only for administration, facility service, property maintenance, or those associated with an authorized permit. Motorized public use is not allowed.

Private Property Access Routes: Routes across public land used to access private property. Motorized use allowed only for private property interests and BLM administration.

Private Routes: Routes across private land not open for use by the public.

The route inventory called for in the RMP Transportation Plan was conducted during the 2003 through 2006 field seasons. Most routes within the CMPA were checked for general condition and degree of use by BLM staff. Private landowners, grazing operators, County Commissioners and the ONDA participated directly in conducting portions of the inventory and this information was provided to and considered by BLM. Approximately 70 miles of motorized routes, including 15 miles of WSA ways, were found and added to the transportation network for analysis in this EA. The ways were originally identified during the wilderness inventory in the early 1980s. Some routes, totaling about 36 miles, were hard to locate or were not found and are included in this analysis as “Obscure Routes”.

Routes within the CMPA have been further assembled into categories for EA analysis purposes. The various categories are depicted on the enclosed CMPA Travel Plan Maps and are described below:

1. **Base Routes:** These routes are shown as black lines on the maps. Some base routes are highlighted with other colors for analysis purposes. They are currently open to motor vehicle travel unless shown as closed. There are approximately 556 miles of these routes currently available for vehicular use within the CMPA. The WSA ways are included in this route category. This includes 501 miles currently mapped in the Geographic Information System (GIS) as well as 55 miles missing from the GIS database used in the development of the Transportation Plan in the RMP. The routes included within these 55 miles are well-defined, mostly primitive roads outside of the WSAs and wilderness. About 15 miles of well-defined WSA ways were located during the route inventory and these ways are included in this route category. These additional WSA route miles were not shown on RMP maps, but were identified during the WSA inventory process in the early 1980s.

2. **Obscure Routes:** These routes are purple on the CMPA Travel Plan Base Map and are hard to locate on-the-ground. The routes in WSAs were identified in the original WSA inventory. Obscure Routes are included as part of the Base Route total. There are about 27 miles within WSAs and about 9 miles outside WSAs.

3. **Historical Routes:** These routes were used historically and are currently hard to locate and/or were not identified during the WSA inventory process. The routes have been used to access private lands and administer livestock grazing permits. Some of these routes are shown as blue on Map TP-1. These routes represent the same manner and degree of vehicle travel that was occurring at passage of the FLPMA on October 21, 1976. Not all Historical Routes within the CMPA have been mapped; however, their use and need on public lands within the CMPA is recognized. Historical Routes are a type of "Service Use Permit Route" as identified in the RMP.

4. **Private Landowner Access Routes:** This is not the same as "Private Property Access Routes" defined in the RMP. Private Landowner Access Routes are used to access private lands within the CMPA and include many Common Use Routes. The network of Private Landowner Access Routes is shown on Map TP-8.

5. **Permit Routes:** These are a type of "Service/Permit Use Route" as defined in the RMP. Permit Routes are available to livestock operators but closed to the public. Most Permit Routes inside wilderness were established routes open to the public prior to wilderness designation. Permit Routes outside wilderness are either Historical Routes or other Base Routes placed in this limited use category to protect resources. Grazing permittees also use "Common Use Routes" and other

route categories for livestock administration purposes. The network of routes used to support livestock administration is shown on Map TP-7.

6. **All-Terrain Vehicle (ATV) Routes:** Due to landslides and natural erosion events, these routes are no longer safe for full-sized vehicles and are therefore being considered for use by ATVs and motorcycles. Under this classification, ATV routes would not be recommended for use with full-sized vehicles and would be signed accordingly. They total approximately 8 miles.

7. **Special Use Permit Route:** This route passes through Riddle Brothers Ranch and is identified in the RMP as open to the public under Special Use Permit. Locked gates are in place to protect resources and a key is required to utilize this route with motor vehicles.

CHAPTER II: ALTERNATIVES INCLUDING THE PROPOSED ACTION

Alternatives Considered but not Fully Analyzed

No Action: Under the No Action Alternative the TMP would not be prepared and the existing situation would continue. The Andrews Management Unit/Steens Mountain CMPA Proposed RMP/Final Environmental Impact Statement (Andrews/Steens PRMP/FEIS) analyzed the route network in place at the time the RMP was prepared. This alternative is not analyzed separately in this EA due to BLM's requirement to prescribe certain levels of motorized use for livestock operators within wilderness. Also, the RMP Transportation Plan identified the need to inventory previously unmapped routes and incorporate inventory information into the Transportation Plan via the TMP. The OHV designation for the CMPA is Limited to Designated Routes; therefore, accurate identification of routes is necessary to properly manage this OHV designation.

Common to all alternatives

Decisions previously made in the CMPA RMP remain in place and are not subject to change in this EA unless recent monitoring or inventory information warrants consideration for change. The CMPA Transportation Plan, Appendix M (attached), contains many of the decisions related to motorized travel within the CMPA.

Base Routes on public land total approximately 556 miles and remain available to grazing permittees for grazing administration purposes. Base Routes added from the TMP route inventory, outside WSAs (about 55 miles), would assume a Maintenance Level 2 unless otherwise prescribed in this EA.

Historical Routes inside and outside WSAs but excluding designated wilderness, remain available to livestock operators to the same manner and degree that was occurring at the passage of the FLPMA on October 21, 1976. The use of Historical/Permit Routes within wilderness is evaluated in the EA alternatives.

Over time, changes may need to be made to the transportation network in terms of adding or closing certain routes or changing maintenance levels to meet management objectives. These changes would be documented using relevant National Environmental Policy Act (NEPA) procedures which includes appropriate public notification. When these routes are under evaluation, their use may continue to the same manner and degree as when the proposals are accepted for consideration. Persons or organizations can request the BLM to make route status changes based on a variety of criteria including route condition, maintenance needs, resource conditions, existing uses, historical information, changing needs, cultural information, economic information, ecological issues, road density, duplicative uses/displacement, fish and wildlife, wilderness quality, and use levels.

The SMAC and BLM have started work on a visitor information strategy that will include route signage, information kiosks, mapping, brochures, and other tools to help familiarize the public with recreation opportunities on Steens Mountain. Once complete, this strategy will help explain and complement the CMPA Transportation Plan.

In each alternative, motor vehicle access for emergency activities would comply with guidance provided under other special designations (wilderness, WSRs, and WSAs). An emergency situation is defined as one where there is a threat to human life, property (including livestock) or public land resources. Emergency activities utilized would be the minimum necessary to address the situation and rehabilitation and restoration work would follow where needed.

Any emergency motorized vehicle or equipment use off authorized routes on BLM-administered lands would require prior notification and approval by the authorized BLM official when possible. Should prior notification not be possible, contact would be made with the authorized BLM official within 72 hours following emergency entry.

BLM administrative functions related to a variety of natural resource management objectives (e.g., wild horse management, fish and wildlife monitoring, noxious weed eradication, restoration, fence repair, and enhancement) that potentially require motorized vehicle or equipment use off Base Routes or in wilderness would be addressed at the project level on a case-by-case basis as needed.

The BLM periodically needs access across private property owned or controlled by grazing permittees for the orderly management and protection of public lands. This term and condition may be added to grazing permits as provided for under 43 CFR 4130.3-2 (h).

Access to public lands for Tribal members, including Tribal families and individuals, practicing tribal activities shall continue as provided under Section 5 of the Steens Act. The BLM would coordinate and consult with the Burns Paiute Tribe, and other Tribes as appropriate, prior to changes to the travel route network including route upgrades or closures.

Cooperative management efforts called for in the Steens Act rely on access to private lands within the CMPA. Private landowners utilize the majority of routes in the CMPA to access their private lands. Private land access continues to be provided along routes shown on Map TP- 8, consistent with the Steens Act and BLM policy. Access to private inholdings within Steens

Mountain Wilderness is being determined under separate analyses; therefore, access routes to wilderness inholdings are not identified on Map TP- 8.

The BLM must give prior approval for maintenance or construction of range improvements or any surface-disturbing work in wilderness. At the time of the request, the BLM would complete a site-specific Minimum Decision Analysis to determine if action is necessary and the minimum tool(s) to be used. This decision would be documented in a Categorical Exclusion Environmental Review (516 DM 2 Appendix 1,1.6) prior to the work taking place. Generally the need for major repairs or maintenance of range improvements is expected to be infrequent (5 to 15 years) unless a major event such as fire, flood or heavy snow increases expected maintenance, repair or replacement schedules. When possible, work would be done to minimize potential for encounters with visitors.

EA Alternatives

The following alternatives consider comments received during the public scoping process, BLM employee input, information from knowledgeable individuals and groups and a recommendation from the SMAC. Alternative C is primarily based on input received from ONDA. Alternative D (Proposed Action), with the exception of the degree of grazing permittee access in wilderness, comes from a SMAC recommendation. Parts of any of the alternatives may be used to formulate the Decision Record.

All alternatives continue the practice of closing most roads within the CMPA to public travel for a period from approximately mid-November to mid-May each year. This practice protects both road surfaces and adjacent natural resources from winter- and spring-related impacts from motorized use. Approximately 80% of the CMPA is served by this seasonal closure.

Maps depicting the following alternatives are enclosed.

A. Minimal Change

Most Base Routes (519 miles) would continue as Common Use Routes and available for public motorized traffic. Obscure Routes (36 miles) would be reclassified as Permit Routes (35 miles) or Private Property Access Routes (1 mile) and, therefore, closed to public motorized travel. Permit and Historical Routes within WSAs and on other nonwilderness public lands may be used to the same manner and degree that was occurring at the passage of the FLPMA on October 21, 1976. Historical Routes may be used to the extent their use would not change their character. Permit Routes and Historical Routes in wilderness would continue to be used by grazing permittees at current levels to administer their permits (see Minimum Decision Analysis, attached). All potential ATV Routes (8 miles) would be reclassified as ATV trails. Approximately 0.23-mile of Weston Basin Road would be closed with a gate and boulders to prevent vehicle wilderness intrusions from continuing at this location.

Under this alternative, road densities for public lands within the CMPA are 0.78-mi/mi^2, with the area north of North Loop Road, including North Loop Road (North), having a

road density of 1.20 mi/mi^2 and the area south of North Loop Road (South) having a density of 0.49-mi/mi^2. Most miles of road are primitive in nature with Steens Loop Road (55.7 miles) being the only main road and Moon Hill Road, Riddle Brothers Ranch Access Road, and a couple others being secondary roads (54 miles). All other roads are considered primitive and constitute about 409 miles (79 percent) of the 519 miles open to the public.

B. Maximize Use

This alternative maximizes vehicular route miles within the CMPA. Base Routes (555 miles) would continue as Common Use Routes and, therefore, available for public motorized traffic. Most Obscure Routes, with the exception of two short Private Property Access Routes (1-mile), would be located and made available for public vehicular use. Work done to Obscure Routes that are ways in WSAs would be the minimum necessary to reestablish motorized vehicle passage and would not include any regular maintenance. Permit Routes and Historical Routes within WSAs and on other nonwilderness public lands may be used in the same manner and degree that was occurring at passage of FLPMA on October 21, 1976. Historical Routes may be used to the extent their use would not change their character. Permit Routes and Historical Routes in wilderness would continue to be used by grazing permittees at current levels to administer their permits (see Minimum Decision Analysis, attached). All routes currently being considered for ATV classification would instead be reconstructed and maintained for use by full-sized, high clearance vehicles.

Under this alternative, road densities for public lands within the CMPA are 0.83-mi/mi^2, with the North area having an estimated road density of 1.22 mi/mi^2 and the South having an estimated density of 0.56-mi/mi^2. As in Alternative A, most miles of road are primitive in nature with the Loop Road (55.7 miles) being the only main road and Moon Hill Road, Riddle Brothers Ranch Access Road and a couple other being secondary roads (54 miles). All other roads would be considered primitive which constitutes about 445 miles (80 percent) out of the 555 miles open to the public. This alternative reestablishes 36 miles of primitive roads to the transportation system which is an increase of 7 percent over Alternative A.

C. Reduced Use

Base Routes (306 miles) would continue as Common Use Routes available for public motorized traffic. The remaining 250 miles of Common Use Routes, including all Obscure Routes (36 miles), would be reclassified as Permit Routes and, therefore, closed to public motorized travel. Some closed routes would also remain available as Private Property Access Routes. Motorized vehicle use by grazing permittees of Permit Routes and Historical Routes in wilderness would not be provided except in case of emergencies or as authorized on a case-by-case basis as the minimum tool necessary for maintenance of range improvements (see Minimum Decision Analysis, attached).

Permit Routes and Historical Routes within WSAs and on other nonwilderness public lands may be used to the same manner and degree that was occurring at the passage of the FLPMA on October 21, 1976. Historical Routes may be used to the extent their use would not change their character. About 4.4 miles of potential ATV routes would be reclassified as Permit Routes (closed to the public) and the potential 3.6-mile Indian Creek ATV Route would be classified for ATV use. Approximately 1.18 miles of Bone Creek Road would also be reclassified as a Private Property Access Route (closed to the public).

Under this alternative, road densities for public lands within the CMPA are 0.46-mi/mi^2. Most miles of road are primitive in nature with Steens Loop Road (55.7 miles) being the only main road and Moon Hill Road, Riddle Brothers Ranch Access Road and a couple others being secondary roads (54 miles). All other roads would be considered primitive which constitutes about 196 miles (64 percent) out of 306 miles open to the public in this alternative. This alternative reduces the miles of primitive roads open to the public by 53 percent from Alternative A and 56 percent from Alternative B.

D. Proposed Action

This alternative is most like the route network presently available in the CMPA. Consistent with RMP direction the Fish Creek, Steens Loop, Grove Creek, Big Alvord Creek, Three Springs, Newton Cabin, Cold Springs, Indian Creek, and Bone Creek Roads remain open to motor vehicles. The portion of Cold Springs Road through Riddle Brothers Ranch remains available for public use under a Special Use Permit. Base Routes (555 miles) would continue as Common Use Routes and, therefore, available for public motorized traffic. Most Obscure Routes, with the exception of two short Private Property Access Routes (1-mile), would remain on maps and available for public motorized vehicle use but not located as described in Alternative B. An additional Private Property Access Route (1.4 miles) would be designated within Bridge Creek WSA. Permit Routes and Historical Routes within WSAs and on other nonwilderness public lands may be used to the same manner and degree that was occurring at the passage of the FLPMA on October 21, 1976. Historical Routes may be used to the extent their character is not changed. Motorized vehicle use by grazing permittees of Permit Routes and Historical Routes in wilderness would be authorized for activities such as distribution of large quantities of salt and checking critical water reservoirs in allotments with very limited live water or springs (see Minimum Decision Analysis, attached). All potential ATV Routes (8 miles) would be reclassified as ATV trails. Approximately 0.23-mile of the Weston Basin Road would be gated and closed to the public.

Obscure Routes will be shown on maps and open for public use but not marked on-the-ground. Road densities for public lands within the CMPA are 0.83-mi/mi^2, with the North area having an estimated road density of 1.22 mi/mi^2 and the South having an estimated density of 0.56-mi/mi^2. As in Alternative A, most miles of road are primitive in nature with Steens Loop Road (55.7 miles) being the only main road and Moon Hill Road, Riddle Brothers Ranch Access Road and a couple others being secondary roads (54 miles). All other roads would be considered primitive which constitutes about 445 miles

(80 percent) out of the 555 miles open to the public. Keeping 36 miles of Obscure Routes in the transportation system is an increase of 7 percent over Alternative A.

Issues Considered but not Fully Analyzed:

- Closing Historical Routes to grazing operators was discussed but found to be inconsistent with BLM policy which provides for the same manner and degree of use to continue as that which was occurring at passage of the FLPMA.
- An alternative in the scoping document included closing some roads and ways to grazing operators but this too is inconsistent with the manner and degree policy afforded to grazing operations.
- Some scoping comments recommended closing portions of interior wilderness boundary roads such as Cold Springs or Fish Creek Roads; however, these roads were specifically left open in the RMP and, therefore, not considered for closure in this EA.

CHAPTER III: DESCRIPTION OF THE AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS FROM THE ALTERNATIVES

The following critical elements of the human environment are either not known to be present or known not to be affected by the proposed action or other alternatives: Air Quality, Cultural Heritage, Environmental Justice, Prime or Unique Farmlands, Flood Plains, Hazardous Materials, Water Quality (drinking/groundwater).

A. The following critical and noncritical elements are present and may be affected by the proposed action or other alternatives:

1. Wilderness Study Areas

Current discussion and analysis of potential effects on WSAs are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.24 and 4.23.

Affected Environment

Seven WSAs fall entirely within the CMPA and are described in detail in the *Oregon BLM Wilderness Study Report (Volume I, 1991)*. In general all seven WSAs were found to have naturalness and outstanding opportunities for solitude and primitive and unconfined recreation, and the presence of special features. Existing features affecting naturalness are associated primarily with range improvements such as fences, water developments and ways. Ways are routes maintained solely by the passage of vehicles and have not been improved and/or maintained by mechanical means to ensure relatively regular and continuous use. The most common recreational activities in the WSAs include hunting, day hiking, backpacking, horseback riding, wildlife viewing, sightseeing,

photography, and fishing. The peak use season is generally from late June through the end of October, and is often highest during hunting season in September and October. Common game species in most WSAs include mule deer, pronghorn antelope, elk, and chukars. Special features in the WSAs are commonly associated with fish, plants, wildlife, geology, cultural resources, and scenery. Below is a table summarizing size and miles of ways for each WSA.

WSA Summary

WSA Name	**Size (Acres)**	**Ways (Miles)**
Blitzen River	31,901	34.0
Bridge Creek	14,284	8.8
High Steens	15,130	7.5
Home Creek	1,165	1.0
Lower Stonehouse	7,373	1.8
South Fork Donner und Blitzen River	27,968	28.2
Stonehouse	22,685	8.9

Grandfathered Uses

Grazing management is the primary grandfathered use in the WSAs within Steens Mountain CMPA. Much of Steens Mountain and the CMPA has been grazed by domestic livestock for over 100 years and motorized vehicle use by grazing permittees of Base and Historical Routes occurred prior to the passage of the FLPMA. Even with use of these routes by grazing permittees, several inventoried ways have become difficult to locate on-the-ground and are now identified as Obscure Routes (see Map TP-1).

In addition to the range improvements described above, there are also several areas in each WSA where salt is placed, primarily along Base and Historical Routes. Specific to salting, Chapter III, Section D(4)(a) of the WSA IMP states, "*In both grandfathered and non-grandfathered grazing operations, salting practices may be continued. New salting locations may be established to improve the distribution of grazing use as long as the nonimpairment standard criteria is met."* There are two permittees currently using a helicopter rather than on-the-ground motorized vehicles to assist with salting and other grazing management activities.

Environmental Consequences

Alternative A

Motorized vehicle use of 27 miles of ways in WSAs has declined over several years to the point these routes have become obscure (see Map TP-1) and difficult to identify on-the-ground. Under this alternative, closing Obscure Routes in WSAs to motorized vehicle use by the public and removing them from public

maps would make it more unlikely observable routes would be reestablished. This has and would continue to enhance naturalness of areas where ways have disappeared.

Closure of Obscure Routes would potentially increase chances of an individual or group finding solitude from sites and sounds of others and motorized vehicles. Types of primitive and unconfined recreation activities would not be affected by closure of Obscure Routes. Some visitors looking for primitive and unconfined recreation activities would find potential for increased solitude that enhances the quality of their recreation experience. Others participating in more general recreation activities and desire more motorized vehicle access for their activities might find reduction in access routes a deterrent in getting to areas in which they wish to recreate. If motorized vehicle use by the public on open Base Routes increases, potential for solitude might be reduced in WSAs. However, a steady annual increase in visitation has not been observed in the CMPA.

In addition to use by the public, infrequent motorized vehicle use of Obscure and Historical Routes by grazing permittees would continue. This use has not resulted in observable routes. Continuing this use in the same manner and degree should not establish observable routes. Changes to types of primitive and unconfined recreation activities would not be expected by this occasional use. Use of these routes may result in some disturbance to visitor solitude and recreation experiences associated with noise and dust. This would only be when an encounter actually occurred and disturbance would generally be expected to be very temporary (minutes) in nature. Noise associated with use of a helicopter might be heard for a longer period of time, but would still be short in duration.

No effects to geologic special features are expected and effects to other special features are addressed in their respective sections in this chapter.

Other reasonably foreseeable activities that may affect WSAs include both BLM and non-BLM projects. Most motorized vehicle use needed for BLM administrative functions in these WSAs can be accomplished with the use of existing Base Routes (roads and ways). However, there are a few administrative activities (e.g., wild horse gathers, fire suppression, weed eradication, restoration projects, and critical fish and wildlife monitoring projects) that may require occasional motorized use off Base Routes (roads and ways). This use would be managed so as not to impair WSA suitability for wilderness designation.

The BLM is in the planning stages for the North Steens Ecosystem Restoration Project which includes Bridge Creek, Blitzen River, South Fork Donner und Blitzen River, and High Steens WSAs. Treatments under some alternatives could affect wilderness characteristics by reducing vegetative screening provided by trees that contributes to solitude and potential effects to naturalness associated with both cutting and leaving trees or ground disturbance created by use of equipment in removal of trees. If implemented, treatment methods used would be

the minimum analyzed methods required to achieve project objectives. Over the long term (years to decades), wilderness characteristics may be enhanced by restoration of more natural ecological functions.

Harney County is in the process of paving East Steens Road, most of which is currently gravel. When finished, visitor use of the road may increase which could potentially increase visitation of WSAs along the east face of Steens Mountain. This could reduce potential for finding solitude in WSAs especially in areas close to East Steens Road and those areas in WSAs more easily accessible by a road or way. However, given the limited number of Base Routes (see Map TP-1) in these WSAs, opportunities for outstanding solitude would be expected to still be present. Overall, motorized use of travel routes proposed under this alternative is not expected to contribute to impairment of WSA suitability for wilderness designation.

Alternative B

Effects would be the same as Alternative A, except that Obscure Routes (ways) in WSAs would be reestablished on-the-ground to a condition similar to what existed at the time the WSA was inventoried. This would result in a loss of some naturalness in the area directly surrounding the reestablished routes. Vehicle use by the public on the reestablished routes would decrease the potential of an individual or group to find solitude from the sites and sounds of others and presence and noise associated with motorized vehicles in these areas. However, effects to naturalness and solitude would be expected to be no greater than that which existed at the time the WSA was inventoried. Overall, motorized use of travel routes proposed under this alternative is not expected to contribute to impairment of WSA suitability for wilderness designation.

Alternative C

Effects would be the same as Alternative A, except naturalness and solitude would be enhanced to a greater degree given that under this alternative, 129 miles of Common Use Routes within or adjacent to WSAs would be closed to motorized vehicle use by the public (see Map TP-4). However, these routes would continue to be available for motorized vehicle use by grazing permittees and private landowners. Some routes would likely disappear in 5-10 years while others may experience only partial revegetation. Overall, motorized use of travel routes proposed under this alternative is not expected to contribute to impairment of WSA suitability for wilderness designation.

Proposed Action

Effects would be the same as Alternative A, except Obscure Routes within WSAs would continue to show on maps as available for motorized vehicle use by the public. There is some concern, since these routes are hard to identify on-the-

ground, multiple routes might be established by those seeking to find and drive an Obscure Route. However, as this is the same as the current situation and these impacts have not yet been observed, this effect would likely be very limited if it occurs at all. Currently most Obscure Routes are shown on maps available to the public. No locations where such multiple routes have been established have been identified. Overall, motorized use of travel routes proposed under this alternative is not expected to contribute to impairment of WSA suitability for wilderness designation.

A Private Property Access Route would also be added (see Map TP-5). Currently this route is also a Historical Route used by a grazing permittee. The occasional use of this route by the private landowner is not expected to change the route's condition; therefore, the area's naturalness would not be affected. With the anticipated 2-4 trips per year by the landowner, encounters with persons using the area is unlikely so effects to solitude are not expected.

2. Wilderness

Current discussion and analysis of potential effects on wilderness are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.22 and 4.22.

Affected Environment

Steens Mountain Wilderness includes approximately 172,911 acres of BLM-administered lands. Since 2000, approximately 104 miles of road in wilderness have been closed to motorized vehicle use by the public; however, some routes are currently used by grazing permittees and private land inholders. In addition to exterior boundary roads, there are several roads that bisect (but are outside of) wilderness as interior boundary roads and cherry-stemmed roads. These roads are currently open for motorized vehicle use by the public. Interior boundary roads include portions of Steens Loop, Cold Springs and Bone Creek. Cherry-stemmed roads include Kiger Overlook, Grove Creek, East Rim Overlook, Wildhorse Lake Overlook, Steens Summit, Newton Cabin, and portions of Fish Creek, Indian Creek, and Big Alvord Creek (see Map TP-6).

In 2000, the Steens Act also established a 97,229-acre "No Livestock Grazing Area" on BLM-administered lands in the wilderness (see Map TP-1). Both the most popular and remote areas of wilderness are located within the No Livestock Grazing Area.

Most of Steens Mountain Wilderness is in outstanding natural condition. Some of the most unique features are its scenic vistas, spectacular geology, and diverse habitats. Some unnatural features include old cabins and other structures, fences,

troughs, corral remnants, juniper cuts, and closed roads, some of which are currently used as grazing Permit Routes.

Unique landscape, plant and wildlife features within wilderness provide a scenic backdrop for outstanding opportunities for primitive and unconfined recreation activities some of which include day hiking, backpacking, horseback riding, hunting, fishing, photography, and plant and wildlife viewing. There are several trails in Steens Mountain Wilderness (see Map TP-1), some of which follow closed two-track roads and are easily hiked, while others are rough, rocky trails pioneered by sheepherders. Opportunities for outstanding solitude are enhanced by varied and rugged topography. Deep drainages, vegetative screening, and the vast landscape contribute to a visitor's sense of seclusion. Kiger, Wildhorse, and Little Indian Gorges are among the most remote, rugged, and secluded areas in the wilderness.

The primary visitor use season for most of the wilderness is July through early November. Most visitor use currently occurs in Little Blitzen and Big Indian Gorges, along Donner und Blitzen River upstream from Page Springs Campground, at Wildhorse Lake and Pike Creek. Information from trail, road counter data, and visitor registers from major entry points accessing these areas of wilderness estimate visitation at 4,000 to 7,000 people per year. Actual visitation is likely higher, given not all access points have visitor data specific to wilderness, especially areas along the east face of Steens Mountain and in the Home Creek area. Visitation of these areas is associated with hunting activities in the fall and is likely to be relatively low due to lack of easily accessible wilderness entry points and/or steep rugged topography.

Steens Loop Road is generally closed late November through June due to wet road conditions or high snow levels. Winter use of wilderness is likely very low given only 8 to 25 winter recreation permits (19 to 62 people) for the entire CMPA are issued each year. Since 2002, only one minor (200 yards) wilderness intrusion from a snowmobile has been observed during winter monitoring trips. Infrequent winter use also occurs under SRPs and from private/State landowner access.

Monitoring indicates each year there are 7 to 24 unauthorized vehicle intrusions into wilderness. The year having the highest number of intrusions was 2005 when several vehicles, mostly ATVs, tried to get around snowdrifts on Steens Loop Road, and near Wildhorse Overlook turnoff, and drove into the edge of the wilderness. This is unlikely to happen again, given that for most years, the BLM makes sure Steens Loop Road is drivable before opening the upper gates. Most other intrusions are associated with ATV use going cross-country or using closed roads, especially in areas near Indian Creek and Weston Basin Roads (see Map TP-1). Some intrusions involve full-sized vehicles. The BLM is continuing with signing efforts and is in the process of working with the SMAC to develop improved visitor information for both wilderness and the CMPA as a whole.

In summer of 2006 approximately 15,650 acres were burned by wildfires. The largest fire was over 15,350 acres and was located in the southern portion of Steens Mountain Wilderness between Catlow Valley Road and Bone Creek Road. This has resulted in temporary loss of grasses, shrubs, and some riparian vegetation. Loss of vegetation has exposed old, closed roads which were returning to a more natural appearance. These areas will continue to be monitored and signed for "no motorized vehicle use" as needed.

Permitted Uses

What is now Steens Mountain Wilderness has been grazed by domestic livestock for over 100 years. Early use by large bands of sheep and local cattle herds gave way to more managed numbers in the mid-20th century. Today, grazing is authorized and managed on approximately 75,682 acres in wilderness within 14 grazing allotments. See the following table for a summary of all allotments that contain wilderness.

Summary of Grazing Allotments in Wilderness

Allotment Name	Acres of Allotment in Wilderness*	Percent of Allotment in Wilderness
Alvord	5,126	47
Alvord Peak	5,232	99
Carlson Creek	8,761	88
Chimney	373	2
East Ridge	398	5
Fields	11,577	70
Frazier Field	8,975	43
Hardie Summer	38	<1
Mann Lake	1,190	11
Mann Lake FFR	814	22
Roaring Springs FFR	4,997	35
Scharff FFR	577	11
Serrano Point	11,015	99
South Steens	16,609	18
Total	75,682	

*Due to geographic database updates and realty actions related to land exchanges and acquisitions, there have been changes since the Steens Mountain Wilderness and Wild and Scenic Rivers Plan was completed in July 2005.

Known grazing related facilities within Steens Mountain Wilderness include fencing, water reservoirs, salt caches, spring developments (includes head boxes, troughs, and pipes) and a structure used for branding. There are also several areas in wilderness where salt is placed, primarily along Permit Routes. Permittees currently utilizing Permit Routes make motorized vehicle trips for distributing salt, checking cattle, monitoring vegetation, checking water developments, checking fences, and fence repair. One permittee also uses a helicopter to assist with activities described above and to open and close gates for wild horse

passage. Information more specific to each allotment can be found in the attached Minimum Decision Analysis.

Environmental Consequences

Alternative A

Interior boundary roads and cherry-stemmed roads would remain open to motorized vehicle use (see Map TP-6). Motorized vehicles and roads would continue to be observable from several locations in wilderness, especially near the top of Steens Mountain where vegetative and topographic screening is more limited.

This may reduce visitors' perceived naturalness even though these interior boundary roads are technically not in wilderness. Overall naturalness in wilderness would be enhanced as vegetation returns to previously closed roads and they become more natural in appearance. Vehicle intrusions from Weston Basin Road would likely decline following blocking the end of the road. Improved visitor information supported by visitor contacts by law enforcement and other staff would also be expected to reduce intrusions.

Disturbances to solitude would most often be associated with sites and sounds of motorized vehicles on open roads adjacent to or near wilderness, especially along Steens Loop Road. Most major gorges and smaller canyons with trees would continue to offer opportunities for visitors to be relatively free of sites and sounds of motorized vehicles, except when a direct encounter occurs on or near an interior boundary or cherry-stemmed road. Most encounters would be expected to last only minutes. Types of primitive and unconfined recreation opportunities would not be affected, but the quality of the recreation experience may be negatively affected for those seeking greater levels of solitude and naturalness. Not all visitors to Steens Mountain are seeking a wilderness recreation experience but instead are there to explore the natural beauty and unique geologic features. Their experience may be less affected by sites and sounds of motorized vehicles and other visitors.

Permitted Uses:

Below is a summary of effects associated with use of Permit Routes for areas in Steens Mountain Wilderness where livestock grazing continues to occur. A Minimum Decision Analysis (attached) was completed evaluating the types of grazing permittee access that should be authorized and included for the alternatives in this EA.

Under this alternative, current motorized travel access related to administration of grazing permits would continue. To do this work, it is expected permittees would

continue to make 5 to 20 motorized vehicle trips each annual grazing season on Permit Routes (see Minimum Decision Analysis, attached).

The return of vegetation to Permits Routes would likely be minimal and most routes would continue to appear to casual observers as two-track routes receiving occasional use. The presence of a moving or parked vehicle, vehicle tire tracks or a helicopter could reduce visitors' perceived naturalness. These effects would be limited to the local area surrounding the vehicle or each route. Generally, visitors traveling cross-country would not as easily observe Permit Route conditions except upon direct encounter. However, visitors traveling at higher elevations may be able to observe Permit Routes, depending on vegetative and topographic screening.

It is assumed most visitors to this wilderness do not expect to directly encounter or hear nearby motorized vehicles (includes helicopters for purposes of this analysis). Where encounters did not occur, visitors would experience no effects to solitude from use of motorized vehicles in grazing management activities. The presence of a moving or parked vehicle would potentially negatively affect visitors' sense of solitude. Intrusions on solitude associated with vehicle use potentially include noise, dust, and presence of a vehicle. Visual intrusions would be expected to last only minutes, but may last longer if the vehicle is observed from higher elevations that do not have topographic or vegetative screening. Noise intrusions would also be expected to last only minutes, but may last longer depending on the amount of topographic and vegetative screening. Wilderness visitation is low from late winter to early spring and four of the nine allotments have cattle out of wilderness by mid-June every year, avoiding the highest visitor use season.

Utilization of motorized vehicles on Permit Routes would not affect the types of primitive and unconfined recreation opportunities available in wilderness, but could potentially affect the quality of the experience, especially related to naturalness and solitude as described above. Hunters and other visitors are likely using Permit Routes as trails and would continue to do so.

In the interim, the BLM would continue to allow private land inholders to utilize motorized vehicles to access their lands in a manner similar to what was occurring prior to the Steens Act until IBLA issues a decision on an inholder access determination the BLM has already made. Effects to visitors would be the same as described for Permit Routes.

Other reasonably foreseeable activities that may affect wilderness include both BLM and non-BLM projects. Generally BLM-administrative functions in wilderness do not require use of motorized vehicles or equipment. However, there are a few administrative activities (i.e., wild horse gathers, fire suppression, weed eradication, restoration projects, and critical fish and wildlife monitoring projects) for which motorized use may be the minimum tool necessary. These needs would

be addressed on a case-by-case basis with a Minimum Decision Analysis, except in the case of an emergency.

The BLM, in partnership with many organizations and volunteers including ONDA, Sierra Club, Wilderness Volunteers, Back Country Horsemen, Burns Llamas Trailblazers and others, is also in the process of enhancing naturalness in many places within the No Livestock Grazing Area of wilderness by manually dismantling several miles of unnecessary fencing each year.

The BLM is in planning stages for the North Steens Ecosystem Restoration Project which includes portions of Steens Mountain Wilderness. Treatments under some alternatives could affect wilderness characteristics by reducing vegetative screening provided by juniper trees that contributes to solitude and potential effects to wildness associated with both cutting and leaving the trees or ground disturbance created by use of equipment in removal of trees. If implemented, treatment methods used would be the minimum analyzed methods required to achieve project objectives. Over the long term of several years, overall wilderness characteristics including naturalness may be enhanced by restoration of more natural ecological functions.

Harney County is paving East Steens Road, most of which is currently gravel. When finished, visitor use of the road may rise and increase visitation of wilderness along the east face of Steens Mountain. This could reduce potential for finding solitude in areas of wilderness that have Base Routes leading up to wilderness from East Steens Road and WSA areas more easily accessible by a road or way. However, given the limited number of Base Routes (see Map TP-1) opportunities for outstanding solitude would likely still be present.

Under provisions of the Steens Act, and as with many complex wilderness areas, managing Steens Mountain Wilderness to attain the ideal of total solitude and naturalness everywhere, at all times and for all visitors, may not be realistic. However, there is much of Steens Mountain Wilderness, with its many gorges and smaller remote side canyons, which would continue to offer an experience close to this ideal. No effects to unique geological features or scenic vistas of Steens Mountain Wilderness are expected. Effects to other features like its diverse habitats are addressed in their respective sections of this chapter.

Alternative B

Effects would be the same as under Alternative A, with the exception Indian Creek and Weston Basin Roads would be reconstructed and maintained to safely provide for full-sized vehicle passage. While visitor safety would be improved for those wanting to drive a full-sized vehicle on these roads, vehicle intrusions into wilderness at the end of these roads may increase, making it necessary at some point to block the ends of these roads.

Alternative C

Effects would be the same as under Alternative A, except grazing permittee access would be more limited and Weston Basin Road would be closed to the public, but left open for grazing permittee use. Closing Weston Basin Road would help reduce intrusions into wilderness from this route.

Motorized vehicle (including helicopters) access would not be authorized for any grazing management activities associated with salting and checking water developments. Maintenance of range improvements could continue using the minimum tool necessary under a site-specific Minimum Decision Analysis.

Generally the need for major repairs or maintenance of range improvements is expected to be infrequent (5 to 15 years) unless a major event such as fire, flood or heavy snow increases expected maintenance, repair or replacement schedules. When possible, work would be accomplished outside peak use season or during weekdays.

Overall, naturalness in wilderness would increase over many years, as vegetation returns to Permit Routes and they become more natural in appearance. Due to timing and limited number of trips and visitor use patterns associated with allotments, it would be expected visitors would not encounter permittees using motorized vehicles in wilderness on an annual basis. Potential for encounters related to grazing management would only be during very infrequent use associated with emergencies or maintenance of range improvements. Effects to solitude associated with motorized vehicle use would be very low to none. Number of permittee trips needed by horseback would greatly increase to still meet salting needs, because many more horseback trips would be needed to distribute the weight of salt, compared to what a motorized vehicle could carry in a single trip. This could negatively affect overall solitude for visitors seeking to be free of sights and sounds of others. Again, these effects would be expected to be temporary lasting minutes, unless overnight trips become necessary for some permittees as a result of increased travel time.

Effects to primitive and unconfined recreation would not be expected. Effects related to sight and sound disturbances of motorized vehicles associated with grazing management to the quality of the recreation experience would be low (only in the case of emergency or range improvement maintenance) to none on an annual basis. Hunters and other visitors are likely to continue using Permit Routes as hiking trails if routes continue to be observable. Visitor use patterns would be expected to remain the same as those described for Alternatives A and B.

Proposed Action

Effects would be the same as under Alternative A, except use of motorized vehicles for administration of grazing permits would only be authorized where

there is no practical alternative for doing the work using nonmotorized or nonmechanized forms of travel. Any repair work needed on Permit Routes would be evaluated on a case-by-case basis and would be the minimum tool necessary under a site-specific Minimum Decision Analysis and not exceed conditions in place at the time of wilderness designation.

For six allotments, it is expected three motorized vehicle trips into wilderness would be made each annual grazing season for purposes of distributing large quantities of salt. For three allotments, it is expected 10 to 20 motorized vehicle trips into wilderness would be made each annual grazing season for purposes of distributing large quantities of salt and checking water reservoirs (see attached Minimum Decision Analysis).

Some return of vegetation to Permit Routes may occur. The routes would appear to casual observers as two-track routes receiving occasional use. Effects to naturalness from Permit Routes with water reservoirs would be the same as under Alternatives A and B. Most Permit Routes do not have water reservoirs and would be expected to receive less use. As a result, return of additional vegetation, especially grasses and forbs, would be more likely to occur than under Alternatives A and B. Chance for encounters and disturbance to visitors' perceived naturalness would be reduced due to lower number of expected trips than in Alternatives A and B.

Due to timing and limited number of trips and visitor use patterns associated with allotments, it would be expected most visitors would not encounter permittees using motorized vehicles or a helicopter in wilderness. Potential for encounters would be greater on routes with water reservoirs in South Steens and Frazier Field Allotments, but would be expected to be less than 10 to 20 trips each season given an encounter would not likely occur during each trip. If an encounter occurs, effects to solitude would be temporary (minutes) in nature as described in Alternatives A and B. Encounters in Alvord Peak Allotment would also be expected to be low to none in any given year, because this area of wilderness receives very little if any regular use by visitors, due to access limitations (see Map TP-6).

The utilization of motorized vehicles on Permit Routes would not affect primitive and unconfined recreation opportunities but could affect quality of the experience, especially related to naturalness and solitude as described above. Hunters and other visitors likely walk along Permit Routes and would continue to do so, while routes continued to be observable. Visitor use patterns would be expected to remain the same as those described in Alternatives A and B.

3. Wild and Scenic Rivers

Current discussion and analysis of potential effects on WSR are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained

in the following sections is incorporated into this EA by reference: Sections 3.24 and 4.24.

Affected Environment

There are three designated WSRs with 12 river segments within the CMPA (see Map TP-1). These WSR designations fall almost entirely within Steens Mountain Wilderness. Key areas outside wilderness include Riddle Brother Ranch, Page Springs Campground, and Jackman Park. Currently, approximately 7.89 miles of Base Routes are open for motorized vehicle use by the public within WSR corridors.

All 12 river segments were classified as "Wild" by Congress. While the large majority of WSR segments in the CMPA are largely primitive in character, there are several road segments, recreation facilities, historic structures, and a concrete bridge that existed at time of designation and will continue to be maintained and replaced as needed.

There are three locations where routes cross WSR segments on BLM-administered lands. The crossing receiving the most use is along South Steens Loop Road where a concrete bridge crosses Little Blitzen River. Cold Springs Road has a ford crossing on Little Blitzen River at Riddle Brothers Ranch, and a private landowner inholding access route crosses Big Indian Creek. Both of these crossings generally receive use only a few times each year.

The majority of BLM-administered lands in the WSR corridors fall within the No Livestock Grazing Area or developed recreation site exclosures. Grazing would continue on two small, upland parcels along Fish Creek (89 acres) and South Fork of Donner und Blitzen River (67 acres).

Environmental Consequences

Alternative A

The public would be able to continue to use motorized vehicles on 7.89 miles of Base Routes currently open (see Map TP-2). Very small and localized sediment inputs associated with use of the bridge or the two crossings would continue to occur. These sediments would be expected to settle out within minutes and are not expected to increase over what is already occurring. Other than the crossings, no sediment or other inputs into WSRs are expected from use of other routes in WSR corridors open to the public, grazing permittees or private landowners. No measurable changes to water quality, riparian functioning condition or fisheries are expected. As a result, no changes to any WSR river segment's free-flowing quality, wild character or outstandingly remarkable values are expected from continued motorized vehicle use on Common Use, Obscure, and Historical Routes.

Alternative B

Effects would be the same as under Alternative A.

Alternative C

Effects would be the same as under Alternative A, except 1.06 miles of Base Routes would be closed to motorized vehicle use by the public in the area south of Page Springs Campground (see Map TP-4). The Base Route closed to the public, would still be available for use associated with grazing permit administration. No measurable differences of effects from Alternative A are expected.

Proposed Action

Effects would be the same as under Alternative A.

4. Wildlife, Special Status Fauna, Migratory Birds

This section is tiered to the Andrews/Steens PRMP/FEIS (August 2004). Relevant sections are incorporated by reference and include information from the following: Sections 3.6, 3.7, 4.6, and 4.7.

Affected Environment

Migratory Birds:

Approximately 70 species of migratory birds are known to inhabit different parts of the project area. Some species such as Northern goshawk and Swainson's hawk are considered Special Status Species and will be discussed in Special Status Species – Fauna. Neotropical migratory birds utilize all habitats in the project area; some are habitat specific while others use a variety of habitats. Grassland species include vesper sparrow and horned lark. Sagebrush species include Brewer's sparrow, white-crowned sparrow, green-tailed towhee, sage thrasher, and sage sparrow. Woodland species include gray flycatcher, dusky flycatcher, dark-eyed junco, bushtit, Cassin's finch, pine siskin, western wood-peewee, and chipping sparrow. Species that may be found in two or more habitats include American robin, brown-headed cowbird, Lincoln's sparrow, lark sparrow, and western meadowlark.

Special Status Species – Fauna (Terrestrial):

Special Status Species occurring within this project area include bald eagle, Columbia spotted frog, Greater sage-grouse, Northern goshawk, Swainson's hawk, Preble's shrew, wolverine, California bighorn sheep, several species of bats, long-billed curlew, western burrowing owl, and sage sparrow. Sage sparrows

are discussed above in the Migratory Bird Section. Other Special Status Species listed on Pages 3-26 to 3-28 of the Andrews/Steens PRMP/FEIS do not occur in this project area or would not be affected by the TMP. Bald eagles (Federally listed, Threatened, winter resident only) winter in the project area, but there are no known roost sites. Bald eagles have been documented flying out of Donner und Blitzen River Canyon for years, but winter roosts have never been documented due to inaccessibility of the area. Bald eagles would not be affected by selection of any of the alternatives since they are winter residents, and roost areas in the Donner und Blitzen River corridor are inaccessible to motorized traffic when eagles are present. Therefore, bald eagles will not be discussed further.

Columbia spotted frogs (Federal Candidate for listing as Threatened or Endangered) are known to inhabit several stream systems within the CMPA. They have been documented on public lands in the upper part of McCoy Creek from the private land upstream (south), Fish Lake, Little Fish, and Grove Creeks, Page Springs Campground, and lower part of Mud Creek near Malheur National Wildlife Refuge (NWR) boundary. Habitat for Columbia spotted frogs includes slow moving or still water around springs, ponds behind beaver dams or other ponds, and shallower vegetated areas in lakes.

Faster flowing water courses such as McCoy Creek may be used as travel corridors between breeding and wintering habitat. Columbia spotted frogs are more affected by presence of humans than by vehicle traffic. No changes to transportation are being proposed in areas where these frogs have been found, indicating they should not be affected by enactment of any of the alternatives. Therefore, spotted frogs will not be discussed further.

There are 15 known greater sage-grouse leks or lek complexes within the boundary of the CMPA. Sage-grouse leks usually occur in low sagebrush sites or areas with very little vegetation but with escape cover such as low or big sagebrush nearby. Of the 15 leks, two are known to be inactive. One has not been active since a wildfire burned the area in the mid 1980s, and male sage-grouse have not been seen for about 25 years at the second lek site. Another lek was burned in the Grandad Fire of 2006. According to Burns District GIS information, all leks or lek complexes within the CMPA are less than one-mile from a road. Most of these leks are inaccessible during the main portion of the breeding season (late March through late April) due to winter season (November-May) road closures.

Most of the CMPA has been identified as yearlong sage-grouse habitat except for steep slopes such as the gorges and east face of Steens Mountain. Nesting habitat extends from lower elevations up to about 6,500 feet on the west side of the mountain. Brood rearing, which occurs from May through October, occurs all along the elevational gradient with most sage-grouse being found at higher elevations of sagebrush, above 6,500 feet, until late fall to early winter snows move them into lower country. Movement to higher elevations is due most likely

to drying up of vegetation in lower elevations and availability of greener vegetation and water at higher elevations. Some hens and broods will stay at lower elevations if food and water are available such as in areas with springs and areas along East Canal of Malheur NWR. Nesting may occur anywhere suitable nest sites are found, but research has documented most (>50 percent) hens nesting within four miles of the nearest lek. Several nests located during the sage-grouse study on Steen Mountain were within a mile of a road (Crawford, et al. 2000).

Wolverine are known to exist on Steens Mountain. Their habitat is mostly unknown as they have not been studied on Steens Mountain, but would include talus slopes, in the gorges, as well as some upper elevation flat areas adjacent to the canyons. A critical component of their habitat seems to be absence of human activity or development. Most available habitat for wolverines on Steens Mountain is unroaded or has very low densities of roads.

Northern goshawks are known to utilize Steens Mountain, but documented occurrences are few. Goshawks are usually a forest species but will use dense, large groves of aspen with considerable canopy closure. Denser aspen stands goshawks could use for nesting have few to no roads so access and disturbance from traffic should not be a factor during nesting and fledging of young. None of the alternatives increases or decreases roads in these areas so implementation of the TMP is not expected to affect goshawks, and they will not be discussed further.

Swainson's hawks may be found in the project area but documentation of nest trees or sightings have not been obtained. These raptors use juniper woodlands and are known to nest in small trees, willows, and possibly in sagebrush. They may forage and nest near open grasslands and wet meadows which would include areas near seedings and Malheur NWR. Since habitat seems to be a limiting factor and none of the alternatives increases roads in the seedings or in areas near Malheur NWR, Swainson's hawks should not be affected by any of the alternatives proposed in the TMP; they will not be discussed further.

Mountain quail were reintroduced to the Steens Mountain area starting with transplants in 2005. Additional transplants occurred in 2006 and are scheduled for 2007. Mountain quail were common on Steens Mountain through the late 1970s with the last known observation during the early 1980s. These birds are being studied cooperatively by Oregon Department of Fish and Wildlife (ODFW), Oregon State University, and the BLM. Habitat for mountain quail at present includes areas from Malheur NWR to elevations of 6,500 feet on the west side of Steens Mountain.

Bighorn sheep habitat occurs mostly in less roaded areas of the CMPA and includes steep slopes on the East Rim of Steens Mountain and along Catlow Rim. Habitat shown on maps in GIS is not differentiated by seasonal use, but animals change elevation along these rims depending on weather conditions. At times,

bighorn sheep can be observed from major roads around Steens Mountain. Several migration corridors have been identified crossing East Steens Road between habitat on the mountain and habitats to the east.

Long-billed curlews are a common grassland species nesting in many crested wheatgrass seedings and native grassland or meadow vegetation types in the area. They also use flooded native hay meadow areas for feeding. The alternatives neither increase nor decrease roads in existing seedings, so the TMP is not expected to affect long-billed curlew habitat. Curlews will not be discussed further.

Preble's shrew has been found on Steens Mountain in a variety of habitats and is found mainly near streams, wet meadows, and aspen habitats but also in sagebrush-bunchgrass vegetation types near these wet areas. Increases or decreases in road miles are not expected to affect Preble's shrew habitat since it would not change habitat structure over vast areas. Implementation of any alternative is not expected to affect Preble's shrew; therefore, shrews will not be discussed further.

Eight species of Special Status Species bats are known to inhabit areas in and around the TMP area. These include long-eared myotis, long-legged myotis, pallid bat, silver-haired bat, spotted bat, Townsend's big-eared bat, western small-footed myotis, and Yuma myotis. There is little site-specific information on bats and their foraging or roosting areas within the project area. However, bats will not be discussed further as they should not be affected by any aspect of this plan, since most roosting areas are probably not near roads.

Burrowing owls have been observed in the project area recently, with nest sites in some crested wheatgrass seedings and within 100 yards of roads. The alternatives do not increase or decrease roads in the existing seedings, so the TMP is not expected to affect burrowing owls. There will be no additional discussion.

Wildlife (excluding Special Status Species):

Wildlife other than migratory birds and Special Status Species include mule deer, elk, pronghorn antelope, badger, black-tailed jackrabbit, cottontails, magpies, ground squirrels, pocket gophers, deer mouse, cougar, bobcat, coyote, chukar, California quail, yellow-bellied marmot, woodrats, voles, rattlesnakes, garter snake, racer, long-nosed leopard lizard, western fence lizard, short horned lizard, and tree frogs. More information on big game species can be found in Chapter 3 of the Andrews/Steens PRMP/FEIS.

Pronghorn can be found at all elevations of the project area at different times of year. They prefer more open habitats such as grasslands, low sagebrush, and generally open rolling terrain but will use other habitats such as big sagebrush occasionally.

Mule deer use the project area yearlong. Elevations below about 5,600 feet are considered winter range, but this varies with the snow pack each year. As snow melts, deer move to higher elevations. Fawning habitat was described by Sheehy in the 1970s as mountain big sagebrush areas near aspen stands. The majority of documented fawning occurred within 100 yards of these stands. Seasonal road closures, about November 15 to May 15, on the west side of Steens Mountain restrict motorized vehicle traffic in crucial deer winter ranges. These seasonal closures reduce stress from human disturbance at a time when deer are trying to conserve energy while fat reserves are decreasing. At present, deer numbers on Steens Mountain are below management objective numbers as set by ODFW with drought, loss of winter range, and increased mortality being the main factors contributing to lower productivity.

Elk use the project area yearlong, changing elevations through the seasons. Winter range is usually lower elevations along the Donner und Blitzen River corridor and lower juniper areas to the north. Seasonal road closures, about November 15 to May 15, on the west side of Steens Mountain restrict motorized vehicle traffic in crucial elk winter ranges. These seasonal closures reduce stress from human disturbance at a time when elk are trying to conserve energy while fat reserves are decreasing. Kiger Gorge, Riddle Creek, Coyote Creek, upper elevations of the Donner und Blitzen drainage, and other higher elevation areas, including private land, make up elk summer range. Approximately 400 head of elk occupy parts of the project area. Elk are currently at management objective numbers set by the ODFW.

Cougar range throughout the CMPA with possible population increases over the last couple of decades. This species preys mainly on mule deer, bighorn sheep, pronghorn and elk and can be found anywhere prey exists. Usually cougar are associated with more rugged areas but will move to less rugged terrain during winter when prey species are concentrated nearer roads and small population areas around the base of Steens Mountain.

Migratory birds, Special Status Species, and other wildlife species respond to roads differently depending on type of road, level of use by motorized vehicles and screening from the road by vegetation or topography. In general, the higher the standard of road and more use it receives, the more it is a barrier to wildlife movements and wildlife will increasingly avoid the disturbance. Within the CMPA, level of use is reflected in maintenance levels established in the Andrews/Steens PRMP/FEIS (Pages 2-92 to 2-93, Map 2.18.3). Main roads (Maintenance Level 5 and some Level 3) in the CMPA include Steens Loop Road and several associated roads (55.7 miles) which are graded two to three times per year, have a multi weather gravel surface, and are the roads with most vehicle use. Secondary roads (Level 3, 54 miles) include Moon Hill Road and loop section of this road, Riddle Brothers Ranch Access Road, Kiger Horse Herd Viewing Area Road, and others which are graded once per year or less frequently.

Most miles of roads in the CMPA are primitive (Level 2) and are maintained more by use than by equipment. Historic Routes, wilderness Permit Routes, and grazing administration routes are seldom used, and mostly by grazing permittees, but are not considered routes open to the general public.

"Main," "secondary" and "primitive" are terms used by Perry and Overly (1977) to describe road types in the Blue Mountains of Washington relative to habitat effectiveness for deer and elk. "Habitat effectiveness" refers to the functionality of habitat to provide for needs of animals and is influenced by road type, location, and degree of use. The authors found the more a road was traveled, the less likely deer and elk were to use areas near roads. Habitat use was also a function of road density (miles of roads/mi^2).

The more miles of road/mi^2, the less effective habitat was. Elk habitat effectiveness decreased to 98 percent at 1-mile of primitive roads/mi^2, decreased to 74 percent at 1-mile of secondary roads/mi^2, and to 57 percent at 1-mile of main roads/mi^2. For deer, habitat effectiveness was 97 percent at 1-mile for primitive roads, 93 percent at 1-mile of main roads/mi^2, and 96.5 percent with the same density of secondary roads. Deer showed less flight response than elk to disturbance (Wisdom et al. 2005a, 2005b) on the Starkey Experimental Forest and Range in northeast Oregon. The estimated probability was 62 percent that ATV use 100 meters away elicited a flight response in elk, 43 percent at 500 meters, and 25 percent at 1,000 meters. This probability decreased if bikes, horses or hiking were the disturbance. Mule deer showed low estimated probability of 12 percent or less that a flight response was observed when any of the disturbance factors were present at the same distances. In other research, mule deer habituated to continued ATV use on predicted routes and would move very little unless chased by the ATV (Yarmoloy et al. 1988). Deer that were chased changed to night feeding patterns and used areas outside their typical home range. Pronghorn fit into the same category as deer for a flight response but may flee for longer distances before stopping.

Habitat fragmentation analysis has been used to describe effects roads have on wildlife and use of habitat near roads. A radial distance from a road is applied and core areas outside that buffer are displayed showing areas of security cover for wildlife. Many times these analyses use 1, 2, or 3-mile radial buffers which in most areas would buffer the whole area being studied. However, this analysis does not take into consideration visual and sound screening properties of vegetation and topography which need to be considered (Wisdom et al. 2005b) but requires more information than exists in most GIS databases. For purposes of this plan, a 0.5-mile radial buffer was applied to roads open to the public to determine core areas for elk outside this buffer. Extrapolating from the probabilities presented above from Wisdom (2005b), the estimated probability ATV use would elicit a response from elk would be about 0.33 at 800 meters (0.5-mile) or only about one third of the time. Only roads open to public use are

buffered since historic routes, wilderness Permit Routes and grazing administration routes are seldom used. Other species, except cougars, will not be considered when talking about this buffer as most other species (mule deer, pronghorn, coyotes, small mammals, and migratory birds) would still use habitat within this buffer to the same extent as outside the buffer as shown in Wisdom (2005b) and Gaines et al. (2003).

Environmental Consequences

Public scoping comments on the TMP specifically requested the BLM analyze road density and habitat fragmentation affects on wildlife. To summarize these effects, road density and habitat fragmentation do not appear to be a current or expected future adverse effect to habitat or wildlife populations in the CMPA. This conclusion is based on the following three reasons:

- The ODFW has not expressed or identified concerns with the current transportation network (annual meetings and frequent partnership working opportunities). The ODFW was also a cooperating agency on the RMP, and is often a cooperator on multiple projects.
- Seasonal road closures of approximately six months each year for the majority of routes in the CMPA effectively protects habitats and populations during winter and spring seasons.
- Actual road density in the CMPA is not high enough to approach the level of adverse effects found in other areas. The BLM Dillon RMP (February 2006) is managing for an open-road density not to exceed one mile per square mile if wildlife resource issues related to road densities are identified. Road densities may be higher than this if wildlife resource issues have not been found.

Specific additional information is provided below.

Alternative A

Historic Routes, wilderness Permit Routes, and grazing administration routes would rarely be used. Effects on wildlife would be as though the road is closed, or does not exist. Flight response could result if activity occurred on the road. Because of seasonal closures to Steens Loop Road (approximately November 15 to May 15) and surrounding secondary and primitive roads to keep wildlife, mainly mule deer, from being harassed on winter range, the overall affect to wildlife would be minimal. Although roads are present, without traffic there is no additional disturbance to wildlife.

Elk tend to avoid main and secondary roads more than primitive roads. Most road miles in the CMPA are primitive roads so habitat use near primitive roads continues to occur until vehicle use increases late in summer on most roads. Elk will use areas with less vehicle traffic which includes unroaded areas such as Kiger Gorge and other parts of Steens Mountain Wilderness as well as private

lands. Once traffic has decreased, which is usually around November 15, elk will move into areas used prior to increased vehicle activity. With seasonal closures, approximately November 15 to May 15, there is no disturbance from traffic in winter ranges for elk. Since most roads are primitive and road densities are less than 1-mi/mi^2, habitat effectiveness for elk would be above 95 percent. Elk habitat effectiveness would be less near Steens Loop Road and Moon Hill Road during the summer when vehicle traffic increases. Core habitat areas outside the 0.5-mile radial buffer along all roads occur throughout the CMPA with the majority of core areas along the east side of Steens Mountain and south of North Loop Road. This is due to higher density of roads north of North Loop Road and the main portion of Steens Mountain Wilderness being south of this road. The total acreage of core areas on public lands is 198,952 acres out of 428,197 acres of public land in the CMPA. Core areas represent 46 percent of the total acreage.

Mule deer and pronghorn antelope would not necessarily avoid roads on public lands depending on amount of vehicle traffic, vegetation and topographic screening. Deer can be seen throughout the year near roads and may not leave the area until disturbed. Deer would move out of areas when activities associated with increased vehicle traffic such as hiking increases. Antelope, if close to roads, will usually run, but often not far. As with deer, antelope will move farther from roads when activity increases.

Potential effects of this alternative on greater sage-grouse are expected to be nonexistent most of the year. Breeding and nesting areas are protected by seasonal road closures with some nesting still occurring once Steens Loop Road is open. Most nesting areas would still be protected since no off-road use is allowed within the CMPA. Brood rearing areas might be affected where roads are near wet meadow areas but would depend on amount of use the road receives. Sage-grouse would move away from disturbance but would return once disturbance has ceased.

Wolverine would not be affected by implementation of this alternative. There are no new roads proposed or expected increases in vehicle traffic in areas of suitable wolverine habitat. Areas where wolverine would den are not accessible by vehicles during winter.

Cougars could be affected like elk in that as traffic increases, cougar would move to more remote areas but could be attracted to areas nearer main roads if prey is present. Cougar populations should not be affected as no new roads are proposed in areas where cougars bear and raise young.

Small mammals such as deer mice, voles, cottontail rabbits, and jackrabbits would to some extent avoid main roads but may also be attracted to them for more succulent forage growing in ditches. Some burrowing small mammals such as ground squirrels may be attracted to roads since substrates in the road base or rocks pushed up along side may provide better characteristics for burrows.

Depending on surrounding vegetation, small mammals may be more susceptible to predation along main roads such as Steens Loop Road. Jackrabbits and ground squirrels may become easier prey for predators when near main roads with lack of overhead cover and horizontal screening. These animals may also be more susceptible to collisions with vehicles. Secondary and primitive roads tend to have more vegetation up to the road edge, so exposure to predation would be lower. Collisions with vehicles would occur less often along these roads. With the majority of roads in the CMPA being primitive, effects of this alternative on small mammals should be negligible with most effects occurring near Steens Loop Road.

Migratory songbirds such as sage sparrow, lark sparrow, gray flycatcher, dusky flycatcher, loggerhead shrike, house finch, sage thrasher, and others use habitats adjacent to roads. The most likely response of birds to disturbance from vehicles is flight from adjacent habitats, but birds may return as soon as the disturbance has passed, or fly off to forage/roost someplace else. The more the disturbance, the less likely birds are to return. Raptors would show a similar response to disturbance as other migratory birds but may roost in trees farther from main and secondary roads, but nearer primitive roads. This is somewhat dependent on availability of roost trees near roads. Nests are more likely to be in trees away from roads in denser tree stands that may provide some screening. Scavengers may be drawn to main or secondary roads by carcasses of small mammals killed by vehicles. California quail and mountain quail would respond to vehicle traffic by scurrying off roads into shrub cover or flushing from road sides. These birds may be seen near all types of roads and may be more susceptible to predation where cover is less on main and secondary roads. This alternative is not expected to measurably affect quail.

Effects of this alternative on reptiles and amphibians would be the same as those described for small mammals. Wet areas with standing water in borrow ditches may become breeding areas for Pacific tree frogs and may attract reptiles and amphibians to prey species such as insects. The chance of collisions is greater near Steens Loop Road which is about 10 percent of total road miles.

Since enactment of the Steens Act, approximately 104 miles of roads have been closed to the general public due to creation of wilderness. Reduced road densities in areas south of North Loop Road created large core areas within wilderness. Within the CMPA, total road density for all lands would be 0.94-mi/mi^2. Road densities on private lands are higher than on public lands but many of these roads are probably used less than if they were open to public use and might be used to the same degree as Historic Routes, wilderness Permit Routes, and grazing administration routes. Even though road densities are higher cumulatively, effects of these roads on wildlife are less than from primitive roads on public lands. Private lands may act as secure habitat for wildlife, especially elk, when use on public lands increases. This would increase the amount of core areas available to elk when vehicle traffic increases on public lands. During times of seasonal

closures approximately six months of the year, public lands and private lands would not be used differently.

Alternative B

Historic Routes, wilderness Permit Routes, and grazing administration routes would be used for a short time of the year and traveled only a few times. Wildlife would use the area as though the road did not exist, but would have some flight response if activity occurred on the road. Because of seasonal closures to Steens Loop Road (approximately November 15 to May 15) and surrounding secondary and primitive roads to keep wildlife, mainly mule deer, from being harassed on winter range, the overall effect to wildlife would not be detectable. Although roads are present, without traffic there is no disturbance to wildlife.

As in Alternative A, elk would avoid main and secondary roads more than primitive roads. Most road miles in the CMPA are primitive roads so habitat use near primitive roads would continue to occur until vehicle use increases late in the summer. Elk would use areas with less vehicle traffic which includes unroaded areas such as Kiger Gorge, Steens Mountain Wilderness, as well as private lands. Once traffic has decreased, usually by November 15, elk would move into areas used prior to hunting season. With seasonal closures, approximately November 15 to May 15 each year, there is no disturbance from traffic in winter ranges for elk. Since most roads are primitive and road densities are less than 1-mi/mi^2, habitat effectiveness for elk would be above 95 percent. Elk habitat effectiveness would be less near Steens Loop Road and Moon Hill Road during the summer when vehicle traffic increases. Core habitat areas outside the 0.5-mile radial buffer along all roads occur throughout the CMPA with the majority of core areas along the east side of Steens Mountain and south of North Loop Road. This is due to the higher density of roads north of North Loop Road and the main portion of Steens Mountain Wilderness being south of this road. Total acreage of core areas on public lands is 192,446 acres out of the 428,197 acres of public land in the CMPA. Core areas represent 45 percent of the total acreage available which is one percent less than in Alternative A. The main loss of core area acreage is in the area between the two wilderness sections and west of Donner und Blitzen River. Response of elk would be the same as effects from Alternative A since there are few miles of road added to the transportation system. This would affect elk winter range to the extent vehicle traffic would increase in this area. Some roads could still be accessed during winter, but road conditions may not allow vehicles to travel these roads. Other roads are in the seasonal closure area which is the main area of elk winter range. Overall, the proposed increase in roads in this alternative would have no increased effects on elk.

Mule deer and pronghorn antelope would not necessarily avoid roads on public lands depending on amount of vehicle traffic, vegetation and topographic screening. Deer can be seen at different times of the year near roads and may not leave the area until disturbed. Deer would move out of areas once hunting seasons

start and foot traffic increases near roads. Antelope, if close to roads, will usually run but often not far. Antelope will move farther from roads during hunting seasons.

Effects on greater sage-grouse are expected to be nonexistent most of the year. Breeding and nesting areas are protected by seasonal road closures with some nesting still occurring once Steens Loop Road is open. Most nesting areas would still be protected since no off-road use is allowed within the CMPA. Brood rearing areas might be affected where roads are near wet meadow areas but would depend on amount of use the road received. Sage-grouse would move away from disturbance but would return to the area once disturbance has ceased.

Wolverine would not be affected by implementation of this alternative since there are no new roads proposed in areas of suitable wolverine habitat or expected increases in vehicle traffic in those areas.

Cougars would be affected as traffic increases and would move to more remote areas but could be attracted to areas nearer main roads if prey is present. Cougar populations should not be affected since no new roads are proposed in habitats where cougars bear and raise young.

Small mammals, migratory birds, reptiles, and amphibians would be affected by this alternative the same as in Alternative A. With only 36 more miles of grazing administration routes being open for public use, and these road miles being primitive roads, overall effects to small mammals would not be noticeable.

Since the enactment of the Steens Act, approximately 104 miles of roads have been closed to the general public due to creation of the Steens Mountain Wilderness Area. Reduced road densities in areas south of the North Loop Road created large core areas within the wilderness. Within the CMPA, total road density for all lands would be 0.98-mi/mi^2. Road densities on private lands are higher than on public lands as in Alternative A, but many of these roads are used less than if they were open to public use and could be used to the same degree as permit or Obscure Routes. Even though road densities are higher cumulatively, effects of these roads on wildlife are less than would be associated with primitive roads on public lands. Private lands may act as secure habitat for wildlife, especially elk, when use on public lands increases. During times of seasonal closures, public lands and private lands may not be used any differently.
For most other species, cumulative effects would be the same as those described for this alternative on public lands.

Alternative C

Historic Routes, wilderness Permit Routes, and grazing administration routes would have the effect of being closed in that use is for a short time and they are traveled only a few times. Effects of this type of use on wildlife for the majority

of the year would be as though the road were closed. Wildlife would use the area as if the road did not exist but would have some flight response if activity occurred on the road. Because of seasonal closures to Steens Loop Road (approximately November 15 to May 15) and surrounding secondary and primitive roads to keep wildlife, mainly mule deer, from being harassed on winter range, there would be no effect on wildlife during closure periods.

Elk avoid main and secondary roads more than primitive roads. Most road miles in the CMPA are primitive roads so habitat use near primitive roads would continue to occur until vehicle use increases late in summer. Elk will use areas with less vehicle traffic which includes unroaded areas such as Kiger Gorge and other parts of Steens Mountain Wilderness as well as private lands. Once traffic has decreased usually by November 15, elk will move into areas used prior to hunting season.

Since most roads are primitive and road densities are less than 1-mi/mi^2, habitat effectiveness for elk would be above 95 percent. Elk habitat effectiveness would be less near Steens Loop Road and Moon Hill Road during the summer when vehicle traffic increases. With closure of about 200 miles of roads to public use, more and larger core areas would be available for elk use mainly north of North Loop Road. These closed roads would still be open for minimal grazing administration use and should have no effect on elk. The larger core areas would be mainly in elk winter range with some core area increase in summer range.

Mule deer and pronghorn antelope may use more areas away from roads (core areas), but research does not support they would use these areas to any greater extent than areas closer to roads. Road closure areas may become refuges for predators of deer and pronghorn which could affect long-term productivity.

Effects of this alternative on sage-grouse are expected to be the same as those of other alternatives for breeding and nesting areas since these areas are protected by seasonal road closures, with some nesting still occurring once Steens Loop Road is open. Most nesting areas would still be protected since no off-road use is allowed within the CMPA. Brood rearing areas might be affected where roads closures are near wet meadow areas such as in the Stonehouse area. There would still be some use in these areas from grazing permittees but use would be less than if these roads are open to the public.

Wolverine may be affected by implementation of this alternative in that road closures in the Stonehouse area could increase available habitat for wolverines but this is not known with certainty.

Cougars would be affected due to the increase in core areas that could provide more habitat for their prey species. With less vehicle use in these areas, cougar could pursue prey with fewer human interruptions which could have a greater impact on prey species populations.

Small mammals, migratory birds, reptiles, and amphibians could be affected by this alternative due to reduced disturbance from 200 miles of primitive roads being closed to the public. Primitive roads would be used during nesting season for migratory birds but would be used less since grazing permittees would still have access for permit administration. With these roads closed, birds may nest nearer closed roads, but this would depend on suitability of the site for nesting purposes. Small mammals and reptiles and amphibians would probably not be affected by this alternative since most of the proposed closed roads are primitive roads.

Since passage of the Steens Act, approximately 104 miles of roads have been closed to the general public due to the creation of wilderness. Reduced road densities in areas south of North Loop Road created large core areas within wilderness. Within the CMPA, total road density for all lands would be 0.66-mi/mi^2. Road densities on private lands are higher than on public lands as in other alternatives, but many of these roads are used less than if they were open to public use and could be used to the same degree as Permit or Obscure Routes. Even though road densities are higher cumulatively, effects of these roads on wildlife are less than would be associated with primitive roads on public lands. Private lands may act as secure habitat for wildlife, especially elk, when use on public lands increases but with larger core areas due to closure of about 200 miles of roads, big game and predators would tend to spread use to other core areas on public lands. During times of seasonal closures, public and private lands may not be used differently.

Alternative D – Proposed Action

Historic Routes, wilderness Permit Routes, and grazing administration routes would be used for a short time of the year and traveled only a few times. Wildlife would use the area as though the road did not exist, but would have some flight response if activity occurred on the road. Because of seasonal closures of Steens Loop Road (approximately November 15 to May 15) and surrounding secondary and primitive roads to keep wildlife, mainly mule deer, from being harassed on winter range, the overall effect to wildlife would not be detectable. Although roads are present, without traffic there is no disturbance to wildlife.

As in Alternative B, elk will avoid main and secondary roads more than primitive roads. Most road miles in the CMPA are primitive roads so habitat use near primitive roads will continue to occur until vehicle use increases late in the summer. Elk will use areas with less vehicle traffic which includes unroaded areas such as Kiger Gorge, Steens Mountain Wilderness, as well as private lands. Once traffic has decreased, usually by November 15, elk will move into areas used prior to hunting season. With seasonal closures, approximately November 15 to May 15 each year, there is no disturbance from traffic in winter ranges for elk. Since

most roads are primitive and road densities are less than 1-mi/mi^2, habitat effectiveness for elk would be above 95 percent.

Elk habitat effectiveness would be less near Steens Loop Road and Moon Hill Road during the summer when vehicle traffic increases. Core habitat areas outside the 0.5-mile radial buffer along all roads occur throughout the CMPA with the majority of core areas along the east side of Steens Mountain and south of North Loop Road. This is due to the higher density of roads north of North Loop Road and the main portion of Steens Mountain Wilderness being south of this road. The total acreage of core areas on public lands is 192,446 acres out of 428,197 acres of public land in the CMPA. Core areas represent 45 percent of the total acreage available, which is the same as Alternative B. The main loss of core area acreage is in the area between the two wilderness sections and west of the Donner und Blitzen River. Response of elk would be the same as effects under Alternative B since there are few miles of road added to the transportation system. This would affect elk winter range to the extent vehicle traffic would increase in this area. Some roads could still be accessed during winter, but road conditions may not allow vehicles to travel these roads. Other roads are in the seasonal closure area which is the main area of elk winter range. Overall, the proposed increase in roads in this alternative would have no increased effects on elk.

Mule deer and pronghorn antelope would not necessarily avoid roads on public lands depending on amount of vehicle traffic, vegetation and topographic screening. Deer can be seen at different times of the year near roads and may not leave the area until disturbed. Deer would move out of areas once hunting seasons start and foot traffic increases near roads. Antelope, if close to roads, will usually run but often not far. Antelope will move farther from roads during hunting seasons.

Effects on greater sage-grouse are expected to be nonexistent most of the year. Breeding and nesting areas are protected by seasonal road closures with some nesting still occurring once Steens Loop Road is open. Most nesting areas would still be protected since no off-road use is allowed within the CMPA. Brood rearing areas might be affected where roads are near wet meadow areas but would depend on amount of use the road received. Sage-grouse would move away from disturbance but would return to the area once disturbance has ceased.

Wolverine would not be affected by implementation of this alternative since there are no new roads proposed in areas of suitable wolverine habitat or expected increases in vehicle traffic in those areas.

Cougars would be affected as traffic increases and would move to more remote areas but could be attracted to areas nearer main roads if prey is present. Cougar populations should not be affected since no new roads are proposed in habitats where cougars bear and raise young.

Small mammals, migratory birds, reptiles, and amphibians would be affected by this alternative the same as in Alternative B. With only 36 more miles of grazing administration routes being open for public use, and these road miles being primitive roads, overall effects to small mammals would not be noticeable.

Since the enactment of the Steens Act, approximately 104 miles of roads have been closed to the general public due to the creation of Steens Mountain Wilderness. Reduced road densities in areas south of North Loop Road created large core areas within the wilderness. Within the CMPA, total road density for all lands would be 0.98-mi/mi^2. Road densities on private lands are higher than on public lands as in Alternative A, but many of these roads are used less than if they were open to public use and could be used to the same degree as Permit or Obscure Routes. Even though road densities are higher cumulatively, effects of these roads on wildlife are less than would be associated with primitive roads on public lands. Private lands may act as secure habitat for wildlife, especially elk, when use on public lands increases. During times of seasonal closures, public and private lands may not be used any differently. For most other species, cumulative effects would be the same as those described for this alternative on public lands.

Summary Table of Wildlife Effects:

The table below compares alternatives by displaying road density and core acres. To adequately explain cumulative effects (also including private roads and routes within the CMPA) a column with cumulative road densities is also shown.

Alternative	Public Lands Density	Seasonal Closure	Core Acres	Cumulative Road Density
A	0.78 mi/mi^2	6 months	46%	0.94 mi/mi^2
B	0.83 mi/mi^2	6 months	45%	0.98 mi/mi^2
C	0.46 mi/mi^2	6 months	67%	0.66 mi/mi^2
D	0.83 mi/mi^2	6 months	45%	0.98 mi/mi^2

5. Water Quality, Wetlands, Riparian Functioning Condition and Fisheries

These four resources are assessed together because riparian functioning condition is a major contributor to water quality, and both act in concert to determine habitat quality for fish.

This documentation and analysis tiers to, and incorporates by reference, information contained in the Andrews/Steens PRMP/FEIS (August 2004). Relevant resource information on water, riparian and fisheries is located in Sections 3.3, 3.5.1, 3.6.1, and 3.7.3.

Affected Environment

In the CMPA, approximately 250 stream miles, on public land riparian areas associated with perennial and intermittent streams, were assessed by BLM interdisciplinary (ID) teams using a Proper Functioning Condition (PFC) Assessment between 1997 and 2000. Seventy-five percent (75%) of these riparian areas were determined to be in PFC. Some stream reaches functioning at-risk were reassessed in 2006, and had achieved PFC since the first assessment was conducted, primarily due to changes in grazing management. No riparian areas in the CMPA had degraded from PFC, and no streams functioning at-risk with an upward trend moved to functioning at-risk with a downward trend. All fish-bearing streams in the CMPA are either in PFC or are functioning at-risk with an upward trend.

A total of 51 perennial stream road crossings have been identified by GIS data within the CMPA. One of these is a bridge over Donner und Blitzen River at Blitzen Crossing on Steens Loop Road. All remaining perennial stream crossings are on primitive roads subject to occasional maintenance as-needed or no maintenance. All perennial stream crossings are on reaches in PFC or functioning at-risk with an upward trend. The GIS records identify 425 crossings on intermittent or perennial reaches, most of which do not affect riparian vegetation or riparian condition.

Public land in the CMPA provides habitat for a total of five native fish species, distinct subspecies or distinct populations and several introduced fishes. Periodic inventory and fish monitoring have been performed by BLM and ODFW for many years and have verified existence of these fish species. One fish species found in the CMPA is listed as threatened by both the State of Oregon and the Federal government (Lahontan cutthroat trout). Two species or populations are considered assessment, tracking, or sensitive by the BLM. One amphibian, the Columbia spotted frog, is a candidate for listing under the Endangered Species Act (ESA) and is discussed in the Wildlife Section of this document.

The CMPA contains the native nongame species mountain whitefish and brook trout, hatchery rainbow trout, and mixed-strain Lahontan cutthrout trout.

Special Status Fish Species:

Redband Trout

In the CMPA, redband trout occupy the Donner und Blitzen River system including Kiger Creek and McCoy Creek drainages, Riddle Creek watershed, and Home and Threemile Creeks in Catlow Valley. Redband trout are considered a species of special concern by the American Fisheries Society in all states in the historical range, and are classified as a tracking species by the BLM.

Lahontan Cutthroat Trout

During the 1970s, Lahontan cutthroat trout from Willow and Whitehorse Creeks (not in the CMPA) were introduced into creeks in the CMPA including Pike, Mosquito, Little McCoy, Big Alvord, Little Alvord, Cottonwood, and Willow Creeks. Surveys conducted in 1991 confirmed many of the introduced Lahontan cutthroat trout still persist. Populations of hatchery-produced Lahontan cutthroat trout also inhabit Mann Lake, Wildhorse Lake, and Wildhorse Creek. Pursuant to the ESA, this subspecies is Federally listed as threatened throughout its range.

Observations and assessments of public land stream reaches in the CMPA occupied by Lahontan cutthroat trout indicate riparian and stream habitat conditions are naturally resilient to disturbance or have improved over recent historic conditions.

Malheur Mottled Sculpin

The Malheur mottled sculpin is endemic to the Harney Basin of southeastern Oregon, including the Silvies and Blitzen river systems. It is listed as a sensitive species by the State of Oregon and the BLM. Historic distribution within the CMPA includes the Blitzen River and tributary streams on Steens Mountain.

Catlow Tui Chub

Historically, Catlow tui chubs occurred in three streams (Threemile, Skull, and Home Creeks) that drain the west flank of the Catlow Rim and in Rock Creek along the western edge of Catlow Valley (Bills 1977; Kunkel 1976). The species appears to be locally abundant.

Redband Trout Reserve

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

Environmental Consequences

For all alternatives:

Nonpoint source pollution in the form of sediment input is the primary water quality consideration regarding roads on public lands. Effects to riparian areas from roads would not be measurable, since less than one linear mile (based on an average 10-foot road prism) of riparian vegetation is affected by 482 road crossings over more than 1,400 miles of perennial, intermittent, and ephemeral

streams. Upland rangeland health and riparian functioning condition is monitored for potential to contribute sediment by accelerated erosion, and this factor contributes to an ID team's determination of upland and riparian rangeland health standards. Presence and influence of roads or any other identifiable factor is considered in any determination, and the ID team would recommend changes in management when erosion that could potentially result in sediment to streams is a contributing factor to failure to achieve rangeland health standards.

Roads and OHVs have potential to affect water quality by contributing sediment from unvegetated or otherwise unprotected soil surfaces. Sediment from roads or other sources can be an effect on recognized beneficial uses. For the CMPA, beneficial uses that could be affected by sediment are resident fish and aquatic life, salmonid fish rearing, and salmonid fish spawning. However, 35 BMPs were specified for road design and maintenance in the CMPA RMP (Appendix B 1-3). These BMPs are intended to maintain water quality and quantity, or restore water quality when field evaluation identifies a site-specific problem that results in elevated water temperature or sediment contribution. Effectiveness of BMPs relies on using appropriate measures, adequate implementation, and monitoring of both implementation and effectiveness. Where management prescriptions call for BMPs to protect or restore water quality, it is assumed BMPs would be selected and implemented appropriately; monitoring of BMP implementation and effectiveness would be conducted; and monitoring data would be used in an adaptive management framework to provide BMPs are reasonably effective. For example, appropriate BMPs were implemented for the Moon Hill Road Reroute in NEPA analysis in 2006.

The travel plan transportation network has no measurable influence on existing riparian conditions. Few roads or routes cross or pass along streams with riparian communities, and the few cases in which roads have been determined to degrade riparian condition, action has routinely been initiated to remedy the situation. Therefore, any increase or decrease in number of miles available for public vehicle use or permittee access is unlikely to alter riparian areas in which PFC has been achieved, or change the trajectory of riparian areas which are functioning at-risk.

Any effect to stream temperature from stream crossings is not likely to be measurable. Infrequent use of stream crossings may preclude establishment or vigor of vegetation that buffers water temperature. However, the very small proportion of total riparian vegetation within the CMPA that could potentially be altered by road crossings (approximately one-mile out of 1,400 miles) is not likely to have any measurable effect on stream temperature. Crossings through ephemeral and most intermittent channels that do not have the capability to support riparian vegetation have no effect. Crossings through riparian vegetation on perennial and some intermittent streams retard vegetation in small (10-foot average width) corridors, and this may result in slight but immeasurable water temperature gain during a portion of the day (depending upon aspect and season).

However, where aspen or cottonwood trees overhang the road, no loss of shade occurs.

Any effect to sediment from stream crossings is also not likely to be measurable. Heavy rainfall events (when snow cover is not present) in the CMPA are infrequent but may be extreme. Due to gradient and channel characteristics, sediment from uplands (including road approaches not buffered by riparian vegetation) tends to move quickly through aquatic habitat. Based on observations at live streams by resource staff, sediment displaced by crossing vehicles remains suspended in the water column for a brief period of time and settles out within a few feet of the crossing (depending on the physical characteristics of the streambed). Further, traffic on most unimproved roads in the CMPA is infrequent, and many stream crossings may be used only a few times (or not at all) in any given year.

The application of BMPs would reduce alteration of stream channels and amount of sediment entering the water as a result of road maintenance, road closure, or rerouting of problem roads that may be identified in the future. For example, the Willow Creek Road Reroute analysis considers BMPs as well.

Effects to surface water quality resulting from enactment of any alternative would not vary measurably from the current situation. Obscure Routes do not cross any perennial streams, so no measurable reduction in sediment is likely to result from leaving them open or closing them. Permit Routes and Historical Routes within WSAs now in use have also contributed to the existing situation, so continuing to use them at approximately current levels is unlikely to result in additional sediment. Existing and potential ATV routes and ATV trails do not cross perennial streams, and are already in use now, in some cases by full-sized vehicles. Any changes in designation are unlikely to cause changes in effects from sediment.

Since no new riparian crossings are proposed, no effects to riparian vegetation or stream temperature would occur. As effects to fish (including Special Status Species) and fish habitat are a combination of effects to water quality, riparian habitat conditions, and PFC or upward trends of CMPA streams would be maintained, effects to fish and fish habitat would also not be measurable.

Effects to surface water resulting from motorized routes available for use by the public and specifically available for livestock operators has potential to increase sediment contribution to an unknown degree but is likely to be so small as to be unmeasurable. The degree to which sediment inputs to intermittent and ephemeral channels increases would depend upon amount of increased use a particular route receives, coupled with magnitude of rainfall events. Since both of these factors cannot be predicted with accuracy, any increase in sediment from roads would likely be undetectable.

6. Noxious Weeds

Current discussion and analysis of potential effects on noxious weeds are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.5.5 and 4.5.6.

Affected Environment

The District weed database currently identifies 361 sites of noxious weeds totaling 404.9 acres in the CMPA. Please refer to the following table for a breakout of each species. The road network and recreational sites in the CMPA are currently a high priority for monitoring for noxious weeds. They are surveyed on a regular basis. The vast majority of noxious weed sites in the CMPA occurs along roads or around reservoirs and has been/are being actively treated on a regular basis. Treatments utilized include chemical, mechanical, and biological control methods. Most sites are currently very small.

Weed Species	# of Sites	# of Acres
Bull Thistle	94	53.4
Canada Thistle	86	148.3
Dalmatian Toadflax	7	0.1
Diffuse Knapweed	13	6.2
Field Bindweed	5	0.1
Halogeton	1	1.6
Mediterranean Sage	4	8.3
Medusahead Rye	16	14.1
Perennial Pepperweed	6	2.9
Russian Knapweed	1	0.01
Scotch Thistle	88	157.6
Spotted Knapweed	14	9.5
St. Johnswort	2	0.01
Tansy Ragwort	2	0.01
White Top	19	2.8
Yellow Starthistle	2	0.001
Yellow Toadflax	1	0.001
Total	**361**	**404.9**

Roads and travel corridors are typically the likely place for new introductions of weeds. By their very nature, these areas receive more traffic than surrounding lands, thereby increasing opportunities for weed seeds or other reproductive plant parts to be deposited. Maintained roads receive considerably more disturbance than the average landscape, exponentially increasing sites susceptible to new weed introductions. In this arid part of the world, unimproved roads or trails typically remain visible and road-like for many years even without maintenance or much traffic. They lend themselves to OHV use, game trails, livestock trails,

and recreational hiking even when not used by regular, on-road vehicles. This maintains an increased level of disturbance and elevated opportunities for new weed introductions.

Environmental Consequences

For all alternatives:

Closing roads has both positive and negative consequences on noxious weeds. Where roads are closed, there is a reduction in disturbance from vehicles. This may result in less available sites for new weed introductions. Depending on level of travel that continues, be it from hikers, wildlife, or livestock, road closures may also cut down on weed seed introduction and spread; unfortunately, it will not entirely eliminate weed introduction or spread. Once roads are closed, they will likely receive less monitoring for weeds because of increased time and cost involved in traveling those routes on foot or horseback. Conversely, open routes are more easily monitored for new weed infestations but they are also more apt to have weed seeds introduced. Consequently, there are no differences in impacts to weed management practices among the alternatives.

7. Areas of Critical Environmental Concern

Current discussion and analysis of potential effects on Areas of Critical Environmental Concern (ACEC) are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.21 and 4.21.

Affected Environment

All or portions of eight ACECs are present in the CMPA. Six of those ACECs are also Research Natural Areas (RNAs). The following list shows the ACECs and their relevant and important values.

East Kiger Plateau RNA/ACEC – High elevation fescue grassland and Special Status plants.

Little Blitzen RNA/ACEC – Mid to high elevation vernal pond; a stream system originating in the subalpine; aspen groves; late-lying snowbeds; snow deflation and moderate slow cover communities; high elevation fescue grassland; and Special Status plants.

Little Wildhorse Lake RNA/ACEC – Pristine, mid to high elevation lake.

South Fork Willow Creek RNA/ACEC – A stream system originating in a glacial cirque; alpine communities on Steens Mountain; and Special Status plants.

Rooster Comb RNA/ACEC – A mountain mahogany/bluebunch wheatgrass plant community; a black cottonwood riparian community.

Big Alvord Creek RNA/ACEC – A stream with a high gradient reach in a sagebrush zone; a big sagebrush/bluebunch wheatgrass plant community; a black cottonwood riparian community.

Fir Groves ACEC – A grand fir forest on Steens Mountain.

Kiger Mustang ACEC – Wild horses of historic and cultural value.

Environmental Consequences

For all alternatives:

There would be no expected effects to relevant and important values within ACECs.

8. Special Status Flora

Current discussion and analysis of potential effects on special status plants are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.7 and 4.7.

Affected Environment

There are 21 Special Status plant species known to exist in the CMPA that are periodically inventoried and monitored by the BLM. The following table shows what plant species are present and their present status.

Special Status Plants in the CMPA

Scientific name	**Common name**	**Fed Status**	**Bur Status**	**ONHP**
Achnatherum speciosum	desert needlegrass	--	BA	2
Agastache cusickii	Cusick's giant hyssop	--	BA	2
Argemone munita ssp. rotundata	prickly poppy	--	BA	2
*Botrychium crenulat*um	crenulate moonwort	SoC	BS	1
Botrychium lunaria	moonwort	--	BA	2
Carex capitata	capitate sedge	--	BA	2
Carex cordillerana	cordilleran sedge	--	BA	2
Carex subnigricans	dark alpine sedge	--	BA	2
Carex vernacula	native sedge	--	BA	2

Castilleja pilosa var. steenensis	Steens Mountain Paintbrush	SoC	BS	1
Cymopterus nivalis	Hayden's cymopterus	--	BA	2
Gentiana prostrata	moss gentian	--	BA	2
Gentianella tenella	slender gentian	--	BA	2
Kobresia bellardii	Bellard's kobresia	--	BA	2
Lomatium ravenii	Raven's lomatium	--	BA	2
Melica stricta	nodding melic	--	BA	2
Phacelia inundata	playa phacelia	--	BS	1
Potamogeton diversifolius	Rafinesque's pondweed	--	BA	2
Salix wolfii	Wolf's willow	--	BA	2
Saxifraga adscendens var. oregonensis	wedge-leaf saxifrage	--	BA	2
Symphoricarpos Longiflorus	long-flowered snowberry	--	BA	2

Federal Status – SoC status indicates species that require more information before they are proposed to be listed as threatened or endangered under the ESA.
Bureau Status – BS species are Bureau Sensitive and are generally restricted in their range and have natural or human-caused threats to their survival. BLM is responsible for protection, management, and conservation of Bureau Sensitive species and their habitat such that any Bureau action will not contribute to the need to list any of these species. BA species are Bureau Assessment and are not presently eligible for official Federal or State status but are of concern in Oregon and at a minimum, need protection or mitigation from BLM activities.
ONHP List – This list is compiled by the Oregon Natural Heritage Program. List 1 species include taxa that are threatened with extinction or presumed to be extinct throughout their entire range. List 2 species contain taxa that are threatened with extirpation or presumed to be extirpated from the State of Oregon.

Environmental Consequences

For all alternatives:

Special Status plants are not known to be present on proposed open, proposed permit or ATV routes so there would be no expected effect to those species.

9. Cultural and Paleontological Resources

Current discussion and analysis of potential effects to cultural and paleontological resources are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.8, 3.9, 4.8 and 4.9.

Affected Environment

Analysis of impacts to cultural and paleontological resources was completed by the BLM in the Andrews/Steens PRMP/FEIS. Ten cultural resources sites were found to have been impacted by road construction or two-track road travel. These 10 incidents represent 4 percent of the total number of impacts to sites within the CMPA. No documented paleontological sites are known to have been affected. Existing gates on Cold Springs Road control access and on-site BLM volunteer host presence prevents motorized vehicle-related vandalism to Riddle Brothers Ranch.

Environmental Consequences

There would be no known further effect on cultural or paleontological resources as a result of enactment of any of the alternatives detailed in this document. Under any alternative, by direction of the Steens Act, no motorized/mechanized cross-country travel is permitted in the CMPA (except for emergency activities) and no new roads or trails for motorized or mechanized vehicles can be built, unless the road or trail is necessary for public safety or protection of the environment. While illegal cross-country travel could occur and could result in effects to sites, this is speculation. Analysis of effects to cultural and paleontological resources will not be considered further in this document.

10. American Indian Traditional Practices

Current discussion and analysis of potential effects to American Indian Traditional Practices are tiered to the AMU/CMPA PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.1 and 4.1.

Affected Environment

The BLM is aware the lower portion of Big Indian Gorge was used in the early-Contact period (prior to 1870) by ancestors of Burns Paiute Tribe and other tribes as a meeting place where horse races, games, and trading took place. Beyond that, the CMPA is known to have been used as a place to collect plant and animal food resources and as a place of refuge during the 1860s and 1870s when tensions between Indian people and immigrating non-Indians and the U.S. Military were very high. Precise locations of other American Indian traditional practices areas in the CMPA are not known.

Edible plant and animal species are found in great numbers within the CMPA, however, information is lacking on how many have been, or may be, affected by motorized/mechanized travel. By direction of the Steens Act, Sec. 102 (b) (3), the BLM is to manage the CMPA "…to conserve, protect and to ensure traditional access to cultural, gathering, religious, and archaeological sites by the Burns

Paiute Tribe on Federal lands and to promote cooperation with private landowners…."

A Burns Paiute Tribe representative described traditional practices as inclusive of family groups that are tribal members. The SMAC also recommended this include tribal individuals.

Environmental Consequences

Proposed changes in the travel system in the CMPA would involve coordination and consultation with the Tribe to ensure traditional access. Therefore, there would be no effect to Tribal traditional access as a result of enactment of any of the alternatives. American Indian Traditional Practices will not be discussed further in this EA.

11. Recreation

Current discussion and analysis of potential effects on recreation are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 2.20, 3.20, and 4.20.

Affected Environment

Within the CMPA primary recreation activities include driving for pleasure, sightseeing, camping, hiking, backpacking, wildlife viewing, hunting, fishing, and photography. Other recreational opportunities include picnicking, biking, rock hounding, snowmobiling, cross-country skiing, and OHV use. The main season of use is generally July through November, with highest use during the fall. Seasonal use occurs year-round, with access to certain areas weather dependent. Over the last several years visitation to the CMPA has varied between 42,000 and 62,000 people per year. This fluctuation may be tied to factors such as weather, gas prices, and wildfire activity.

Steens Loop Road is the main travel route and the heart of public access to the CMPA. The road provides access for the majority of recreational opportunities including links to four developed campgrounds and seven overlooks, and is one of the highest elevation roads in Oregon which can be driven in a 2-wheel drive vehicle. The CMPA route network provides access for many of these recreation pursuits. Approximately 104 miles of primitive motorized routes were closed upon designation of the Steens Mountain Wilderness Area.

There are ten trails (See Map TP-1) within Steens Mountain CMPA that have been identified and “ground truthed.” Most of these trails fall within the Steens Mountain Wilderness Area. In addition, numerous other recreational trails are known to exist based on information submitted by permit holders and other

sources. As these, and possibly other trails, are identified and documented they may be added to the trail inventory. Use of both verified and unverified trails may continue to occur unless public safety or resource protection concerns requiring corrective action are identified. Trails within wilderness will be managed, monitored and maintained to the standards provided for in the Steens Mountain Wilderness and WSRs Management Plan (August 2005) and the Steens Mountain Trail Maintenance EA (OR-027-01-15, May 2001).

The BLM understands other trails exist within the CMPA. Examples include Wet Blanket Spring Trail and Kiger Trail. Other historic trails have been identified by SRP holders or identified in area guide books. Identification and description of these trails will be covered in the Steens Mountain Comprehensive Recreation Management Plan, which will be prepared in the near future. While trails are provided, hikers and equestrians are not required to stay on trails.

Environmental Consequences

Alternative A

For the majority of visitors to the CMPA, recreation opportunities described in the Affected Environment section would continue. Closure of identified Obscure Routes would not affect most public land users because they seldom leave Steens Loop Road. Visitors that do travel off Steens Loop Road are not likely to find Obscure Routes, so impacts from their closure would be undetectable. Visitors favoring more solitude in the Blitzen River and South Fork Donner und Blitzen WSAs would prefer this alternative.

Alternative B

This alternative would have the same effects as Alternative A; however, opening Obscure Routes and adding them to the transportation network would benefit users favoring more miles of open motorized access. The opposite would be true for those wishing less motorized access.

Alternative C

As with other alternatives Steens Loop Road would remain open for motorized travel for about six months of the year, benefiting the majority of recreation users who visit Steens Mountain. Closing 250 miles of Common Use Routes would reduce motorized routes mileage by about 45% and would negatively impact OHV users who specifically want to engage in motorized travel on primitive routes.

Proposed Action

Impacts from the proposed action would be the same as those of Alternative A except some Obscure Routes may be found and used more by the public. If Obscure Routes become more evident and usable, this would favor visitors who use motor vehicles on primitive routes for recreation.

Summary Table:

Scoping comments requested the BLM address recent cumulative reductions to motorized travel in the analysis of the TMP.

Currently there are 556 miles available for public motorized use following implementation of the Steens Act and the CMPA RMP. The following table displays by alternative additional potential mileage reductions and the final mileage available for motorized recreation.

Alternative	Closed by Steens Act	Closed by RMP	Closed by TMP Alternative	Available for Motorized Recreation
A	104 miles	6 miles	36 miles	519 miles
B	104 miles	6 miles	1 mile	555 miles
C	104 miles	6 miles	250 miles	306 miles
D	104 miles	6 miles	1 mile	555 miles

12. Off-Highway Vehicles

Current discussion and analysis of potential effects on OHV are tiered to the Andrews/Steens PRMP/FEIS (August 2004) and relevant information contained in the following sections is incorporated into this EA by reference: Sections 2.19, 3.19, and 4.19.

Affected Environment

With the aging population of America, OHV use has accelerated over the past years. Industry figures state 1,500 to 2,000 ATVs are sold per day in the United States. The OHVs are separated into three Classes. Class I are ATVs or quads; Class II are 4x4 automobiles such as jeeps, pickup trucks, vans, and Sport Utility Vehicles; and Class III are motorcycles, dune buggies, and rail vehicles. Steens Mountain OHV use is dominated by Class II type vehicles.

Most OHV use by the general public is associated with driving for pleasure, exploring, rock hounding, hunting, and fishing. The OHV use occurs for administrative purposes by BLM for management, by permittee holders for livestock management, SRP operations, and by private landowners for ingress and egress to private lands.

The Steens Act, specifically Section 112(b), gives direction on vehicle use in the CMPA as follows:

(1) Prohibition. The use of motorized or mechanized vehicles on Federal lands included in the Cooperative Management and Protection Area
   (A) is prohibited off road; and
   (B) is limited to such roads and trails as may be designated for their use as part of the management plan.

(2) Exception. Paragraph (1) does not prohibit the use of motorized or mechanized vehicles on Federal land included in the CMPA if the Secretary determines that such use
   (A) is needed for administrative purposes or to respond to emergency.
   (B) is appropriate for the construction or maintenance of agricultural facilities, fish and wildlife management, ecological restoration projects, except in areas designated wilderness or managed under the provisions of Section 603 (c) FLMPA of 1976 (43 U.S.C. 1782).

Steens Mountain Wilderness is designated closed to OHV and mechanized vehicle use. If not otherwise restricted, the remainder of the CMPA, outside wilderness and including WSAs, is classified as limited to designated roads and ways.

Under the winter recreation program, snowmobile use is only allowed by permit on designated routes. The primary designated route is along North Steens Loop Road to Kiger Overlook, which is marked with snow poles each year. Those wishing to snowmobile on Cold Springs Road down to Nye Cabin or down Kiger Ridge Road must be in the company of a permitted outfitter or a member in good standing of the High Desert Snow Drifters snowmobile club. The majority of winter use is associated with snowshoeing or cross-country skiing, with only a few permits for snowmobile use issued each year.

The core of the CMPA is closed seasonally (usually mid-November to mid-May) to motorized vehicles by gates located on Steens Loop Road.

OHV Designation Acreage within the CMPA (Public Land Acres Only)

Designation	CMPA Acres
Open	0
Limited to Existing	0
Limited to Designated	256,853
Closed	171,303
TOTAL	**428,156***

*300,704 acres seasonally closed

Environmental Consequences

Consequences to OHV use are the same as those discussed under the Recreation section above.

13. Visual Resources

Current discussion and analysis of potential effects on Visual Resources are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.11 and 4.11.

Affected Environment

Visual Resource Management (VRM) goals are to manage public land actions and activities in a manner consistent with VRM class objectives. These objectives protect, maintain, improve or restore visual resources values by managing all public lands in accordance with the VRM system.

Section 102(8) of FLPMA declares public land will be managed to protect the quality of scenic values and, where appropriate, to preserve and protect certain lands in its natural condition. The NEPA, Section 101 (b), also requires Federal agencies to assure for all Americans, esthetically pleasing surroundings by using a systematic, interdisciplinary approach which will ensure the use of environmental design arts in planning and in decision making.

Guidelines for identification of visual resource inventory classes on public land are contained in BLM Manual Handbook H-8410-1.

Within the CMPA all WSAs, designated WSRs, and Steens Mountain Wilderness are VRM Class I. The Wildland Juniper Management Area is designated as VRM Class III and IV, while the remainder of the CMPA is designated as VRM Classes II, III, and IV, depending on the area.

The VRM Class Designation Acreages within the CMPA (Public Lands Only)

Designation	CMPA Acres
Class I	291,020
Class II	76,325
Class III	60,033
Class IV	778
TOTAL	**428,156**

Environmental Consequences

Alternative A

Little or no change would result to Visual Resources from the current situation. Obscure Routes would continue to naturalize improving the scenic quality in their vicinity. The resulting VRM condition would remain consistent with the assigned VRM classification.

Alternative B

This alternative would reestablish Obscure Routes for use by the public. Linear lines along reestablished routes would result. Scenic quality would be reduced in Blitzen River and South Fork Donner und Blitzen WSAs. Resulting VRM conditions would still be consistent with assigned VRM classification.

Alternative C

This alternative would result in a net loss of approximately 250 miles of motorized routes for the public. Regeneration of vegetation would reduce visual lines resulting in improved scenic quality and a more natural looking landscape. Resulting VRM conditions would still be consistent with the assigned VRM classification.

Proposed Action

The proposed action could result in reestablishment of Obscure Routes. Lines would be evident if these routes become prevalent causing reduced scenic quality in the vicinity of reestablished routes. Resulting VRM conditions would still be consistent with assigned VRM classification.

14. Soils

Current discussion and analysis of potential effects on Soils are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.4, 4.4.

Affected Environment

Soils in the CMPA primarily consist of three major types. The Ninemile-Westbutte-Carryback soil type covers about 45 percent of the CMPA; the Baconcamp-Clamp-Rock Outcrop soil type covers about 45 percent of the CMPA; and the Raz-Brace-Anawalt soil type covers nearly 10 percent of the CMPA. The following table shows the description of each soil type.

General Soil Types in the CMPA

Soil Series	Description
Baconcamp-Clamp-Rock outcrop	Well drained, shallow or moderately deep soils formed in residuum and colluvium; 5 to 80 percent slopes
Raz-Brace-Anawalt	Well drained, shallow or moderately deep soils formed in residuum and colluvium on tablelands having 8 to 12 inches of precipitation; 0 to 30 percent slopes
Ninemile-Westbutte-Carryback	Well drained, shallow and moderately deep soils that formed in residuum and colluvium on tablelands and hills having 12 to 16 inches of precipitation; 0 to 70 percent slopes

Environmental Consequences

Alternative A

Effects to soils may be influenced by frequency of travel and route condition. Soils present on proposed open routes would not be affected by travel under normal conditions and relatively normal frequency, especially those paved or improved. Soils present on primitive, proposed permit and proposed ATV routes would not be affected under normal conditions and under relatively normal frequency of travel.

Alternative B

Effects on soils would be the same as under Alternative A except that use would also include routes closed in Alternative A.

Alternative C

Effects on soils would be increased on routes left open to motor vehicles due to increase in use. Some remaining open routes could be made more susceptible to heavy rain events causing soil erosion on steeper slopes. Maintenance costs for damaged roads would increase; however, standard maintenance procedures would be able to correct problems. Soils present on the many miles of closed routes would become more stable over time with no vehicle use and an increase in vegetation.

Proposed Action

Effects to soils would be the same as in Alternative B to the extent that Obscure Routes are used and soils are exposed to the forces of nature.

15. Biological Soil Crusts

For more information on biological soil crusts in the project area see the Andrews/Steens PRMP/FEIS which contains more details and analysis regarding biological soil crusts which is herein incorporated by reference.

Affected Environment

Identification of biological soil crusts at the species level is often not practical for fieldwork; however, use of some basic morphological groups simplifies the situation. Morphological groups are also useful because they are representative of the ecological function of the organisms (Page 6, TR-1730-2). The basic morphological groups are as follows:

1. Cyanobacteria. - Perimorphic/cryptomorphic
2. Algae. - Perimorphic/cryptomorphic
3. Micro-fungi. - Cryptomorphic/perimorphic
4. Short moss (under10mm). - Hypermorphic
5. Tall moss (over 10mm). - Hypermorphic
6. Liverwort. - Hypermorphic
7. Crustose lichen.- Perimorphic
8. Gelatinous lichen. - Perimorphic
9. Squamulose lichen – Perimorphic
10. Foliose lichen. - Perimorphic
11. Fruticose lichen. - Perimorphic

Morphological groups 1, 4, 5, 7, and 8 will likely be the dominant groups represented in the project area. Morphological group 2 is difficult to observe, but observation may be possible at some sites. Group 3 is very difficult to observe unless the fruiting bodies are present; these tend to be very minute and often require an organic substrate to induce fruiting. Groups 6, 9, 10, and 11 would be expected to be present, but far less frequent, within the project area as a rule.

Environmental Consequences

Where road use would lessen or stop completely, biological soil crusts would be expected to increase in cover in these specific sites as vascular vegetation recovers. Where road use would not change, there would be no anticipated change to the current condition of biological soil crusts.

16. Vegetation

Current discussion and analysis of potential effects on vegetation are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained

in the following sections is incorporated into this EA by reference: Sections 3.5 and 4.5.

Affected Environment

The vegetation in the CMPA consists of nine major types. The major vegetation types and approximate acres within the CMPA they cover are included in the following table:

General Vegetation Types in the CMPA

General Vegetation Type	CMPA BLM Acres
Annual Grassland	1,220
Crested Wheatgrass	12,506
Big Sagebrush/Crested Wheatgrass	6,882
Big Sagebrush/Perennial Grassland	84,939
Low Sagebrush/Grassland	130,419
Silver Sagebrush/Grassland	1,085
Mountain Big Sagebrush/Perennial Grassland	41,584
Salt Desert Shrub/Grassland	321
Mountain Shrub/Grassland	6,538
Juniper/Big Sagebrush	52,659
Juniper/Low Sagebrush	51,128
Playas	395
Quaking Aspen	10,748
Native Perennial Grassland	8,425
Rabbitbrush/Grassland	5
Rock	1,466
Big Sagebrush/Annual Grassland	16,997
Total	**428,152**

Environmental Consequences

Alternative A

Vegetation growing in or along proposed open routes would not be expected to change. Vegetation could be affected on proposed permit and proposed ATV routes that only get occasional use. Depending on amount of use, occasional vehicle use would crush shrub species on those routes and potentially inhibit regrowth of shrub species. Herbaceous plants should not be affected.

Alternative B

Effects to vegetation would be the same as under Alternative A but would also include vegetation existing in or along routes closed in Alternative A.

Alternative C

Vegetation growing in or along proposed open routes would not be expected to change. Effects to vegetation on proposed Permit Routes would be the same as in Alternative A. Native vegetation would become reestablished on routes that are proposed to be closed.

Proposed Action

Effects to vegetation would be the same as in Alternative A unless use increases on Obscure Routes, in which case shrub species would be crushed along these routes.

17. Transportation/Roads

Current discussion and analysis of potential effects on Transportation and Roads are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.18 and 4.18.

Affected Environment

Currently there are approximately 556 miles of motorized routes available to the public within the CMPA. Uses include access to public lands for a variety of recreation purposes, access to private lands, grazing management, and BLM administration. Roads are maintained consistent with maintenance level assignments made in the RMP or as proposed in this EA. Route definitions and uses have been explained earlier in this EA and are also described in Appendix M, attached.

Environmental Consequences

The CMPA route network provides access and recreation uses for many purposes. These uses are impacted as routes are closed or their use otherwise changes. Impacts to the network itself are described in terms of route miles available for public motorized use (Common Use Routes) in each alternative. It is assumed routes will be maintained consistent with their assigned maintenance levels.

Motorized access for landowners and grazing operators would be the same for Alternatives A, B and D. Alternative C could reduce grazing permittee access to

the extent that lack of maintenance on closed routes may make some routes impassible over time. Landowner access may be affected to the extent reasonable access determinations may reduce multiple access routes currently available to some landowners. Grazing administration and landowner access routes are shown on maps TP-7 and TP-8.

Alternative A

This alternative closes 36 miles of Common Use Routes, which also happen to be Obscure Routes, to the public. It also reclassifies 8 miles of Common Use Routes to ATV Routes. The 8 miles of ATV Routes would no longer be maintained for use by full-sized vehicles. Selection of this alternative would not cause future changes in use or closure of routes within the CMPA.

Alternative B

All but one mile of the currently identified Common Use Routes (555 miles) would be available for public motorized vehicle travel. This includes about 35 miles of Obscure Routes that would be found and made observable for public use. Selection of this alternative would not cause future changes in use or closure of routes within the CMPA.

Alternative C

Approximately 250 miles (about 45%) of Common Use Routes would be removed from the transportation network including 4.4 miles of potential ATV Routes. The potential 3.6-mile Indian Creek ATV Route would be classified for ATV use. Closing 250 miles of routes would likely cause increased use and maintenance needs to remaining routes. Traffic counter data and people's observations indicate the closing of 104 miles of Common Use Routes within Steens Mountain Wilderness has increased motorized traffic on other routes within the CMPA. To date, increased route damage has not been an issue. Road maintenance BMPs would be implemented to help correct road damage. Some damaged routes may need to be closed which would exacerbate the traffic concentration problem.

Alternative D (Proposed Action)

All but one mile of the currently identified Common Use Routes (555 miles) would be available for public motorized vehicle travel. About 35 miles of Obscure Routes would remain available as Common Use Routes and be shown on maps; however, no effort would be made to locate and make these routes more observable on-the-ground. This may cause confusion for some visitors using mapped routes for navigation. Selection of this alternative would not cause future changes in use or closure of routes within the CMPA.

18. Grazing Management

Current discussion and analysis of potential effects on Grazing Management are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.15 and 4.15.

Affected Environment

The CMPA contains all or parts of 34 grazing allotments. Range developments associated with these allotments include waterholes, developed springs, seedings, pipelines and fences. See the table below for the allotments, season of use, and total permitted forage allocation (AUMs).

Grazing management activities involving motorized use include salt distribution, irrigation of wetland meadows outside wilderness, spring and pipeline maintenance, waterhole maintenance, fence maintenance, checking on cattle, moving cattle, retrieving sick or injured cattle, and vegetation monitoring. Routes shown on Map TP- 7 and other Historical Routes are used as needed to conduct these activities. The degree to which these motorized activities may occur within wilderness is analyzed in the EA alternatives. Outside wilderness, these activities may continue to the same manner and degree as that which was occurring at the passage of the FLPMA. The Steens Act also provides direction supporting continuation of grazing activities on public lands.

Allotment Name and #	Season of Use	Permitted AUMs
Alvord (6012)	03/01 – 02/28	10,964
Alvord Peak (6038)	03/01 – 11/30	624
Burnt Flat (5604)	04/01 – 10/30	3,866
Carlson Creek (6027)	04/15 – 05/31	688
Chimney (6033)	04/16 – 10/01	2,015
CM Otley FFR (6126)	04/15 – 10/30	170
East Ridge (6010)	04/01 – 09/30	1,192
Fields (6028)	02/15 – 11/30	1,910
Frazier Field (6006)	04/01 – 09/30	1,907
Hammond (6023)	04/01 – 10/30	473
Hammond FFR (6100)	04/01 – 04/30	32
Happy Valley (5309)	04/01 – 10/15	2,398
Hardie Summer (6025)	07/01 – 09/30	408
Jenkins B Flat FFR (5327)	08/01 – 09/30	281
Krumbo (6008)	03/15 – 12/30	4,150
Krumbo Mtn (6032)	05/16 – 10/15	1,059
LaVoy Tables (6031)	04/01 – 10/31	2,373
Mann Lake (6026)	03/01 – 06/15	3,670
Mann Lake FFR (6120)	07/02 – 07/31	22

Mud Creek (6005)	05/16 – 06/30	590
Otley Brothers FFR (6133)	03/01 – 02/28	21
Pollock (6011)	04/16 – 12/31	4,107
Pollock FFR (6119)	04/10 – 08/30	19
Riddle Mountain (5310)	04/01 – 10/31	3,386
Riddle/Coyote (5329)	05/01 – 06/30	300
Roaring Springs (6007)	04/01 – 10/31	9,576
Roaring Spring FFR (6125)	03/01 – 02/28	372
Ruby Springs (6007)	04/01 – 09/30	1,950
Scharff FFR (6130)	07/20 – 10/31	68
Serrano Point (6019)	04/01 – 06/15	500
Smyth/Kiger (5331)	04/01 – 10/31	2,295
South Catlow 0032	02/26 – 04/10	1,633
South Steens (6002)	04/01 – 10/31	9,576
Stonehouse (6040)	06/01 – 09/08	1,772

Environmental Consequences

Alternative A

Allotments within wilderness: Motorized access for grazing management in wilderness would stay at existing levels.

Allotments outside wilderness: Motorized access for grazing management outside wilderness would stay at existing levels.

Alternative B

Allotments within the wilderness area: Same as Alternative A.

Allotments outside wilderness: Motorized access for grazing management outside wilderness would improve slightly as 35 miles of Obscure Routes are reestablished thereby improving grazing administration access at these locations.

Alternative C

Allotments within wilderness: Loss of motorized access would cause operators to spend more time administering the portion of their permits within wilderness. Operators would be economically impacted by additional time requirements and in some cases by the need to hire skilled packers for salt distribution and fence maintenance. Salt distribution may become economically prohibitive and salt deprivation would affect the animal's ability to convert forage to body weight, reduced milk production and, therefore, calf weights at weaning. Magnesium deficiency is also a concern with limited access to salt which could cause grass tetany and death.

Routine maintenance of fences would be difficult to accomplish under this alternative. Materials such as barbed wire, steel posts and wire stretchers would necessitate use of more than one horse and could take several days to complete. There could be an economic impact to the permittee since the rider would also need skills to pack bulky and possibly dangerous loads.

Allotments outside wilderness: Effects would be the same as under Alternative A, because closed Common Use Routes would still be available to livestock operators as Permit Routes. Closed Common Use Routes may not be maintained to the current standard so permittee access may be impacted as these closed routes deteriorate.

Alternative D - Proposed Action

Allotments within wilderness: This alternative would allow limited motorized trips for the grazing permittee(s) and allow distribution of large quantities of salt or complete major range improvement maintenance. During these trips the permittees would be able to check their livestock and existing range improvements projects. The permittee(s) would not be allowed motorized trips to conduct checking and/or minor maintenance of range improvement projects, and placing of small quantities of salt blocks. The reduction of motorized access would likely increase administrative costs in the affected allotments.

Allotments outside wilderness: Effects would be the same as under Alternative A.

19. Fire Management

Current discussion and analysis of potential effects on Fire Management are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.16 and 4.16.

Affected Environment

The project area is currently a high fire activity area, averaging nine fires a year for 9,352 acres. About 70 percent of fires are lightning caused. Numerous fuels projects have been planned and implemented within the CMPA and open roads are typically used as fire lines for these projects. A Fire Management and Use Plan (2007) is currently under development. Under this plan certain natural fire starts may be allowed to progress naturally if certain conditions are met.

Environmental Consequences

Alternatives A, B, and D have no measurable effect to fire management.

Alternative C: Closing 250 miles of roads has both positive and negative consequences from a fire management perspective. Where roads are closed or totally torn out and rehabilitated, risk of a vehicle or man caused fire would be reduced; however, loss of access would greatly hinder or reduce suppression responses. Roads left in and allowed to be used administratively can be used for fire suppression and prescribed burning efforts. With limited access the appropriate response to wildfires would likely change to a less aggressive tactic, which in turn could cause larger fires.

20. Social and Economic Values

Current discussion and analysis of potential effects on Social and Economic Values are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.12 and 4.12.

Affected Environment

The general area including the CMPA is rural in nature and social and recreational interests are mainly oriented toward activities such as hunting, fishing and camping. Social and economic values connected to the CMPA are primarily tied to cattle ranching and tourism/recreation. Revenue derived from cattle ranching and forage production comprises the main source of dollars for Harney County. Nearly half of county taxes come from the ranching community, including grazing permittees using the CMPA. The Steens Mountain area has been, and continues to be, a tourist attraction. The tourism industry in Harney County is relatively small compared to other Oregon regions, but appears to be increasing, and provides a critical monetary inflow to the local economy, although it has not been quantified at this level. Monitoring of visitor numbers on Steens Mountain has shown no appreciable increase of visitors in recent years. Harney County economic statistics are more readily available for agriculture and ranching.

Livestock raising and associated feed production industries are major contributors to the economy of Harney County. The highest individual agricultural sales revenue in the county is derived from cattle production, which is inextricably linked to the commodity value of public rangelands. The cattle industry provides an average of $28,000,000 per year to the economy of the county (http://www.harneycounty.com, 2003). Nearly half of county taxes are derived from the ranching community.

Hunting and other types of dispersed outdoor recreation contribute strongly to the local economy on a seasonal basis. The undeveloped, open spaces in the county are themselves a tourist attraction and contribute revenue for local businesses. The Steens Mountain area is central to Harney County tourism. A 1994 study found that tourism associated with Malheur National Wildlife Refuge generated $4.4

million in Harney County over a 1-year period. Although data are not available the contribution of tourism dollars associated with the CMPA/Steens Mountain would likely be considerable.

Harney County's unemployment rate averaged 8.2 percent in 2006, the second-highest rate among Oregon's 36 counties. Grant County's 2006 jobless rate was 8.4 percent (http://www.olmis.org, May 2007). Harney County's population decreased when the local timber industry declined and the sawmill in Hines closed. The population shows no sign of increasing; as of July, 2005 it stood at 7,660. Average pay per job in the county in 2005 was $27,282 annually.

Environmental Consequences

See the Grazing Management section for analysis of potential economic effects from enactment of alternatives on grazing operations. See the Recreation section for analysis of potential effects on recreation. See the Wildlife section for analysis of potential effects on wildlife. Social and economic values are inextricably tied to effects on these resources.

Selection of any of the alternatives is not likely to cause any measurable change to the area's population, income and employment. Differences in the alternatives are not great enough to have a detectable effect on the local economy. Economic impacts resulting from changes in travel uses that adversely affect one part of the economy are often beneficial to other elements. There is no noticeable connection between employment and travel in the CMPA. (See for example *Eastern Oregon Labor Trends October 2006* for a breakdown of Harney County current labor force and industry employment.)

Alternative A

Changes to tourism and recreational use would likely be undetectable as a result of selection of this alternative. Thirty-six miles of Obscure Routes (which are not currently being used) would officially be closed to public motorized use. There should be no effect on recreational and tourist activities. Grazing management activities would continue basically unchanged.

Alternative B

Selection of this alternative would increase potential for public motorized use. While some members of the public might approve of the increase, others could be antagonistic to the idea depending on individual interest in hiking or motoring. Predicting potential effects on recreation/tourism from selection of this alternative would be speculation, but it is likely effects would be undetectable. Grazing management activities would continue as they are currently.

Alternative C

Selection of this alternative would decrease potential for public motorized use. As in the discussion under Alternative B some members of the public would approve, while some would disapprove. Predicting potential effects on recreation/tourism from selection of this alternative would be speculation. Grazing management activities would remain at current levels

Alternative D

Changes to recreational activities and tourism would likely be undetectable resulting from selection of this alternative. These activities would continue as currently occurring without additional effect. Grazing management activities would remain at current levels.

21. Parcels with Wilderness Characteristics

Current discussion and analysis of potential effects on Parcels with Wilderness characteristics are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.23 and 4.23.

Affected Environment

In the CMPA ROD/RMP (August 2005), three parcels that fall entirely within the CMPA were identified as having wilderness characteristics (see Map TP-1). The Bridge Creek parcel is approximately 1,526 acres and is located adjacent to the eastern boundary of Bridge Creek WSA. A wildfire in the summer of 2006, burned the entire Bridge Creek parcel, killing some juniper and other vegetation. The High Steens parcel is approximately 629 acres and is located to the north of North Steens Loop Road and adjacent to the western boundary of the High Steens WSA. The Lower Stonehouse parcel is approximately 2,176 acres and is located south of the Lower Stonehouse WSA along the CMPA boundary. All three parcels were found to have naturalness and outstanding opportunities for solitude and primitive and unconfined recreation. Primary recreational activities for all three parcels include day hiking, camping, backpacking, horseback riding, hunting, fishing, sightseeing, and photography. The Obscure Route located in the High Steens parcel is observable, but difficult to find in several locations and receives limited use.

Environmental Consequences

Alternative A

Obscure and Historical Routes would continue to receive only occasional use for grazing administration and private land access, and these routes should remain

difficult to find. Closing the obscure route in the High Steens Parcel would enhance naturalness as the route becomes less observable; however, parts of the route may remain observable given occasional use as a Permit Route. If motorized vehicle use by the public on Base Routes still open for use increases, potential for solitude might be reduced in the parcels. However, there has not been a steady annual increase in visitation in the CMPA.

Effects to recreational activities are not expected. Closing the Obscure Route in the High Steens parcel to motorized vehicle use by the public would be expected to enhance opportunities for solitude. Continued use of both Obscure and Historical Routes for grazing administration and private land access may result in some disturbance to visitor solitude but only when an encounter occurred. Disturbance would generally be temporary (minutes) in nature and not greater than what now occurs.

Other reasonably foreseeable activities that may affect the parcels include both BLM and non-BLM projects. Most BLM administrative functions in these parcels that utilize motorized vehicles can be accomplished with use of existing Base Routes. However, there are a few administrative activities (e.g., fire suppression, weed eradication, restoration projects, and critical fish and wildlife monitoring projects) that may require occasional motorized use off Base Routes.

The BLM is in the planning stages for the North Steens Ecosystem Restoration Project, which includes both the Bridge Creek and High Steens Parcels. There are several alternatives being analyzed that propose various treatment methods for enhancing ecosystem functions by removal of juniper trees. Some alternatives involve use of motorized equipment to cut and pile trees. If implemented, treatments under some alternatives could affect wilderness characteristics by reducing vegetative screening provided by trees that contribute to solitude and by potential effects to naturalness associated with either cutting and leaving the trees or ground disturbance created by use of equipment in tree removal. Over several years, overall wilderness characteristics may be enhanced by the restoration of more natural ecological functions.

Harney County is paving East Steens Road, most of which is currently gravel. When finished, visitor use of the road may increase which could potentially increase use of the Base Route leading into the Lower Stonehouse parcel. This could reduce potential for solitude in the parcel; however, the area most affected would likely only be directly adjacent to the route.

Overall, motorized use of travel routes proposed under this alternative is not expected to contribute to other reasonably foreseeable activities to the extent the parcels would be prevented from retaining their wilderness characteristics.

Alternative B

Effects would be the same as under Alternative A, except one obscure route within the High Steens parcel would be located and made available for motorized vehicle use by the public. While there would be a localized reduction in naturalness associated with locating the route on-the-ground, the parcel as a whole would continue to be natural. Even with increased access the parcel as a whole would still provide outstanding opportunities for solitude.

Alternative C

Effects would be the same as under Alternative A

Proposed Action

Effects would be the same as Alternative A, except one obscure route within the High Steens parcel would be added to maps as available for motorized vehicle use by the public. Currently in the rest of the CMPA most Obscure Routes are shown on maps available to the public.

22. Wild Horses

Current discussion and analysis of potential effects on wild horses are tiered to the Andrews/Steens PRMP/FEIS (August 2004), and relevant information contained in the following sections is incorporated into this EA by reference: Sections 3.14 and 4.14.

Affected Environment

The CMPA includes most of South Steens and Riddle Mountain wild horse Herd Management Areas (HMAs) and portions of Kiger and Heath Creek-Sheepshead HMAs. Wild horse populations within the CMPA usually vary between 159 to 304 head in South Steens HMA, 33 to 56 head in Riddle Mountain HMA and few if any in Kiger and Heath Creek-Sheepshead HMAs. Herds are gathered as necessary to meet identified management objectives which include retaining HMAs, Herd Areas, maintaining Appropriate Management Levels (AML), year long water sources, herd viability, genetic diversity, forage allocations, and a thriving ecological balance with other resources.

Environmental Consequences

The wild horse program relies on an adequate road network in order to maintain existing water sources, monitor HMAs and gather horses down to the AML. When routes are closed or fall under disrepair it becomes difficult to obtain accurate monitoring data.

Most horse traps are located along primitive maintenance level 2 roads. These roads need to be in decent shape in order to move horses out of the HMA using large trucks and trailers. Maintenance of these roads is typically necessary prior to initiating a gathering operation.

Alternatives B and D provide the most flexibility for managing wild horses within the CMPA. Alternative A would provide access to most or all existing facilities for gathering wild horses but may not allow access for complete monitoring of HMAs. Alternative C would reduce monitoring access in some areas.

B. Additional Cumulative Effects Discussion

As the Council on Environmental Quality (CEQ), in guidance issued on June 24, 2005, points out, the "environmental analysis required under NEPA is forward-looking," and review of past actions is required only "to the extent that this review informs agency decision-making regarding the proposed action." Use of information on the effects on past action may be useful in two ways according to the CEQ guidance. One is for consideration of the proposed action's cumulative effects, and secondly as a basis for identifying the proposed action's direct and indirect effects.

The CEQ stated in this guidance that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. The CEQ guidance specifies that the "CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions." Our information on the current environmental condition is more comprehensive and more accurate for establishing a useful starting point for a cumulative effects analysis, than attempting to establish such a starting point by adding up the described effects of individual past actions to some environmental baseline condition in the past that, unlike current conditions, can no longer be verified by direct examination.

The second area in which the CEQ guidance states that information on past actions may be useful is in "illuminating or predicting the direct and indirect effects of a proposed action." The usefulness of such information is limited by the fact that it is anecdotal only, and extrapolation of data from such singular experiences is not generally accepted as a reliable predictor of effects. In this case, the basis for predicting the effects of the proposed action and its alternatives is based on the general accumulated experience of the resource professionals in the agency with similar actions.

Internal and external scoping for this project did not identify any need to exhaustively list individual past actions or analyze, compare, or describe the environmental effects of individual past actions in order to complete an analysis which would be useful for illuminating or predicting the effects of the proposed action.

CHAPTER IV: MONITORING AND IMPLEMENTATION

Monitoring of transportation and roads is designed to measure the frequency of motorized vehicles on roads and routes and the effects motorized travel has on other uses. Transportation and road monitoring measures the effects to natural resources resulting from vehicular use on existing routes or resulting from unauthorized travel. These effects have a direct effect on visitor experiences.

Route conditions and effects to natural resources will determine monitoring methodology. The Steens Mountain CMPA Monitoring Plan contains more specific information on monitoring methodologies, intervals and priorities.

Implementation actions include the maintenance of roads to their assigned maintenance levels, updated maps accurately showing route locations and approved uses, information brochures explaining motorized travel opportunities and restrictions and improved signing and information boards to assist visitors. The SMAC and the BLM are currently working on a public information strategy to help identify how to implement these actions.

CHAPTER V: CONSULTATION AND COORDINATION

A. Participating Staff

William Andersen, District Rangeland Management Specialist
Laura Dowlan, Outdoor Recreation Planner
Steve Dowlan, Natural Resource Specialist (water quality, fisheries, riparian)
Gary Foulkes, District Planning and Environmental Coordinator
Rhonda Karges, Environmental Protection Specialist
Terri Geisler, Geologist
Joe Glascock, Rangeland Management Specialist
Lisa Grant, Rangeland Management Specialist
Eric Haakenson, Rangeland Management Specialist
Rick Hall, Natural Resource Specialist (soils, ACECs, vegetation, special status flora, wild horses)
Kelly Hazen, Geographic Information Systems
Doug Linn, Botanist
Fred McDonald, (Supv. Natural Resource Specialist) Recreation/Off-Highway Vehicles/Visual Resources
Matt Obradovich, Wildlife Biologist
Holly Orr, Realty Specialist
Lesley Richman, District Weed Specialist
Scott Thomas, District Archaeologist
Dave Toney, Fire Management
Mark Sherbourne, Natural Resource Specialist, Lead Preparer

B. Persons, Groups, and Agencies Consulted

In December, 2006 a TMP scoping document was mailed to approximately 180 individuals, groups and agency representatives and made available for review on the Burns BLM Web site. The BLM received over 12,000 comment letters and e-mails suggesting various courses of action related to travel management for the CMPA. These comments were analyzed and used in the preparation of this EA.

Most of Alternative D (Proposed Action), with the exception of Permit Route use within wilderness, is the SMAC's recommendation.

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