# REGIONAL ECOSYSTEM OFFICE

1220 SW Third Avenue, P.O. Box 3623
Portland, Oregon 97208-3623
Website: www.reo.gov

**MEMORANDUM**

**DATE:** June 1, 2017

**TO:** Nolan Colegrove, District Ranger, Lower Trinity, Orleans, and Ukonom Ranger District, Six Rivers National Forest

**FROM:** Jessica Rubado, Regional Ecosystem Office Representative to the Regional Interagency Executive Committee

**SUBJECT:** Regional Ecosystem Office Review of Waterman Risk Reduction Project, Lower Trinity, Orleans, and Ukonom Ranger District, Six Rivers National Forest

**Summary:** The Regional Ecosystem Office (REO) interagency Late-Successional Reserve (LSR) Work Group has concluded its review of the documents provided by the Lower Trinity, Orleans, and Ukonom Ranger District, Six Rivers National Forest (Forest) regarding the proposed Waterman Risk Reduction Project (Project). The REO, based upon the review by the LSR Work Group, concurs with the Forest's May 22, 2017, finding that the proposed Project's actions are consistent with the ecological principles for management of late-successional forests under the Northwest Forest Plan (NWFP).

**Basis for the Review:** Risk reduction actions are to be reviewed by the REO under Guidelines for Risk Reduction projects, pages C-12 through 13 of the Standards and Guidelines (S&G) for the NWFP.

As required by the NWFP S&G (C-11), the Forest prepared the Six Rivers National Forest Forestwide Late Successional Reserve Assessment (LSRA) for LSR 305 in 1999. The LSRA, which encompasses the Project, was reviewed by the REO in 2000. The REO's review concluded that silvicultural and salvage activities identified in the LSRA were found to be consistent with the NWFP S&Gs, with the exception of certain silvicultural activities that include harvest of trees > 20 inches in diameter. As noted in the Forest's May 22, 2017 concurrence request letter, the REO's LSRA review letter was somewhat unclear on whether risk reduction-related harvest of trees >20 inches was considered to be consistent with the NWFP S&Gs and exempted from further REO review. Therefore, the Forest chose to request that the REO review the entire project for consistency with the NWFP.

**Background and Waterman Ridge Project Description:** The Project is a risk reduction project to address heavy fuel concentrations, ladder fuels and dense canopy closure in a wildland-urban interface area along the top of Waterman Ridge, near Willow Creek, CA. Trees in the Project area are a combination of hardwood and conifer. The Project will occur within and adjacent to LSR 305, focused in plantations. Where the Project treatments are within LSR 305, they will occur along the LSR edge. The general area has experienced numerous large scale wildfires due to high rate of lightning strikes. Wildfires often start in adjacent wilderness areas and burn outward towards Willow Creek. Wildfire modeling based on existing conditions indicates that

nearly the entire Project area is at high risk of catastrophic wildfire, and the Project's proposed treatments would reduce burns into the wildland-urban interface (WUI) and (over time) increase the amount of late-successional habitat in the LSR.

The Project is designed consistent with the LSRA and S&Gs of the NWFP. The Project would create a narrow fuel break along ridgetops, causing a wildfire to drop from tree crowns to the ground, thereby slowing rate of spread in the WUI area and allowing for wildfire managers to manage the wildfire before it reached the Willow Creek urban area. The Project's proposed action includes three treatment types within three types of treatment units to create the narrow, ridgeline fuel break: commercial thinning, precommercial thinning, and fuels-only.

Commercial Thinning and Prescribed Fire Treatment: 161 acres in LSR are to be treated by commercial thinning and prescribed fire in Douglas fir plantations < 80 years old. Commercial silviculture treatments are designed to be consistent with the LSRA, with most trees harvested <20 inches in diameter. However, 2-10 trees > 20 inches in diameter per acre (depending upon site productivity) will be harvested to create spacing needed for the fuel break. Additional trees > 20 inches in diameter also may be removed within landings, skid trails and yarding corridors to facilitate the proposed commercial activities. The LSRA clearly indicates that some trees > 20 inches in diameter may be treated for risk reduction projects, however, as noted above and in the Forest's May 22, 2017 letter, the REO's LSRA concurrence letter is somewhat ambiguous on whether removal of >20 inch diameter trees for risk reduction is an action exempted from further REO review. Therefore, more analysis was presented to the LSR Workgroup on this topic, in an effort to ensure the Project's commercial thinning component (especially harvest of trees > 20 inches in diameter) meets the S&Gs and objectives of the NWFP.

The Project is designed as a narrow, contiguous, ridgeline fuel break (as recommended by the LSRA), and the harvest and removal of some >20 inch diameter trees will be required to meet the LSRA fuel break objectives of reducing canopy closures to the stated desired condition of 40-60% post-treatment canopy closure. Such canopy closures are necessary for the effectiveness of the fuel break, and leaving all trees >20 inches in diameter in certain parts of the fuel break would result in canopy objectives not being met and the fuel break being less functional. The Forest will purposefully avoid harvesting legacy and other old growth trees and will attempt to minimize harvesting of others trees > 20 inch in diameter, except where necessary to achieve fuel break desired conditions, to reduce impacts to late-successional and old forest habitats. The Forest's analysis indicates that the fuel break will result in greater assurance of long-term maintenance of LSR habitat, that the project is clearly needed to reduce risks of LSR habitat loss from wildfire, and, even with harvest and removal of some trees > 20 inches in diameter, the project will not prevent the LSR from continuing to play an effective role in protecting and enhancing conditions of late-successional and old growth forest ecosystems.

Precommercial Thinning and Prescribed Fire Treatment: Areas with high densities of small diameter trees and high fuel loading of ladder fuels make certain stands susceptible to insects, fire, and disease. A total of 139 acres in the LSR are to be treated using precommercial and prescribed fire treatments, focusing on reduction of <6" DBH trees, then piling fuels for burning followed by low-medium intensity understory burning. The Forest has determined that these activities were designed to be and are consistent with the LSRA.

Fuels-Only Units: The goal in fuels-only units is to build resiliency to wildfire via removal of fuels and creation of contiguous treatment areas along the Project area's upper ridge and road

systems. Fuels will be reduced via hand treatments and prescribed fire. A total of 138 acres of fuel-only units occur within the LSR. The Forest has determined that these activities were designed to be and are consistent with the LSRA.

**Review of the Project:** Information considered by the REO include the PowerPoint presentation and discussion with the LSR Workgroup on April 27, 2017, the Forest's consistency report and maps, the LSR Workgroup meeting notes, and the Forest's Request for Concurrence dated May 22, 2017.

**Conclusion:** Based upon the LSR Workgroup's review, the REO concurs with the Forest's conclusion that the Project's activities, if implemented as described above, are consistent with the NWFP.

If you have questions regarding this review, please contact Doug Young at 503-808-2014.

Jessica Rubado
**Regional Ecosystem Office Representative to the Regional lnteragency Executive Committee**

cc: Doug Young, LSR Workgroup, FS