

UMPQUA RESOURCE AREA
GRAZING LEASE RENEWALS

EA OR-125-99-27

Proposed (July 27, 2000) by:

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This action is subject to and in conformance with the *Coos Bay District Resource Management Plan & Environmental Impact Statement* and its Record of Decision (BLM 1995) (RMP); which is in conformance with the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (Interagency 1994a) and its Record of Decision (Interagency 1994b)(Northwest Forest Plan).

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CHAPTER I - PURPOSE AND NEED FOR ACTION

Purpose and Need

The purpose of this proposed action is to renew four grazing leases totaling 14.5 acres in the Umpqua Resource Area, Coos Bay District of the Bureau of Land Management (BLM).

The purpose of this Environmental Assessment (EA) is to:

- Assess any potential environmental impacts that may result if the No Action or the Proposed Action is implemented.
- Identify appropriate mitigation measures.
- Document the decision-making process.

The objectives of the Proposed Action are to:

- Renew the four grazing leases to contribute to stability for small, private livestock operators.
- Ensure that the leases comply with the Endangered Species Act.
- Ensure that the leases comply with the Clean Water Act.
- Ensure that the leases meet Aquatic Conservation Strategy (ACS) objectives.
- Implement the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the States of Oregon and Washington (BLM 1997a).

Direction for management actions regarding livestock grazing comes from the *Coos Bay District Resource Management Plan (RMP)* and its Record of Decision (BLM 1995a); which is in conformance with the *Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl (Interagency 1994a)* and its Record of Decision (Interagency 1994b); and from the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the States of Oregon and Washington (BLM 1997a)*. This EA is tiered to these documents.

Watershed Analysis documents have been completed for the watersheds that the four grazing leases are in (BLM 1995b, BLM 1995c, BLM 1997b). The documents did not give specific information or management recommendations for any of the lease areas.

The Analysis File for this EA is located at the Coos Bay District Office and contains interdisciplinary team meeting notes, specialist's reports, and Grazing Assessments for each of the lease areas, and is hereby incorporated by reference.

Decisions to Be Made from this Analysis

Separate Decision Records will be prepared for each lease. The decision to be made in regard to this EA is to:

- Not implement the project (No Action), or
- Implement the project as described in this document (Proposed Action).

Scoping

The primary scoping process consisted of an interdisciplinary team (IDT) who defined the alternatives to be examined in the EA. A public scoping letter requesting comments on the proposed action was sent to individuals and organizations on the Coos Bay District’s mailing list, to adjacent land owners, leasees, and was also available on the Coos Bay District Internet Home Page. A public notice was printed in *The World* newspaper on November 5, 1999. There was no response from the public.

CHAPTER II - ALTERNATIVES INCLUDING THE PROPOSED ACTION

Common to Both Alternatives

Table 1 lists background information and land designations for the leases. Appendix A contains location maps for the four lease areas.

Table 1. Background Information for the Grazing Leases in the Umpqua Resource Area.

Operator # ¹	Legal	Acres	5 th Field Watershed and Drainage	LUA ² Land Status
7201	T. 27S, R. 11W, Sect. 15 NE 1/4, SW 1/4	3.5	1710030505 Middle Lost	RR O&C
7204	T. 27S, R. 12W, Sect. 25 NE 1/4 SW 1/4	1.5	1710030505 Fairview Reach	RR CBWR
7205	T. 23S, R. 7W, Sect. 21, SE 1/4, NW 1/4	6.5	1710030302 Umpqua Big Bend	CON O&C
7206	T. 23S, R. 7W, Sect. 21 NW 1/4, NW 1/4	3	1710030302 Umpqua Big Bend	RR O&C

¹ Operator numbers are an assigned six digit number: they have been shortened to 4 digits in this EA for ease of reading. The four operator numbers all start with 36.

² Land Use Allocation: RR - Riparian Reserve, CON - Connectivity/Diversity Block, Land Status: O&C Oregon and California Revested Railroad Lands, CBWR - Coos Bay Wagon Road lands

No Action Alternative

Under this alternative, the four leases would not be renewed. Standard site reclamation would be to replant the 14.5 acres with trees. The property lines would first need to be established and fences with cattle gates would be constructed along the property line. The existing fences on BLM land would be removed.

A standard reforestation prescription would be followed and the area would be planted and tubed to about 400 trees per acre. The areas would be planted with coniferous tree species appropriate for the sites. The Riparian Reserves may also be planted with big leaf maple if it is appropriate for the site. The forest stands would be managed according to their current Land Use Allocation (see Table 2 under the Northwest Forest Plan (Interagency 1994b)).

Design Features:

- Minimize creation of sites suitable for weed establishment and seed all disturbed sites (i.e., retain shade where possible, remove any noxious weed plants, minimize disturbance of seed beds, minimize soil disturbance, and as soon as possible reestablish vegetation on all bare ground to minimize weed spread).
- The District Archaeologist will be notified at once if cultural materials are encountered.

Proposed Action

Under the Proposed Action, the four leases would be renewed for a 10-year period. Table 2 lists the acreage, and animal unit months (AUM) for the four grazing leases that are proposed for renewal. The season of use would be year round for all four leases under a rotational grazing system. There would be 75 percent utilization level for grazing. All of the lease areas are fenced in with the private property, and the livestock are watered on private land. For ease of reading the leases are referred to by a four-digit operator number or by a legal location.

Table 2. Proposed Grazing Lease Renewals for the Umpqua Resource Area.

<i>Operator #</i>	<i>Allotment #</i>	Past EA	<i>Acres</i>	<i>AUM</i>	Comments
7201 (Middle Crk)	20001 Middle Crk	OR120-80-27	3.5	4.5 ¹	Separated from BLM timber by Middle Creek
7204 (N. Fk. Coquille)	20001 Middle Crk	OR120-81-30	1.5	3	Separated from BLM timber by N. F.Coquille River
7205 (Bullock)	20006 Bullock	OR-125-94-08	6.5	12	
7206 (Kellogg)	10007 Kellogg	OR-125-77	3	5	Separated from BLM timberland by road and stream
Total			14.5	24.5	

¹ 3.5 acres total but only 2.5 acres produce forage.

Design Features:

- The “Partners Against Weeds Action Plan” (BLM 1996) will be implemented on the lease areas to prevent the introduction and spread of new noxious weeds and control existing noxious weeds on the leased lands as listed in the Oregon Department of Agricultural Weed Priority List (see Analysis File). BLM will strive to eliminate any nearby seed sources of noxious weeds on BLM lands to assist the leaseholders in preventing the introduction, or spread of noxious weeds onto the grazing lease.
- An integrated approach to controlling noxious weeds is expected. This includes manual and mechanical control methods, herbicides, and biological agents. No chemicals other than Oregon BLM Approved Herbicides are allowed on BLM lands (i.e., only 2,4-D, dicamba, picloram, and glyphosates are allowed, this includes tank mixes of picloram + 2,4-D, and dicamba + 2,4-D).
- Consultation with the National Marine Fisheries Service (NMFS) will be required before renewal of the leases.
- Leases will be monitored yearly for: 1) utilization levels and 2) for the condition of the fences and their ability to keep livestock from entering the riparian zone.
- The District Archaeologist will be notified at once if cultural materials are encountered.
- Any substantial changes to the Proposed Action will require further review and clearance.

Alternatives Considered But Not Analyzed

Selling or completing a land exchange for the lease areas: Only Zone 3 lands identified in the RMP (BLM 1995a) may be considered for sale. The four areas are designated as Zone 2 lands in the RMP and a plan amendment would be required to change the zoning designation. Completing an exchange would not be economically feasible due to the small acreage of the leases versus the amount of employee involvement that would be required.

No renewal and no site reclamation: This alternative would not renew the four leases. The existing fences would remain in place without any further maintenance, and the grazed areas on public lands would not be planted. This was not considered a viable alternative because the lands are productive, and vegetation will grow with or without management. With no site reclamation, the areas would slowly be overgrown with weedier species such as blackberry, Scotch broom, thistle, and the other noxious weeds listed in Table 4 and the plant list in the Analysis File. Some volunteer trees might establish, but these would grow slowly. The RMP (BLM 1995a) directs noxious weed control efforts to be undertaken, and the area would require management at least for these species. It would not be viable for the timber program to leave the Connectivity/Diversity block acres unplanted, as the acres could be incorporated into the timber program for a future regeneration harvest. It also would not be viable to leave the Riparian Reserve areas unstocked, as past management history shows that these areas are usually planted either through a standard silviculture planting contract or through a restoration contract. The existing

fences would still protect the riparian zone from livestock but the previously grazed land would remain unfenced.

Renewal with the same permitted use as past leases: This would have issued the term permit with the same permitted use as the previous leases. There are only 2 differences between this alternative and the Proposed Action. The Animal Unit per acre was standardized in the Proposed Action. The past leases had a total of 23 AUM, which is not a significant change from the Proposed Action's 24.5 AUMs (see Analysis File for calculation of forage production).

The second difference is the Season of Use. The lease holders are utilizing a year-round rotational grazing system on their lands for their livestock. The past Season of Use did not allow the BLM parcels to fit into this grazing system as it limited the months that were available for grazing. With a rotational grazing system the livestock are moved from parcel to parcel to allow for rest and regrowth. Even though the livestock may be on the lease area during more of the months of the year, the cumulative time period that the animals are on the lease is limited, and timed to more closely match the growth cycles of the forage (refer to the Analysis File for a more detailed explanation).

CHAPTER III - AFFECTED ENVIRONMENT

The Affected Environment describes the current condition of the lease areas and reflects the land condition under the current grazing prescriptions.

Hydrology

The hydrology and climate of the areas selected are typical of the Southern Oregon Coast Range. The high winter precipitation in the form of rain is the main factor influencing the hydrology of this area. Snowfall may occur on occasion, but it is generally light and of short duration, and does not commonly produce rain-on-snow events. Average annual precipitation is 69.3 inches at the Fairview station (Leases #7201 and #7204) and 50.2 inches at the Elkton station (Leases #7205 and #7206). Precipitation varies with elevation and aspect. The distribution of the precipitation and runoff/streamflow is directly related and is evident as the high flows are observed during the winter months and low flows predominant in the summer. This direct relationship indicates the systems are dominated by direct or storm runoff as opposed to baseflow. Rainfall amount, intensity, and distribution are directly related to the peak flows, low flows, annual flows, and groundwater levels. This correlation is due to a high drainage density, shallow soils, low bedrock permeability, high precipitation, and steep slopes.

The livestock are fenced out of the riparian area and watered on private land on both Lease #7201 and #7204. These riparian areas are on broad, low gradient, floodplains on Middle Creek and North Fork Coquille respectively. There are no intermittent or perennial streams on lease #7205 and the livestock are watered on private land.

Lease #7206 contains a small spring with a discontinuous channel that is unfenced. A continuous channel starts on the downstream side of the road that this spring crosses. There is a fence along the road

intended to keep cattle out of the forested riparian area. There is also a water trough for the livestock on private land.

Soil

The grazing leases are located in the Coast Range physiographical province. The geological materials associated with the soils of Leases #7201, #7205, and #7206 are developed from the Tyee Formation. The Tyee Formation is composed of rhythmically bedded sandstone and siltstone. The Tyee Formation tends to have high groundwater in some areas, rapid runoff, steep slopes, and sharply alternating beds of sandstone and softer siltstones. The soils of Lease #7204 are associated with geological materials derived from the Roseburg Formation. This formation of sedimentary rocks is composed of rhythmically bedded hard sandstone and siltstone. The Roseburg Formation tends to have a low permeability and low groundwater potential. Table 3 classifies the soils found within the grazing lease areas.

Table 3. Soil Types for the Grazing Lease Areas.

<i>Operator #</i>	<i>Soil Type *</i>
7201	Eilertsen Silt Loam (17B)
7204	Chismore Silt Loam (10A)
7205	Windygap-Bellpine Complex (211E)
7206	Windygap-Bellpine Complex (211E)

* Specific soil data can be obtained from the February 1994 Douglas County Area, Oregon Soil Inventory and the Soil Survey of Coos County, Oregon, 1989.

Lease #7201:

- The lease has mild to moderate soil compaction. A comparison of the soil along the fence row, outside the fence, and inside the lease was made with a soil compaction tester (probe). Soil along the fence row and outside of the fence was in the 0-200 PSI range. Soil within the lease was in the range of 150 - 250 PSI as measured with the compaction probe.
- The proximity to Middle Creek and a shallow pond that forms on the north end of the lease once winter rains begin is indicative of a high groundwater table.
- A seep is present in the eastern portion of the lease and flows into Middle Creek.
- Exposed soil was not present on site.

Lease #7204:

- The lease has moderate to heavy soil compaction. A comparison of the soil along the fence row, outside the fence, and inside the lease was made with a soil compaction tester (probe). Soil along the fence row and outside of the fence was in the 0-200 PSI range. Soil within the lease was in the range of 300+ PSI as measured with the compaction probe.
- Exposed soil was not present on site.

Lease #7205:

- The lease has mild to moderate soil compaction. A comparison of the soil along the fence row, outside the fence, and inside the lease was made with a soil compaction tester (probe). Soil along the fence row and outside of the fence was in the 0-200 PSI range. Soil within the lease was in the range of 150 - 250 PSI as measured with the compaction probe.
- No exposed soil was present on site.
- The site is in an upland area and no springs, seeps or drainage features are present.

Lease #7206:

- The lease has moderate soil compaction. A comparison of the soil along the fence row, outside the fence, and inside the lease was made with a soil compaction tester (probe). Soil along the fence row and outside of the fence was in the 0-200 PSI range. Soil within the lease was in the range of 250+ PSI as measured with the compaction probe.
- Soil creep is a common occurrence in the area. Based on the site inspection, the land which the lease is located is on is inherently unstable.
- A spring is present on the lease and is accessible to cattle. Due to this unstable nature, the acceleration of movement appears to be exacerbated by the lack of vegetation and exposed soil from cattle activity.
- The portion of BLM road 23-7-17.0 that goes through the lease has a dirt surface. During wet winter months, direct input of fine sediment was occurring into the stream. The cattle use the roadway as a travel corridor and have loosened and disturbed the once compacted surface.

Forestry

Lease #7201 and #7204 are in the lowlands at 200 feet or less in elevation, while lease #7206 is 500 to 600 feet and is in the lower 1/3 position on the slope. Lease #7205 is in the upland near the top of the ridge at 600 to 700 feet in elevation.

Leases #7201 and #7204 are classified as Site Class 2 forest lands with a Kings Site Index of about 120.¹ These areas have excellent tree growing potential. Stand exams done in the vicinity (T. 27S., R. 11W.,

¹Information taken from the Districts Forest Operations Inventory Database

Sec. 13) show that stands at age 25 years breast height have Douglas-fir averaging 13 inches in diameter and average 80 feet in height. These same stands although managed still have a scattering of western hemlock and red alder. These stand exams also show that the Kings Site Index is slightly higher at 157. Leases #7205 and #7206 are classified as Site Class 2 forest lands with a Kings Site Index of about 120. These areas as well have excellent tree growing potential. Stand exams done in the vicinity (T. 22S., R 8W., Sec. 9) show stands of 24 year old Douglas-fir averaging 13 inches in diameter with heights of 60 feet. These stand exams show the King Site Index at about 100.

Leases #7201, #7204, and #7206 are all within Riparian Reserves (RR) as defined by the *Coos Bay District's Resource Management Plan and Environmental Impact Statement* (BLM 1995). Lease #7205 is outside of any RR and is within the Connectivity/Diversity Block Land Use Allocation.

Noxious Weeds

Table 4 lists the noxious weeds that are present on the grazing lease areas.

Table 4. Noxious Weeds Present on the Grazing Lease Areas.

Lease #	Noxious Weeds in Lease Area	Other Comments/Information
7201	Canada thistle (<i>Cirsium arvense</i>)	Scotch broom (<i>Cytisus scoparius</i>) nearby and blackberry vines are present.
7204	None noted on the leased BLM lands	Japanese knotweed (<i>Polygonum cuspidatum</i>) along the river bank, and blackberry vines are present.
7205	Bull thistle (<i>Cirsium vulgare</i>) Scotch broom (<i>Cytisus scoparius</i>) Canada thistle (<i>Cirsium arvense</i>) Meadow knapweed (<i>Centaurea pratensis</i>) St. John's Wart (<i>Hypericum perforatum</i>)	Blackberry vines are present.
7206	Bull thistle (<i>Cirsium vulgare</i>) Scotch broom (<i>Cytisus scoparius</i>) Tansy ragwort (<i>Senecio jacobaea</i>)	Blackberry vines present. Canada thistle (<i>Cirsium arvense</i>) and meadow knapweed (<i>Centaurea pratensis</i>) are nearby.

Port-Orford-cedar (POC)

None of the four leases have POC present on site. Leases #7201 and #7204 are within POC's natural range and there are patches of POC nearby Lease #7201. Leases #7205 and #7206 are outside the natural range of POC.

Botanical

General

Lease #7201: This parcel is becoming overgrown by native species and introduced non-pasture species, including noxious weeds. The parcel is bisected by a perennially wet, muddy seep area under some myrtles. Plants that are adapted to moist conditions are common here, such as golden saxifrage, mitella, smooth violet, piggyback plant and wood sorrel. Braken fern has become dominant in the western half of the parcel, with the site remaining in pasture condition near the property line. The pasture consists of mostly weedy herbaceous plants, such as sourgrass, buttercup, blackberries, clover, selfheal and yarrow. The eastern portion is dominated by horsetail and Canadian thistle. Inside the fence line, alder and conifers have become established. This is a fairly moist area and similar in plant composition to the outside of the fence.

Lease #7204: The field is comprised mostly of weedy species, such as buttercup, dandelion, and sourgrass. Some myrtle, a large Douglas-fir and a Himalaya blackberry patch is also within the fenced area. South of the fence, next to the river, is an area that is covered with Himalaya blackberry, canary grass and Japanese knotweed, an invasive species. The knotweed has spread to the other side of the river. Outside the fence on the east side, next to the river, is a more natural plant community.

Lease #7205: This lease area is mostly pasture, with about a quarter of the area under conifers and hardwoods. The pasture includes weedy species, such as dogtail grass, pennyroyal mint, dandelion, and yarrow. Under the trees are some native species: California hazel, viney blackberry, Pacific sanicle and sweet cecily. The BLM land outside of the lease area is heavily infested with noxious weeds.

Lease #7206: This parcel includes pasture with a few oak and myrtle trees on it, and consists of weedy species, such as dandelion, pennyroyal mint, yarrow, clover, and skunkweed. The spring contains the expected bulrush and tussock grass, along with some Himalaya blackberry and bull thistle. Due to the past proximity of houses, an apple tree and a weeping willow are also present in the spring area. Although the spring is fenced inside a small paddock, grazing is evident. The stream flowing out of the spring is edged by Himalaya blackberries, tansy ragwort, Scotch broom, skunkweed and bull thistle. There are a few ferns near the culvert. The understory structure differs from the leased side of the stream versus the timberland on the other side. This may be due to a hole in the fence which allows livestock to enter the forested area on the leased side of the stream.

Refer to the Analysis File for a partial plant list of these parcels.

Special Consideration Species

There are no documented occurrences of Special Status Plants or Survey and Manage Strategy 1 species in these areas. Furthermore, the lease areas do not contain habitat for these species.

Fisheries

Special Status Fish

The following summarizes the special status fish species known to occur in the vicinity of the grazing leases. It is BLM policy to treat special status species as though they were a listed species, and to conduct informal conferencing with the National Marine Fisheries Service (NMFS) on actions that may affect special status species or their habitats.

- Coho salmon were listed as “threatened” on August 10, 1998. Critical Habitat was designated February 16, 2000.
- Steelhead trout was listed as a “candidate” species on March 19, 1998. Critical habitat is not designated for candidate species.
- On April 5, 1999, NMFS determined that the listing was not warranted for the Umpqua River coastal cutthroat trout. However, the Oregon Coast ESU is designated as a “candidate” for listing due to concerns over specific risk factors. Critical habitat is not designated for candidate species.

Coho salmon, steelhead trout and coastal cutthroat trout inhabit the North Fork Coquille and Middle Creek adjacent to the respective grazing allotments. No fish-bearing streams occur within or adjacent to Lease #7205. Fish presence has not been documented in the unnamed tributary adjacent to Lease #7206.

Fisheries/Riparian Habitat

Lease #7201: The streambank and riparian area of Middle Creek adjacent to this allotment is fenced to prevent livestock access, and there are no indications that water quality has been impacted by grazing. Large woody debris (LWD) recruitment potential has been reduced somewhat because the fenced-off area between the grazed area and streambank, which varies in width from approximately 30 to 80 feet, is less than 1 site potential tree (SPT) in width. The SPT height for Middle Creek is 220 feet (BLM 1995c). Approximately 60 percent of the acreage within 1 SPT is not accessible to livestock, and none of the Riparian Reserve on the south side of Middle Creek has been impacted by grazing.

Lease #7204: The riparian area of the North Fork Coquille is fenced to prevent livestock access to the streambank, although the fenced area, which varies in width from approximately 40 to 100 feet, is less than 1 SPT. The SPT height for the North Fork Coquille is 220 feet (BLM 1995b). Shading of the North Fork Coquille and LWD recruitment potential have been somewhat reduced on approximately .7 acres on the west side of the North Fork Coquille, but this is typical of this section of the river for significant distances both up and downstream on private lands. It’s not likely that water quality has been impacted as a result of this lease. The Riparian Reserve on the east side of the stream is not accessible to livestock.

Lease #7205: No fish habitat or riparian areas occur within this lease.

Lease #7206: A small seep that originates from within the grazed area is directly accessible to livestock, however the area has not been utilized by the livestock. It is not likely that current impacts to this seep affect downstream fish populations or habitat to a measurable degree. If the lease is renewed, the seep should be fenced to ensure that the area is protected from future livestock use. The perennial stream that flows to the east along the southern boundary of the allotment is fenced approximately 25 to 50 feet from the streambank. As a result, LWD recruitment potential has been somewhat reduced from the north side of the stream for a distance of about 800 feet. However, a BLM road that parallels the stream within approximately 50 feet over that same distance prevents the establishment of vegetation that would have the potential to contribute LWD in the short- or long-term. The south side of the stream has not been impacted by grazing.

None of the allotments near fish-bearing streams have caused any streambank erosion or loss in stability. Detrimental effects on aquatic habitat parameters including substrate quality, turbidity, and suspended sediment levels have not been observed.

Wildlife

None of the areas are within 0.25 miles of known nest sites for the northern spotted owl. Lease #7201 is the only one that is within 0.25 miles of suitable habitat. None of the areas are within a Critical Habitat Unit for the owl.

None of the areas are within 0.25 miles of a known occupied nest site for the marbled murrelets. Lease #7201 is the only one that is within 0.25 miles of suitable habitat. None of the areas are within a Critical Habitat Unit for the marbled murrelet.

There are no known locations of other Special Status wildlife species, including the bald eagle, near any of the lease areas.

Surveys for the presence or absence of Survey and Manage terrestrial mollusk species (*Megomphix hemphilli*, *Prophysaon coeruleum*, and *Prophysaon dubium*) will not be required for the lease sites since grazing is not considered a ground disturbing activity. In addition, habitat conditions for these species are not present. There are no known locations of Survey and Manage or Protection Buffer wildlife species at these sites.

Lease #7206 contains a spring and discontinuous channel. Lease #7201 has a smaller seep that is under a myrtle canopy and near the fence line. These may be used by amphibians such as the northwestern salamander, rough-skinned newt, western toad, pacific treefrog, and red-legged frog that can utilize shallow water with a mud/organic bottom. There are no special habitats on the other two lease areas.

The lease areas provide forage for big game and habitat for other early-seral associated species (listed in Appendix T, BLM 1994). However the acreage is so small that there are no known species that are dependent on these areas. Elk have been seen on Lease #7205. There is no major competition between wildlife and domestic livestock for forage on any of the leases due to the volume of forage and the small numbers of big game that have been seen using the lease areas. Ducks and other waterfowl utilize the shallow pond on Lease #7201 that forms during the winter; however, this area is mainly on the private ground.

Cultural Resources

No known cultural resources exist in the four lease areas.

Hazardous Materials and Solid Waste

Site surveys of the proposed project locations indicate no concerns exist.

Environmental Justice

There are no known associated uses on these leases by native Americans, low income or minority groups. In addition, the general access goes through private properties and would not commonly be used by these groups.

CHAPTER IV - ENVIRONMENTAL CONSEQUENCES

A review of the existing environment shows that the following list of critical elements of the Human Environment are not present or will not be effected by these projects; therefore, they will not be addressed in this EA:

- Air Quality
- Area of Critical Environmental Concern
- Wild and Scenic Rivers
- Wilderness

Hydrology

No Action

This alternative will have no direct effect on the hydrology of the streams within or adjacent to the grazing lease allotments. Generally, an increase in vegetation would cause an increase in evapotranspiration losses which would decrease the amount of water available to the system. However, these effects on the four grazing leases would not be measurable due to the small acreage and the fact that these leases are spread out over two fifth field watersheds and three different drainages. There are no expected indirect effects of this action.

There would be no cumulative effects of this action due to the small amount of acreage these four leases occupy.

Proposed Action

This alternative will have very little direct effect on the hydrology of the streams and tributaries within and adjacent to these grazing leases if the grazing continues under proposed terms and conditions. There will be no increases in annual yield or low flows. Spring and fall peak flows are also not expected to increase the amount of water available because of the limited removal of vegetation and therefore no significant reduction in evapotranspiration losses during the spring and fall.

There is little if any increase anticipated in the amount of sediment chronically delivered directly to the streams due to the limited routing of sediment through riparian vegetation and the low probability of overland flow. If the livestock on these leases continue to remain fenced from the stream channels, there will be no increase in sediment or nutrient delivery. Lease #7206 contains an unfenced spring that is a possible delivery source for sediment to a third order stream. In order to meet Aquatic Conservation Strategy (ACS) Objectives, recommendations to install fences on seeps/springs would further decrease chances for sediment, bacteria and nutrient inputs.

There would be no cumulative effects of this action due to the small amount of acreage these four leases occupy. Cumulative effects become increasingly difficult to detect downstream because of fluctuations in flows from groundwater sources, tributaries, or timing and varying intensities of precipitation events. This natural variability coupled with the fact that as small streams join and form increasingly large drainage networks, the ability of individual actions in small drainages to affect hydrology in the larger subwatersheds decreases. The magnitude of any effect is generally proportional to the area that is treated. Since Lease #7201 impacts only 0.01 percent of the Middle Creek subwatershed, #7204 impacts only 0.006 percent of the Fairview subwatershed, #7205 and #7206 impact only 0.02 percent and 0.008 percent of the Upper Middle Umpqua subwatershed respectively, it is not possible to separate these cumulative effects from natural variability.

Soil

No Action

Under the No Action Alternative, it is expected that the lease areas will eventually revert back to native conditions. A reduction in soil compaction would occur over time.

Proposed Action

The continuation of grazing activities on these lands under the proposed terms and conditions would not increase the present levels of compaction of the soils. The cumulative effects of the proposed action would be the loss of soil fertility on these areas over time.

Forestry

No Action

The Umpqua Resource Area has about 46,000 acres within the RR and 21,000 acres within the GFMA and Connectivity/Diversity Block LAU. The leases represent about 0.02 percent and 0.03 percent respectively, of the acres within each LAU.

Table 5. summarizes the costs for conversion of the 14.5 lease acres to forest land. With a standard reforestation prescription, the area would be planted and tubed to about 400 trees per acre. This would require a pre-commercial thinning at age 15 to reduce the stocking to about 220 trees per acre or a spacing of 14 X 14 feet.

Table 5. Summary of Forest Rehabilitation Costs for the Four Leases.

Action on all 4 Leases	Total Cost (\$)	Cost per Acre (\$/acre)
Property Line Establishment	8,800	
Fence Installation (Materials and Construction)	3,116	
Gates	12,000	
Planting (Labor and Materials)	3,248	
Tubing (Labor and Materials)	2,233	
Subtotal	29,397	$\$29,397 \div 14.5 \text{ acres} = \$2027.38/\text{acre}$
Pre-Commercial Thinning at age 15 years	1,450	$\$1,450 \div 14.5 \text{ acres} = \$100/\text{acre}$
Total Costs	30,797	$\$30,797 \div 14.5 \text{ acres} = \$2,124/\text{acre}$

If we use the stand exam data for the stand in T. 27S., R. 11W., Sec. 13 to project stand growth, using the Stand Projection System (SPS)² we can see that at age 30 the Relative Density (RD) is at 51. Relative Density is an expression of actual tree density to the theoretical maximum. Commercial forest stands are typically thinned to an RD of 35. The recommended treatment would be a commercial thinning at age 30 to reduce the RD. The prescription would be to thin from below removing the intermediate, suppressed, and a few codominants to a residual stand density of about 109 trees per acre, reducing the residual stand RD to 34. The residual stand would have an average diameter of about 15 inches. Mortality would occur over time reducing stand levels to about 99 trees per acre at age 45.

A second commercial entry would be proposed at age 45 to further reduce the stand RD. This entry would remove 29 trees to a residual stand RD of 36. The forest stands would have about 60 trees per acre with an average stand diameter at this time of 22 inches. Also at this time, an understory could be initiated through planting of the desired understory species. Stand density would still be too high to

² SPS is a stand projection model by Mason, Bruce, and Girard, Inc.

promote a good understory development and further reduction in the overstory or canopy layer would be needed over time. Snags and coarse woody debris within the RR stands could be created at this time.

A third entry would be proposed at age 80 for Lease # 7205 which is outside of the RR. This would be a regeneration harvest. This harvest would leave about 12 trees per acre as required for the Connectivity portion of the Matrix.

These commercial entries would generate potential income of varying amounts over time. Table 6 compares the present net worth (using 0 percent, 1 percent, and 2 percent increase real price growth in stumpage) of the No Action versus the Proposed Action. The following parameters will be used. Present day stumpage values will be \$200/MBF for 30 year old timber, \$400/MBF for 45-year-old timber, and \$600/ MBF for 80-year-old timber. Stumpage values would be increased 1 percent and 2 percent for the No Action Alternative, to compare the effects of real price growth. Thinning would be done at age 30 and 45, with 10MBf/acre and 13MBF/acre removed, respectively. A final harvest would be done at age 80 for 6 acres in Lease #7205. A discount rate of 4 percent will be used. Refer to the Analysis File B for a more detailed explanation of present net worth calculations.

Table 6. Projected Net Present Costs and Revenues for No Action and Proposed Action Alternatives.

No Action				Proposed Action
Real Price Growth Stumpage	Net Present Costs per acre*	Net Present Revenues per acre**	Present Net Value per acre	Present Net Worth Annual Fee \$2.14 per acre
0%	(\$2,082.53)	\$4,144.44	\$2,061.53	\$51.29
1%	(\$2,082.53)	\$5,727.12	\$3,644.21	\$51.29
2%	(\$2,082.53)	\$15,977.84	\$13,894.93	\$51.29

* These costs include property lines, fencing, gate installation, planting and tubing, and pre-commercial thinning.

** Revenue projections are based on initial stumpage values of \$200/MBF at 30 years, \$400/MBF at 45 years and \$600/MBF 80 years.

Proposed Action

Under this alternative the grazing leases would be renewed. We would not undergo any additional costs, but we would forgo any future benefits of timber harvest revenue.

Noxious Weeds

No Action

The direct impact could be an increased presence of existing noxious weeds especially at Leases #7205 and #7206 where the current leaseholders are making attempts at controlling the weeds. The additional design features of treating existing noxious weeds, nearby seed sources on BLM lands, and seeding and mulching the site (in addition to the standard reclamation) would help slow the potential for infestation

and spread. Monitoring of the site for further treatments until the site is shaded/covered by other species would be needed. The site could have a severe competition problem with blackberries.

Indirect and cumulative impacts include a seed source from the seed bed of previously established weeds. Monitoring and long term tracking for the presence of noxious weeds and subsequent management actions would need to occur. Ultimately noxious weeds should be reduced if the ground is not disturbed and the ground becomes shaded, competition increases, and the seed bed becomes exhausted over time.

Proposed Action

Direct impacts would be that noxious weed populations could hold steady or decrease with our increased awareness, cooperation, and ongoing/proposed treatments of sites and weeds. Indirect impacts could include the introduction of new noxious weeds. If animals, feed, and/or machinery are imported from off site without adequate precautions being taken the chances of a new weed being introduced would increase. The current presence of meadow knapweed not yet on BLM lands may be an example of this.

The cumulative impact would be that the sites should improve or remain the same as we implement best management practices and recommendations to prioritize treatments of noxious weeds on BLM lands surrounding the grazing leases.

Port-Orford-cedar (POC)

No Action

No direct consequences would be expected from reclaiming these sites. Port-Orford-cedar would not be planted at any of the sites as #7205 and #7206 are outside the natural range and Leases #7201 and #7204 are located along waterways which act as spreaders of the root pathogen. Indirect/cumulative impacts could be reduced introduction/spread of POC root disease due to the decreased use by animals, man and machinery. All of these have the potential for introducing the root pathogen.

Proposed Action

Direct consequences could be the introduction and spread of the POC root pathogen which can be picked up off site and transported onto site by animals, people, or machines. Site #7205 is located well away from water and #7206 is located near water but both are well outside the natural range of POC and have little chance of transporting the pathogen. Sites #7201 and #7204 are within POC's natural range and along waterways that could transport the pathogen to other POC trees. Indirect or cumulative impacts beyond current POC infection rates are not expected, due to the limited size and use of these leases.

Botanical

No Action

Under this alternative, it is expected that the lease areas will eventually revert back to native plant communities. Most non-native species will be shaded out by the growing forest and cease to exist on these sites.

Proposed Action

The Proposed Action alternative may result in conditions very similar to existing conditions. Variances in existing conditions will depend upon how well the leases are managed. Lease #7201 may continue its trend toward a native community, unless lease management halts the progression of the ferns and trees along the fence. All leases have the possibility of being overtaken by noxious and/or invasive weeds, if management is not employed to halt their spread.

Fisheries

No Action

Special Status Fish: Under the No Action Alternative, impacts to the Riparian Reserves caused by grazing that may have an affect on special status fish species would improve over time. Reestablishing vegetation (through planting and additional livestock exclusion) beyond the fenced riparian areas might eventually increase future LWD recruitment potential and allochthonous inputs³ of terrestrial and aquatic insects, a potential food source for salmonids (Meehan and Bjornn 1991). However, the additional LWD that might be delivered to the stream channels is likely to be minor. A study of source distances for coarse woody debris in western Oregon and Washington demonstrated that over 70 percent of woody debris originates from within approximately 65 feet of a stream channel (McDade et al. 1990), and the fenced off reserve on Middle Creek ranges from approximately 30 - 80 feet in width and 40 - 100 feet on the North Fork Coquille.

Proposed Action

Lease #7201 and #7204 were included in informal consultation with NMFS in the Coos Bay District Biological Assessment dated March 29, 2000. The 2 leases as described in Chapter II were determined to be a “not likely to adversely affect“ for Oregon Coast coho salmon, Oregon Coast steelhead trout, Oregon Coast cutthroat trout, Oregon Coast coho critical habitat and Oregon Coast steelhead critical habitat. Written concurrence from NMFS was received in a letter dated June 21, 2000 (reference OSB2000-0064).

Lease #7205 and #7206 were included in informal consultation with NMFS in the Coos Bay Biological Assessment dated April 12, 2000 in which the 2 leases as described in Chapter II were determined to be a “not likely to adversely affect“ for Oregon Coast coho salmon, Oregon Coast steelhead trout, Oregon Coast cutthroat trout, Oregon Coast coho critical habitat and Oregon Coast steelhead critical habitat. The project and its effects determination were presented in a meeting to the NMFS Level 1 Team and there

³ Most organic litter originates within 30 m from the channel (FEMAT 1993).

was agreement with the determination. These 2 leases would not be renewed until written concurrence from NMFS has been received.

Aquatic Conservation Strategy Objectives

The Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands (Interagency 1994b). The important phrases in these standards and guidelines are “meet ACS objectives,” “does not retard or prevent attainment of ACS objectives,” and “attain ACS objectives.”

The appropriate landscape scale for evaluating the consistency of individual and groups of projects with the ACS is the watershed, corresponding with the “fifth-field” hydrologic unit code (HUC) as defined in the “Federal Guide for Ecosystem Analysis at the Watershed Scale” (pages 5-8)⁴. Leases #7201 and #7204 are within the 710030505 5th field HUC, and the Leases #7205 and #7206 are in the 1710030302 5th field HUC (57,371 acres of federal land). Lease #7205 does not contain any Riparian Reserves and will not be considered any further in this section. This analysis is for the Proposed Action.

The 710030505 5th field HUC contains 98,466 acres in the entire watershed, with 36,863 acres of BLM land. There are 19,276 acres of Riparian Reserve (BLM, North Fork Coquille Watershed Analysis, in preparation, 2000).

The 1710030302 5th field HUC contains 57,371 acres of federal land, in which 10,747 acres are in the Riparian Reserve land use allocation (BLM 1998).

The following analysis describes how the proposed action maintains the existing condition or leads to improved conditions in the long term for each of the nine ACS objectives. The two 5th field HUC will be analyzed together under each Objective unless otherwise stated.

ACS Objective 1: Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.

1710030505: The renewal of the grazing leases should maintain the elements outlined in ACS Objective 1. No off-channel habitat, known refugia or floodplains would be impacted. There would be no increase in roads, and the disturbance history of the watershed would not be affected. The Riparian Reserve system would be maintained in its current condition, and no impacts to landscape-scale features are anticipated. Therefore, it is concluded the proposed project is consistent with ACS Objective 1.

1710030302: The renewal of the grazing leases should maintain the elements outlined in ACS Objective 1. No off-channel habitat, known refugia or floodplains would be impacted. There would be no increase in roads, and the disturbance history of the watershed would not be affected. The Riparian Reserve system would be maintained in its current condition, and no impacts to landscape-scale features

⁴ Reference November 9, 1999 Regional Ecosystem Office memorandum concerning Northwest Forest Plan Requirements for ACS consistency determination.

are anticipated. Therefore, it is concluded the proposed project is consistent with ACS Objective 1. The grazing lease area was most likely an oak-grasslands community prior to Euro-American settlement. The FSEIS (Interagency 1994a) classifies oak woodlands as a special habitat (pg. B-10) and calls for the protection and management of special habitats to sustain a healthy ecosystem and contribute to biological diversity (pg. B-11, and B-26). Grazing is a tool that can help to prevent the encroachment of dense underbrush and shade-tolerant conifers into this type of community. Converting the site to a conifer forest under the No Action Alternative would result in loss of attributes associated with oak-grassland habitat, and thus would cause a reduction in community diversity on Federally managed lands.

ACS Objective 2: Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.

1710030505: The riparian zones are fenced out and thus are providing habitat and connectivity along the streams. The 5 acres of grazed areas do not contain forested-riparian-connectivity habitat, however the adjacent land is private and is also in pasture. The lease areas do not connect to any known key areas for aquatic or riparian-dependent species. The North Fork Coquille site inherently would have an edge microclimate rather than an interior forest microclimate because the river is too wide for a closed canopy to form above the river. This canopy gap above the river results in a permanent stand edge. Middle Creek has a stream width approximately equal to a forest road and therefore exerts an edge effect on its stream site stands equivalent to that caused by a road. However, edge effects on Middle Creek's riparian microclimate are moderated by forest land on the south side and by topographic shading.

1710030302: The unnamed perennial stream and its riparian zone are fenced off from grazing, and thus are providing habitat and connectivity along the drainage network. The stream's microclimate is also moderated by forest land on the south side and by topographic shading. The 3 acres of grazed BLM land do not contain forested-riparian-connectivity habitat, however the adjacent land is private and is also in pasture. The lease area does not connect to any known key areas for aquatic or riparian-dependent species. Even if forested, the BLM land would be influenced by edge effects as it would be separated from the adjacent BLM timber by a road on its south and southwest edge, and private pasture on the north and east.

All the lease sites are outside of key watersheds and therefore they will have no affect on the landscape scale refuge function provided for by key watersheds. At the 5th field scale, this project should not retard the attainment of connectivity or drainage network connections across the landscape.

ACS Objective 3: Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.

1710030505 and 1710030302: No actions associated with the project are likely to affect stream banks, shorelines or existing bottom configurations due to the existing fences. The root strength of trees within half a tree crown diameter of the bank is one component in providing streambank stability (FEMAT 1993). This function is protected by the existing fences.

ACS Objective 4: *Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.*

1710030505 and 1710030302: Because the streambanks and riparian areas would continue to be protected by fencing, and the existing riparian vegetation would remain, the proposed action is not expected to impact water temperature, turbidity, or result in the release of hazardous materials.

ACS Objective 5: *Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.*

1710030505 and 1710030302: It is recognized that sediment delivery, storage, and transport are essential functions of stream systems and contribute to the maintenance of riparian and aquatic ecosystems. Under natural conditions these mechanisms are driven primarily by infrequent high intensity storm events, although higher frequency less intense storm events also contribute.

There is little if any increase anticipated in the amount of sediment chronically delivered directly to the streams due to the limited routing of sediment through riparian vegetation and the low probability of overland flow. If the livestock on these leases continue to remain fenced from the stream channels, there will be no increase in sediment delivery.

The most likely mechanism to deliver large quantities of sediment and debris to the drainages is a mass failure. These allotments would not alter the amount and type of sediment that would be associated with this type of failure, therefore the sediment regime is maintained, and renewing the leases would not retard attainment of this objective at the 5th field scale.

ACS Objective 6: *Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.*

1710030505 and 1710030302: Streamflows, (peak, high, and low flows) are directly related to and influenced by the size of a precipitation event. The greater the amount of water going into a system, the larger the potential streamflow. The quantity of water and the rate at which it reaches the channel and passes through the system during a particular storm event is influenced by storm and watershed size, vegetation cover, topographic features and/or existing roads. The proposed action would not significantly influence the vegetation cover, topographic features, and/or existing roads.

The proposed action will have very little direct affect on the hydrology of the streams and tributaries within and adjacent to these grazing leases if the grazing continues under the same terms and conditions. There will be no increases in annual yield or low flows. Spring and fall peak flows are also not expected to increase the amount of water available because there is limited removal of vegetation and therefore no

measurable reduction in evapotranspiration losses during the spring and fall. Peak, high, and low flows are expected to remain within the range of natural variability for these stream types at both the 5th field and site level scales. It is concluded that the proposed project is consistent with ACS Objective 6.

ACS Objective 7: Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.

1710030505 and 1710030302: Under the proposed action, the grazing leases would have no impact on the timing, variability or duration of floodplain inundation or impact naturally-occurring meadows or wetlands. The leases in HUC 1710030505 are both small in area and relatively low in the watershed. Consequently, the stream flow amounts contributed by the upstream area in the watershed, and the natural variation in those flows, are of sufficient magnitude to overshadow any effects to floodplain inundation and groundwater levels attributable to management on the lease sites. There would be no measurable impact in HUC 1710030302 due to the small size of the lease and the limited amount of vegetation that is removed.

ACS Objective 8: Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.

1710030505: Although the streambanks, riparian vegetation and water quality of Middle Creek and the North Fork Coquille are not being impacted by grazing, coarse woody debris recruitment potential has been somewhat reduced on one side of the stream because the width of the fenced areas adjacent to the stream is less than the distance equivalent to the height of a site-potential tree (220 feet). Spence et al. (1996) reported that buffers approaching a one site-potential tree height are needed to maintain natural levels of large woody debris recruitment. However, McDade et al. (1990, cited in Van Sickle and Gregory 1990) found that more than 70 percent of wood debris in streams originated at distances from the stream that were less than half the stand height. McDade (1987) reported that 11 percent of the debris pieces in channels came from within 3 feet of the stream, and 90 percent originated within 100 feet of the channel in 29 out of the 39 streams studied. In western Oregon streams, approximately 80 percent or more of the instream hardwood debris originated within 10-meters (~33 feet) of the stream, as compared to 50 percent or more of the conifer debris (Reiter and Beschta 1995).

The leases on the North Fork Coquille and Middle Creek affect only one side of their respective streams leaving the potential to recruit woody debris intact on the opposite side of the streams. The fenced stream side area is 30 to 80 feet wide on Middle Creek. Utilizing data from Rieter and Beschta (1995) the fencing protects more than 80 percent of the hardwood recruitment potential on that side of the stream. At its narrowest point the stream side stand will retain at least 50 percent of its conifer recruitment potential. When both sides of the stream are considered, at least 90 percent of the hardwood recruitment potential and greater than 75 percent of the conifer recruitment potential is unaffected by the lease. The fenced riparian area is 40 to 100 feet wide at the North Fork Coquille site. When both sides of the stream are considered, more than 90 percent of the hardwood recruitment potential and greater than 75 percent of the conifer recruitment potential would be unaffected by the lease.

Implementing the noxious weed control portion of the Proposed Action would help to restore the plant species composition at the site level. At the 5th field HUC level, there are negligible effects on the future distribution of coarse woody debris from the five grazed acres outside of the riparian areas of the Riparian Reserves, and this action would not prevent the attainment of ACS Objective 8 at the landscape scale.

1710030302: Although the streambanks, riparian vegetation and water quality of streams adjacent to lease area #7206 are not being impacted by grazing, coarse woody debris recruitment potential has been somewhat reduced because the width of the fenced areas adjacent to the stream is less than the distance equivalent to the height of a site-potential tree (180 feet (BLM 1997b⁵)). The fenced riparian area is 25 to 50 feet wide on the unnamed stream. On the lease side of the stream, this fencing would protect more than 80 percent of the hardwood recruitment potential and at least 50 percent of its conifer recruitment potential. When both sides of the stream are considered, at least 90 percent of the hardwood recruitment potential and greater than 75 percent of the conifer recruitment potential would be met. The 3-acre lease comprises 0.03 percent of the Riparian Reserves in this 5th field HUC, and its effect is negligible at this scale on the distribution of coarse woody debris.

ACS Objective 9 - *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.*

1710030505: There are no documented occurrences of Special Status plants or Survey and Manage Strategy 1 plant species in this area, and the area does not contain habitat for these species. There is a minor occurrence of Canada thistle on the lease area and other weedy species that are nearby are Scotch broom, blackberry, and Japanese knotweed. Implementing noxious weed control under the Proposed Action would help to eliminate these non-native plant species.

There are no known locations of J2, Survey and Manage, or Protection Buffer wildlife species at these sites. The lease is outside the range of the mollusk species listed in the ROD under the “Protect Sites From Grazing” section (Interagency 1994b, pg C-6).

As there are no known sites of J2 or Special Status plant or animal species, and the leased areas are only 0.01 percent of the federal land within the 5th field watershed, this action would have a negligible effect on meeting ACS objective 9.

1710030302: Riparian dependent wildlife species and their habitat listed in the Watershed Analysis (BLM 1997b) are absent from lease area #7206 (papillose tail-dropper, blue-grey tail-dropper, Oregon megomphix, southern torrent salamander, tailed frog and white-footed vole). Riparian dependent plant species and their habitat listed in the Watershed Analysis (BLM 1997b) are also absent (*Helvella spp.*, *Pholigotia helvelloides*, *Endogone oregonensis*, *Rhizopogon exiguus*, and *Cimicifuga elata*). Implementing noxious weed control under the Proposed Action would help to eliminate non-native plant species. Even if forested, Lease #7206 would not have a functional forested interior habitat as it would be separated from the adjacent BLM timber by a road on its south and southwest edge and would be adjacent to private pasture on the north and east. Old growth forests less than 25 acres in size do not

⁵ Recalculation of the Site Potential Tree Height for the Area Assessed in the Upper Middle Umpqua Watershed Analysis (Appendix, BLM 1997b)

provide interior habitat due to microclimatic and edge effects (Lehmkuhl and Ruggiero 1991). The 3-acre lease comprises 0.03 percent of the Riparian Reserves in this 5th field HUC and its effect is negligible at this scale on habitat for these native riparian-dependent species. Thus, this action is not a factor in attaining Objective 9 in this 5th field HUC.

Wildlife

No Action

The conversion of 14.5 acres of early-seral vegetation to forested stands would not have a significant negative effect on big game or other wildlife. The successful establishment of trees would have a positive effect on wildlife in the long term by providing perch and shade trees and the potential for snags and/or down wood. Planting trees would have a positive effect in helping to attain ACS objectives in the Riparian Reserves of Leases #7201, #7204, and #7206.

Lease areas #7201 and #7204 are separated from the adjacent forested stand by Middle Creek and the North Fork Coquille, respectively. When forested, these two areas will not have functional interior habitat due to the edge effect of the water way and the adjacent private lands. Lease #7206 also would not have a functional forested interior habitat as it would be separated from the adjacent BLM timber by a road on its south and southwest edge and would be adjacent to private pasture on the north and east. Lease #7205 when reforested would become a part of the adjacent timbered stand that is to the north of the lease area. Old growth forests less than 25 acres in size do not provide interior habitat due to microclimatic and edge effects (Lehmkuhl and Ruggiero 1991; pg. 50 BLM 1995c).

The Survey and Manage terrestrial mollusks (*Megomphix hemphilli*, *Prophysaon coeruleum*, and *Prophysaon dubium*) are considered to rely on well shaded, moist sites with down logs and to be late successional obligates. Also, big leaf maples are considered a major component for *Megomphix hemphilli*. None of the leases currently meet any of these criteria. Lease areas #7201 and #7204 are separated from adjacent BLM matrix forested lands by Middle Creek, and North Fork Coquille respectively. When replanted, these two areas will not have functional interior habitat due to the edge effect of the water way on one side and adjacent open private lands on the other. Planting big leaf maples would provide future habitat for *Megomphix hemphilli*. Lease #7205 when reforested would become part of the adjacent 50 year old timbered stand, designated as a Connectivity/Diversity Block, but would remain open to private lands on the south. Lease #7206 also would not have functional forested habitat as it would be separated from the adjacent BLM timber by a creek and then an additional 100 feet by a road on the southern side. It would also be adjacent to private pasture on the northern side. Replanting of sites would help provide the shading, and conifer/big leaf maple portion (and ultimately down log portion) of mollusk habitat needs. But due to the age and/or land classification of adjacent BLM lands and the disconnectivity with the leased areas coupled with the edge effect of the current open use of surrounding private lands there are little to no direct, indirect, or cumulative impacts expected.

Proposed Action

Renewing the leases would not directly impact the northern spotted owl, marbled murrelet, or bald eagle as there are no known nest sites near the four areas. Consultation with the U.S. Fish and Wildlife Service would not be required.

Not replanting the pastures to trees would eliminate the potential for perch/nest trees, snags, and down wood. However, since each area is under seven acres in size this would not be a significant negative impact to wildlife. Also, no direct, indirect or cumulative impacts are expected in regards to Survey and Manage mollusk species (refer to the discussion under the No Action Alternative above).

Maintaining the areas in pasture would continue to provide edge habitat and early seral vegetation. Wildlife that would utilize this type of habitat includes big game, game birds, raptors for hunting, and some song birds.

The ability of the Connectivity/Diversity Block to function as connectivity would not be significantly negatively impacted by maintaining Leases #7205 and #7206 in pasture. This is due to the small amount of acres involved and the position of the leases on the outside edges of the Block.

Leaving the seep in Lease #7201 and spring in Lease #7206 unfenced may lead to livestock trampling in these areas and the loss of amphibian habitat. This impact would be avoided if the two areas were fenced. Fencing would not eliminate a watering source for livestock as neither the seep nor spring are used for this purpose.

There would be no cumulative effects from this action due to the small scale of the four lease areas.

Cultural Resources

No Action

No direct, indirect, or cumulative effects would be anticipated.

Proposed Action

No direct, indirect, or cumulative effects would be expected by the renewal of the grazing leases.

Hazardous Materials and Solid Waste

No Action

No direct, indirect, or cumulative effects would be anticipated.

Proposed Action

No direct, indirect, or cumulative effects would be anticipated.

Environmental Justice

There are no identified significant adverse human health or environmental effects, either direct, indirect, or cumulative, associated with this EA for native Americans, low income, or minority groups for either of the alternatives.

CHAPTER V - LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONTACTED

The names of agencies, organizations and individuals contacted for their comments on the proposed action are listed in the public involvement section of the Analysis File.

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Appendices

Appendix A

Lease Area Location Maps