



Adequate Reforestation 50

Reforestation was completed on 212 acres in 2003. A diversity of tree species was planted. On Mount St. Helens and Mt. Adams Districts portions of the Gage and Page I sale were planted. About 80 acres in total were planted. The dominant species planted was noble fir, but western white pine, Douglas-fir, and western redcedar were also added to increase overall species diversity. On the Cowlitz Valley District 86 acres were planted. The predominant species planted were western white pine and Douglas-fir. White pine was planted on the north end of the Forest not only to increase species diversity but also to minimize the impacts of *Phellinus* root disease on site productivity.

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On the drier portion of the Forest within and adjacent to the Gotchen area, approximately 45 acres were planted to respond to initial planting needs and the replanting of units that were affected by last years drought, or that have been hard hit the past year from gopher activity. Species planted were generally western larch and ponderosa pine. These species were planted to increase the component of early seral species that are not susceptible to defoliation from insects such as the western spruce budworm. Ponderosa pine was also planted as a future source for large diameter trees since many have died due increased stress from high stocking levels. Increased drought has resulted in mortality from insects such as the western pine beetle. Others were removed through past harvest. Survival of these two species was about 65 percent. The main reasons for mortality on seedlings were dry site and the gophers damage.

93 percent of the 3 year-old plantations had satisfactory stocking.

Gopher control was implemented on a portion of the acres planted in 2003 within the Gotchen area to minimize damage to planted seedlings, and to assure adequate stocking during the establishment of these plantations. Additional acres were also treated on previously planted areas. A total of 45 acres were treated.

Monitoring of 3-year old plantations on the Forest found 77 percent survival and satisfactory stocking on 93 percent of the area.

Timber Stand Improvement

Young stand thinning continues to be an emphasis on the Forest. In the Matrix allocation, this program concentrates its efforts generally on plantations with a general goal of reducing conifer stocking to densities that maintain vigorous stand growth, reduce the impacts of insects and disease and maintains thinning options for the future treatments. Within Late Successional Reserves and Riparian Reserves thinning is done for the same reasons, but also to begin to develop structural and diversity characteristics that will assist these stands in reaching habitat goals. Examples include the creation of small openings and removal of conifers from within young hardwood clumps. This year the Forest completed 3,745 acres of young-stand thinning across the Forest.

Young stand thinning continues to be an emphasis on the Forest

Community support for young-stand thinning continues to show in funding awarded for thinning from the Resource Advisory Committee (RAC), both on the



north and the south ends of the Forest. RAC funding accounted for close to 55 percent of the precommercial thinning acre accomplishments. The rest came from a combination of Knutson-Vandenburg Funds and appropriated monies. In addition, 300 acres were accomplished through the stewardship contracting method.

The Forest also completed 250 acres of white pine blister rust pruning. This treatment lessens the impacts of white pine blister rust on white pine within plantations. Because of its resistance to *Phellinus* root rot, white pine was the dominant tree species planted in these units. This treatment is key to assuring survival of white pine, as well as to maintain adequate stocking within these plantations.



Timber Harvest Methods ⁵¹

Table 8 identifies harvesting methods conducted on the Forest in 2003. Ninety-eight acres of commercial thinning was completed. An additional 3,200 cords was harvested as firewood. Acres of firewood harvest were not estimated.

Only 98 acres were harvested in 2003

Table 8. - Timber Harvest Methods

Silvicultural Practice	2003 Acres	NW Forest Plan Projection	Percent of Projection
Clearcut Harvest	0	0	-
Regeneration Harvest	0	1,454	-
Commercial Thinning	98	1,264	8
Salvage	0	N/A	-
Firewood	N/A	N/A	-
Totals	98	2,718 acres	< 4 percent

Figure 9 displays the harvest methods used on the Forest from 1990 to 2003. This clearly shows the dramatic reduction in clearcut harvest early in the 1990s.

Figure 9 also shows that the last clearcuts on the Forest were harvested in 1995. Since 1995, the first year Northwest Forest Plan was in effect, about a third the Plan projection of 2,700 acres per year has been harvested on average.

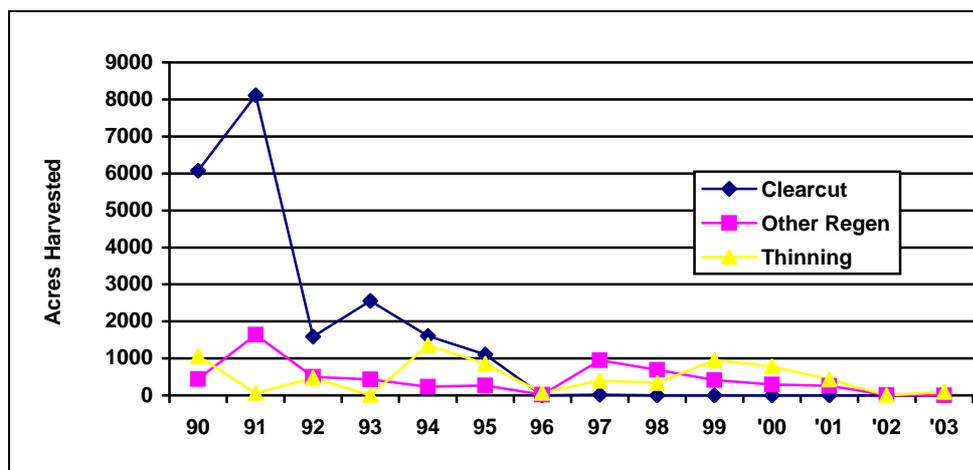


Figure 9. - Historical Harvest by Method



Regeneration Harvest Units Size ⁵² 

No NEPA decisions were signed in 2003 for sales that included regeneration harvest units.

Monitoring regeneration harvest units size determines whether timber sales that had NEPA decisions signed during the fiscal year containing regeneration harvest units meet the objectives of size, separation, and natural appearance defined in the Regional guidelines for timber sale preparation.

During 2003 this item was not applicable because no decisions were signed that contained regeneration units.

Recommended Action To Be Taken:

No corrective action needed, continue monitoring.

Timber Volume Awarded ⁵⁴ 

The 2003 sale goal was 18.5 MMBF (3,560 MCF) of new sales. The Forest exceeded this target. Actual volume awarded from sales in 2003 was 19.2 MMBF of new sales. All of this volume came from thinnings on the Forest.

Table 9. – Volume sold in FY 2003.

Volume Sold MMBF	Volume Sold MCF	Projected Volume MMBF	Volume Goal MCF	Percent of Projection	Remaining MMBF Under Contract
19.2	3,695	18.5	3,560	104%	30

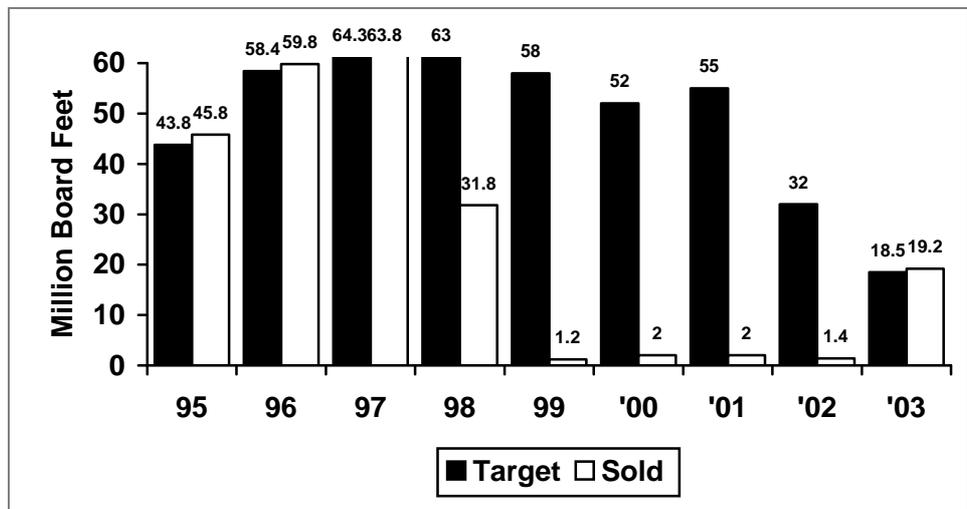


Figure 10. - Target Accomplishment



Silvicultural Prescriptions ⁵⁶

Introduction:

Vegetation management on the Gifford Pinchot is dynamic. It varies based on the current condition of the vegetation and is blended with the goals and objectives identified in the Northwest Forest Plan. The Forest monitors overall condition with a number of tools, including permanent inventory plots and field level inventories that are maintained within a Forest geographic information system. For example, recent analysis of this information has shown that the Forest has an increasing backlog of thinning needs within all allocations. It is estimated that the Forest has approximately 33,000 acres of stands in need of thinning within the 41-80 year old age class, and another 70,000 acres in the 81-120 year old age class. Additionally, the area in and surrounding the Gotchen Late Successional Reserve continues to be an area of significant concern with regard to the effects of continued budworm defoliation and mortality caused by a variety of insects and diseases. The outyear planning program for the Gifford Pinchot will emphasize commercial thinning opportunities as well as reducing the impacts from insect and disease.

The Forest has an increasing backlog of thinning needs.

This year's monitoring program for vegetation management of forested stands looked at two specific areas:

- 1) the thinning of young stands (less than 30 years old), and
- 2) treatments in those older stands (greater than 40 years old) that are in need of thinning or regeneration prescriptions.

Silvicultural prescriptions are the mechanism that takes Forest Plan direction, and the specific requirements identified in NEPA, and implements this direction on the ground. They describe an event or sequence of events that are needed to modify the establishment, composition or growth of forest vegetation including trees, shrubs, grasses, and forbs. Whenever the desired future condition of the forest depends on the manipulation of forest vegetation, a silviculture prescription is prepared that describes the means for achieving the desired conditions. The purpose of this section is to monitor prescriptions to see if they meet objectives.

Results: The Forest thinned 3,745 acres of young stands and awarded timber sales on an additional 1,604 acres of older stands (41-80 years old) for commercial thinning treatments. One sale was monitored within the Late Successional Reserve allocation.

Greenhorn Timber Sale – The Greenhorn timber sale consisted of four commercial thinning units. Greenhorn Unit 3 was monitored in 2003. It was located in the Woods Late Successional Reserve allocation. The overall goals for Unit 3 were to maintain existing forest vigor, increase plant species abundance, and to increase the horizontal and vertical diversity. To do this a mix of treatments were implemented, including a no-harvest treatment on 40 percent of the area, 50 percent with a dispersed retention thinning, and 10 percent in modified group selection with openings no bigger than one-half acre in size.



All objectives were met with the exception of down woody material. Planned down wood level of 240 lineal feet per acre was not met.

There was a concern that thinning could allow an increase in the shrub layer that could make foraging more difficult for species such as the spotted owl.

With the exception of the down wood, the overall results of this thinning were good and met the intent of the prescription. The mix of treatments across the stand appeared to provide a mix of densities that will allow for a variety of horizontal and vertical structure to develop in the future. However, one concern noted within the thinning treatments was the increase in shrub species such as salal and dwarf Oregon grape that reduced overall openings at the forest floor. This can affect the habitat quality of certain wildlife species such as the western spotted owl. With time, canopy closure should reduce this herb/forb/shrub component back to pre-treatment levels while allowing for structure to develop in the lower canopy layers. Given the importance of both the tree canopy structure as well as the degree of openness of the herb/forb/shrub layer, the question was raised as to whether thinning at this intensity will allow the overall stand to reach overall stand habitat goals quicker than a no-thin or lighter thinning treatment, or did thinning to this level only serve to increase tree size at the cost of reducing the forest floor habitat quality.

Recommended Action To Be Taken: Monitoring of these stands should continue over the next 20 years to compare the growth rate of trees planned for in the prescription with the forest floor vegetative condition. The district or forest silviculturist will work with the district wildlife biologist to set up a monitoring protocol that will evaluate this situation.