

CHAPTER 7 - CONFORMANCE TO THE ROD AND FSEIS

This chapter will attempt to identify the status of the Wolf Creek watershed with a variety of criteria identified within the ROD and FSEIS. Some of the major criteria that will be utilized to measure the Wolf Creek Basin's current condition include: riparian reserves, spotted owl and marbled murrelet centers, snags and downed wood retention, protection of existing old growth stands, and survey and manage species.

Riparian Reserves

Due to lack of sufficient detail/data for some critical elements, this iteration of watershed analysis will make no recommendations to alter the interim Riparian Reserve widths listed in the FSEIS, RMP/FEIS, and ROD. Actual riparian widths, based on flood plain/terrace landforms and vegetation, are unknown, which makes it difficult to make any recommendation concerning riparian widths. Also, because of lack of understanding of animal movement, the connectivity value of Riparian Reserves cannot be addressed. Since critical data and understanding are lacking, making no recommendations to alter interim Riparian Reserves is considered to be a conservative approach, which should maintain future options. The resource specialists should have the operational ability to delineate on the ground the appropriate riparian reserve boundaries within a range of plus or minus 15 feet. For example, if the site tree height on a perennial 1st order, non-fish bearing stream is 210 feet, then a range between 195 feet and 225 would be acceptable for on the ground application. Past experience has shown us that exact distance delineation on the ground is close to impossible whereas approximations within ranges expedites field work. The resource specialists should consider immediate site specific resources when locating reserve boundaries. The goal will be to protect known and unknown resources and to ease application on the ground. It is expected that the reserve boundaries, on a project basis, would average what is called for in the FSEIS.

The following criteria have been identified as important and/or limiting within the Wolf Creek watershed and should be considered in project level planning for protection, beyond the interim buffer requirements, to the aquatic environment.

Old Forest Sensitive Reaches - There is a general lack of older forest types along the main stem of Wolf Creek and the 2 locations where these types exist have been identified on BLM lands: the unnamed tributary junction with main Wolf Creek in Section 7 of T. 19 S., R. 7 W., and the reach upstream of the confluence of Saleratus Creek with the main stem. These constitute the only old forest types adjacent to the main stem. There is one area of mature timber in the upper Wolf Creek reach, but it is not on BLM land.

Along the major tributaries, there are 3 tributaries where the old forest type dominates the riparian vegetation: Eames Creek, Grenshaw Creek, and Saleratus Creek. The old forest in Saleratus Creek is on the lower reaches near the confluence with Wolf Creek, approximately in Section 31, T. 18 S., R. 7 W. Grenshaw Creek has old forest riparian vegetation in the vicinity of Section 31, T. 18 S., R. 6 W. and in Section 1, T. 19 S., R. 7 W. Eames Creek also has old forest riparian vegetation in the vicinity of Sections 5 and 6, T. 19 S., R. 7 W. and Section 32, T. 18 S., R. 6 W.

Unique Habitats and Wetlands - Wetland habitats (ponds or bogs) are present in the upper reaches of the Wolf Creek main stem. These are located in the vicinity of Sections 18 and 19 of T. 19 S., R. 5 W. These are the only ponds/bogs currently identified along the main stem, and serve as areas of unique biodiversity, sediment traps, refugia, and other important aspects in the aquatic environment.

Wetland patches were also located in the upper end of the 4th order reach of Swamp Creek. This was the only area along the major tributaries examined where ponds/bogs were identified. These are located in the vicinity of Sections 28 and 33 of T. 18 S., R. 6 W. on BLM lands.

Potentially Unstable Areas - Unstable and potentially unstable areas are considered part of Riparian Reserves. The majority of potentially unstable areas are located in the western half of the Wolf Creek watershed. During project development, all suspected unstable areas should receive site specific investigation.

Spotted Owl and Marbled Murrelet Centers

There are 7 spotted owls centers located in the watershed that have 100-acre core areas identified around these sites. The management objective for the core areas is to defer any management activities for the life of the District Resource Management Plan. The spotted owl site centers located within the watershed that do not have core areas designated, are located in Late-Successional Reserve land use allocations. Management objectives for these areas are designed to develop forest stands that contain old forest characteristics. These objectives are directed at providing habitat for late-successional and old growth forest related species like the spotted owl.

Currently there are no known occupied marbled murrelet sites located in the watershed. There are, however, 2,689 acres of land within the watershed designated as Marbled Murrelet Reserves. The location and habitat composition of these reserves may not be conducive to murrelet occupation at this point. Only 10 percent of the land in the reserves is comprised of old forests and approximately 71 percent of the forested land is comprised of clear cut, sapling pole, and pole-young. These forest types can take up to 200 or more years to develop characteristics necessary for suitable nesting habitat for marbled murrelets. The location of these reserves is in the eastern portion of the watershed and nearest to residences and agricultural lands. With this positioning of these reserves, it is unlikely the marbled murrelets will occupy these areas even after they have developed suitable habitat. The designation of Late-Successional Reserves within the watershed should provide suitable habitat essential for nesting marbled murrelets, with the objective of allowing the forest stands in these land use allocations to develop into old growth forests.

Snag Retention

The number of snags required by the ROD is that which provides for 40 percent of the potential cavity nester populations. This number is approximately 1.5 snags per acre. Current numbers of snags within the watershed indicate that this number is being exceeded as a whole across the landscape, with an amount of approximately 5.6 snags per acre. However, for 2 specific species of cavity nesters (red-breasted sapsucker and hairy woodpecker) the number of snags available (0.3/ac) is below nesting requirements (1.9/ac). This shortfall is in snags sizes 15 inches to 17 inches dbh and in the softer decay classes (4 and 5). Additionally, the requirements for cavity nesters outlined in the ROD are only designed for nesting habitat and do not include habitat for foraging and roosting. Some species of woodpeckers require a different snags for roosting than for nesting, and most species forage on several snags in a given area. Therefore, in order to accommodate all crucial habitat for cavity nesting birds, the number of snags that need to be left on the landscape are potentially greater than that which is required by the ROD.

Downed Wood

The amount of down woody material that is required by the ROD is 240 linear feet of logs that are at least 20 inches in diameter and at least 20 feet long. The amount of downed wood in the watershed was estimated from data that were collected for a spotted owl habitat data study. Within the watershed, logs greater than or equal to 20 inches in diameter, the linear feet ranged from 83.6 ft/ac in the pole-young habitat class to 503.8 ft/ac in the old over young habitat class. The average was 321.9 ft/ac with a standard deviation of 157.0 ft/ac. Over the larger landscape (Coast Range Resource Area), the linear feet of downed wood ranged from 182.7 ft/ac in the mature habitat class to 415.2 ft/ac in the old forest habitat class. The average was 264 ft/ac with a standard deviation of 96.2 ft/ac.

This data indicates that the watershed currently exceeds that required by the ROD standards, with the exception of logs within the pole-young habitat class. ROD standards are exceeded by as much as 264 linear feet per acre in old over young habitat, and as little as 29 linear feet per acre in mature over young habitat.

With natural mortality, the development of old growth forests should result in stable or increased amounts of down wood in old forests. The amount of down wood within the younger habitat types (pole-young and mature over young) will probably decrease. This is due to the decomposition of the logs currently on the ground, and the slow development (growth) of trees to an age and size that will fall and become down logs naturally. Therefore, because of the amount of old forest within the watershed, the overall amount of down woody material has the potential to decrease over the entire landscape over time, because of the lack of areas that naturally provide these habitat components.

Old Growth Protection Within 5th Field Watersheds

Based upon this analysis (Chapter 5, Old Forest Retention) Wolf Creek watershed has old growth stands in excess of the 15 percent that needs to be retained and protected to meet the ROD. The amount in excess of the 15 percent differs between this analysis and the official BLM inventory calculations. Because the inventory calculations will be the basis for monitoring implementation and scheduling activities, these figures should be used. BLM inventory shows 985 acres in excess of the Old Forest retention standards.

The inventory also indicates that 4,200 acres of age 80 plus are within Wolf Creek watershed. Since approximately 2,500 acres need to be retained, approximately 1,700 acres currently remain available for management. The land use allocation of these 1,700 excess acres will dictate the kind of management opportunities available. Out of these age 80 plus acres, there are approximately 35 to 40 acres within the General Forest (matrix) available for management. The remaining 80 plus acres are in either Late-Successional Reserves or Marbled Murrelet Reserves.

Survey and Manage Species

Under the ROD implementation of the standards and guidelines for Survey and Manage species (Table C-3 of ROD, Appendix-3, SEIS Special Attention Plant Species, Wolf Creek Watershed) will be required. Under this requirement there are 4 provisions that will be implemented. These include the following:

- ▶ Management of known sites
- ▶ Survey prior to ground-disturbing activities
- ▶ Extensive surveys
- ▶ General regional surveys

Currently, the REO has tasked out the responsibility of developing Standards and Guidelines for inventory, and are in the process of pulling together information on known sites for all Districts and Forests. During the spring of 1995 information on known sites will be sent to the Districts. This information may come in several forms, including a GIS layer with location information for these species. Currently the Eugene District has not identified any species in the Wolf Creek watershed under Component #1, although areas adjacent to the watershed are known sites for the vascular plant species, *Allotropa virgata*. Until the REO provides known site information to the District, it is not known if other species occur within this area and subject to the provisions under Component #1. Under Component #2, surveys must be completed prior to ground-disturbing activities that will be implemented in FY 1999; under Component #3, extensive surveys; and under Component #4, general regional surveys. These surveys must be underway in 1996. Some of these species listed in Appendix 3 are known to occur in the watershed. It is not known what information may be necessary to meet the standards and guidelines. The REO is currently developing survey protocols for Components 2, 3, and 4. It is not known to what extent the Wolf Creek watershed will be subject to Components 2, 3, and 4, until these protocols are fully developed and provided to us by the REO (see also Chapter 10 - Data Gaps, Inventory, and Monitoring Needs).

Because the known site information under Component #1 is not available at this time to the Districts, actions occurring within the watershed may be subject to appeal. The REO has been asked to respond to this issue since information will not be available until sometime in Spring, 1995.

Oregon State Office, BLM is preparing a set of questions that will be sent to the REO for clarification concerning those Survey and Manage Species that are also Special Forest Products. Some of these, such as the edible fungi, chanterelles, are known to occur in the Wolf Creek watershed.

Amphibians and Mammals - There are 5 species of amphibians and 1 species of mammal that are listed in the ROD as "survey and manage" species.¹ Current range history of the amphibian species indicates that they do not occur in the Wolf Creek watershed. Survey strategies for these species include surveying known sites, surveying prior to any activities, and managing sites. Surveys will probably be done for other species of amphibians that are Special Status species and potentially occupy the watershed. These surveys may encounter the species listed in the ROD at which time survey strategies will be implemented.

The only mammal species that is listed on the "survey and manage" list in the ROD is the red tree vole. This arboreal species has a high potential of occurring in the watershed in old forest habitat. Survey strategies outlined in the ROD for this species are to "survey prior to activities and manage sites." Therefore, prior to any activities planned in suitable habitat (older forests), surveys for this mammal species should be conducted.

Mollusks and Arthropods - There are 43 species of mollusks and 4 categories (canopy herbivores, coarse wood chewers, litter, and soil dwellers, and understory and forest gap herbivores) of arthropods that are on the "survey and manage" list in the ROD¹. At this time, because of the lack of surveys for mollusks and arthropods, it is unknown which of these species occurs in the watershed. Survey strategies for all of the mollusks indicate to manage all know sites and survey prior to activities and manage sites. The survey strategy for arthropods is to conduct general regional surveys. At this time no comprehensive, organized surveys are being conducted

Green Tree Retention

The FEIS ROD requires different levels of green tree retention depending upon landuse allocation. The connectivity block land use allocation are managed on a 150 year rotation providing for at least 25 to 30 percent of the block be maintained in late-successional forest at any point in time. When stands in these allocations are final harvested 12-18 green trees per acre will be retained. The mix of retention trees should represent the mix of species present on the site and provide a legacy for diversity. The general forest management areas would retain 6-8 green trees per acre in areas where final harvest is scheduled. Again the mix of retention trees would represent the mix of species present on the site and provide a legacy for diversity. The selection and location of the retention trees would vary by forest stand, safety concerns, retention risk factors (storm patterns, wind throw potential), present stand diversity and location of forest values.

Past management practices (from approximately 1970) did not recognize the value of green tree retention in the watershed therefore few trees were left to provide this resource. Prior to the reliance on planting seedlings in harvested units seed trees were left to reseed the harvested areas. The Wolf Creek watershed has remnants of these old seed trees scattered through out the Old over Young and Mature over Young vegetation classification. These two classifications amount to approximately 12 percent of the watershed. Future management actions will address the spatial arrangement of green tree retention through out the watershed.

CITATIONS and REFERENCES

1. USDA , Forest Service and USDI, Bureau of Land Management. April 1994. Recorded of Decision for Amendments for Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. page C-49.