

South River FY 2009 Commercial Thinning
Environmental Assessment
DOI-BLM-OR-R050-2009-0005-EA
South River Field Office, Roseburg District

Finding of No Significant Impact

Date Prepared: August 16, 2010

Overview

The analysis area encompasses lands managed by the South River Field Office of the Roseburg District, Bureau of Land Management (BLM) in the Middle South Umpqua River and Olalla Creek-Lookingglass Creek fifth-field watersheds.

The location of the thinning units is as follows:

- Matrix units in Sections 21, T. 28 S., R. 8 W.; Sections 19, 29, 31 and 33, T. 29 S., R. 6 W.; Sections 11, 13, 15, 25, and 31, T. 29 S., R. 7 W.; Section 33, T. 29 S. R. 8 W.; and Sections 5 and 7, T. 30 S., R. 6 W., W.M.
- Late-Successional Reserve units in Section 8, 21 and 33, T. 28 S., R. 8 W.; and Section 9, T. 30 S., R. 7 W., W.M.

The South River FY 2009 Commercial Thinning Environmental Assessment (EA) analyzed three alternatives. In addition to Alternative One - No Action (EA, p. 5), two action alternatives were analyzed. These consist of Alternative Two - Even-Spaced Thinning in the General Forest Management Area (p. 13) and Alternative Three - Variable-Spaced Thinning of Stands in the General Forest Management Area Located in Spotted Owl Critical Habitat (p.14). Project design features common to Alternatives Two and Three are described at pages 5 to 13. Alternative Three is the alternative selected for implementation.

Two additional alternatives were considered, based on scoping and a review of comments on previous thinning analyses conducted by this office. As addressed in the EA (pp. 16 and 17), these alternatives were not analyzed in detail because one alternative is essentially addressed by the action alternatives, and the second is not economically viable.

Both context and intensity must be considered in determining significance of the environmental effects of agency action (40 CFR 1508.27):

Context

The two project watersheds drain a combined area of approximately 162,500 acres. The project is a site-specific thinning treatment on approximately 1,172 acres.

As this is an intermediate treatment affecting approximately 0.7 percent of the combined watershed areas, it does not bear any regional, statewide, national or international importance.

Intensity

The Council on Environmental Quality includes the following ten considerations for evaluating intensity.

1. *Impacts may be both beneficial and adverse.* - 40 CFR 1508.27(b) (1)

The project will have positive impacts by improving tree health and vigor, enhancing commercial value of timber in the Matrix land use allocations, and accelerating development of late-successional conditions in Late-Successional Reserve and Riparian Reserve land use allocations (EA, pp. 26-31).

Variable density thinning of stands allocated to the General Forest Management Area within 2008 northern spotted owl critical habitat will aid in development of suitable habitat characteristics. It will promote size differentiation between trees and stratification of canopy layers. It will also release select trees and allow sufficient light to reach the forest floor allowing for the establishment of an understory that will provide cover and forage for species preyed on by the spotted owl.

Commercial thinning will also provide timber for manufacturing which would provide employment, wages to timber workers and employees in associated industries, and generate tax revenues for local, state and federal governments.

These impacts are consistent with the range and scope of effects analyzed and described in the 1994 *Final - Roseburg District Proposed Resource Management Plan / Environmental Impact Statement* (1994 PRMP/EIS), which analyzed the timber management program for the Roseburg District.

2. *The degree to which the proposed action affects public health or safety.* - 40 CFR 1508.27(b) (2)

The project is a vegetation treatment that will not affect public health or safety because it will occur in a landscape dominated by Federal and industrial forest land.

As described in the EA (pp. 13 and 74-75), fuel reduction treatments will be applied in the Wildland Urban Interface and Late-Successional Reserves to reduce and modify the arrangement of fuel loads. This will reduce risk of ignition, reduce rate of spread in the event of a fire start, and shorten the time necessary for containment and control.

3. *Unique characteristics such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.* - 40 CFR 1508.27(b) (3)

As addressed in the EA (p. 17), there are no Areas of Environmental Concern; prime farmlands; wetlands; wilderness; or wild and scenic rivers in proximity to the commercial thinning and density management units.

Cultural clearances have been completed. Surveys of the thinning units have not identified any cultural or historical resources deemed to have significant value.

4. *The degree to which the effects on the quality of the human environment are likely to be highly controversial.* - 40 CFR 1508.27(b) (4)

The BLM conducts thinning and density management regularly across western Oregon. There is a wide body of literature describing effects of such forest management activity. Effects are expected to be consistent with those of the published literature cited in the EA, and are not expected to be highly controversial.

The public has had the opportunity to provide scoping comments and comments on numerous proposals similar to this one. No comments received indicated controversy over the nature of effects on the human environment.

5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.* - 40 CFR 1508.27(b) (5)

This project is not unique as the BLM regularly conducts thinning. When professional experience is paired with the substantial body of literature on the subject, there is little uncertainty regarding the effects. The environmental effects of all the alternatives are fully analyzed in Chapter Three of the EA (pp. 19-80).

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.

The U.S. Geological Survey, in a May 14, 2008 memorandum (USDI USGS 2008) to the U.S. Fish and Wildlife Service, summarized the latest science on greenhouse gas emissions and concluded that it is currently beyond the scope of existing science to identify a specific source of greenhouse gas emissions or sequestration and designate it as the cause of specific climate impacts at a specific location.

As described in the EA (p. 78), Alternative Three is estimated to result in the direct release of an estimated 3,939 tonnes of carbon. This amount would be undetectable against national and global emissions, though. Release and growth of the remaining trees is estimated to sequester carbon equal to the amount directly released by thinning in less than a year and a half. In the longer term, 100 years, there will be at least a 300 percent increase in on-site carbon storage, compared to post-thinning conditions.

6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.* - 40 CFR 1508.27(b) (6)

The advertisement, auction, and award of timber sale contracts that allow the commercial thinning of forest stands is a well-established practice. It does not set a precedent for any future actions, nor represent any decision in principle about future considerations, as any new proposals for commercial thinning would be subject to site-specific evaluation and analysis.

7. *Whether the action is related to other actions with individually insignificant impacts but cumulatively significant impacts.* - 40 CFR 1508.27(b) (7)

The interdisciplinary team considered the project in the context of past, present, and reasonably foreseeable actions. No cumulatively significant effects to resources are predicted, as discussed in Chapter Three of the EA (pp. 19-80).

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Historic Register or may cause loss or destruction of significant scientific, cultural, or historical resources.* - 40 CFR 1508.27(b) (8)

As discussed above, cultural clearances have been completed. Surveys have not identified any cultural or historical resources deemed to have significant value.

9. *The degree to which an action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.* - 40 CFR 1508.27(b) (9)

No effect to spotted owls from noise disruption is expected because all activities will meet minimum disruption distances from any known occupied spotted owl site or unsurveyed suitable habitat, as established by the U.S. Fish and Wildlife Service, or be seasonally restricted from March 1st to July 15th to ensure spotted owls do not abandon nests or fledge prematurely.

As discussed in the EA (p. 43), literature is mixed on the actual effects of thinning on the spotted owl. It suggests that heavy thinning reduces stand use. In contrast, work by Forsman et al. in older late-successional forests and by Lee and Irwin in younger forests indicates that lightly thinned stands receive moderate to high use by spotted owls. Generally, research data supports the notion that spotted owls will continue to use thinned stands for foraging when overall canopy cover remains above 50 to 60 percent.

Since thinning will not reduce average canopy cover levels below 50 percent, it is expected that units adjacent to late-succession forest stands or possessing remnant habitat components will continue to provide foraging and dispersal opportunities. (EA, p. 43)

Potential effects to northern spotted owls, associated with thinning, have been identified in circumstances where less than half the habitat in a core area is suitable habitat or where thinning occurs within a nest patch. In the latter case, the U.S. Fish and Wildlife Service considers there to be a likelihood of incidental take.

As described in the EA (p. 45), potential effects to **marbled murrelets** fall into two categories. The first is disruption and disturbance from noise associated with thinning operations. The second is habitat related, involving changes to the forest growth dynamics in the thinning units and removal of individual tree removal for landings and guyline anchors.

Effects from noise arising from thinning activities are expected to be discountable because all activities will be conducted outside of the minimum disruption thresholds established by the U.S. Fish and Wildlife Service from any known murrelet site or unsurveyed suitable habitat. Otherwise; operations will be subject to Seasonal and/or Daily Operating Restrictions described in the EA (p. 12), ensuring that noise disruption will not cause adult marbled murrelets to abandon nests or abort feeding attempts, or cause young to fledge prematurely.

To ensure that removal of potentially suitable nest trees does not directly affect marbled murrelets, seasonal and/or daily operational restrictions previously described will be implemented unless clearance surveys have been conducted and the probability of murrelet presence has been determined as unlikely, thus reducing the probability of harm to a discountable level during the critical breeding season.

The Federally-threatened **Kincaid's lupine** (*Lupinus sulphureus* ssp. *kincaidii*) is known to exist adjacent to one of the thinning units. As described in the EA (p. 53), the site is being managed for protection of the population.

The Federally-threatened **Oregon Coast coho salmon** is present in the Middle South Umpqua River and Olalla Creek/Lookingglass Creek fifth-field watersheds (EA, p. 55). Critical Habitat for coho salmon in proximity to the thinning units includes portions of Rice Creek and Kent Creek (EA, p. 56). Essential Fish Habitat for coho salmon is coincident coho salmon distribution and critical habitat.

Direct effects to fish species from timber harvest and log hauling can result from addition of fine sediment to streams resulting in a temporary increase in turbidity (EA, p. 62), but are not expected. Non-compacted forest soils in the Pacific Northwest have very high infiltration capacities and are not effective in transporting sediment overland by rain splash or sheet erosion. "No-treatment" areas beside streams will provide root strength sufficient to maintain bank stability, protect eroding banks and prevent additional sediment from entering streams and accumulating in gravel.

Indirect effects from road construction and renovation, timber hauling and road decommissioning could include reduced spawning success and egg and alevin survival where fine sediments reach streams and accumulate in gravels (EA, p. 62). Application of project design features and Best Management Practices described in the EA (p. 65) will arrest any mechanism for sediment transport or minimize risk for delivery of fine sediment so that any effects will be short-term and so small as to not be measurable at the project scale.

For reasons discussed in the EA (pp. 63-64), the project will not adversely affect Essential Fish Habitat for coho or chinook salmon.

10. *Whether the action threatens a violation of Federal, State, or local law or requirement imposed for the protection of the environment. . - 40 CFR 1508.27(b) (10)*

The project was designed in conformance with management direction from the ROD/RMP, which itself is in conformance with all applicable laws and regulations. Furthermore, the design features described within the EA ensure that the project complies with all applicable laws (ROD/RMP p. 5).

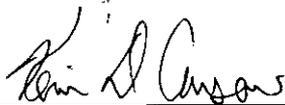
With respect to environmental justice, the project is consistent with Executive Order 12898 which addresses Environmental Justice (EA, p. 17). No potential impacts to low-income or minority populations have been identified by the BLM internally or through public involvement. Employment associated with the sales would involve local contractors who engage in similar types of work throughout Douglas County.

Correspondence with local Native American tribal governments has not identified any known unique or special resources in the project areas which provide religious, employment, subsistence or recreation opportunities (EA, p. 18).

As discussed in the EA (p. 18), implementation of the Roseburg District *Integrated Weed Management Program*, in association with project design and contract provisions will minimize risk of introduction or spread of noxious weeds in association with road construction and timber harvest. Prevention measures will include mulching disturbed areas and seeding with native grasses to discourage establishment of new weed populations and pressure washing or steam cleaning logging and road construction equipment prior to move-in to avoid introducing weeds from outside the project area. These actions are consistent with the requirements of the Lacey Act; the Federal Noxious Weed Act of 1974, as amended; and Executive Order 13112, Invasive Species.

Based on the analysis of potential environmental impacts contained in the EA, I have determined that the project will not have any significant impact on the human environment within the meaning of Section 102(2) (c) of the National Environmental Policy Act of 1969, and an environmental impact statement is not required.

I have further determined that the project conforms to management direction from the *Record of Decision and Resource Management Plan (ROD/RMP)* for the Roseburg District, approved by the Oregon/Washington State Director on June 2, 1995.



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South River Field Office

8/16/10
Date