



H. Northwest Forest Plan Implementation Monitoring

Monitoring is a key component of the Northwest Forest Plan. A Region wide implementation monitoring program was initiated in FY 1996 to monitor our implementation of the Northwest Forest Plan standards and guidelines. Below is the 2003 Northwest Forest Plan monitoring report.

2003 Province Implementation Monitoring

Southwest Washington Province

September 9, 2003

Introduction

In keeping with the theme of the 2003 program, two LSR Commercial Thinnings were randomly selected for monitoring, Galahad LSR Thin and Greenhorn LSR Thin. The Greenhorn sale is in the Lower Cispus Watershed that was also monitored last year. Galahad treated a 40 year-old plantation, while the Greenhorn sale treated a 60 year-old natural stand originating after a fire. Both projects are located in the Woods LSR, South of Randle, Washington.

Galahad LSR Thin

The Galahad sale decision was signed in June 1995 and harvested in 1996. The sale was prepared prior to completion of the Middle Cowlitz watershed analysis and activities were excluded from riparian reserves. The project predates the Forest Late-Successional Reserve Assessment and the July 1996 REO exemption letter. It was supported by the Galahad Initial Late-Successional Reserve Assessment (ILSRA). We reviewed Unit 4, a 7-acre plantation unit including a 1-acre unthinned wetland buffer. The objective of the thinning was to accelerate tree growth while maintaining a wind-firm residual stand by providing a residual canopy closure of 55 percent or more. The thinning was light in anticipation of future entries and to reduce the likelihood of blow-down.

Less common species in the predominantly Douglas-fir stand, such as western redcedar and big-leaf maple were retained and released. Where *Phellinus* root rot pockets occurred, highly susceptible species such as Douglas-fir were removed within 30 feet of adjacent trees showing symptoms. This allowed for the release of species with low susceptibility such as hemlock and cedar. Because of the small average stand diameter (10.5"), creating snags was postponed to a later entry when larger trees would better provide the desired habitat.

Greenhorn LSR Thin

The Greenhorn sale decision was signed in August 1996, and harvested in 1999. It was prepared prior to the Forestwide Late-Successional Reserve Assessment, but was supported by an Initial Late-Successional Reserve Assessment. We reviewed Unit 3, a 41 acre predominantly Douglas-fir stand. The fire-originated stand contained several large-diameter fire scarred snags. The 60 year-old stand had not been thinned previously and was lacking diversity and understory. The primary objective of the thinning was to initiate the development of structure in the understory. The large-diameter snags in the unit had been retained during logging by buffering with unthinned patches. Riparian buffers provided other unthinned areas within the unit, where thinning was restricted from within 75 feet on either side of streams. Other unthinned areas in the unit included an abandoned goshawk nest site and S&M mollusk buffers. Forty percent of the unit was unthinned. On 50 percent of the unit, a diameter-plus-10-foot spacing rule was applied. The "diameter plus" thinning rule leads to more irregular spacing than is expected with a regular spacing rule such as 18 by 18. On the remaining 10 percent of the unit, group selection was applied, creating small openings up to ½ acre in size.

The Greenhorn ILSRA and EA call for 240 linear feet of down wood per acre to be left in harvest units. However, the 1996 K-V plan for the sale refers to a goal of 120 linear feet per acre, which would be



achieved by falling 48 trees over the 112 acres of the sale. Apparently, the assumption was made that the balance would be provided by windthrow and perhaps logging damage. Neither windthrow nor mortality from logging damage has occurred, and the average amount of down wood totals only 170 linear feet per acre.

It appeared that the openings and amount of ground disturbance have created conditions conducive to invasive species.

Discussion

The two sales approached opposite ends of the spectrum for density management of young stands in LSRs, with respect to the degree to which the canopies were opened. Both may be appropriate to the stands in which they were applied. While our implementation monitoring indicates both treatments were generally consistent with applicable direction, effectiveness monitoring is needed to confirm how stands respond over time to various treatments, and how well objectives are met. An ecology plot has been established in one of the Galahad units that will assist in providing information on the stand's response to the thinning.

It was questioned whether the vigorous growth of brush and herbaceous species in the understory of the Greenhorn unit had not reduced its value as spotted owl foraging habitat because of the abundant hiding cover provided for prey species. Someone questioned whether the stand was not on a trajectory toward late-successional habitat and whether any treatment was warranted. It was noted that effects to soil and water, and the road system needed to be considered when planning multiple entries, as in the Galahad sale.

A concern was raised that the Forest does not have a system for archiving silvicultural prescriptions beyond about 5 years after logging. The lack of historical silvicultural prescriptions may compromise the opportunity to conduct future effectiveness monitoring. The Forest silviculturist is investigating ways to archive silvicultural prescriptions. There may be an opportunity to store the key information contained in the prescriptions in the TIMS database.

The Forest needs a strategy for treating overstocked stands in LSRs. The next iteration of the Forest Health Assessment will attempt a landscape assessment of thinning needs in LSRs.

Summary of the Project Questionnaire Responses

LSR	Met	Not Met	Not Capable	Not Applicable
Galahad Thin	37	0	1 ¹	36
Greenhorn Thin	41	2 ²	0	31

¹ Snags were not created because of small stand diameter.

² Down wood did not meet levels prescribed by the Initial Late-Successional Reserve Assessment. There was an unintentional invasion of the area by non-native species.



Participants

Name	Role
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