

COMMENTS ON THE PROPOSED SLIP THINNING SALE

Dave Corkran Nov. 29, 2004

General Comments

On Nov. 23 I visited the smallest of the three proposed cutting units in the Slip Thinning proposal. Road 4621 cuts through the site, with about two thirds of the unit lying along the southeast side of the road. I ran a 300 meter transect along an azimuth of 59 degrees (compass declination 20 degrees east) through a portion of the unit. The starting point was a culvert outfall on Rd 4821 about one hundred fifty meters NE of road's end. The transect was measured in twenty meter increments with a station at the end of each increment. I tallied occurrence of coarse woody debris in each increment, measured duff depth at thirteen stations, and measured tree diameters at every other station within a radius of 26 ft. 4. The data acquired is included below.

The limited data suggest a modest variability in density of desired trees. Of the seven stations I sampled, one had twelve trees, three had seven, one had six, one had four and one had three. If "variable density thinning" is to be the prescription in this area, maximizing variability would seem to require leaving untouched dense patches of trees (such as Corkran station #4) and removing all trees in areas with fewest stems (such as Corkran station # 8). This means that trees to be cut are chosen by their location within the forest mosaic, as well as by diameter class, tree health or other criteria. Standard thinning practice calls for uniformity of stem spacing. How will standard practice be modified to achieve variable density thinning? Who will do the tree marking? Who is going to train the tree markers? Who will insure that they do in fact thin to a variable density?

The impacts of the first commercial thinning are still obvious. Several of the trees at Corkran station # 6 had large scars made by machinery or yarded logs. The transect crossed at least three skid trails where ground was noticeably firmer, apparently heavily compacted soil. Virtually no regeneration was evident in these trails. At thirteen stations the duff layer varied in depth from one to five centimeters, averaging out to 2.67 cm., suggesting extensive repeated disturbance and aggressive slash disposal, resulting in lowered soil moisture retention capacity during dry spells. There were no snags noted along the transect.

Trees damaged by previous thinning are logical candidates for removal during thinning, within the constraints imposed by the variable density thinning regime. Before any work is done in this area the amount of soil compacted by previous logging should be ascertained to determine if this third entry will exceed the forest standard of no more than 15% compaction in any management unit. Slash disposal should be of the lop and scatter or leave variety to aid in rebuilding the duff layer. Snags should be created by topping two trees per acre where snags are not already present. Thinning delays the development of snags, so they will have to be artificially provided. In the long run snags will be provided for by leaving dense clumps of trees, where competition will ultimately kill off some of the stems.

If the Slip Thinning is to move the stand toward a simulated old growth condition using “variable density thinning” the end result should include wide variation in tree density over the stand, soil compaction below 15% of the stand area, slash disposed so that it decays on site to deepen the humus layer and a minimum of two snags per acre. These are as important as growing large diameter trees or creating forage openings.

DATA TABLES

DUFF LAYER

Station	Depth, cm.
1.	2.5
2.	4
3	2.3
4	--
5	2
6.	3.3
7.	1
8.	--
9.	3
10	1.5
11.	3
12.	2.3
13.	5
14.	2.8
15.	2.2
Average	2.67

COARSE WOODY DEBRIS MORE THAN 5' LONG

Between Stations	5-12 in. Diameter	12-24 in. Diameter	24 in. Plus Diameter
1-2	0	0	0
2-3	0	2	0
3-4	1	2	5
4-5	3	1	0
5-6	0	0	0
6-7	1	0	2
7-8	0	2	0
8-9	0	1	4
9-10	0	0	0
10-11	2	0	0
11-12	0	2	0
12-13	0	1	1

13-14	2	2	2
14-15	0	1	1
Total	9	14	15

DIAMETERS OF TREES GREATER THAN 6" DBH

Station	Douglas Fir	Western Hemlock	Red Alder
2	19	7	
	16.5		
	14.8		
	16.3		
	17.5		

Total trees: 5

4	10.8	14.7	6.25
	18.2	11.3	7.8
	12.5	11.2	
	14.8	12.9	
	15.4		
	11.6		

Total trees: 12

6	13		
	16.6		
	20		
	21		
	17.1		
	17.4		
	14.8		

Total trees: 7

8	17		
	19.1		
	19		

Total trees: 3

10	17.6		
	23.2		
	17.8		

17.5

Total trees: 4

Station	Douglas Fir	Western Hemlock	Red Alder
12	17.2	6.4	
	13.7		
	12.7		
	19.9		
	16		
	15		
14	21.7		
	22.5		
	15.3		
	17		
	18.3		
	15.7		
	16.3		

All Trees Total: 46

The dbh measurements might be compared with yours to see if they correlate, or they may be useful in calculating basal area, etc. in that part of the unit.

Sincerely yours,

Dave Corkran, for
Mt. Hood Forest Study Group

130 N.W. 114th Ave.
Portland, OR 97229
Dec. 4, 2004

Jim Rice, Forester
Clackamas River Ranger District
595 Industrial Way
Estacada, OR 97023

Dear Jim,

Thank you for the web site for the Evaluation of the Status of the Spotted Owl. I read the chapter on prey, and would like to suggest some management practices which might make the Slip Thinning project more friendly to organisms conducive to forest health, certain wildlife species and the spotted owl.

The "Evaluation" states in Chapter IV that "Variable density thinning, however, hold (sic) promise for acceleration of the development of spotted owl habitat and dense prey populations, especially when appropriate attention is paid to decadence (snags, cavity trees and coarse woody debris)... ." While my letter of Nov. 29 mentioned the importance of creating snags during thinning, I will go into more detail on the need for "decadence" here.

The implications of variable density thinning would seem to be creation of patches of snags (and, ultimately, of down logs) in a mosaic pattern. This is at variance with the uniform spacing of snags and down logs (two per acre) that has been Region 6 policy for years. Uniform spacing has the advantage of creating widespread CWD which is essential for some aspects of tree growth. The Clackamas District will have to decide how it is going to reconcile variable density thinning with the Region 6 standards for snags and down wood.

Serious consideration should be given to felling one large tree per acre to be left as coarse woody debris in heavily thinned areas. While there is currently a considerable amount of CWD left from the initial entry, this will decline over time. Less CWD means less substrate for the development of the mychorrizal fungi which are important symbiants with tree roots in uptake of nutrients and moisture. Less fungi habitat means less fungi, which translates into poorer tree growth. Prudent management requires that there be either steady recruitment of fungi substrate or occasional large flushes of it. Logging removes potential fungi substrate, ultimately reducing or eliminating fungi substrate, and thus fungi, from a site unless provision is made for keeping it. Thus a portion of each rotation's volume must be returned to the forest floor for fungi substrate.

Under historic conditions there appear to have been large pulses of CWD caused by disturbance events. To mimic these pulses as part of timber management would require long rotations with a fairly large percentage of the final cut (15%?) being left on the ground. An alternative would be to use periodic thinning over long rotations to maintain a more or less uniformly spaced and constant level of CWD. The latter practice seems more prudent under the current timber management regime if for no other reason than the difficulty in planting trees amidst a high volume of CWD.

Creation of snags will provide CWD ultimately. But variable density thinning promises to concentrate snags in some areas, ultimately concentrating CWD there. Leaving one down log per acre after this thinning entry in more heavily thinned areas will prevent those portions of the forest from losing CWD and its benefits. Leaving one snag per acre in heavily thinned places will provide future uniformly spaced CWD. Denser snag patches will occur or can be developed in unthinned or lightly thinned portions of the stand.

It is imperative that this thinning entry result in snags for cavity users such as the flying squirrel. As a vector for the spread of fungi spores, the flying squirrel is an essential component of the system which creates rapid tree growth. They will nest in small cavities and seem to roost in larger ones. You should consider the placement of bird nest boxes as a flying squirrel restoration measure over the next few years before snag cavities become more common. (They might be attached with wooden dowels through holes drilled in the tree trunk rather than with spikes or nails. Or they could be attached to newly created snags which will not become timber.)

In summary we would urge that if the Slip Thinning goes forward it include creation of one snag per acre and one new down log per acre in heavily and moderately thinned areas with creation of two new snags and two new down logs in unthinned or lightly thinned areas, with the understanding there will be natural additions with time in these places. We also urge installation of one small nest box and one large nest box for every two acres as a means of jump-starting an increase in the flying squirrel population.

Thanks for the opportunity to comment.

Sincerely yours,

Dave Corkran, for
Mt. Hood Forest Study Group

130 N.W. 114th Ave.
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Jan. 4, 2005

Jim Rice, Forester
Clackamas River Ranger Station
595 Industrial Way
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Dear Jim,

I have received Jim Roden's E-Mail about Andrei Wykoff's decision to proceed with a Categorical Exclusion for the Slip Thin timber management project. In it you respond to the concerns raised by those who commented on the proposal. Your response to my question as to who would mark the trees for cutting in this sale was "The thinning prescription will be developed by a certified forest silviculturist to implement the proposed action and design criteria and operations will be inspected by trained Forest Service Timber Sale Administrators." Does this mean that a Forest Service employee marks trees according to this prescription, or that the firm that buys the timber marks the trees according to the prescription? If the latter, there is a strong possibility that is illegal. A recent legal case voided a Biscuit Fire salvage logging contract because it gave the purchaser the power to choose the trees to be marked and cut. Purchasers resent supervision, but if left unsupervised are prone to temptation. That is why FS personnel should mark the trees. I hope any contract for the Slip Thin would provide for Forest Service employees to mark the trees.

It appears that you have missed a great opportunity to apply variable density thinning in the way envisioned by Andrew Carey and by the contributors to Kohm's and Franklin's Creating a Forestry for the 21st Century. That vision promotes diversity, resilience after the inevitable catastrophic fire, wind storm or insect outbreak and helps endangered species at the same time it fulfills the goal of sustained timber production for which B-8 lands were intended. It is probable that if you adopted that vision that you could dispel the ill-will apparent in the comments on the proposed action at the same time you met timber management requirements of the Forest Plan. I think you missed a win-win situation here. This still might be rectified with a thinning prescription which calls for larger openings (one quarter to one half acre?) in eight or ten places and no cutting in eight or ten plots of one quarter to one half acre. The rest of the ground could be covered by the proposed prescription. You could plant the openings with DF, WH and WRC. The alders and vine maple will come in naturally. Or cut out the root-rot patches and plant alder. You get the same timber volume and logging costs are a little lower. Diversity becomes greater, logging costs are lower, endangered species habitat is enhanced, long term forest resilience after disaster is more likely. Everyone wins. On your next thinning project under similar conditions I will urge this vision on you further.

Dave Corkran