

Slippery Louis Decision Document
Revised Myrtle Creek Harvest Plan Environmental Assessment
DOI-BLM-ORWA-R050-2013-0003-EA

Bureau of Land Management
South River Field Office, Roseburg District

Background

The Revised Myrtle Creek Harvest Plan Environmental Assessment (REA), of which the Slippery Louis Timber Sale is a component, proposed to apply uniform and variable density thinning (VDT) to 1,160 acres and variable retention harvest (VRH) to 334 acres in the Matrix land use allocations. Additionally, variable density thinning would be applied to 374 acres in the Riparian Reserves land use allocation. The REA describes and analyzes a no action alternative and two action alternatives. Under Alternative Two (the proposed action), thinning and VRH would be utilized whereas Alternative Three utilizes only thinning harvest.

The BLM made two notable changes (described on page 2) to Alternative Two. The selected alternative, Alternative Two Modified, includes approximately 1,014 acres of VDT, 614 acres of CT, 209 acres of VRH, and 209 acres of reforestation and stand maintenance. Forest management treatments will be conducted as described in the REA (pp. 21-25) with the exception of the gap size in Riparian Reserves. Road management, fuels management and subsoiling actions will be as described in the REA (pp. 25-30).

The analysis was conducted and the project designed to conform to management direction from the 1995 Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP) as amended prior to December 30, 2008.

Public Involvement & Response to Comment

The BLM initiated the Myrtle Creek Harvest Plan project in December of 2012. The project has been described in the Roseburg District Quarterly Planning Update since December 4, 2012 (REA, p. 5). Informal scoping comments were received from two individuals and two organizations in January, February, and March of 2013. Letters were sent to landowners with property adjacent to BLM-administered lands where timber harvest is proposed, those whose property lies beside or astride identified haul routes, and those with registered surface water rights for domestic use located within one mile downstream of any proposed units in September 2013. The scoping comments were considered and addressed in the REA (pp. 5-10).

The Myrtle Creek Harvest Plan Environmental Assessment (EA) was released for a 30-day period of public review and comment beginning on June 4, 2014, and running through July 3, 2014. Comments were received from four organizations and four individuals. Additionally, we received a form letter from 189 individuals during the comment period. After the EA was issued, surveys for red tree voles were completed. The Myrtle Creek Harvest Plan was revised (REA) subsequent to completion of red tree vole surveys to incorporate results of the surveys and to incorporate an evaluation for non-high priority site designation. The REA was released for a 15-day period of public review and comment between August 12, 2015 and August 26, 2015. Comments on the REA were received from four organizations. Responses to comments pertinent to this decision and not already addressed in the REA are either included in Appendix B or described below.

Decision

It is my decision to authorize the Slippery Louis Timber Sale, which continues implementation of a combination of activities described in Alternatives Two and Three (Alternative Two Modified; see Appendix A - Maps) in the REA (pp. 18-35). I made two notable changes to Alternative Two in response to public comments. One of those changes does not pertain to the Slippery Louis Timber Sale because it affected the amount of VRH in stands 80 years of age and older. The change pertinent to this sale is related to concerns about the effects of creating openings as large as one and a half acres in size within Riparian Reserves. To address this concern, it is my decision to create gaps no larger than 0.25 acres.

The Slippery Louis Timber Sale consists of ten units in Sections 17, 20, 29, 31 and 32, T. 28 S., R 3 W.; Sections 25, T. 28 S., R 4 W.; Section 3, T. 29 S., R 4 W., Willamette Meridian (see Appendix A - Maps). Table 1 shows that the harvest units total approximately 221 acres in the following land use allocations: General Forest Management Area (GFMA, 103 acres), Connectivity/Diversity Block (C/D, 52 acres), and Riparian Reserves (RR, 66 acres including the “no treatment” area). Treatments in the GFMA include 69 acres of CT and 34 acres of VRH. Treatments in the C/D Blocks land use allocation include 24 acres of CT and 28 acres of VDT. Variable density thinning will be applied in all RR associated with the units (56 acres). One acre would be cleared for a road right-of-way in Unit 3. Nine units will be harvested using cable yarding systems and one unit with ground-based systems. In addition to timber harvest, the following activities will occur (see Table 2 and Appendix A - Maps):

- **Road Construction and Decommissioning (0.09 miles):** One road segment (Spur 1) will be constructed within Unit 10 and used for harvest operations, then decommissioned. All road construction and decommissioning will occur during the dry season (described below). Table 2 depicts the road treatments and lengths, and Appendix A - Maps show the road locations.

At a minimum, road decommissioning will consist of removing temporary drainage structures, constructing water bars, seeding and mulching disturbed areas, and blocking roads to vehicular use (REA, p. 26). If it is not possible to accomplish decommissioning at the end of the first operating season, the purchaser shall be responsible for winterizing temporary roads by water-barring, obstructing motorized access, and mulching. Road construction and decommissioning will follow the northern spotted owl operating restrictions where applicable (see below).

- **Road Renovation (16.89 miles):** Twelve road segments (see Table 2 and Appendix A - Maps) will be renovated during the dry season. All of the renovated roads will be retained for future use, with the exception of approximately 0.11 miles that is identified for decommissioning. Renovation actions are those needed to restore the road to original design specifications and may include blading, brushing, removing obstructions or trees within the right-of-way, reshaping drainage dips and the road bed, replacing and/or installing cross drains and live water culverts when needed, and spot aggregate placement where needed. Northern spotted owl operating restrictions will be implemented where applicable (see below).
- **Road Daylighting (8.51 miles):** Daylighting followed by road renovation will occur along 11 road segments on five roads (see Table 2). Daylighting will be conducted as described in the REA (p. 28). Daylighting treatments include clearing shrubs and trees and/or thinning trees less than 24 inches diameter breast height where overstory trees shade the roadway surface. Treatments will be limited to 33 feet from the center line of the road.
- **Subsoiling:** Approximately 0.5 acres of skid trails, equipment areas and landings will be subsoiled in Unit 10. Subsoiling will treat compacted soils to a minimum of 18 inches in depth or to the top of gravelly-cobbly soil layers if these layers are shallower than 18 inches.

- **Post-Harvest Fuels Treatment:** Activity fuel accumulations along roads, primary skid trails, and landings will be piled and burned as described in the REA (p. 29). Specifically, activity fuels will be hand piled and burned within 50 feet of BLM Road 28-3-17.0 in Units 1 and 2, BLM Road 28-4-17.0 in Units 3 and 4 BLM Road 28-3-34.1 in Unit 4, BLM Road 29-4-11.0 and BLM road 28-3-28.0 in Unit 7, BLM Road 28-3-31.0 in Unit 9. Activity fuels in Units 5, 6 and 8 will be machine piled and burned at landings only. Activity fuels in Unit 10 will be machine piled and burned.
- **Post-Harvest Tree Planting and Density Control:** Approximately 34 acres designated for VRH will be planted with tree seedlings. Density control treatments within planted areas will be applied as necessary to maintain open tree canopy for approximately 30 years.

Total harvest volume is estimated at 4,667 thousand board feet. Approximately 3,531 thousand board feet derived from harvest on 155 acres in the GFMA and C/D Blocks land use allocations is chargeable to the Roseburg District annual allowable sale quantity. The remaining 1,136 thousand board feet is derived from VDT in 57 acres of Riparian Reserves (including 1 acre of right-of-way) and is not chargeable to the annual allowable sale quantity. Timber sale unit numbers and corresponding REA unit designations are displayed in Table 1.

Table 1: Slippery Louis Timber Sale Unit Description.

Sale Unit	REA Unit Designation	Age in 2016	Land Use Allocation ²	Harvest Acres	RR “No-treatment” Area	Alt. Two Mod. Harvest Prescription ¹	Northern Spotted Owl Critical Habitat	Yarding Method
1	28-3-17A	55	C/D RR	18 6	0	VDT VDT	Yes	Cable
2	28-3-20A	44	GFMA RR	0 12	1	VDT VDT	Yes	Cable
3	29-4-3A	50	GFMA RR RR	36 10 1	1 0	CT VDT ROW	No	Cable
4	29-4-3C	62	GFMA RR	23 6	1	VRH VDT	No	Cable
5	28-4-25B	46	C/D RR	14 12	5	CT VDT	Yes	Cable
6	28-4-25C	40	C/D	10	0	CT	Yes	Cable
7	28-3-29A	44	GFMA C/D RR	25 1 1	0	CT VDT VDT	Yes	Cable
8	28-3-32A	56	C/D	9	0	VDT	Yes	Cable
9	28-3-31B	47	GFMA RR	8 9	1	CT VDT	Yes	Cable
10	28-3-31A	72	GFMA	11	0	VRH	Yes	Ground-Based
Total				212	9			

¹CT = Uniform Commercial Thinning; VDT = Variable Density Thinning; VRH = Variable Retention Harvest

²GFMA = General Forest Management Area; RR = Riparian Reserves; C/D = Connectivity/Diversity Block

Applicable project design features described in the REA (pp. 32-35) have been incorporated into timber sale contract stipulations.

Prior to move-in, all equipment used in logging and road construction, excluding log trucks and crew transport, will be steam-cleaned or pressure washed to remove soil and materials that may be contaminated with weed seed or root fragments (REA, p. 14). Any equipment removed from the contract area during the life of the contract must be re-cleaned before being returned to the contract area.

Conventional ground-based yarding equipment will operate on designated skid trails, using pre-existing trails to the greatest extent practicable. Ground-based operations will be limited to the dry season, typically May 15 through October 15, but may be shortened or extended, dependent on weather conditions, when soils are at their driest and least susceptible to compaction. Operations are generally restricted to slopes of 35 percent or less, but may be authorized on steeper inclinations and pitches between gentler benches where appropriate (REA, p. 32).

Conventional ground-based harvest systems, excluding feller-bunchers, are acceptable for the ground-based harvest in Unit 10. The unit contains soils with moderate to high clay content, low levels of rock and moderate to high susceptibility to soil compaction. Field review¹ shows past feller-buncher operations on these soil types have yielded unacceptable levels of soil compaction.

For cable yarding, a skyline system capable of maintaining a minimum of one-end log suspension will be used. It shall be equipped with a mechanical slack pulling carriage having a minimum of 75 feet of lateral yarding capability (REA, p. 33). The system shall also have the capability to yard in multi-span configuration.

With the exception of the clearing of road rights-of-way and VRH (Units 4 and 10), no timber falling, bucking or yarding shall be conducted in thinning units during the bark-slip period from April 15 to July 15 of each calendar year, both days inclusive. This restriction may be waived or modified depending upon seasonal variations, logging systems, and operator skill.

Access will be primarily provided by existing roads, supplemented by the construction of one road segment (0.09 miles). Table 2 and Appendix A - Maps display details of necessary road treatments.

Table 2: Slippery Louis Timber Sale Road Construction, Renovation, Decommissioning and Daylighting.

Road Number	Road Treatment	Treatment Length (miles)	Daylighting (miles)
Spur 1	Construct, Decommission	0.09	0
29-4-3.4 extension	Renovate, Rock, Decommission	0.11	0
28-3-17.0	Renovate, Rock, Retain	3.61	1.24
28-3-31.0	Renovate, Rock, Retain	1.01	0
28-3-32.3	Renovate, Rock, Retain	0.33	0
28-4-25.1	Renovate, Rock, Retain	0.13	0
28-4-34.0	Renovate, Rock, Retain	4.70	2.06
28-4-34.1	Renovate, Rock, Retain	1.52	0.87
29-4-3.1	Renovate, Rock, Retain	0.45	0
29-4-3.2	Renovate, Rock, Retain	0.19	0
29-4-3.4	Renovate, Rock, Retain	0.11	0
29-4-11.0	Renovate, Rock, Retain	3.89	3.76
29-4-17.0	Renovate, Rock, Retain	0.84	0.58

¹ USDI BLM 2013. Sir Galahad Commercial Thinning and Density Management Soil Impacts Field Review. Roseburg District, Roseburg, Oregon.

Rationale for the Decision

Alternative Two Modified will address public concerns and meet the project objectives (purpose and need) of providing sustainable timber production; developing desired species composition, structural characteristics, and distribution of seral or age classes; enhancing species and structural diversity in Riparian Reserves; and reducing stand densities to promote tree survival and growth (REA, pp. 48-60). Alternative One would not accomplish these objectives (REA, pp. 45-47). Alternative Two would meet the project objectives but would not adequately address public concerns. Alternative Three would not accomplish the project objectives to the extent that Alternative Two or Alternative Two Modified will because Alternative Three would not contribute to developing desired seral or age class distribution in the GFMA land use allocation (REA, p. 60).

Wildlife

Consultation with the U.S. Fish and Wildlife Service (Service) has been completed and the project complies with the Endangered Species Act. In a Biological Opinion (USFWS 2015²; TAILS #: 01EOFW00-2015-F-0229, dated August 5, 2015) the Service found the proposed action "...is not likely to jeopardize the spotted owl...The proposed action has also been planned in a manner which incorporates recommendations of the Spotted Owl Revised Recovery Plan's Recovery Actions 10 and 32...the proposed action is not likely to adversely modify spotted owl critical habitat because it is not anticipated to diminish the intended connectivity or demographic support conservation function of the affected critical habitat subunit KLE-2." (p. 1-2) The project area is outside of marbled murrelet management zones, and hence would have no effect on the species or its habitat (REA, p. 188).

Northern Spotted Owl (*Strix occidentalis caurina*)

Disturbance

No effect to northern spotted owls from noise disruption or disturbance is expected (REA, p. 33, 77). Any operations with the potential for disruption of nesting northern spotted owls would be subject to seasonal restrictions. Operations within applicable disruptions threshold distances of known northern spotted owl sites or unsurveyed suitable habitat will be prohibited from March 1st to July 15th, both dates inclusive.

Suitable and Dispersal Habitat

The BLM modified Alternative Two in response to public comments on the EA/REA, by reducing the amount of area treated and harvest intensity. Consequently, the effects of proposed activities on northern spotted owls and their habitat will be reduced from the effects disclosed for Alternative Two in the REA. Likewise, the Slippery Louis Timber Sale harvest area was reduced by approximately 21 acres between consultation and final unit layout such that the effects of proposed activities on northern spotted owls and their habitat will be reduced from the effects described in consultation documents (Biological Assessment and Biological Opinion, BO). The final Slippery Louis Timber Sale units do not modify or remove suitable northern spotted owl habitat, contrary to what was analyzed in the BO (USFWS 2015, p. 50).

² U.S. Fish and Wildlife Service. 2015. Formal consultation on the Roseburg District of the Bureau of Land Management's 2015 Batch of Five timber Sales (Reference Number 01EOFW00-2015-F-0229). August 5, 2015.

The Slippery Louis Timber Sale includes application of VRH in northern spotted owl dispersal habitat (34 acres in Units 4 and 10) in the GFMA land use allocation outside of northern spotted owl nest patches and core areas. Post-harvest, VRH units will not support northern spotted owl use (REA, p. 77) but retained habitat components will contribute to future development of suitable habitat; providing the necessary habitat diversity such as multi-layered canopy, large trees and snags. Retention in the VRH units is as described in the REA (pp. 23-24); the combination of aggregate and dispersed retention in Units 4 and 10 is 20 percent and 24 percent, respectively. In approximately 40 years, post-harvest, VRH units will provide dispersal habitat and in approximately 80 years, post-harvest, VRH units will provide nesting, roosting and foraging habitat (REA, p. 77).

Thinning will modify approximately 177 acres of northern spotted owl dispersal habitat outside of occupied northern spotted owl nest patches and core areas, with the exception of approximately 8 acres in the core area of one northern spotted owl home range (0292O). Dispersal habitat function will be maintained because 40 percent canopy cover will be retained (REA, pp. 21-22). Northern spotted owls are expected to continue using thinned areas because canopy closure will remain above 40 percent and the quadratic mean diameter of trees in the treated stands will be at least 11 inches, figures widely used as thresholds for dispersal function (REA, p. 62, 75 and 76). However northern spotted owls may utilize the thinned stand less than unthinned stands until canopy closure returns to pre-thinning levels (REA, p. 76).

Site Occupancy

The BO (USFWS 2015) identifies three northern spotted owl home ranges affected by proposed Slippery Louis Timber Sale units: 0293A, 1811O and 0292O. Surveys in 2015 showed no occupancy by resident northern spotted owls at all three sites. Considering all of the available survey information, sites 0293A and 1811O are considered unoccupied as there have been no detections from resident northern spotted owls for at least four years (USFWS 2015, p. 49). Site 0292O is considered occupied because a pair of northern spotted owls was detected during the 2013 and 2014 surveys even though the 2015 survey showed the site was unoccupied.

Suitable habitat in sites 0292O and 0293A is below the suitable habitat viability thresholds at the home range and core area scales, while suitable habitat is above the thresholds in site 1811O (REA, p. 63). The Slippery Louis Timber Sale will not change the suitable habitat viability status of these home ranges because suitable habitat will not be treated (REA, p. 78).

Unit 9 (approximately 19 acres) is located in the core area of site 0293A and Unit 7 (approximately four acres) is located in the core area of site 1811O. Thinning of northern spotted owl dispersal habitat within the core area of these sites will modify but maintain dispersal habitat function. The BLM will apply VDT on approximately 8 acres (Unit 2) in the core area of site 0292O.

Northern spotted owls are expected to continue to use thinned areas (REA, p. 62, 75 and 76). However, northern spotted owls potentially using the three affected home ranges in the future may expand home range size (REA, p. 75) and may utilize the thinned stands less than unthinned stands in the short-term (REA, p. 76).

Northern Spotted Owl 2012 Critical Habitat

Units 1, 2, and 5 through 10 of the Slippery Louis Timber Sale are located in the critical habitat Klamath East Subunit 2 (KLE-2), thus they are designated as northern spotted owl critical habitat (REA, p. 177). Within critical habitat, thinning will be applied to 124 acres (Units 1, 2, 5) of dispersal habitat. Canopy cover in thinned units will remain above 40 percent, thus maintaining dispersal habitat function and

providing for northern spotted owl movement between the western Cascades, coastal Oregon, and Klamath Mountains. Variable retention harvest will be applied to 11 acres (Unit 10) of dispersal habitat. Areas where VRH is applied are not expected to be used by northern spotted owls in the short-term. Use as dispersal habitat is expected to resume in approximately 40 years, post-harvest (REA, p. 77).

Based upon the critical habitat analysis in the BO, the Service finds Slippery Louis Timber Sale activities "...are not likely to adversely affect designated spotted owl critical habitat and, as such, are not likely to appreciably diminish the conservation support function of this [critical habitat unit] CHU subunit KLE-2 or critical habitat at the Provincial and range-wide scales primarily because these project impacts are relatively very small at the local area. Conservation measures in the Project at the stand and landscape scales in terms of retention of spotted owl prey habitat features along with their broad distribution across the landscape are likely to provide some benefits to spotted owls." (USFWS 2015, p. 70)

Northern Spotted Owl 2011 Recovery Plan

Known threats to the northern spotted owl are addressed by recovery strategies that include habitat conservation and active forest restoration as recovery strategies (USFWS 2011, p. II-2). The recovery plan also strongly encourages land managers to be aggressive in the implementation of recovery actions (USFWS 2011, p. II-11).

This project is consistent with the Revised Recovery Plan for the Northern Spotted Owl (Recovery Plan) by implementing disturbance-based management within the range of the northern spotted owl with the goal of maintaining or restoring forest ecosystem structure, composition, and processes so they are sustainable under current and future climate conditions. It is also consistent with the Recovery Plan recommendations for the application of ecological forestry principles (REA, p. 81).

The Slippery Louis Timber Sale complies with Recovery Action 6 by implementing ecological forestry principles that emphasize retention of larger and older trees, snags and downed wood, and live trees (REA, p. 23-24). The project will be conducted following principles of ecological forestry as recommended throughout the Recovery Plan (USFWS 2011, pp. III-11 thru 14, 19, and 20). It will emulate natural disturbance processes through prescriptive actions (USFWS 2011, p. III-13), promoting spatial heterogeneity within patches on local landscapes, and restore species and structural diversity, including early successional ecosystems (USFWS 2011, pp. III-14 and 18).

The Recovery Plan recommends conserving northern spotted owl sites and high-value northern spotted owl habitat (USFWS 2011, pp. III-42 thru 47). The Recovery Plan also identifies a number of activities that could have short-term effects to northern spotted owls, but which would still be consistent with the Recovery Plan. Among these are restoration activities that would reduce threats from stochastic disturbance (USFWS 2011, pp. III-13 thru 14, and 45 thru 46) and restoration of high quality early-seral habitat (USFWS 2011, pp. III-14 and 46), both of which will be accomplished by implementing Slippery Louis Timber Sale. Given these factors, the sale is consistent with the Recovery Plan (REA, p. 81).

In a BO (USFWS 2015, pp. 69-70), the Service made the following findings:

- The Slippery Louis Timber Sale is located on Matrix lands which under the Northwest Forest Plan (NWFP) these lands are where the emphasis on timber harvest was intentionally placed. Further, adjacent reserve areas will continue to be managed to maintain and further restore older forest habitats to benefit a myriad of native species, including northern spotted owls.
- The proposed action does not remove northern spotted owl suitable habitat in suitable habitat limited home ranges.

- In addition to the non-jeopardy NWFP Opinion, the proposed action is reasonably consistent with Recovery Actions 10 and 32 of the Recovery Plan. With the possible exception of small roadside slivers, all habitats meeting the intent of Recovery Action 32 have been removed from proposed harvest areas. The District planned the proposed action consistent with the intent of Recovery Action 10 in that the northern spotted owl sites would be conserved and most of the proposed harvesting occurs outside of core use areas for known northern spotted owl sites.
- The capability of the habitat and the current population of northern spotted owls to support a persistent northern spotted owl population is likely to be retained with implementation of the project. The proposed action will not appreciably reduce the likelihood of survival or recovery for the northern spotted owl population.

Botany Special Status Species

The project is within the range of Kincaid's lupine (*Lupinus sulphureus* spp. *kincaidii*), a Federally-threatened herbaceous perennial plant. There will be no direct effect to Kincaid's lupine, as no populations have been identified in any of the units comprising this project (REA, pp. 13, 179 and 185).

There will be no effects on the Federally-endangered rough popcorn flower (*Plagiobothrys hirtus*). The project is not in the species' geographic range and vernal wet meadows are not present (REA, p. 185)

No Bureau Sensitive plant species were located during surveys in the Slippery Louis Timber Sale units; therefore no affect to Bureau Sensitive species is anticipated (REA, pp. 13, 181-186).

Aquatic Habitat, Fish, and Essential Fish Habitat

Oregon Coast coho salmon (*Oncorhynchus kisutch*), a Federally-threatened species, is present in the fish-bearing portions of Myrtle Creek and Days Creek, which are designated as critical habitat for the Oregon Coast coho salmon, and Essential Fish Habitat for the Oregon Coast coho salmon.

The Slippery Louis Timber Sale units are within the Myrtle Creek watershed, but no direct effects from harvest activities are expected to Oregon Coast coho salmon, critical habitat for the species, or Essential Fish Habitat (REA, pp. 100, 101, 104-105). Riparian Reserves have been established on all streams located within or adjacent to the units, and "no treatment" areas that will filter sediment and provide effective shade for maintenance of water temperatures (100 feet on Oregon Coast coho salmon bearing streams, 60 feet on fish bearing and perennial streams; 35 feet on intermittent streams) have been established adjacent to the stream channels (REA, p. 32).

Potential effects on aquatic systems come primarily from road related activities, which can contribute sediment to streams that can affect substrate for spawning. Road work done during the dry season has no mechanism for sediment transport to occur from roads to streams (REA, p. 101). All road construction, road renovation, road decommissioning, and native surface road improvement will take place during the dry season, typically mid-May through mid-October (REA, pp. 34, 100 and 113). Absent seasonal precipitation which could mobilize sediments, these activities will not contribute sediment to streams that could affect spawning substrates (REA, pp. 101). Application of project design features and Best Management Practices will effectively eliminate delivery of road derived sediment to live stream channels (REA, pp. 104, 106). Some sediment may enter streams, however, resulting in elevated levels of turbidity, but not at levels that exceed typical background levels during winter high flows (REA, pp. 99, 101, 106 and 133).

Hauling on native surface roads will take place during the dry season, typically mid-May through mid-October (REA, pp. 34). Dry-season hauling will neither generate nor deliver sediment to live stream channels (REA, p. 100 and 102). Gravel-surfaced haul routes could contribute small amounts of fine

sediment to stream channels at stream crossings at a time of year when sediment is being transported downstream by high winter flows; but the amount of sediment entering streams will be undetectable (REA, pp. 101 and 107). Implementing project design features and Best Management Practices will reduce the potential for these effects (REA, p. 101, 104). Active haul during the wet season on gravel-surfaced routes will be suspended during or prior to forecasts of substantial rain or if the haul route becomes adversely impacted (REA, pp. 35 and 104). Where haul routes are paved, there is no mechanism for sediment to be generated or carried to adjacent stream channels (REA, p. 99).

Water Quality and Quantity

Riparian Reserves have been established on all streams located within or adjacent to the harvest units, and “no treatment” areas have been established adjacent to the stream channels that will filter sediment and provide effective shade for maintenance of water temperatures (REA, pp. 99, 104, 105, 106 and 195).

Variable density thinning in Riparian Reserves will maintain an average canopy cover of at least 50 percent (REA, p. 22) and, in response to public comments on the REA, gaps will be limited to 0.25 acres in size or less. Variable density thinning in the Matrix will have gaps 0.25 to 0.5 acres in size. Small gaps created by the VDT will have little effect on forest hydrology (REA, p. 108).

Openings in a forest canopy greater than two tree heights across can affect precipitation, snow melt and peak flows (REA, p. 108). Variable retention harvest in Units 4 (23 acres) and 10 (11 acres) occur in the Upper North Fork Myrtle Creek and Upper South Fork Myrtle Creek subwatersheds which have Equivalent Clearcut Area (ECA) of 17.7 and 15.9 percent, respectively (REA, p. 108). With the addition of concentrated harvest areas, the ECA would increase a small fraction of one percent in the two rain-dominated subwatersheds (REA, p. 108). There would be no mechanism for peak flow enhancement due to a lack of response until ECA exceeds 29 percent of the subwatershed (REA, p. 108). Consequently, VRH units in the Slippery Louis Timber Sale do not present a risk to peak flow enhancement.

As discussed in the REA (p. 95), average road density is 4.4 miles per square mile. Based on rights-of-way widths, assumed to be 40-feet on average, roads cover approximately 4,824 acres and represent 3.3 percent of the analysis area (REA, p. 95). Increases in peak flow can be found when the roads and other impermeable areas occupy more than 12 percent of a catchment scale watershed (Harr *et al.* 1975) (REA, p. 93). Table 2 shows that one road (approximately 0.09 miles) will be constructed, used and decommissioned in the Slippery Louis Timber Sale. Road density will remain well below the 12 percent threshold for risk of peak flow enhancement identified by Harr *et al.* (1975).

Aquatic Conservation Strategy

Riparian Reserves were established consistent with the 1995 ROD/RMP specification that Riparian Reserve widths will be equal to the height of two site potential trees on each side of fish-bearing streams and one site-potential tree on each side of perennial or intermittent non-fish bearing streams, wetlands greater than an acre, and constructed ponds and reservoirs (REA, p. 32 and Appendix D). The height of a site-potential tree is calculated as 160-feet for the Myrtle Creek and Days Creek-South Umpqua watersheds (REA, pp. 32 and 191). Approximately 56 acres of VDT will be conducted in Riparian Reserves on the Slippery Louis Timber Sale. One objective for these treatments is to accelerate the development of diverse plant communities that are characteristic of late-seral conditions (REA, pp. 3, 55, 102 and 103).

Key Watersheds were established “as refugia...for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species (ROD/RMP, p. 20).” There is no permanent road construction authorized in the South Umpqua River Tier 1 Key Watershed in association with the Slippery Louis Timber Sale, which is consistent with management direction in the ROD/RMP (p. 20) to neither construct nor authorize through discretionary permits a net increase in road mileage in the watershed.

In developing the project, the *Myrtle Creek Watershed Analysis and Water Quality Restoration Plan* (USDI/BLM 2002a), *South Umpqua Watershed Analysis and Water Quality Restoration Plan* (USDI/BLM 2001a) and *Lower South Umpqua Watershed Analysis* (USDI/BLM 2000) were used to evaluate existing conditions, establish desired future conditions, and assist in the formulation of appropriate alternatives (REA, pp. 2 and 191).

The purposes of this project include promoting diversity and accelerating tree growth in Riparian Reserves to speed attainment of late-seral stand conditions (REA, pp. 2-3 and Appendix D). The thinning prescriptions are considered to be a watershed restoration project and are therefore consistent with the Watershed Restoration component of the Aquatic Conservation Strategy (REA, p. 192).

Cultural/Historical Resources

The Slippery Louis Timber Sale was surveyed for cultural resources in 2014. One site (OR-10-324) was located within a harvest unit. The site does not retain any characteristics that would make it eligible for listing in the National Register of Historic Places and, as a result, will not be managed for conservation. Consequently, the project will have "No Effect" on significant or unevaluated cultural resources. The results of the surveys are documented in CRS Nos. SR1407 and SR1409. The BLM has completed its National Historic Preservation Act Section 106 responsibilities under the 2012 National Programmatic Agreement and the 1998 Oregon Protocol. In compliance with the Act, ground-disturbing activities will be halted if cultural resources are discovered until an Archaeologist can properly evaluate and document the resources (REA, p. 15).

Noxious Weeds

As discussed in the REA (p. 14), in the absence of this project, weed control measures will still be undertaken. These actions include inventory of infestations, assessment of risk for spread, and application of control measures in areas where other management actions are proposed or planned (REA, p. 14). Control measures may include mowing, hand-pulling, and limited use of approved herbicides (REA, p. 14).

As previously described in this document, equipment washing is required to minimize the risk of introducing soil from outside the project area that may be contaminated with noxious weed seed or other propagative materials. Any new infestations would be treated and periodically monitored to determine further treatment needs. Given that regular weed treatments would continue, there would be no perceptible difference in the risk of weed establishment and spread (REA, p. 14).

Survey and Manage

In ruling on *Conservation Northwest et al. v. Mark E. Rey et al.* on December 12, 2009, Judge Coughenour in the U.S. District Court for Western Washington set aside the 2007 Record of Decision (ROD) eliminating the Survey and Manage mitigation measures, but deferred issuing a remedy until further proceedings. Judge Coughenour did not set aside the Pechman exemptions, or enjoin the BLM from proceeding with projects.

The plaintiffs and Federal Agencies entered into settlement negotiations in April 2010, and the Court filed approval of the resulting Settlement Agreement on July 6, 2011. The 2011 Settlement Agreement made four modifications to the 2001 ROD: (A) acknowledged existing exemption categories (2006 Pechman Exemptions); (B) updated the 2001 Survey and Manage species list; (C) established a transition period for application of the species list; and (D) established new exemption categories (2011 Exemptions).

On April 25, 2013, the Ninth Circuit Court of Appeals invalidated portions of the 2011 Settlement Agreement, but the 2006 Pechman Exemptions remain unchanged.

Judge Pechman's Order from October 11, 2006 directs: "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:

- a) Thinning projects in stands younger than 80 years old;
- b) Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
- c) Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement of large wood, channel and floodplain reconstruction, or removal of channel diversions; and
- d) The portions of projects involving hazardous fuel treatments where prescribed fire is applied. Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph (a) of this paragraph."

Table 1 above, shows thinning will be applied to Units 1, 2, 3, 5, 6, 7, 8, and 9 which are younger than 80 years old (REA, pp. 19 and 20). Consequently, these units comply with Pechman exemption "a".

Variable retention harvest Units 4 and 10 were evaluated, and required protocol surveys were conducted in suitable habitats using the 2001 Survey and Manage ROD species list (REA, pp. 34 and 67) in 2014. Surveyors identified one Survey and Manage mollusk species (*Megomphix hemphilli*) in one location within the Riparian Reserve in Unit 4. Although protection of the newly identified site is not required (FS/BLM 2001), the BLM protected the site as a "skip". Survey and Manage mollusks were not located during surveys in Unit 10. None of the Slippery Louis Timber Sale units or the road construction location required red tree vole surveys (REA, pp. 41-42) because suitable habitat defined by the Survey Protocol for the Red Tree Vole (Huff et al. 2012) is not present.

Survey and Manage botanical species were surveyed in 2012 using the 2001 ROD species list for Survey and Manage lichens, mosses, bryophytes and vascular plants (REA, p. 13). The results of the surveys where lichens were present are displayed in Appendix B of the REA (p. 180). One species of Survey and Manage lichen (*Chaenotheca chrysocephala*) was identified in Unit 10, none were located in Unit 4. The BLM completely protected the lichen sites by placing an aggregate retention area at the site.

Carbon Release and Sequestration

The findings of the Revised Myrtle Creek Harvest Plan REA with respect to thinning are consistent with published findings (Sessions et al. 2011¹) that carbon pools immediately decline following thinning, and remain lower 50 years after thinning (REA, p. 123-124). This conclusion applies to the thinned areas (177 acres) in the Slippery Louis Timber Sale.

The analysis for direct and indirect effects shows VRH will release approximately 14.9 tonnes of carbon per acre immediately after treatment and thinning will release 3.19 to 4.22 tonnes of carbon per acre (REA, p. 123). As proposed in the REA for Alternative Two, harvesting the Slippery Louis Timber Sale units would release approximately 1,228 to 1,432 tonnes of carbon. Harvesting the Slippery Louis Timber Sale units as described in Alternative Two Modified reduced carbon released to 1,072 to 1,254 tonnes, which represents a reduction of approximately 13 percent.

Table 3-26 of the REA (p. 124) compares carbon release and storage in the No Action Alternative to the effects of VRH under Alternative Two. Under No Action, the carbon pool in standing live trees increases from current balance of 125 to 218 tonnes per acre in 50 years. Under Alternative Two, carbon in standing live trees is immediately reduced to 30 tonnes per acre post-harvest, and 50 years after treatment is 63 tonnes per acre. The findings that carbon pools immediately decline following treatment, and remain lower 50 years after treatment are consistent with Sessions et al. (2011).

The REA (p. 199) also notes that Smith et al. (2006)³ calculated that 13.5 percent of gross saw log carbon and 14.8 percent of gross pulpwood carbon will be immediately released into the atmosphere at harvest. This is consistent with the finding that not all carbon from harvested timber is transferred into wood and paper products.

Monitoring

As stated in the REA (p. 137), monitoring of the effects of the Slippery Louis Timber Sale will be done in accordance with provisions contained in the 1995 ROD/RMP, Appendix I (p. 84-86, 190-191), focusing on the effects of timber harvest on: Riparian Reserves, Matrix, Air Quality, Water and Soils, Wildlife Habitat, Fish Habitat, and Special Status Species Habitat.

Protest Procedures

The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management Regulations at 43 CFR Subpart 5003 Administrative Remedies, protests of this decision may be filed with the authorized officer, Steve Lydick within 15 days of the publication of the notice of decision/timber sale advertisement on December 29, 2015, in *The News-Review*, Roseburg, Oregon.

43 CFR § 5003.3 subsection (b) states: “Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision.” This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. Only written and signed hard copies of protests that are delivered to the Roseburg District Office will be accepted. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

43 CFR § 5003.3 subsection (c) states: “Protests received more than 15 days after the publication of the notice of decision or the notice of sale are not timely filed and shall not be considered.” Upon timely filing of a protest, the authorized officer shall reconsider the project decision to be implemented in light of the statement of reasons for the protest and other pertinent information available.

The authorized officer shall, at the conclusion of the review, serve the protest decision in writing to the party or parties. Upon denial of protest, the authorized officer may proceed with the implementation of the decision as permitted by regulations at 43 CFR § 5003.3 subsection (f).

³ Smith, J.E., L.S. Heath, K.E. Skog, and R.A. Birdsey. 2006. Methods for calculating forest ecosystem and harvested carbon with standard estimates for forest types of the United States. Gen. Tech. Rep. NE-343. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 216 p

If no protest is received by the close of business January 13, 2016 (4:30 P.M., PST), this decision will become final. If a timely protest is received, the project decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available, and the South River Field Office will issue a protest decision.



Steve Lydick
Field Manager
South River Field Office
(541) 464-3211

12/3/15

Date

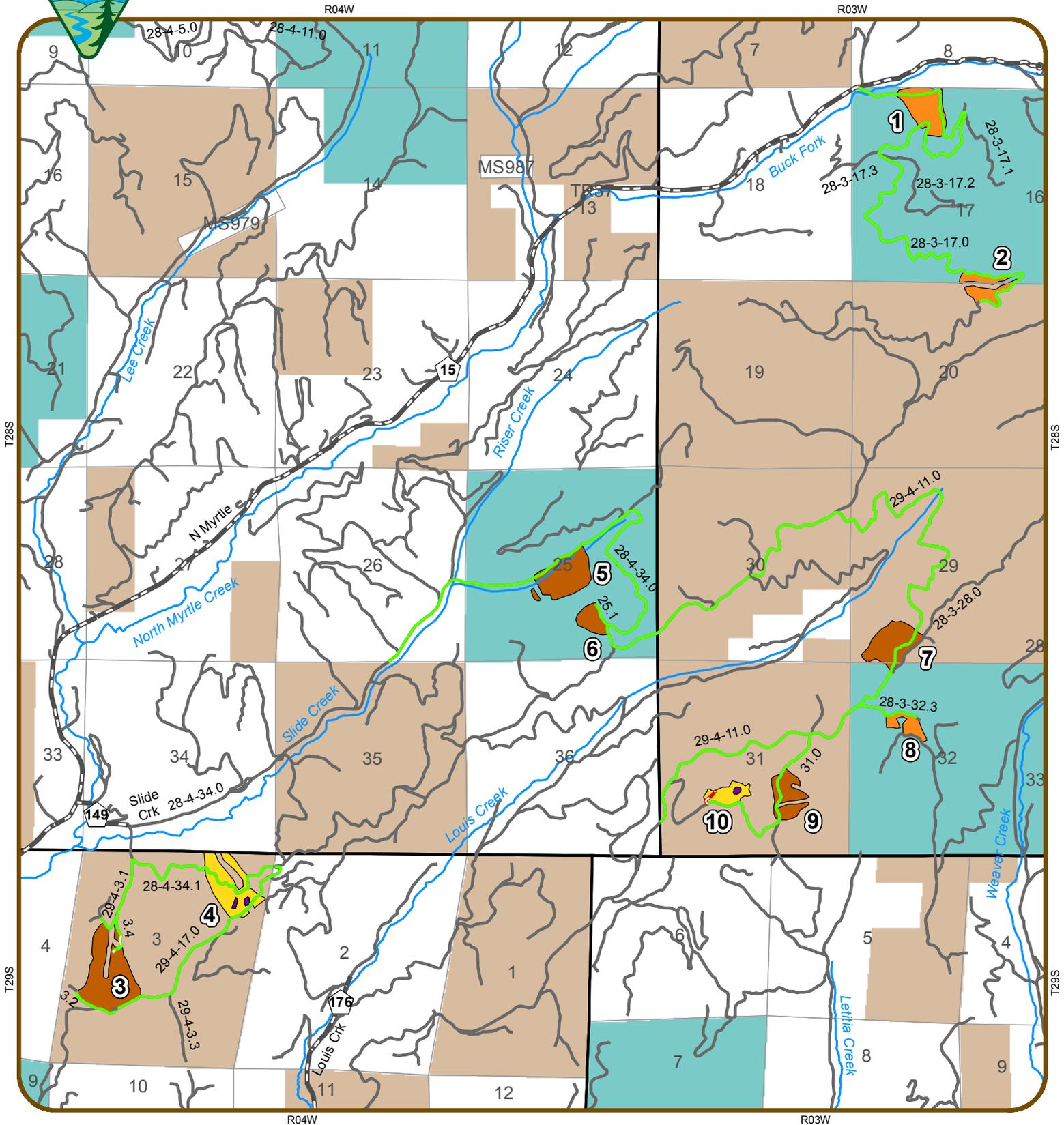
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Appendix A

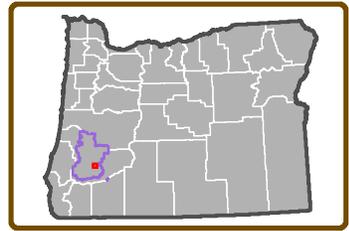
Slippery Louis Timber Sale Maps



Slippery Louis Units and Roads



- County Roads
- Existing Road
- Renovation-Maintain
- Renovation-Decommission
- Construction-Decommission
- Major Stream
- Variable Retention Harvest
- Uniform Commercial Thinning
- Variable Density Thinning
- Connectivity/Diversity Block
- General Forest Management Area

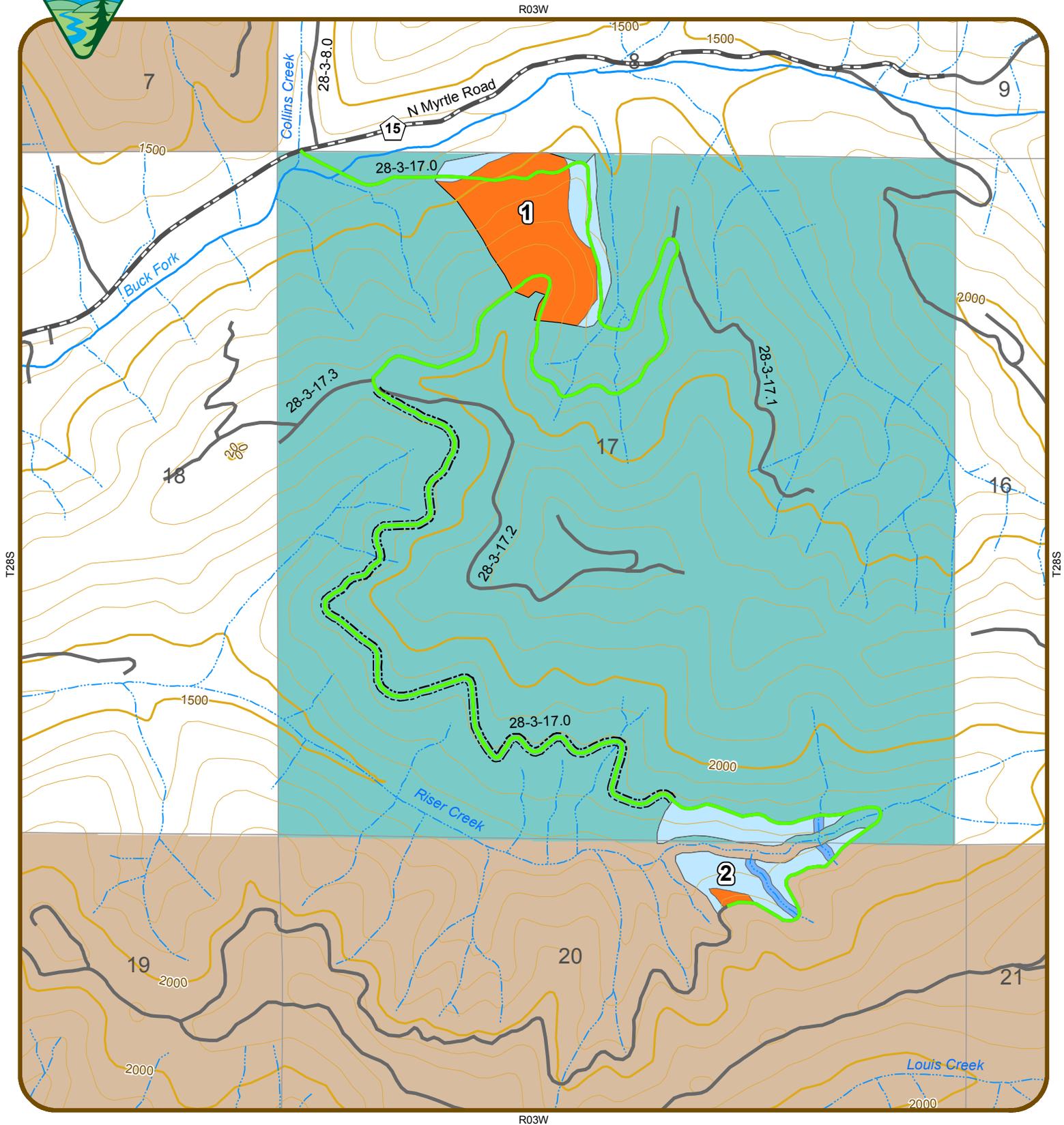


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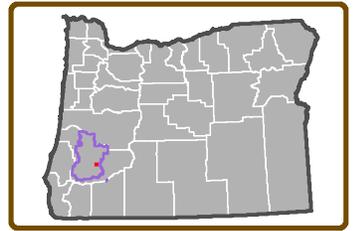
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.



Slippery Louis Units and Roads



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- Renovation-Maintain
- Daylighting
- Major Stream
- Streams
- Variable Density Thinning (VDT)
- No Harvest Stream Buffer
- Riparian Reserve VDT
- Connectivity/Diversity Block
- General Forest Management Area

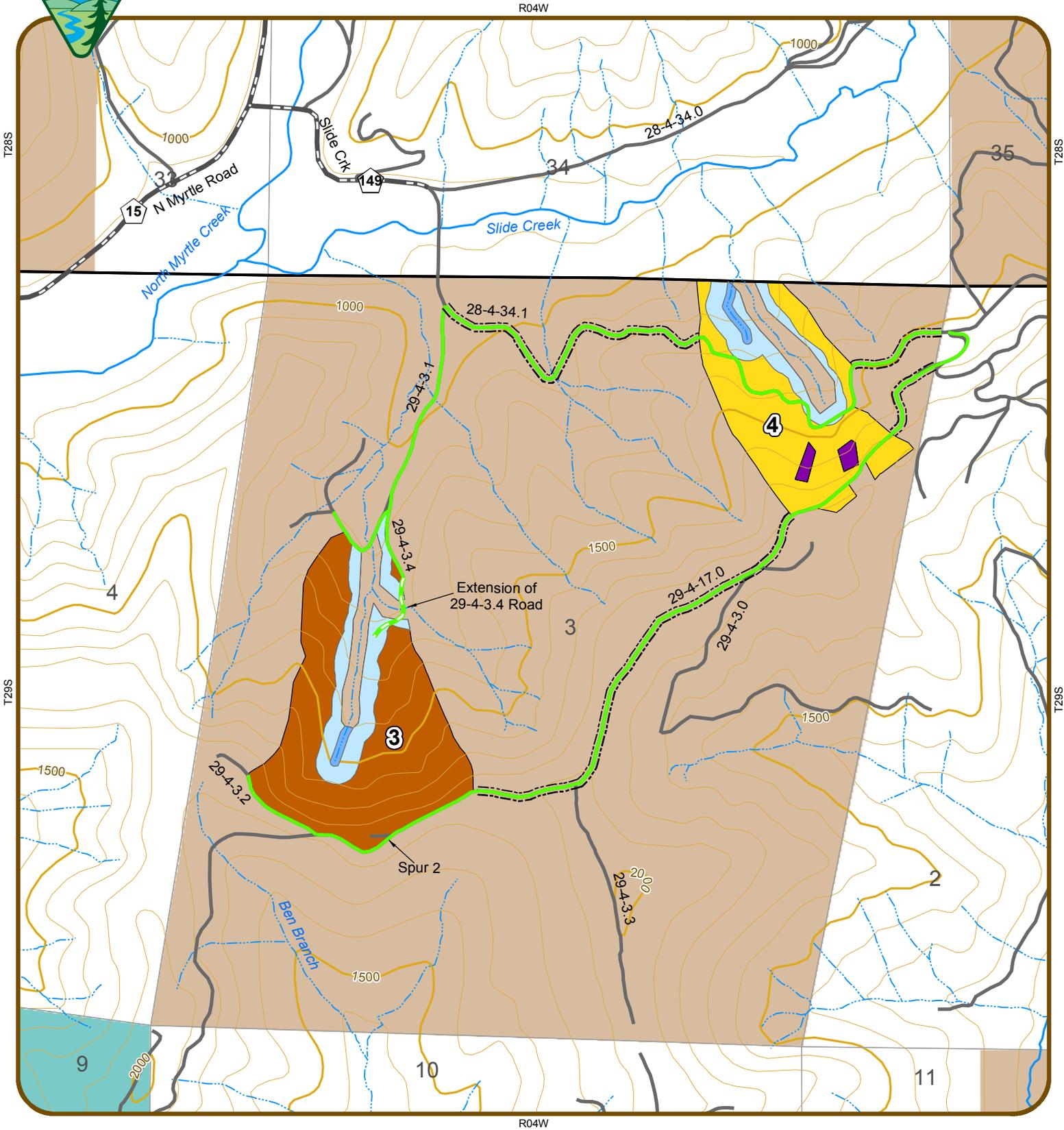


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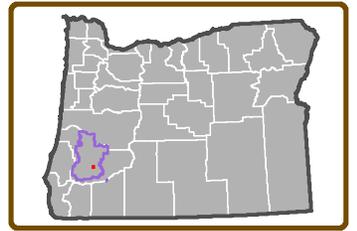
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- Retention Aggregates
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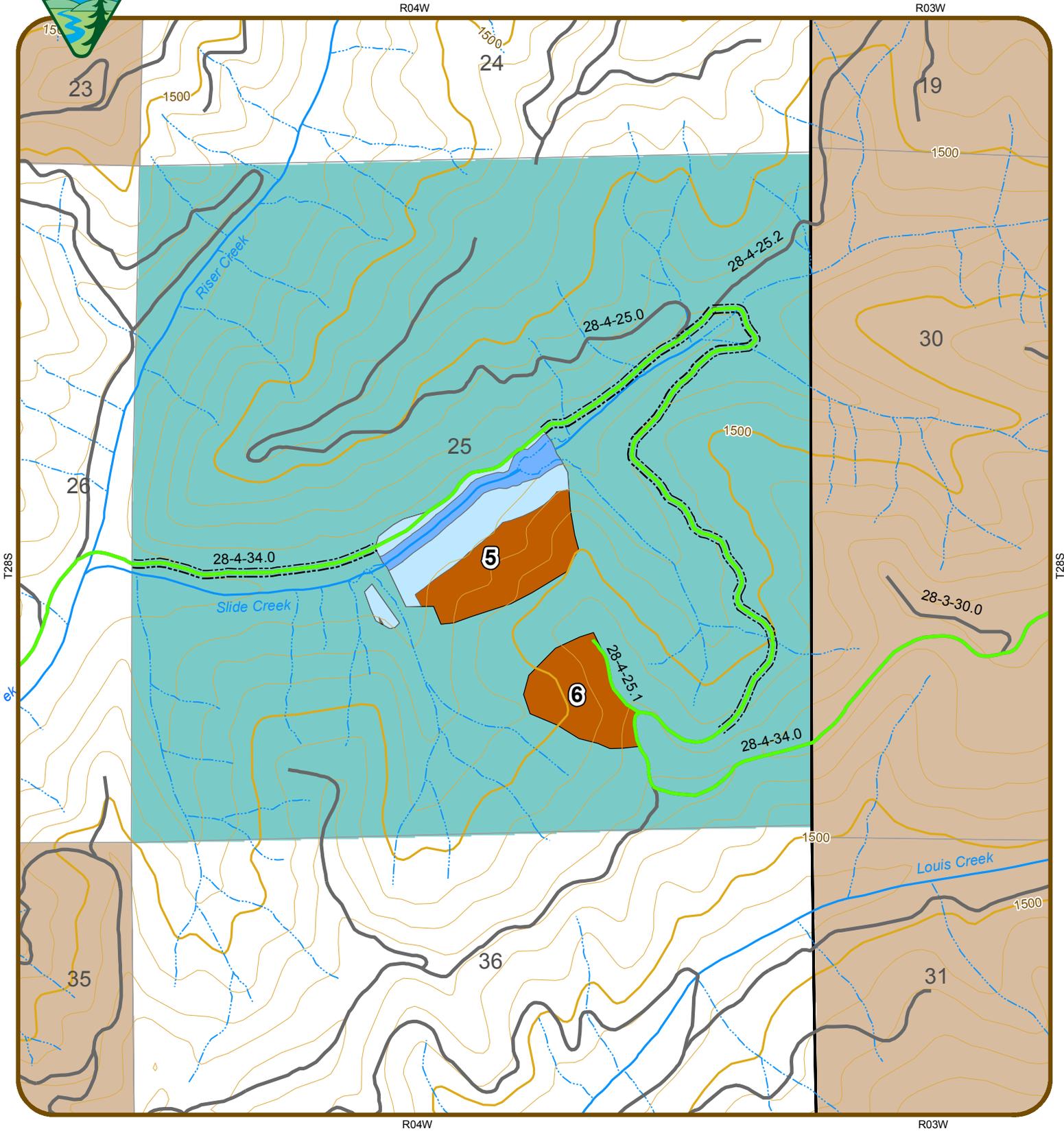


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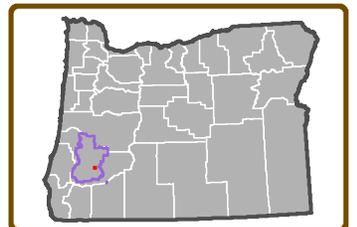
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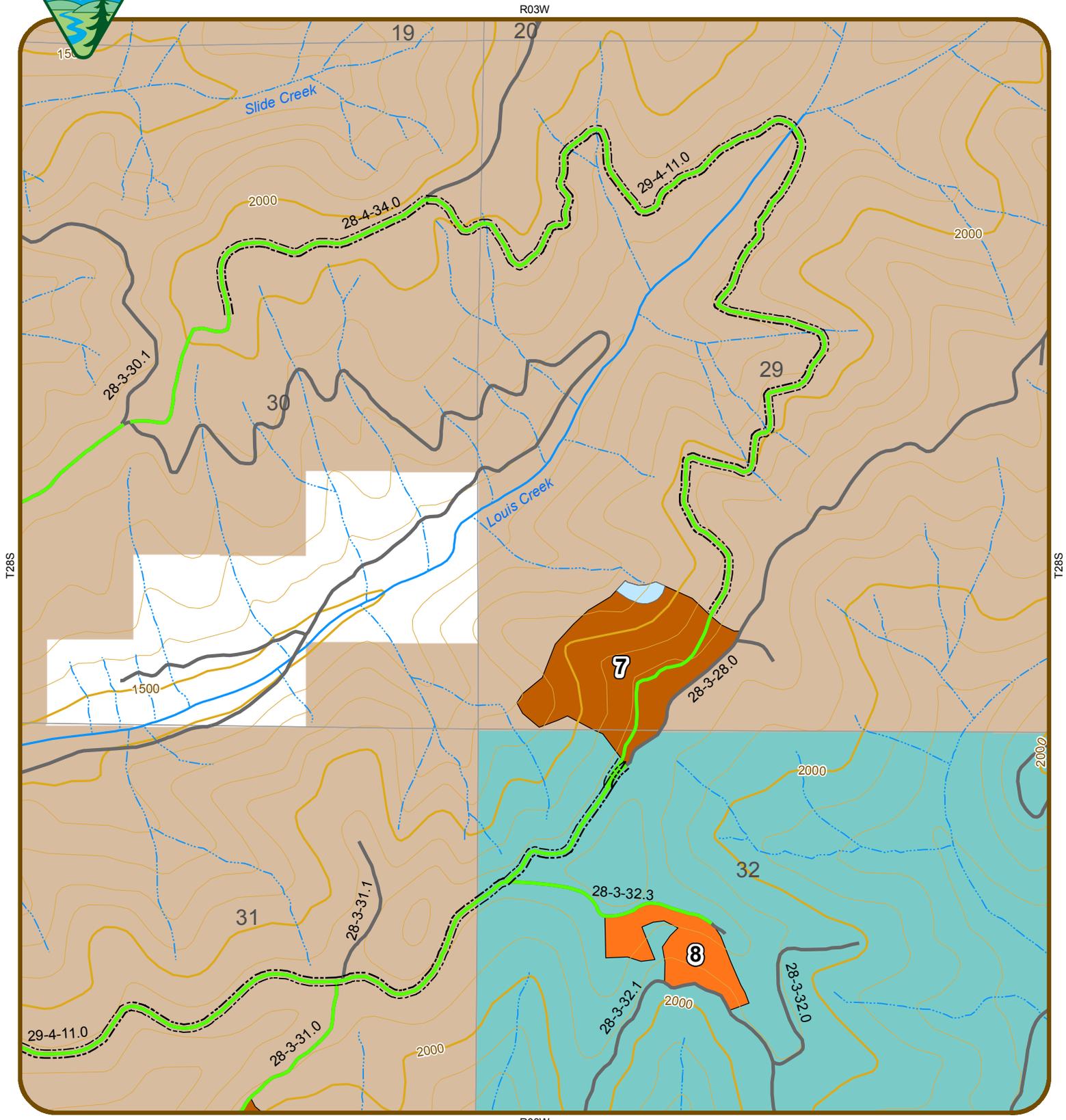


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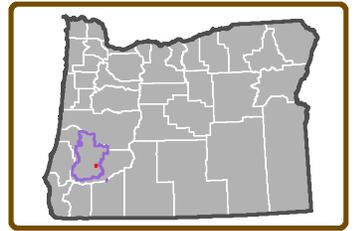
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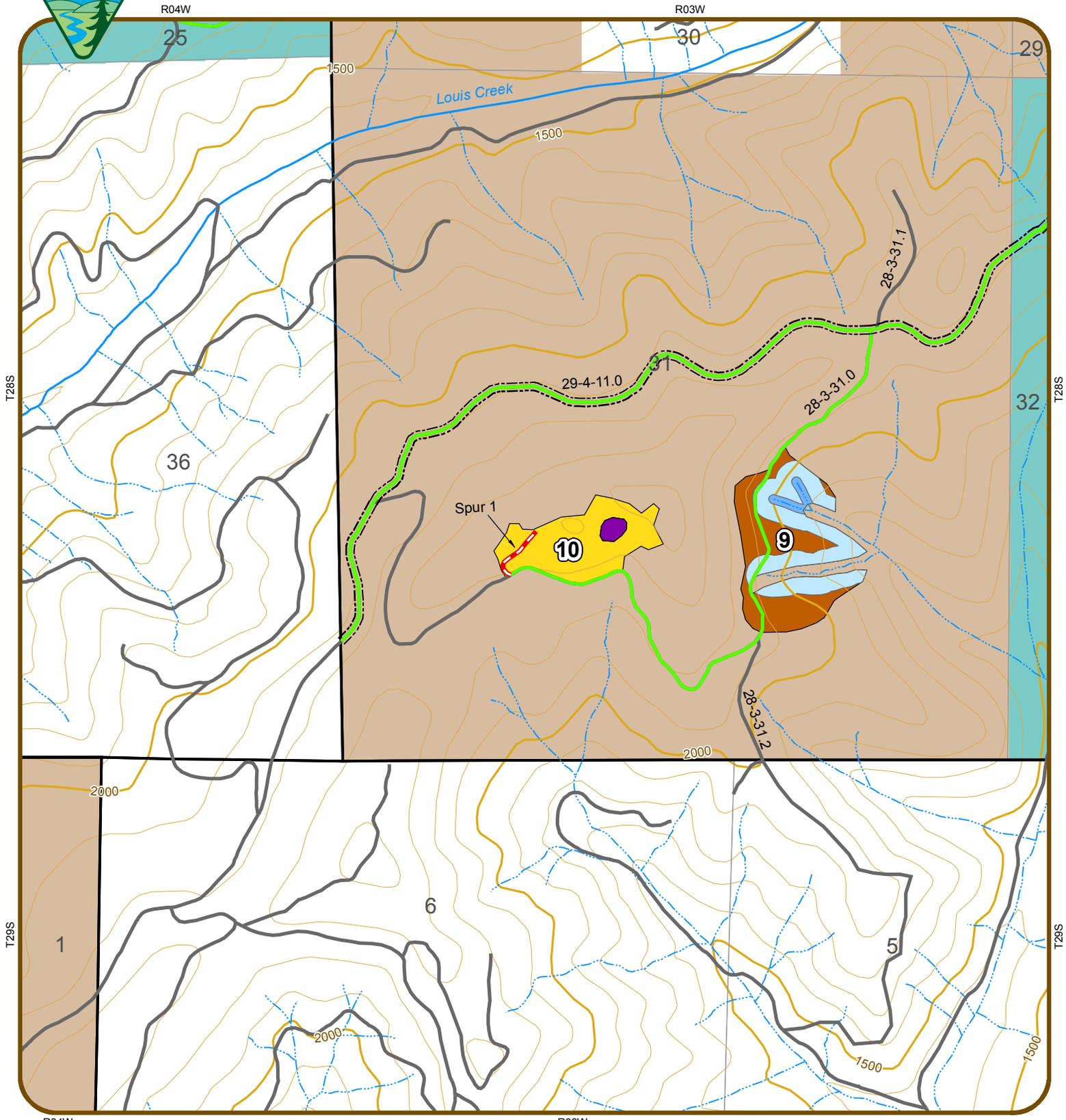


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Appendix B

Bureau of Land Management Response to Comments on the Myrtle Creek Harvest Plan that are Relevant to Slippery Louis Timber Sale

We received 8 unique letters on the Myrtle Creek Harvest Plan Environmental Assessment (EA) and four unique letters on the Revised Myrtle Creek Harvest Plan EA (REA). Substantive comments were grouped into 17 broad categories. Representative statements of the unique comments in each category are summarized below in *italic font* prior to each BLM response. This appendix responds to comments that are pertinent to the Slippery Louis Timber Sale. All EA page numbers referenced in the BLM Responses refer to the Revised Myrtle Creek Harvest Plan Environmental Assessment (REA).

1. 1ASpecific Northern Spotted Owl Sites

Comment 1a: *“We object to logging near any spotted owl site, but here BLM failed to follow the watershed analysis recommendations regarding protection of spotted owl sites. Some of the spotted owl home ranges affected by this project (e.g. 0293, 0362, 3097) are “Rank 3” (WA Table 46, EA Table 3-18) and should be lowest priority for logging.”*

BLM Response 1a: The Myrtle Creek Harvest Plan overlaps the area described in three watershed analyses (REA, p. 2). The Myrtle Creek Watershed Analysis was completed in 2002, the South Umpqua Watershed Analysis was completed in 2001, and the Lower South Umpqua Watershed analysis was completed in 2000. The northern spotted owl site information in the watershed analyses is outdated. Over the past 12-14 years, the BLM has continued to collect northern spotted owl information in annual surveys. The REA lists potentially affected northern spotted owl sites in the REA (pp. 63, 64, 78, 79). Using recent information, the existing conditions and effects to northern spotted owls are disclosed in the REA (pp. 61-66, 72-73, -75-81, 87-89, 127-128, 131). In addition to dropping units (REA, p. 2), project design features were developed to protect northern spotted owl sites (REA, p. 21, 22, 28, 33 and 34). The Biological Opinion (BO) identified three northern spotted owl sites affected by the Slippery Louis Timber Sale and the BLM considered the most recent survey information in the Slippery Louis Timber Sale decision (Decision Document, p. 6).

2. Roads

Comment 2a: *“Avoid road construction. Road construction causes serious adverse effects on soil, water, and habitat. There are already too many roads out there.”*

BLM Response 2a: The Slippery Louis project includes construction and decommissioning of one road segment (0.09 miles) within harvest Unit 10 that is less than 72 years old. Road construction has been minimized to the greatest extent possible (REA, p. 6). New roads were located and designed to minimize effects (REA, p. 25). The effects of road construction on soil, water and wildlife habitat were addressed in Chapter Three of the REA (pp. 61-115, 124-134, Appendix D). Construction, decommissioning and use of unsurfaced roads for timber hauling would be limited to the dry season (Decision Document, p. 2; REA, p. 34).

Road construction is a cost that must be borne by any given timber sale, and a longer term cost to the BLM for maintenance. Consequently, the BLM does not seek to build any more than the absolute minimum of roads necessary for environmentally responsible timber harvest and forest management. As described in the REA (p. 2), some stands were eliminated as candidates for thinning because they lacked suitable access and did not have sufficient volume to off-set road construction costs. The BLM is not increasing road density in the Slippery Louis Timber Sale as the constructed road will be decommissioned after use (see Table 2).

For reasons previously described and given that road construction diminishes the forest landbase, roads are only constructed where necessary to achieve forest management actions. Roads are located in areas that are stable, where the environmental consequences are minimized, and where the construction and costs are minimized. Roads are not located with an objective to remove the largest trees in a stand. Large trees would be retained to the greatest degree practicable with cutting limited to clearing road rights-of-way and landings, and providing for operational safety (REA, p. 3 and 24).

Comment 2b: *“The agency assumes that temporary and semi-permanent new roads will have no effect because they are temporary. The agency has shown no scientific evidence for this assumption. In fact, scientific research has shown exactly the opposite.”*

BLM Response 2b: The Slippery Louis Timber Sale includes approximately 0.09 miles of road construction followed by decommissioning within Unit 10. The BLM does not assume temporary roads will have no effect because they are temporary as the commenter purports. The BLM understands that road construction can affect resources, analyzed the potential effects of road construction in the REA, and took measures to avoid or minimize impacts (REA, pp. 6, 13-15, 67, 76, 77, 82, 84, 85, 86, 87, 90, 101, 103, 104, 106, 111, 113, 129, 133, 134, 195). Road construction was included in calculations for carbon release (REA, p. 123, 136, 201).

Comment 2c: *“Research results, published in Restoration Ecology, shows...that ripping out a road is NOT equal to never building a road to begin with...Even though ripped roads increase water infiltration over un-ripped roads, it does not restore the forest to a pre-road condition. “These increases do not represent “hydrologic recovery” for the treated areas, however, and a risk of erosion and concentration of water into unstable areas still exists.” Luce, C.H., 1997. Effectiveness of Road Ripping in Restoring Infiltration Capacity of Forest Roads, Restoration Ecology; 5(3):265-270.”*

BLM Response 2c: BLM is not ripping roads with intentions of restoring natural conditions as purported by the commenter. The BLM will decommission approximately 0.2 miles of roads and subsoil approximately 0.5 acres in the Slippery Louis Timber Sale to initiate habitat development for wildlife species, reduce compaction, reduce soil bulk density, provide soil aeration, allow for natural seeding of trees, contribute to survival and growth of seedlings and increase water infiltration capacity (REA, p. 77, 99, 103, 113). The BLM agrees that ripping roads may not eliminate all effects from road construction but decommissioning and subsoiling will produce benefits where they are proposed when compared to retaining those roads and landings. The BLM agrees with the commenter’s citation from Luce (1997), “...ripped roads increase water infiltration over un-ripped roads...”

Road decommissioning will be accomplished in a variety of ways, based upon evaluation of circumstances specific to each road. At a minimum, decommissioning will include water-barring and blocking the road(s) to vehicular use. It may also include removing drainage structures, sub-soiling the roadbed, mulching with straw and seeding with native grasses, or mulching with logging slash to further discourage off-highway vehicle use. Landings on temporary roads may be subsoiled in conjunction with road decommissioning (REA, p. 26).

Subsoiling will be completed in ground-based harvested areas, on compacted and displaced soil areas in main and secondary skid trails, equipment areas and on some native surfaced landing areas free of logging slash. Subsoiling includes decompacting the affected areas, water barring as needed, replacing some topsoil on the treated areas to provide inoculum, and placing slash on the decompacted areas as mulch and a deterrent to unauthorized OHV use. Current tilling practices specify that slash, other organic debris and topsoil cover at least 50 percent of the subsoiled areas, where available (REA, p. 30, 113).

Although subsoiling with slash and topsoil placement does not bring about complete recovery from soil compaction and displacement, it is an important step in the recovery process (Luce 1997). Past monitoring indicates that a single tilling pass results in 40 to 80 percent fracturing of compacted soil. Several passes that are offset from each other can bring about greater than 80 percent soil fracturing (REA, p. 113).

3. Stand Age

Comment 3a: *“Regen logging of mature forests truncates the full cycle of forest development that includes density dependent and density independent mortality, gap formation, understory establishment, biomass accumulation, snag creation, etc...”*

BLM Response 3a: Age class distribution displayed in Table 3-12 (REA, p. 60) shows there is no shortage of older forests in the GFMA portion of the analysis area compared to desired conditions. Forests older than the 90 year 10-year age class exceed desired conditions (REA, p. 60) by approximately 17 percent. The Slippery Louis Timber Sale does not include regeneration harvest in mature⁴ forest (Decision Document, p. 2).

Comment 3b: *“The rationale that BLM must log to fulfill the purposes of the matrix land allocation is unsupported because there is significant new information indicating a need for more forest conservation. For instance, mature forests store carbon to help mitigate global climate change and they provide habitat for spotted owls (which need additional conservation of suitable habitat so they can co-exist with barred owls).”*

BLM Response 3b: The preceding comment is speculative. It provides no specific examples, supported by peer reviewed literature, to support the assertions that there is new information which would undermine the established purpose for the Matrix allocations. Additionally, the Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a).

One of the primary objectives of stands in the Matrix is for the purpose of timber production. Other land use allocations, specifically Late-successional Reserves and Riparian Reserves, were established for ecological reasons that include terrestrial and aquatic habitat objectives.

Carbon Storage and Release were analyzed in Chapter Three and Appendix E (REA, pp.120-124, 135-136, 197-201).

“There is no data indicating a relationship between forest treatments or lack of treatments and an increase or decrease in the distribution of the barred owl.” (REA, p. 66).

⁴ **“Mature Seral Stage** – The period in the life of a forest stand from culmination of mean annual increment [typically 80 to 110 years of age] to an old-growth stage or to 200 years.” (ROD/RMP, pp. 61, 112)

With respect to amendments to the Western Oregon Resource Management Plans, the effort is currently underway and will consider the most recent science regarding the appropriate distribution of snags and down wood for proper ecological functions.

The BLM has properly identified purposes and needs of the project in the REA (pp. 2-3). These purposes and needs are reasonable given directives and objectives in the ROD/RMP (pp. 15, 19-20, 33, 60, 150-153). The REA specifies the underlying purposes and needs to which the agency is responding (REA, pp. 2-4). The analysis of alternatives is guided by the agency's purpose and need (REA, Chapter 3).

4. Riparian Reserves Treatments & Aquatic Conservation Strategy

Comment 4a: *“Most riparian reserves are short of dead wood...”*

BLM Response 4a: We assume the commenter is referring to the presence of dead wood within the stream channel and the future supply of dead wood to the stream. The supply of small wood relative to the stream sizes in the treatment units is not limited but large wood is limited. Small wood is present within RR but has been transported downstream during high flows where it eventually is trapped by large wood forming debris jams. Because large wood is limited in the treatment units, small wood debris jams are limited.

Field review by the BLM was used to verify that Riparian Reserves are not limited by the abundance of small functional dead wood. Small fish-bearing reaches adjacent to units generally had large volumes of functional wood derived from adjacent stands as alder and small conifers were subject to blow down or mortality and fell toward the streams. Some larger pieces were interacting with the stream channels, but overall there were few pieces capable of trapping and storing gravel and creating deep pool habitat...(REA, p. 93). The supply of small functioning wood is not limited as evidenced by the fact that in the rare cases where reaches of streams in the analysis area contain large dead wood, smaller dead wood is trapped forming debris jams.

Comment 4b: *“Any proposal to log riparian reserves must address these [Aquatic Conservation Strategy] factors, develop clear goals, provide clear linkages between proposed actions and desired outcomes... show there is a need for intervention.”*

BLM Response 4b: The commenter incorrectly assumes that small wood and potential functional dead wood are limiting factors to in-stream habitat. The treatment units are not limited in small dead wood. Streams in the treatment units are limited in large dead wood. Thus, thinning is being conducted to promote development of future large dead wood. In the short-term, BLM has been implementing stream restoration projects to add large dead wood to streams (REA p. 93).

Consistency of the proposed action with the objectives of the Aquatic Conservation Strategy is included in Appendix D of the REA (pp. 191-196). Variable density thinning in Riparian Reserves was designed to attain desired late-successional vegetation characteristics by promoting ecological diversity and complexity (REA, p. 191, 192, 193, 194). Variable density thinning is considered a restoration action and is consistent with the Watershed Restoration component of the ACS (REA, p. 192).

Comment 4c: *“Within the Riparian Habitat Conservation Areas, timber management and other land management activities are essentially prohibited unless the watershed analysis indicates such activity is necessary to accelerate meeting desired ecological conditions.”*

BLM Response 4c: There is no Riparian Habitat Conservation Area (RHCA) land use allocation on BLM lands, so management direction for RHCAs is not applicable. On Roseburg BLM lands, the ROD/RMP permits management activities in the Riparian Reserves land use allocation: “Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives.” (ROD/RMP, p. 25) Variable density thinning (density management) was proposed for the reasons stated above to meet the purpose and need to increase habitat diversity in Riparian Reserves (REA, pp. 2 and 3).

Accelerating the attainment of desired ecological conditions is not noted in the Aquatic Conservation Strategy (ACS). Management actions that do not maintain the existing condition or lead to improved conditions in the long term would not “meet” the intent of the Aquatic Conservation Strategy (NWFP, p. B-10). Appendix D in the Revised Myrtle Creek Harvest Plan REA shows the project is consistent with the ACS.

The Myrtle Creek Watershed Analysis makes a recommendation for density management (commercial thinning) of mid and late seral stands in Riparian Reserves.

“The purpose of commercial thinning is to maintain or improve overstory and understory tree growth rates and vigor and manipulate species composition and spatial arrangement by reducing stand density. Snag and coarse woody debris recruitment and releasing or thinning understory components may be done at the same time.

Treatment prescriptions may vary depending on site and landscape specific objectives. Treatments would maintain or improve diameter growth rates and control crown depth and crown closure to meet the objectives. Density management may also create gaps to release or thin the understory and recruit snags and coarse woody debris.

Stand structure and expected stand development should be the principal criteria for treatment, not the age of the stand.” (Myrtle Creek Watershed Analysis, p. 183)

Comment 4d: *“Considering CWD and snags are important components of riparian reserves, their current lacking within the project areas, the habitat improvement these incidentally felled trees would provide and the purpose and need of the project, it seems prudent to reserve them within the riparian reserve LUA (instead of placing them on trucks to be sent to mills).”*

BLM Response 4d: All coarse woody debris and snags would be retained in “no-treatment” Riparian Reserve area. In treated areas within Riparian Reserves, existing snags would be protected to the greatest extent practicable (REA, p. 23). In general, the size of trees to be removed outside of the “no-treatment” will not contribute large long-lasting functional wood to streams. The largest trees in the treated areas will be retained wherever practicable (REA, pp. 23 and 24). Treatments will promote vegetation structural and species diversity that will accrue in the outer portions of the Riparian Reserves which will in turn promote primary productivity and allow nutrients to be more readily accessible to fish (REA, p. 102).

Comment 4e:

“Thinning in mature Riparian Reserves does not comply with the Aquatic Conservation Strategy (ACS) of the Northwest Forest Plan. The NWFP states:

“Prohibit timber harvest, including fuelwood cutting, in Riparian Reserves, except...to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives.”

BLM Response 4e: Consistency of the proposed action with the objectives of the Aquatic Conservation Strategy is included in Appendix D of the REA (pp. 191-196). Variable density thinning in Riparian Reserves was designed to attain desired late-successional vegetation characteristics by promoting ecological diversity and complexity (REA, p. 191, 192, 193, 194). Variable density thinning is considered a restoration action and is consistent with the Watershed Restoration component of the ACS (REA, p. 192). The Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a).

Comment 4f: *“The EA failed to describe which ACS objective was met by clearcutting 1.5 acre gaps in the reserves⁵ and thinning native forests in the reserves up to 118 years old. The BLM has never proposed to abuse the riparian reserves in this way before, and we are dismayed the BLM is using these prescriptions in the reserves for the first time in this EA.”*

BLM Response 4f: The Myrtle Creek Harvest Plan does not prescribe any clearcutting. Using regeneration harvest will not automatically preclude consistency with the Aquatic Conservation Strategy. At no point is regeneration harvest, authorized under the Northwest Forest Plan and BLM RMPs tied to it, identified as inconsistent with the objectives of the Aquatic Conservation Strategy. Treatments in Riparian Reserves are limited to variable density thinning as described in the REA (pp. 22-23). Variable density thinning in Riparian Reserves is not new, and the Roseburg BLM has been using thinning in Riparian Reserves to achieve ACS objectives for over a decade. Under Alternative Two Modified, the selected alternative, the size of gaps and skips in Riparian Reserves will be no larger than 0.25 acres.

Comment 4g:

“Thinning: There is no scientific justification to thin mature, native forests in riparian reserves... Logging in older riparian reserves has the appearance of a volume grab, not restoration, especially when there is no scientific justification for improving forest health by thinning mature riparian forests.”

Canopy gaps of 1.5 acres in the riparian reserves are way too big. The BLM offers no justifications for a football field and a half opening in reserves. It meets none of the 9 ACS objectives. It appears to be just a volume grab.”

BLM Response 4g: The Slippery Louis Timber Sale does not include thinning in any mature native forests in Riparian Reserves or elsewhere (see BLM Response 3a). Variable density thinning in Riparian Reserves is not a “volume grab” as volume from Riparian Reserves is not included in ASQ calculations. Variable density thinning in Riparian Reserves was designed to create structural diversity and species complexity consistent with ACS objectives (REA, Appendix D, pp. 191-196). See BLM Responses 4e and 4f.

5. An EIS is needed

Comment 5a:

“A FONSI is not applicable to this project. An EIS is needed to address the significant impacts this project.”

⁵ Myrtle Creek Harvest Plan EA page 22.

This project meets the “intensity” test because of its large size and impacts to numerous endangered species, including the newly arrived wolf. The degree to which the proposed action affects public health and safety is large...This project impacts unique characteristics of ecologically critical areas, such as endangered species habitat and rural residential habitat...This is all highly controversial: removing spotted owl habitat to create early-seral forests, thinning mature forests, even in riparian reserves, directly impacting water of adjacent citizens, and the large size of this project. Precedents set include large gaps in riparian reserves, thinning mature forests in riparian reserves and the matrix, regeneration harvests of young, 50-year-old forests, and daylighting. This action is related to other actions with cumulatively significant impacts, including the White Rock OHV emphasis area.

An EIS is needed.”

BLM Response 5a: The Myrtle Creek Harvest Plan affects only four percent of the BLM land in the analyzed watersheds and only one percent of all ownerships in the analyzed watersheds. The effects to threatened and endangered species were analyzed (REA, p. 61-66, 71-73, 75-81, 87-89, 92-96, 98, 100-105, 127-128, 131-133, Appendix B, Appendix C, Appendix D) and upon review, the decision maker determined the effects do not warrant development of an EIS (see FONSI). Drinking water quality and quantity will not be affected. The Slippery Louis Timber Sale does not affect drinking water or public safety because the referenced unit and road do not pertain to the sale. Additionally, the Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a).

Critical habitat for listed species and “rural residential habitat” are not the equivalent of “ecologically critical areas”. As stated in the finding of no significant impact (FONSI) for the project, historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas are not present in the analysis area. The Tater Hill Area of Critical Environmental Concern/Research Natural Area is within the analysis area but would not be affected by proposed actions.

Suitable northern spotted owl habitat is not being removed to create early-seral habitat (see response to comments 8c, 15b, 16d, and 16f). The Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a). Thinning will occur in forests that will benefit from treatment. No variable retention harvest will occur in stands less than 60 years old or greater than 80 years old (see Table 1 of this document). The proposed action is not precedent setting: the Roseburg District has been harvesting in Riparian Reserves for over a decade; harvesting in mature forest was established in the 1995 ROD/RMP; 50 year old forest will not be regenerated; and daylighting is consistent with thinning and road maintenance which were established in the 1995 ROD/RMP. The White Rock OHV emphasis area is a third party proposal and not a BLM foreseeable future action. The Draft FONSI and Final FONSI declare the project will not have a significant impact on the human environment and an EIS is not warranted.

Wolves are not known to occur in the analysis area (See BLM Response 16e).

6. Regeneration Harvest

Comment 6a: *“The REA fails to closely examine the rationale for regen logging, or consider the significant adverse effects of regen logging, nor does the REA consider alternative ways to enhance early seral habitat that do not require sacrificing mature forests.”*

BLM Response 6a: The BLM has not identified development of early seral habitat as a purpose or need of this project. Five purposes and needs for the proposed action are clearly described in the REA (p. 2): 1) produce forest products from the Matrix, 2) promote tree survival, tree growth and forest health in the Matrix, 3) promote habitat diversity in Matrix, 4) manage the GFMA for a balanced distribution of age classes, and 5) increase habitat diversity in Riparian Reserves.

Contrary to the commenter's intimation, the proposed action does not include any harvest in Late-Successional Reserves (REA, p. 19 and 20) so there will be no direct effects to Late-Successional Reserves. Additionally, the Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a). Green tree and snag retention are described in Chapter Two (REA, 23-24) and will comply with the ROD/RMP direction (pp. 38, 64-65). The proposed action addresses the purposes and needs listed in the REA, and the effects of implementing the proposed action and alternatives to the proposed action are described in Chapter Three of the REA. The Draft FONSI indicates no significant impacts were identified as does the final FONSI.

Comment 6b: *“The effects of regen harvest are more significant than thinning (or no action/conservation) in terms of: habitat destruction and fragmentation, soil erosion, soil compaction, degraded soil foodweb, degraded water quality, future snag recruitment, edge effects including blowdown, rain-on-snow effects including peak flows, degraded scenic values, release of sequestered carbon pools, lost wilderness potential, and increased fire hazard.”*

BLM Response 6b: Chapter Three discloses the effects of three analyzed alternatives on vegetation, wildlife species and habitat, aquatic resources, soils, fuels/air, and carbon storage and release (REA, pp. 38-136). Botanical resources, cultural resources, recreation resources, visual resources were addressed in Chapter One (REA, pp. 11-15).

The REA (p. 23-25) describes the harvest prescription for variable retention harvest and indicates 20-30 percent of the pre-harvest basal area will be retained. Areas of high biodiversity will be candidates for aggregate retention (REA, p. 23 and 24).

The “no-treatment” areas will continue to prevent sediment from reaching streams, and will maintain streamside shade (REA, p. 99). Variable retention harvest in the uplands will have no effects on Riparian Reserves and “no-treatment” areas within them will prevent effects to fish (REA, p. 99). Alternative Two variable retention harvest will have no effects to any fish species (REA, p. 99). The combination of an improved road system, vegetated ditchlines, and project design features is expected to prevent detectable quantities of sediment delivery to the aquatic system (REA, p. 101). There will be no adverse effects anticipated to critical habitat (REA, p. 104).

Existing unstable areas and areas with a high potential of instability have been excluded from harvest and road construction, or tree retention will be implemented to help minimize soil disturbance and maintain slope stability or unit-specific design features (REA, p. 35) will be used to maintain soil stability in areas known to be unstable (REA, p. 111). Identified unstable areas within units will be avoided during harvest by excluding them from harvest (REA, p. 112). Project Design Features (REA Chapter Two) and Best Management Practices will help maintain slope stability, minimize surface disturbance, minimize soil displacement and erosion, and protect soils/growing sites, therefore the risk of slope failure and landslides in proposed harvest areas will be low (REA, p. 112). Steeply incised and seasonally saturated slopes will be protected in established Riparian Reserves (REA, p. 112).

Peak flows were discussed in REA (p. 98, 107-108) and the analysis shows implementing an action alternative will not exceed thresholds for road density or equivalent clearcut area (ECA) in the analysis area. Most in-stream wood comes from within one site potential tree height of the channel (Naiman et al. 2002) (REA, p. 102). Thinning will, over time, accelerate growth and development of larger trees close

to stream channels with the potential to contribute habitat forming in-stream wood. Trees within the “no-treatment” areas will continue to provide adequate small wood as large trees develop in treated areas. Gaps and openings created in Riparian Reserves outside of the “no-treatment” areas will mimic natural disturbance events, favor development of large trees, and allow development of understory vegetation that will provide deciduous leaf litter for stream invertebrates. (REA, p. 102-103).

Soil displacement and/or compaction in ground-based variable retention harvest units will be less than 10 percent of each unit, within the ROD/RMP guideline (REA, p. 122). Identified native-surface landings and compacted equipment areas free of logging slash, heavily compacted skid trails, and road segments designated for decommissioning will be subsoiled to reduce compaction (REA, p. 114). In areas to be cable yarded, one-end log suspension will help minimize surface and soil disturbance (REA, p. 114). Variable retention harvest will primarily utilize cable yarding (approximately 287 acres). Implementation, as described in Chapter Two of the REA, will result in less than four percent detrimental disturbance in cable yarded areas (REA, p. 114). They will revegetate fairly rapidly. Any erosion of exposed soils that occurs will principally remain within the boundaries of the units (REA, p. 115).

The Myrtle Creek Harvest Plan does not propose any use of chemicals (i.e. herbicides). When the BLM does use herbicides, use is specifically targeted at noxious weeds; individual plants are treated as opposed to broadcast applications (REA, p. 7 and 14).

In the short-term, harvested units will store less carbon than untreated areas (REA, p. 124). In the first 50 years post-harvest, the active forest management proposed under Alternative Two makes a positive contribution to CO₂ sequestration compared to the current condition, as described in the REA. Carbon storage will increase 83 to 104 percent over the current condition (REA, p. 124).

Proposed activities will not measurably impair or interfere with the recreation opportunities in the analysis area because no changes to the recreation objectives and opportunities detailed on pages 55 and 56 in the 1995 ROD/RMP are proposed by this REA (p. 12).

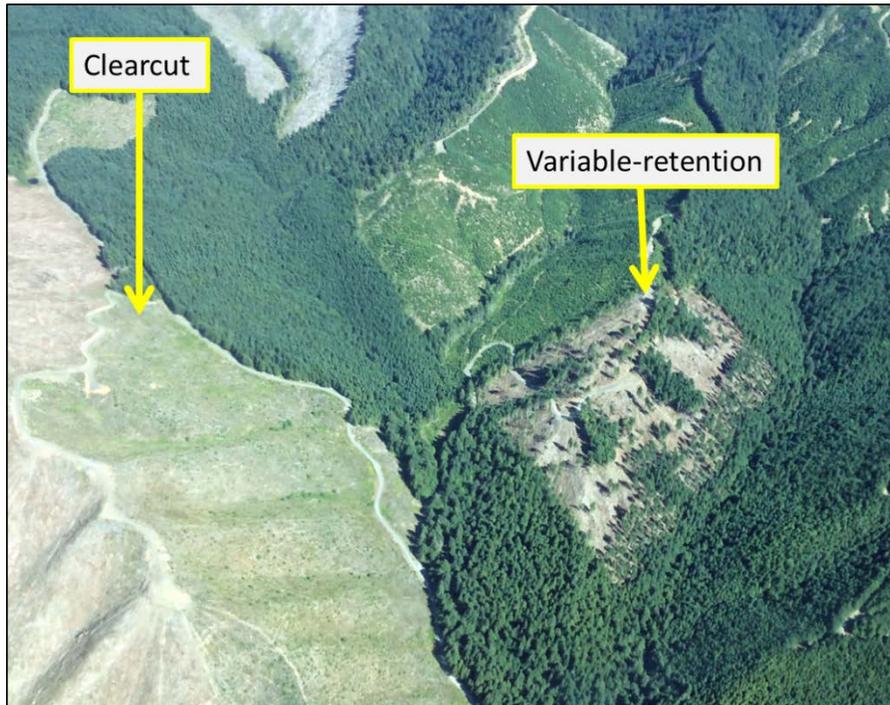
Visual quality was addressed in the REA (p. 12). All of the units in this analysis area are rated VRM Class IV. None of the alternatives will impact VRM Class IV visual (scenic) values due to the acceptably high levels of visual modification allowed in BLM-managed lands ranked as Class IV.

Comment 6c: *“Alternative 2 should not be chosen because it includes Variable Retention Harvests, similar to clearcutting, in 434 acres. Roseburg BLM has already clearcut over half of the public forests it manages, and now has an abundance of managed plantations. The BLM should not clearcut any more forests, including using VRH.”*

BLM Response 6c: The *gross* acreage of the 14 variable retention harvest units in Alternative Two is 434 acres (REA, p. 2). However, this includes 73 acres of variable density thinning and 24 acres of untreated areas within associated Riparian Reserves (REA, Tables 2-1 and 2-2, pp. 19-20). Alternative Two includes 334 acres of upland variable retention harvest (REA, pp. 4 and 36). Within these 334 acres, 20-30 percent of the pre-harvest basal area will be retained in aggregate and dispersed retention (REA, p. 23). In response to EA/REA comments, the BLM reduced the amount of variable retention harvest in the selected alternative, Alternative Two Modified, which includes 236 acres of upland variable retention harvest with aggregate and dispersed retention in nine stands less than 80 years old.

Variable retention harvest is not clearcutting. Figure 3-18 of the REA (p. 57) clearly illustrates what representative variable retention harvest units will look like post-harvest. Figure 1 below shows a vivid contrast between clearcutting and variable retention harvest.

Figure 1: Clearcut harvesting and variable retention harvesting are silvicultural prescriptions that clearly have stark differences.



Comment 6d: *“The BLM has no business regenerating mature forest.”*

BLM Response 6d: The ROD/RMP establishes regeneration harvest as an appropriate silvicultural system for forests generally beginning between the ages of 80 and 110 years old in the GFMA (ROD/RMP, pp. 61, 147, and 151). Furthermore, the O&C Act Lands Act mandates management of suitable O&C timber lands for permanent forest production in accordance with the principles of sustained yield (REA, p. 1). The Slippery Louis Timber Sale includes two variable retention harvest units which are not considered mature forest (see BLM Response 3a).

7. Thinning

Comment 7a: *“The EA failed to fully consider the impacts of removing most old growth in the thinning units. The decision documents should disclosed how many will be taken or left, and not keep the information secret.”*

BLM Response 7a: The BLM does not propose to log any old growth habitat in the Myrtle Creek Harvest Plan. The ROD/RMP (p. 112) defines old growth as a forest stage existing from approximately age 200 until stand replacement occurs and secondary succession begins again. All of the Slippery Louis Timber Sale units are under 72 years of age (Decision Document, p.2; REA, pp. 19-20 and 41-42). Legacy retention is described in the REA (pp. 23-24). Older remnant trees and large snags that may be present are not the focus of the proposed treatments and will be retained to the greatest degree practicable (REA, p. 23).

8. Age Class Distribution

Comment 8a: *“The purpose and need for a “balanced distribution of age classes” is unsupported... BLM does not define what a balanced age-class distribution is...”*

BLM Response 8a: “...there are few young stands on BLM-administered lands resulting in an unbalanced age class distribution. The ROD/RMP (p. 61) specifies application of silvicultural systems that are planned to produce, over time, forests which have desired species composition, structural characteristics, and distribution of seral or age classes, as set forth in Appendix E of the ROD/RMP. Appendix E objectives include managing the GFMA for a balance of age classes (ROD/RMP, p. 150).” (REA, p. 3). Tables 3-4 and 3-12 (REA, pp. 39 and 60) clearly show the desired age class distribution in GFMA and that the current distribution is not balanced.

Comment 8b: *“...there are currently large areas of early and mid seral forests adjacent to the project areas and there is no need to develop additional areas (as Alternative two would accomplish).”*

BLM Response 8b: The purposes and needs for the project are described in the REA (p. 2-4); developing additional areas of early and mid seral forests is not a purpose or need identified in the REA. The BLM identified a purpose and need to manage the GFMA land use allocation for a balanced age class distribution (REA, p. 2 and 3). Table 3-12 in the REA (p. 60) shows the distribution of seral stages for each alternative compared to the desired condition for each seral stage. Because of the reduction in the amount of variable retention harvest, the seral stage distribution will shift slightly less under Alternative Two Modified when compared to Alternative Two. Under Alternative Two Modified the Non-Forest (1.6 percent of the analysis area) and 90+ years (49.6 percent of the analysis area) age class would remain unchanged. Variable retention harvest in the 40-80 year age class will contribute approximately 236 acres to the 0-30 year age class which will help balance the distribution in the 0-30 year age class.

As noted in the REA (pg. 77) “Although important components of suitable habitat (snags, down wood, hardwood, legacy conifers and residual green trees) would be retained, variable retention harvest would create conditions that would not support northern spotted owl use. Variable retention harvest would create larger openings where northern spotted owls would be subject to a greater risk of predation from other raptors until the replacement stands begin to function as dispersal habitat in approximately 40 years.

Private land management emphasizes conifer dominance. For species dependent on early-successional habitat, private lands are not expected to provide quality habitat because of intensive management practices such as heavy replanting and repeated herbicide application that are intending to exclude competing vegetation including flowering plants, shrubs and hardwoods (REA, p. 72).

Comment 8c: *“The BLM claims they need to manage the GFMA for a balanced 10-year-age class distribution. However, the EA failed to explain how this fits into the overall need to promote diversity. There is already 21.6% of the BLM lands in early seral habitat within the project area, plus the 70% of the watershed that is privately held. The project area had many NWFP clearcuts in the mid-1990s, like Lean Louis and the Louis Weaver timber sales. These units, never herbicide sprayed, and some adjacent to units in this project, already provide high-quality early seral habitat. Clearly, the BLM needs more forests for the old-growth dependent species, not early-seral species. The EA failed to explain why the BLM wants more early seral habitat.”*

BLM Response 8c: The REA does not state a need to manage the GFMA land use allocation for a balanced 10-year age class distribution to promote diversity nor does the project have a purpose and need to create early-seral habitat; the BLM did not analyze a purpose and need that does not apply to this project.

The REA explains there is a need to promote diversity in the Matrix to meet ROD/RMP objectives (REA, p. 3). Under Alternative Two and Alternative Two Modified (the selected alternative), diversity will be promoted in the Matrix by applying variable density thinning and variable retention harvest. Diversity will be at the landscape scale and at the stand scale. Management of within stand diversity is described in the harvest prescriptions in the REA (pp. 21-25).

The REA also explains there is a need to manage the GFMA land use allocation for a balanced age class distribution as directed in the ROD/RMP (REA, p. 3). Additionally, Figures 4-4 and 4-5 of the PRMP/EIS (pp. 4-26 and 4-27) show the short-term and long-term early seral stage (0-10 year age class) would represent approximately 15 percent and 5 percent of the BLM-administered lands, respectively. Since there are no objectives related to early seral habitat creation related to the Riparian Reserves and Late-successional Reserves land use allocations, the burden of providing early seral habitat is on the Matrix land use allocations. Table 3-2 of the REA shows only two percent of the BLM-administered lands in the analysis area are in the 0-10 year age class. Variable retention harvest in Alternative Two makes a modest (1.4 percent) step toward achieving a balanced age class distribution in the GFMA land use allocation (REA, p. 4) and contributes to the creation of early seral conditions as analyzed and depicted in the PRMP/EIS. Alternative Two Modified, the selected alternative, will contribute to the creation of early seral conditions in the GFMA land use allocation even though the BLM reduced variable retention harvest by 98 acres when compared to Alternative Two.

The referenced timber sales, now approaching 20 years old, were the only Northwest Forest Plan regeneration harvests conducted in the watershed and the 375 acres harvested in these two sales represents only 1.2 percent of BLM-administered lands in the watershed.

9. New Information

Comment 9a: *“The BLM depends on their 1994 RMP for an analysis of logging in the matrix. However, the BLM’s RMP NEPA was done 21 years ago. There is a lot of new information in those 21 years that the Myrtle Creek Harvest Plan failed to consider, such as climate change, and the influx of barred owls. The BLM cannot just ignore this new information. For instance, the assumption that the BLM can do regeneration harvests in the matrix is not justified.”*

BLM Response 9a: The BLM did not fail to consider climate change and barred owls. The BLM discusses climate change and carbon storage and release in the REA (pp. 121-125, 136-137, 197-201) and barred owls were identified as a threat to the northern spotted owl on page 65 of the REA.

The BLM does not assume that regeneration is appropriate in the Matrix; to the contrary, this project appropriately implements a decision made in the RMP that includes regeneration harvest in the Matrix (REA, p. 8 and RMP, pp. 61, 62, 64-65, 146, 150-153).

Comment 9b: *“The rationale that BLM must log to fulfill the purposes of the matrix land allocation is unsupported because there is significant new information indicating a need for more forest conservation. For instance, mature forests store carbon to help mitigate global climate change and they provide habitat for spotted owls (which need additional conservation of suitable habitat so they can co-exist with barred owls). BLM has a duty to keep its RMP up-to-date, but the EA fails to address this significant new information.”*

BLM Response 9b: The BLM has properly identified purposes and needs of the project in the REA (pp. 2-3). These purposes and needs are reasonable given directives and objectives in the ROD/RMP (pp. 15, 19-20, 33, 60, 150-153). The REA specifies the underlying purposes and needs to which the agency is responding (REA, pp. 2-4). The analysis of alternatives is guided by the agency’s purpose and need (REA, Chapter 3).

One of the primary objectives of stands in the Matrix is for the purpose of timber production (ROD/RMP, p. 33). Other land use allocations, specifically Late-successional Reserves and Riparian Reserves, were established for ecological reasons that include terrestrial and aquatic habitat objectives.

Carbon Storage and Release were analyzed in Chapter Three and Appendix E (REA, pp.121-125, 136-137, 197-201). The commenter notes that mature forests store carbon and provide northern spotted owl habitat. The Slippery Louis Timber Sale does not include harvest in mature forest, therefore will not affect carbon storage or northern spotted owl habitat in mature forests (see BLM Response 3a).

“There is no data indicating a relationship between forest treatments or lack of treatments and an increase or decrease in the distribution of the barred owl.” (REA, p. 66).

With respect to amendments to the Western Oregon Resource Management Plans, the effort is currently underway and will consider the most recent science regarding the appropriate distribution of snags and down wood for proper ecological functions.

Comment 9c: *“The BLM brags in the EA that “the percent of existing northern spotted owl habitat removed by harvest during the first decade [of the NWFP] was considerably less than expected.”⁶ But also unexpected was the invasion of the barred owl. Since the NWFP did not consider the impact of the barred owl, the situation would be worse if owl habitat was removed as expected. The EA cannot ignore new information, such as barred owl and climate change that was not considered in the EIS for the NWFP or the RMP. While the EA acknowledges the influx of barred owls, the EA failed to consider that influx in environmental impacts.”*

BLM Response 9c: The BLM is not boastful, but simply presenting findings from the 10-year status review indicating that the extent of suitable northern spotted owl habitat removed by timber harvest was considerably less than expected.

The REA explains that independent of the proposed alternative, the barred owl will remain in the analysis area and is expected to continue increasing its distribution and numbers displacing northern spotted owls. There is no data or peer reviewed literature indicating a relationship between forest treatments or lack of treatments and an increase or decrease in the distribution of the barred owl.

10. Cumulative Impacts

Comment 10a:

“...Umpqua Watersheds asserts the following: that from a landscape, watershed-wide perspective, this checkerboard arrangement is the true, broadest and most useful context within which the bureau must assess its managerial responsibilities...This, so that its assessments of current and future conditions and the need and purpose for proposed actions are truly representative of the actual ecological state across any given watershed(s).

⁶ EA page 65

BLM, by any reasonable metric, whether it be sylvan, biological, wildlife (terrestrial and aquatic), hydrological, social/economic, etc., must consider all ownerships in the watersheds herein under consideration. It is Umpqua Watersheds studied opinion that, to include only the public lands contained within the analysis area as the context surrounding the harvest plan, would be to create a grossly inaccurate picture of current conditions on these watersheds. Further, to consider only these public forests, would be to present a disingenuous prediction of the cumulative effects and their intensity upon the analysis area, as a whole.”

BLM Response 10a: The BLM identified analysis assumptions in the REA, which Umpqua Watershed agrees are accurate regarding management of private industrial land in the analyzed watersheds.

Private land was analyzed in the PRMP EIS and the ROD/RMP established management direction for a balanced seral or age class distribution in the general forest management area (GFMA) (ROD/RMP, p. 61). The purpose and need for Myrtle Creek Harvest Plan is implementation of the ROD/RMP that directs the GFMA land use allocation to be managed in a balanced seral or age class distribution (ROD/RMP, p. 61, 150).

The scale of analysis varies with the resource under consideration, and the spatial extent to which effects of an action may affect those resources. The Northwest Forest Plan, and the Roseburg ROD/RMP which is tiered to that analysis, established the Aquatic Conservation Strategy in consideration of the effects of management actions on water quality and aquatic habitat. The fifth-field watershed scale is considered the appropriate and accepted scale for this analysis. This analysis may be found in Appendix D of the REA (pp. 191-193). Peak flow and equivalent clearcut area (ECA) analysis considered all ownerships (REA, p. 108).

For territorial species, such as the northern spotted owl, the provincial home range is considered the appropriate scale for effects analysis (REA, pp. 61-63). Northern spotted owl site analysis considered all ownerships (p. 177).

For other resources the effects are much more localized. In the case of soils, barring a large-scale slope failure or landslide, effects are generally limited to areas within harvest unit boundaries. For plants and noxious weeds the scale is even more localized.

With respect to the management of private timberlands, over which the BLM has no statutory authority to control, the BLM described the amount of private land within the analysis area in the current conditions of each watershed and as a whole for the analysis area (REA, p. 38). The REA projected an estimated current condition on private lands based on the current and past practices being used by private industrial landowners (REA, p. 47).

Comment 10b:

“Both context and intensity must be considered in determining significance of the environmental effects of agency action (40 CFR 1508.27):’ [and the BLM must determine] ‘Whether the action is related to other actions with individually insignificant impacts but cumulatively significant impacts. - 40 CFR 1508.27(b) (7)’

The draft finding of no significant impact speaks, on page 2, of the lack of early seral forest in the analysis area as a justification for the resumption, by the district, of regeneration harvest (VRH). While it may well be true that there is currently a dearth of the 0 to 30 year age class on area BLM holdings, it is absolutely inaccurate, in speaking of the watersheds herein under discussion, when they are viewed at the landscape level.”

BLM Response 10b: Variable retention harvest was not proposed to create early seral habitat as the commenter suggests. One of the purposes and needs for the Myrtle Creek Harvest Plan is to contribute toward establishing a balanced seral or age class distribution in the GFMA land use allocation per ROD/RMP management direction (pp. 61 and 150). Establishing the balanced seral or age class distribution in the GFMA land use allocation will contribute toward meeting the ROD/RMP Matrix objective to provide early-successional habitat (ROD/RMP, p. 33).

Comment 10c:

“On page 37 of the EA under Timber Resources, section A, the second paragraph states: “It is assumed that large industrial owners will continue to manage primarily for timber production on a rotation of 40 to 65 years. It is also assumed that industrial harvesting will follow the Oregon Forest Practices Act, and stands will likely remain in early- and mid-seral stages across the landscape” (emphasis UW’s). Umpqua Watersheds agrees with this analysis, i.e.: that these private timber lands are and will be subject to repeated clear cut harvest and reforestation. At the landscape level, there is thus no dearth of the early seral age class. At more than a few locations, the biological quality of this industrial early seral may be questionable, however it’s widespread existence across the watersheds under discussion in this harvest plan, as BLM has stated above, is not.”

BLM Response 10c: The BLM appropriately identified, defined, and analyzed resources in the analysis area. The ROD/RMP does not give management direction for private lands, but it does direct the BLM to manage the GFMA land use allocation for a balanced seral or age class distribution (ROD/RMP, pp. 61 and 150).

Comment 10d: *“Further, it is Umpqua Watersheds’ stated opinion, that this fact of the checkerboard bears directly upon every aspect of BLM’s action proposals. This extends to the proposed harvest of stands in the mature and older age classes. Just as early seral plantations are abundant on adjoining private timber lands in these watersheds, conversely, stands aged 80 years and over are rare to nonexistent on the considerable private holdings therein. For that matter, in historical terms, they are not overabundant and are often fragmented on the public lands of the Roseburg District, BLM. If the private wood products sector currently and in the future, perceives a need for a supply of older trees, the vast industrial timber, holdings extant in Oregon ought to be well able to supply some of that need. That the private timber industry chooses to focus almost exclusively on harvest of trees in the 40 to 65 year age class (we have observed younger harvests on private industrial lands), ought not be taken, by BLM, as an imperative to harvest older trees from public forests, where the ecological and biological services, including carbon sequestration and climate mitigation of such older stands are so highly prized and so much in demand, now and in the future.”*

BLM Response 10d: Again, the ROD/RMP does not give management direction for private lands, but it does direct the BLM to manage the GFMA land use allocation for a balanced seral or age class distribution (ROD/RMP, p. 61 and 150). The ROD/RMP does not prohibit regeneration harvest in stands older than 80 years old. In fact, implementation of the ROD/RMP is dependent upon management of stands older than 80 years old in the Matrix to fulfill management direction and objectives. Table HH-14 of the PRMP EIS shows all of the regeneration harvest in the second decade, of which we are currently in, would occur in stands 100 years and older (PRMP EIS, p. Appendices 233). Alternative Two Modified, the selected alternative, excludes variable retention harvest in stands 80 years of age and older but does include thinning in 585 acres of forest 80 years of age and older. However, the Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a).

Comment 10e: *“And, to assume that there are no cumulative impacts from certain proposed management actions in the Myrtle Creek Harvest Area is not correct, in UW's opinion. Again, common sense, basic logic and its own Draft EA demand that the BLM take full account of the cumulative, very negative and ongoing clear cutting on adjoining private timber lands within these watersheds. Such intense management of private industrial timber lands virtually ensures a suite of cumulative, intense and, as UW believes, destructive impacts to wildlife and water quality, including to listed and threatened species currently and into the future. Sadly, these impacts are imposed upon all of the lands and waterways under discussion in the draft promulgated by BLM, including public lands.”*

BLM Response 10e: Cumulative impacts were addressed in the REA (pp. 125-137). The cumulative effects analysis considered past activities in the description of the existing conditions (REA, p. 125). Ongoing and future foreseeable activities were also addressed (REA, pp. 125-126). The BLM appropriately described the parameters of the cumulative effects analysis on wildlife and water quality in the REA (pp. 127-134). The cumulative effects analysis varies by wildlife species (REA, p. 127-132). The cumulative effects analysis area for aquatic resources was not limited to BLM administered lands (REA, p. 133).

11. Climate Change/Carbon

Comment 11a: *“It is, at this late date, a well established if unfortunate fact, that climate change is proceeding at an unforeseen and alarming rate, even exceeding the dire predictions derived from previous climate modeling. Harvesting older stands (>80 yrs.) and replacing them with seedlings exacerbates carbon release and damages its sequestration. Again, given the short rotation, clear cut harvest practices conducted on adjacent or nearby private industrial holdings and their cumulative negative impacts upon carbon levels in the atmosphere, BLM should carefully weigh short term harvest benefits against long term climate impacts. Currently, as with other sylvan, biological, wildlife, etc. aspects of forest management, there is a zero to minute possibility, that any such consideration will be much in evidence on industrial timberlands. For better or worse, the burden of this suite of vital considerations falls squarely on our public agencies and the forests they are charged with overseeing.”*

BLM Response 11a: Climate change and greenhouse gas emissions have been identified as an emerging resource concern by the Secretary of the Interior (Secretarial Order No. 3226; January 16, 2009), the OR/WA BLM State Director (IM-OR-2010-012, January 13, 2010), and by the general public through comments on recent project analyses (REA, p. 121). The BLM addressed climate change in the Carbon Storage and Release section of the REA (pp. 121-125, 136 and Appendix E).

We have no control over the management of private timber lands and, as stated in the REA (pp. 47 and 127), assume industrial landowners will continue to manage primarily for timber production using intensive timber management practices. Additionally, while we have a Secretarial Order directing us to consider the effects of management on greenhouse gas emissions, there is no legislative mandate that these forest lands be managed for long-term sequestration of carbon as a primary long-term objective.

Comments 11b: *“BLM documents this project will cause 11,444 tonnes of carbon to be released into the atmosphere, and that the clearcut units will recover that carbon at a rate 200% less than the thinned units. Our public forests should be leveraged to mitigate climate change, not cause increased carbon pollution.”*

BLM Response 11b: It is unclear how the commenter concluded that clearcut units will recover carbon at a rate of 200% less than thinned units as clearcutting is not proposed in the Myrtle Creek Harvest Plan. Modeling (methods presented in Appendix E of the REA), indicates that over the next 50 years under Alternative One stored carbon will increase by 158% above current conditions (507,024 tonnes carbon

increase) (REA, p. 122). Under Alternative Two, using the high point of the modeled range, carbon storage will increase by 104% (343,640 tonnes carbon increase) over the next 50 years, and under Alternative Three, using the high point of the modeled range, carbon storage will increase by 123% (408,436 tonnes carbon increase) (REA, pp.124 and 125). Under Alternative Two it is estimated that re-sequestration of all carbon directly released would occur in eight years and under Alternative Three it will take one to two years (REA, pp. 124 and 125). Under Alternative Two Modified, the carbon storage is estimated to increase 104% to 123% over the next 50 years and the estimated re-sequestration of all carbon directly released would occur in two to eight years. See BLM Response 11a.

12. Conduct Necessary Surveys

Comment 12a: *“BLM needs to conduct surveys for rare and uncommon late successional species such as the red tree vole and provide the results in the NEPA document for public review and comment... NEPA also requires surveys in order to fulfill NEPA’s mandate for informed decision-making. We are also concerned that the RTV protocol does not do a good job of determining the presence or absence of the species as required by the 2001 ROD for survey and manage.”*

BLM Response 12a: The NEPA does not require surveys as the commenter asserts. The NEPA is a statutory requirement. The NEPA: 1) mandates preparation of detailed statements of effects; 2) establishes the need for considering alternatives to the proposed action; 3) requires use of an interdisciplinary process; 4) requires consultation with other Federal agencies; and 5) requires that detailed statements and comments and view of other agencies be made available to the public (BLM Handbook H-1790-1, p. 1).

S&M is a BLM policy, not a statutory requirement. The RTV protocols are intended to locate RTVs where habitat conditions indicate they are most likely to be found. Whether or not the survey protocols are sufficient is outside the scope of this analysis. The REA explains ongoing survey efforts and requirements (pp. 13 and 34). Protocol survey results are summarized in Appendix F of the REA. The Slippery Louis Timber Sale has no suitable RTV habitat based on Red Tree Vole Survey Protocol (USDA/FS-USDI/BLM 2012).

13. Snags and Large Down Wood

Comment 13a: *“Retain abundant snags and coarse wood both distributed and in clumps so that thinning mimics natural disturbance. Retention of dead wood should generally be proportional to the intensity of the thinning, e.g., heavy thinning should leave behind more snags not less. Retain wildlife trees such as hollows, forked tops, broken tops, leaning trees, etc.”*

BLM Response 13a: Snags will be retained where operationally feasible and safe. Retention of snags and coarse wood are discussed in the REA (pp. 22, 23, 24, 25). The amount of snags and large coarse wood will comply with the ROD/RMP requirements to retain snags within a timber harvest unit at levels sufficient to support species of cavity nesting birds at 40 percent of potential population levels (ROD/RMP, pp. 34, 38, 64). At a minimum, an average of 120 linear feet per acre of large down wood in Decay Classes 1 and 2 will be provided (REA, p. 24).

Comment 13b: *“Thinning does not always accelerate development of late successional forests, in particular commercial thinning has an adverse effect on snags and dead wood that are defining characteristics of late successional habitat.”*

BLM Response 13b: Accelerating development of late-successional forest is not a purpose and need of this project. The purpose and need for this project is clearly described in the REA (pp. 2-3). Relative density of retained trees would range from 0.35 to 0.40 in uniform thinning GFMA units (REA, p. 21); 0.25-0.30 in uniform thinning C/D Blocks units (REA, p. 21); and 0.20 to 0.30 in treated variable density thinning units (REA p. 22);. Over 40 percent green tree canopy cover would be retained in thinned units (REA, pp. 21, 22). Green tree retention in variable retention harvest units would be 20-30 percent of the pre-harvest stand basal area (REA, p. 23). Snags needed to support 40 percent of potential population levels would be retained (REA, p. 24). Effects to snags (p. 51) and effects to snag associated species (pp.61-90, 127-132) are disclosed in the REA.

Comment 13c: *“Since logging has long-term adverse effects on snag recruitment, it is necessary to adopt mitigation with long-term effects, such as retaining generous untreated “skips” embedded within treatments areas where natural mortality processes can flourish.*

BLM Response13c: The project was designed to retain “skips”, legacy trees, snags and large down wood (REA, pp. 21-25). The proposed project will harvest 4.4 percent of the analysis area. Mortality processes will continue to produce variable sizes, quantities and qualities of snags on the remaining 95.6 percent of the analysis area and in the untreated skips within the units.

Comment 13d: *“Considering CWD and snags are important components of riparian reserves, their current lacking within the project areas, the habitat improvement these incidentally felled trees would provide and the purpose and need of the project, it seems prudent to reserve them within the riparian reserve LUA (instead of placing them on trucks to be sent to mills).”*

BLM Response 13d: All coarse woody debris and snags will be retained in “no-treatment” Riparian Reserve area. In treated areas within Riparian Reserves, existing snags will be protected to the greatest extent practicable (REA, p. 23).

14. Northern Spotted Owl (General)

Comment 14a: *“Clearcutting forests harm wildlife, especially the spotted owl since the BLM is proposing to log in its critical habitat. This project will clearcut up to 202 acres of spotted owl suitable habitat. All of these older forests should be dropped from the project.”*

BLM Response 14a: Clearcutting is not proposed in the Myrtle Creek Harvest Plan. The Slippery Louis Timber Sale does not include any treatments in suitable northern spotted owl habitat. The REA analyzes the effects associated with 202 acres of variable retention harvests within suitable northern spotted owl habitat (REA, pp. 75-80). Alternative Two Modified, the selected alternative, includes 99 acres of variable retention harvest in suitable habitat.

Comment 14b: *“Table 3-14 in the EA shows that the spotted owls in the Myrtlewood watershed are in bad shape. There was no reproduction in 2013, and only 2 reproducing pairs in 2012. If the BLM doesn’t help this population, in critical habitat, the owls could be extirpated from the area within our lifetimes. Now is no time to convert potential owl habitat to early-seral habitat, or degrade NRF habitat by thinning in mature forests. The BLM is not allowed to degrade critical habitat, as this project does.”*

BLM Response 14b: We assume the commenter is referring to the Myrtle Creek watershed, as there is no Myrtlewood watershed in western Oregon as the commenter suggests, although there is a Myrtlewood Field Office located on the Coos Bay District approximately 20 miles west of the analysis area.

An adverse modification determination is one that resides with the U.S. Fish and Wildlife Service hereafter referred to as Service (REA, p. 6). The BLM analyzed effects of the proposed activities on northern spotted owl critical habitat (pp. 73, 80, 87, 127, 130) and consulted with the Service. In two BOs (TAILS#: 01EOFW00-2013-F-0200 and TAILS# 01EOFW00-2015-F-0229), the Service found that the proposed action will not adversely modify critical habitat for the spotted owl and proposed activity in critical habitat in the action area is not likely to impair the capability of critical habitat to provide demographic support or facilitate connectivity among adjacent subunits. The Slippery Louis Timber Sale does not include harvest in mature forest (see BLM Response 3a); therefore no mature forests would be affected.

15. Aquatic Conservation Strategy

Comment 15a: *“Logging in riparian reserves will violate the ACS by retarding attainment of dead wood objectives both instream and in the upland portion of the riparian reserves. In most cases passive management will best meet ACS objectives. Any alleged benefits from logging in the reserves are far outweighed by the adverse trade-offs which BLM fails to clearly and accurately disclose in the EA.”*

BLM Response 15a: The REA (p. 3) explains the need for diverse habitats in Riparian Reserves. “There is a need for diverse habitats in Riparian Reserves. Management of Riparian Reserves is intended to aid in the attainment of Aquatic Conservation Strategy (ACS) objectives of restoring and maintaining the ecological health of watersheds and aquatic ecosystems on public lands (ROD/RMP, p. 19). Silvicultural practices are to be applied to control stocking, reestablish and manage stands, and acquire desired vegetative characteristics (ROD/RMP, pp. 25). Density management in Riparian Reserves would reduce canopy cover that is suppressing shade-intolerant conifers and deciduous trees, resulting in a reduction in species diversity. Density management would maintain ecological health, allow the release and accelerated growth of selected trees that would maintain or restore structural diversity of plant communities in the riparian zone, and maintain coarse woody debris for future in-stream recruitment (ROD/RMP, pp. 19 and 20).” (REA, p. 3)

The effects of proposed actions within Riparian Reserves were analyzed in Chapter Three of the REA. Establishment of Riparian Reserves and “no-treatment” stream buffers are explained in the REA (p. 32). Passive management will occur in the “no-treatment” buffer along streams and under Alternative One (No Action).

Effects on in-stream functional wood are described in the REA (pp. 97, 102-103). Additionally, Appendix D of the REA, “Consistency of the Proposed Action with the Objectives of the Aquatic Conservation Strategy” shows the Myrtle Creek Harvest Plan is consistent with ACS objectives (REA, pp. 191-196).

Comment 15b: *“The EA also fails to disclose that natural processes will lead to attainment of ACS objectives without intervention. See Lutz, J.A. 2005. The Contribution of Mortality to Early Coniferous Forest Development. MS Thesis. University of Washington. http://faculty.washington.edu/chalpern/Lutz_2005.pdf”*

BLM Response 15b: Contrary to the commenter’s opinion, the REA describes how stands would develop under the No Action Alternative (REA, p 45-47), the effects of the No Action Alternative on aquatic resources (REA, pp. 96-98) and compliance with ACS (REA, Appendix D, pp. 191-196).

Lutz (2005, unsigned master's thesis) examines the temporal and spatial distribution of mortality and its causes. Suppression was observed in over 80 percent of the plots and was more than 2.5 times as common as mechanical damage. However, biomass lost to mortality via mechanical damage was nearly four times that lost via suppression. Mechanical damage killed larger stems and was episodic and spatially aggregated. Hardwood biomass increased with time as dominant stems achieved large size. Although frequent in time and space, suppression mortality leads to subtle changes in forest structure. The larger sizes and spatial aggregation of trees killed by mechanical causes yielded greater ecological change by enhancing spatial heterogeneity of structure and composition. Lutz concludes that gap-forming processes that contribute to structural complexity in old growth can also be active in young forests.

In general, shade-intolerant hardwood species are being overtopped by conifers and succumbing to suppression mortality (REA, p. 40). Proposed Riparian Reserves treatments in the REA (p. 22) were designed to promote development of large hardwoods that, through mechanical damage, will be the source of future large dead and down biomass that will benefit the Riparian Reserve habitats as Lutz (2005) concluded. The more common suppression mortality will continue to occur in untreated areas of the Riparian Reserve and in "skips" created in the variable density thinning treatments.

Comment 15c: *"The EA failed to consider that new permanent roads do not meet the objectives of the ACS and instead, degrade water quality for fish and humans."*

BLM Response 15c: The Slippery Louis Timber Sale does not include any new permanent road construction (Decision Document, p. 4). The Sale includes approximately 0.09 miles (approximately 0.4 acres) of temporary road construction within Unit 10 in critical northern spotted owl dispersal habitat, outside of Riparian Reserves. The effects of road construction in critical habitat were addressed in the REA (pp. 81). Federally-administered lands will continue to provide for dispersal and connectivity between critical habitat subunits (REA, p. 81) which is a primary function of the Klamath East subunit (REA, p. 65).

We assume concerns about "high-road-density problems" refers to concerns about increases in peak flow. From a peak flow perspective, there is not concern until roads populate 12 percent of the drainage area. In the Myrtle Creek watershed, road density was estimated to range from 3.03 to 5.94 miles per square mile and averages 4.36 miles per square mile, as reported in watershed analysis in 2002 (p. xiii). The REA discloses the analysis area has 4.4 miles per square mile (3.3 percent) of existing road, well below the 12 percent threshold (REA, p. 107).

16. Other

Comment 16a: *"Where road building is necessary, ensure that the realized restoration benefits far outweigh the adverse impacts of the road. Carefully consider the effects of roads on connectivity, especially at road/stream crossings, across ridge tops, and midslope hydrological processes (such as large wood delivery routes)...Avoid log hauling during the wet season."*

BLM Response 16a: Roads will be sited on ridge tops and stable side slope locations and disconnected from the road drainage network where practicable (REA, p. 25). The Slippery Louis Timber Sale will construct and then decommission one road segment (0.09 miles) within Unit 10 and outside of Riparian Reserves. Ground-based yarding will be restricted to the dry season (REA, p. 32) and use of unsurfaced roads for timber hauling will be limited to the dry season (REA, p. 34). Road density is disclosed in the Aquatics section (REA, p. 95, 194). No harvest buffers filter sediment and provide a continuous source of small and large functional wood to stream channels (REA, p. 100, 101, 102, 105). Road renovation, improvement and construction will not affect recruitment of large wood to streams. Road renovation and improvement will benefit the analysis area because well-maintained roads have less potential to produced sediment that can be delivered to streams.

Comment 16b: *“We oppose roadside daylighting (strip clearcutting along roads), especially in riparian reserves where it will certainly prevent or retard attainment of ACS objectives...The EA fails to fully disclose the adverse effects of “road daylighting”*

BLM Response 16b: Daylighting is not clearcutting as suggested by the commenter. Daylighting is a combination of road maintenance and thinning-type treatments that are routinely implemented by the Roseburg BLM and consistent with the ROD/RMP. The REA (p. 28) explains that daylighting treatments include clearing shrubs and trees and/or thinning trees less than 24 inches diameter breast height where overstory tree canopy shades the roadway surface. Daylighting would occur up to 33 feet from center line of existing roads...Daylighting would not occur within pre-established Riparian Reserve “no-treatment” areas except where a hydrologist or fisheries biologist determines that site specific characteristics warrant the need for daylighting to mitigate sediment transport to the stream network while meeting Aquatic Conservation Strategy objectives.” (REA, p. 28) The REA discloses the effects of road daylighting in Chapter Three (REA, pp. 76, 77, 80, 87, 88, 97, 100, 103, 105, and 120).

Comment 16c: *“...the EA failed to look at the entire project area, as required by NEPA, and for the most part, only looked at the small percent of the watershed owned by the BLM, ignoring the overall landscape.”*

BLM Response 16c: The BLM appropriately defined and analyzed resources in the analysis area. In general, the analysis area includes lands managed by the South River Field Office of the Roseburg District, Bureau of Land Management (BLM) in the Myrtle Creek 10th-field watershed⁷, as well as the Upper Deer Creek, Days Creek, and Roberts Creek 12th-field subwatersheds (REA, p. 1). The analysis did not simply use percentage of the watershed administered by BLM. The analysis considered the condition and role of private lands where applicable (REA, pp. 6, 8, 25, 33, 37, 38, 47, 70, 72, 73, 74, 94, 95, 97, 98, 108, 118, 120, 126, 128, 192).

Comment 16d: *“The BLM failed to look at the entire watershed. And as mentioned earlier, there is a lot of early-seral habitat on BLM land too. The BLM failed to disclose what early-seral species was more in need of habitat than old-growth dependent species. The BLM failed to consider that historically, the watershed had far more old growth and far less early-seral.”*

BLM Response 16d: The REA never identified the need to create early-successional habitat as part of the purpose and need for action. The purpose and need are clearly stated on pages 2-3 of the REA. The REA considered species associated with early successional habitats (pp. 65, 69-70, 73-74, 80, 85-86, 88, 90 and Appendix C). The commenter incorrectly assumes the BLM desires to manage the landscape to resemble historic conditions. The desired age class distribution for GFMA is identified in the REA (pp. 39, 60) as established by the ROD/RMP, “Over time, manage for a balance of seral stages consistent with Land Use Allocation objectives.” (ROD/RMP, p. 150).

Comment 16e: *“The EA failed to consider the impacts of this project on that endangered species. For instance, road density impacts wolves, and this project increases roads. The BLM must consult with USFWS on the endangered wolf impacts of this project.”*

⁷The U.S. Geological Survey implemented a new numbering/naming convention for hydrologic units (HUs). 5th-field watersheds are now designated as 10th-field HUs, and 6th-field subwatersheds as 12th-field HUs.

BLM Response 16e: The wolf activity area of the referenced wolf “family” (OR7) was entirely outside of the Roseburg District BLM-administered lands in 2014 and is entirely off of the Roseburg District in 2015⁸. The proposed actions will have no effect on the referenced wolf pack.

Comment 16f: *“If the BLM wants even more high-quality early-seral habitat for wildlife, there are other alternatives for providing that that should have been considered, such as VDT with openings, or better, modifying practices on non-federal lands to reduce herbicide use.”*

BLM Response 16f: The Myrtle Creek project was not designed to create high quality early-seral habitat for wildlife. As suggested by the commenter, Alternative Two includes 1,005 acres of variable density thinning which accounts for over 50 percent of the proposed treatments. Alternative Two Modified, the selected alternative, includes 1,014 acres of variable density thinning, which represent 54 percent of the proposed treatments. Modifying how non-federal lands are managed is beyond the scope of this analysis and beyond the authority of this agency. The Slippery Louis Timber Sale includes approximately 84 acres (40 percent) of VDT.

⁸ Map available at <http://www.dfw.state.or.us/wolves/>