

# REGIONAL ECOSYSTEM OFFICE

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## Memorandum

Date: August 26, 1999

To: Bradley Powell, Acting Regional Forester, Region 5

From: Donald R. Knowles, Executive Director

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ACTING

Subject: Regional Ecosystem Office Review of Shasta-Trinity National Forest  
Late-Successional Reserve Assessment (LSRA)

### Summary

The Regional Ecosystem Office (REO) and the interagency Late-Successional Reserve Work Group have reviewed the Shasta-Trinity National Forest Late Successional Reserve Assessment (LSRA) which addresses the following 18 late-successional reserves (LSRs) and 6 managed late-successional areas (MLSAs):

Yolla Bolla (LSR 328)	South Fork (LSR 330)	Corral (LSR 332)
Chanchellula (LSR 331)	Canyon Creek (LSR 331)	Buckeye (LSR 337)
Eagle (LSR 338)	Graves (LSR 339)	Scott Mtn. (LSR 340)
Eddy (LSR 341)	Deer (LSR 342)	Castle Lake (MLSA 67)
Madrone (MLSA 83)	Iron Canyon (LSR 335)	Algoma (LSR 357)
Bartle (MLSA 79)	Elk Flat (LSR 360)	McCloud (MLSA 76)
Mt. Shasta (LSR 361)	Wagon (LSR 362)	Fons (MLSA 72)
Sheephaven (MLSA 78)	Harris Mountain (LSR 359)	Porcupine (LSR 358)

For the purposes of this memorandum, the 18 LSRs and 6 MLSAs will be collectively referred to as LSRs.

The REO finds that the LSRA provides sufficient framework and context for future projects and activities within the LSRs. Future silvicultural activities described in the LSRA that meet its criteria and objectives and are also consistent with the Standards and Guidelines (S&Gs) of the Northwest Forest Plan (NFP) are exempt from further project-level REO review. This review also serves as the REO review of the site-specific forest plan amendments that would be needed for non-risk thinning in stands up to 150 years of age, as described in the assessment. Certain aspects of the Forest's proposed fuelwood program may require a plan amendment. Additional discussion of this issue is found below. Also, see the Conclusions Section of this memo for more details on REO findings related to this assessment.

### Basis for the Review

Under the S&Gs for the NFP, a management assessment should be prepared for each large LSR (or group of smaller LSRs) before habitat manipulation activities are designed and implemented. As stated in the S&Gs, these assessments are subject to REO review. The REO review focuses on the following:

1. The first focus of the review considers whether the assessment contains sufficient information and analysis to provide a framework and context for making future decisions on projects and activities. The eight subject areas that an assessment should generally include are found in the NFP Record of Decision S&Gs (page C-11). The REO may find that the assessment contains sufficient information or it may identify topics or areas for which additional information, detail, or clarity is needed. The findings of the review are provided to the agency or agencies submitting the assessment.
2. The review also considers treatment criteria and potential treatment areas for silvicultural, risk-reduction, and salvage activities, if these activities are addressed in the LSRA. When the treatment criteria are clearly described and their relationship to achieving desired late-successional conditions are also clear, subsequent projects and activities within the LSR(s) may be exempted from the REO review, provided they are consistent with the LSRA criteria and the NFP S&Gs. The REO authority for developing criteria to exempt these actions is found in the S&Gs (pages C-12, C-13, and C-18). If such activities are not described in the LSRA and exempted from further review in this memo, they remain subject to future REO review.

The basis for the review is the Forest wide LSRA dated May 14, 1999 as supplemented by additional information provided by the Forest on August 12.

#### **Scope of the Assessment and Description of the Assessment Area**

The 24 LSRs/MLSAs addressed in the LSRA encompass approximately 390,000 acres of federal lands, principally on the Shasta-Trinity National Forest in northern California, but also including small portions of the Six Rivers and Klamath National Forests, and public lands managed by the Redding Resource Area of the Bureau of Land Management. Lands within the assessment area are primarily within the Klamath Province and California Cascades Province. Dominant coniferous vegetation includes mixed conifer (69%), red fir/white fir (5%), ponderosa pine/Jeffrey pine (2%) and Douglas-fir (1%). Nonconiferous vegetation, including hardwoods, chaparral and grass total 18% of the land area. Five percent of the area is nonvegetated.

#### **Review of the Assessment**

The REO reviewed the LSRA in light of the eight subject areas identified in the S&Gs (page C-11) and sought additional information regarding these subject areas when necessary. On June 9, 1999, Forest Supervisor Heywood and staff met with the REO Interagency LSR work group in Portland and presented an overview of the LSRA. This was a particularly helpful meeting, clarifying principal issues in the LSRs and providing an opportunity to discuss foreseeable management actions. Follow-up discussions with Forest staff in early August resulted in additional information on desired conditions and potential levels of late-successional habitat.

The assessment addresses characteristics of, and differences among, the LSRs and also recognizes their importance in linking the Northern and California subspecies of spotted owls. Desired conditions and treatment criteria reflect historic disturbance regimes, results of past management activities and the exclusion of fire. The assessment recognizes the need to maintain high levels of late-successional habitat within the reserves, while balancing this need against the risk of large-scale loss to wildfire and disease.

The REO finds the LSRA provides a sufficient framework and context for designing future actions. The assessment provides specific objectives and criteria, and identifies possible treatments to achieve and

maintain desired future conditions. The descriptions of current conditions (forest structure, composition, vegetation patterns and fire-caused mortality projections) provide a framework for identification, design, and prioritization of treatments. The LSRA includes acreage estimates and types of treatments for each LSR.

Except as discussed below, the REO finds the proposed treatments to be consistent with NFP S&Gs. There are two proposed treatments within the LSRA which require additional discussion; i.e., treatments to enhance late-successional development in stands greater than 80 years of age, and firewood cutting.

#### **Thinning in stands greater than 80 years of age**

Commercial thinning of stands up to 150 years of age is proposed within the LSRA for the purpose of enhancing development of late-successional character. These treatments do not meet the "Guidelines to Reduce Risk of Large-Scale Disturbance" (S&Gs, page C-12-13). The REO has previously stated that the S&Gs for non-risk thinning projects (S&Gs, C-12) apply to all provinces (REO memo 7/15/97, *REO Review of Siskiyou Habitat Improvement Project...Smith River NRA*). The LSRA identified a need to thin in stands greater than 80 years of age (LSRA, page 4-10). The Forest is asking the REO to determine if criteria in this assessment, other than age, could be used to determine consistency with the overall intent and objectives of the NFP.

The LSR Work Group focused its review on whether stand selection criteria, other than age, were sufficient to meet NFP objectives and intent. It also examined whether the stand-specific treatment criteria were appropriate.

Forest productivity on the Shasta-Trinity National Forest appears substantially lower than on forested sites further north in the owl range. This lower productivity, coupled with the recent history of fire suppression has resulted in thousands of acres of midsize trees that are densely stocked and slow-growing. In the absence of management intervention, many of these 80-180 year-old stands are not likely to reach desired conditions. Mean diameters within these stands range from 11-24 inches (pages 4-10).

The Forest proposes to thin stands up to 150 years old, with treatment confined to the dense understory and emphasis on removal of suppressed and intermediate trees. Treatments will be limited to stands which are overstocked to the degree that reaching late-successional conditions will be substantially delayed, or desirable components of the stand will likely be eliminated because of stocking levels. Harvests will be designed to promote diversity of hardwood and conifer species, with special emphasis on retention of larger sugar pines remaining in the stands. Any cut trees older than 150 years will be left on site unless leaving the material will exceed the target fuel hazard level, putting portions of the LSR at risk of a catastrophic event. The Forest has adopted the REO's July 9, 1996 commercial thinning exemption criteria, as modified on September 30, 1996, with the exception of the 80-year limit. The REO criteria include, among other things: thinning from below; a maximum harvest tree size; variable thinning density; limits on created opening size; progress toward meeting snag and coarse woody debris requirements; and retention of layers or structural components, including diseased and broken trees, important to late-successional development. Treatments in these stands will emphasize removals in the smaller diameter classes.

Treatments in mid-successional stands are expected to accelerate development of late-successional characteristics by 30 to 50 years while maintaining canopy cover above 40% (Appendix J). Of the 390,000 acres within the LSRs, approximately 48,000 acres of mid-successional stands have been identified for

possible treatment. The LSRA recognizes (page 4-19) that each stand will require a field assessment to determine whether treatment is needed to accelerate or maintain development of late-successional character.

The REO finds the goals and objectives of the proposed thinning in stands greater than 80 years of age to be consistent with the NFP goals and objectives, while recognizing that appropriate analysis and documentation under the National Environmental Policy Act, including a forest plan amendment, will be needed before thinning in these stands may proceed. No additional REO review of these proposals or amendments will be required, except that the Forest is asked to notify REO when thinning of the first over-80 year old units is completed so that a field trip by the work group may be scheduled. The REO retains the option of modifying this exemption from review as a result of that visit.

#### **Firewood cutting within the LSRs**

The NFP S&Gs (page C-16) allow fuelwood gathering in existing cull decks, where green trees are marked by silviculturists to thin (consistent with standards and guidelines), to remove blowdown blocking roads, and in recently harvested timber sale units where down material will impede scheduled post-sale activities or pose an unacceptable risk of future large-scale disturbances. The REO has also interpreted the S&Gs to allow removal, as fuelwood, of trees felled for safety purposes where excess to coarse woody debris requirements (page C-16), and using fuelwood removal as a part of fire risk reduction strategy consistent with "Guidelines to Reduce Risk of Large-Scale Disturbance", (S&Gs, pages C-12 and 13). Fuelwood cutting in other circumstances or for other purposes would require a Forest Plan amendment including REO review (S&Gs, page E-18). The Shasta-Trinity National Forest proposes to allow firewood cutting within 100 feet of open designated forest system roads. Any fuelwood removal for purposes other than described above will require a plan amendment.

#### **Conclusion**

This LSRA addresses 18 LSRs and 6 MLSAs located primarily on the Shasta-Trinity National Forest. Based on review of the documentation and discussions with Forest staff, the REO finds that the LSRA provides sufficient framework and context for decision makers to proceed with project development and analysis. The potential silvicultural and hazard reduction treatments described in Chapter 4 are exempted from subsequent project-level REO review. The REO finds that firewood cutting in certain circumstances (see above discussion) is consistent with NFP Standards and Guidelines but that in other situations additional coordination and a plan amendment will be needed.

cc:

REO, RIEC

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