

NO WHISKY

The Clackamas River Ranger District is conducting an analysis of thinning opportunities in the No Whisky area. The project is located in the North Fork Clackamas and Lower Clackamas River watersheds in T.4S., R.5E.; T.4S., R.6E.; Willamette Meridian.

The Mt. Hood National Forest proposes a commercial thinning project in plantations ranging in age from 40 to 70 years old. The project is located in the western portion of the Clackamas River Ranger District, Mt. Hood National Forest, Oregon.

Background

The No Whisky project area has had a history of logging and wildfire. The area was privately owned and logging began in 1923 using a railroad and steam donkey system. On September 11, 1929 a fire started from overheated railroad brakes and rapidly burned approximately 15,000 acres pushed by an east wind. Much of the burned area was salvage logged and there were other smaller fires that reburned portions of



the area. The land was transferred to the Forest Service in 1930 as part of a settlement for fire damages. The area was eventually replanted and the trees are now approximately 55 to 70 years old. The photo above shows a logging operation that had recently been burned over (smoke obscures the middleground area). The No Whisky Thinning also includes one unburned stand that is a 40-year old plantation.

The photo below is part of a panorama taken from the Bedford Point lookout (near unit 37) on 10/26/33. The left edge is looking south and the right edge is looking east. Units 37 through 40 would be in the foreground on the right side of the photo and units 1 through 13 would be in the middleground area across the North Fork Clackamas River.



Purpose and Need for Action

The purpose of this initiative is to thin and fertilize second-growth forest stands to achieve multiple objectives:

- Maintain health, vigor and growth that results in larger wind firm trees

This action is needed because second-growth stands are at or are near densities that result in a slowing of diameter growth. Some of the stands are overcrowded and are experiencing suppression caused mortality. If no action is taken to reduce stand densities, these stands would experience a reduction in diameter growth, reduced vigor, increased mortality, reduced diversity, and increased wind damage susceptibility. There is a need for forest stands that are healthy and vigorous with low levels of mortality and wind susceptibility.

- Enhance and restore diversity

Managed stands often lack certain elements of diversity. They may not have the mix of tree species that were present in the original stand and they are relatively uniform in terms of tree size and spacing. The stands that have been commercially thinned in the past were treated with prescriptions that promoted homogenous conditions with little vertical or horizontal diversity. This project would use variable density thinning that changes vertical and horizontal stand structure and brings more sunlight to the forest floor.

- Provide forest products

The project would be a commercial thinning that would supply forest products consistent with the Northwest Forest Plan goal of maintaining the stability of local and regional economies. It would result in healthy productive forests that would

sustainably provide forest products in the matrix in the future. Not only are forest products needed by society, but also the employment created is important to local and regional economies.

- Enhance riparian reserves

Riparian reserve stands can be enhanced by thinning to accelerate the development of mature and late-successional stand conditions. If no action is taken in riparian reserves, stands would have reduced capability to produce the size and quantity of coarse woody debris sufficient to sustain physical complexity and stability of the riparian reserves and associated streams.

- Enhance forage for deer and elk

At the landscape level, young stands that once provided high quality forage are rapidly becoming crowded, contributing to a trend of declining forage for deer and elk. If no action is taken, forage would continue to decline across the landscape to the detriment of deer and elk.

The No Whisky Thinning project is located within the following land allocations:
C1 Timber Emphasis and Riparian Reserves.

Watershed Analysis - Most of the project is covered by the North Fork Clackamas River Watershed Analysis (1996). A portion of the project is covered by the Lower Clackamas River Watershed Analysis (1996). Since then, these two watersheds and several others have been combined into one fifth-field watershed called Middle Clackamas.

ALTERNATIVES

Alternative A - No Action

Under the No-action alternative, current management plans would continue to guide management of the area. No timber harvest or other associated actions would be implemented to accomplish project goals.

Alternative B

The action proposed by the Forest Service to meet the purpose and need is to thin and harvest wood fiber from matrix land and the dry upland portion of riparian reserves. Since each stand is different, a silvicultural prescription would be developed to refine the number and types of trees to be retained. Variable density thinning prescriptions would be designed to enhance or restore biological diversity. Thinning would generally

remove the smaller trees, leaving a relative density (RD) of 25 to 35, which is approximately 120 to 150 square feet of basal area per acre.

Riparian - On areas proposed for riparian reserve thinning, the prescription would be adjusted to create conditions suitable for maximum diameter growth and enhance the potential for large wood recruitment. The intention is to enhance riparian reserves by accelerating the development of mature and late-successional stand conditions. Wider spacing would also mean that one thinning entry would create the desired conditions (compared to the matrix thinning spacing where multiple thinning entries would likely occur). Riparian thinning would generally remove the smaller trees, leaving a relative density (RD) of 20 to 35, which is approximately 110 to 150 square feet of basal area per acre. For this project, riparian reserve widths are 180 feet for non-fish-bearing streams and 360 feet for fish-bearing streams. Design criteria discuss no-harvest buffers of approximately 30 to 50 feet along streams.

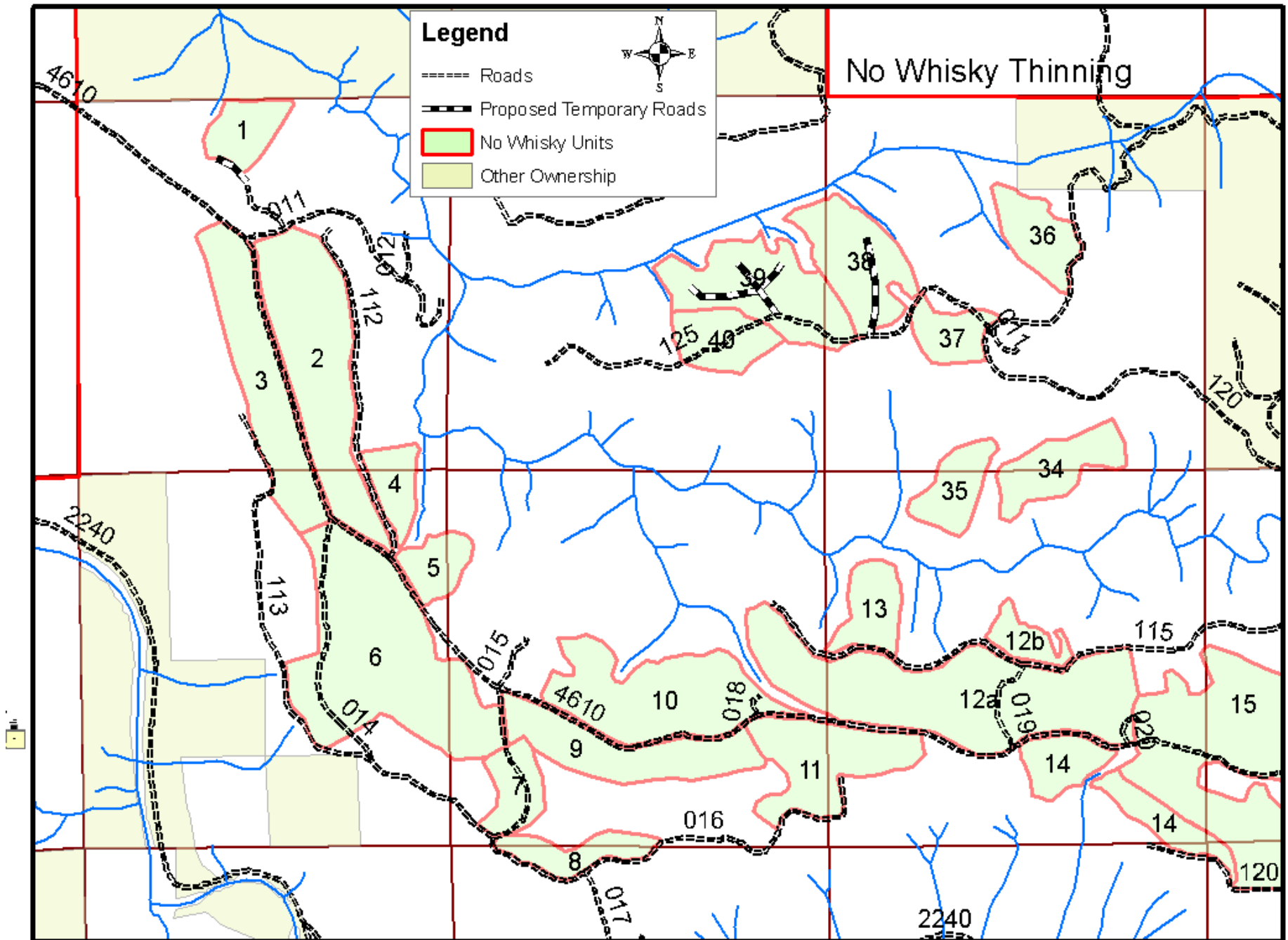
Variability – Thinning would generally remove the smaller trees, but the objective is to introduce structural and biological diversity through variable spaced thinning. Diversity and variability would be introduced in several ways. This list is a summary of practices that are described in the design criteria and elsewhere in this document.

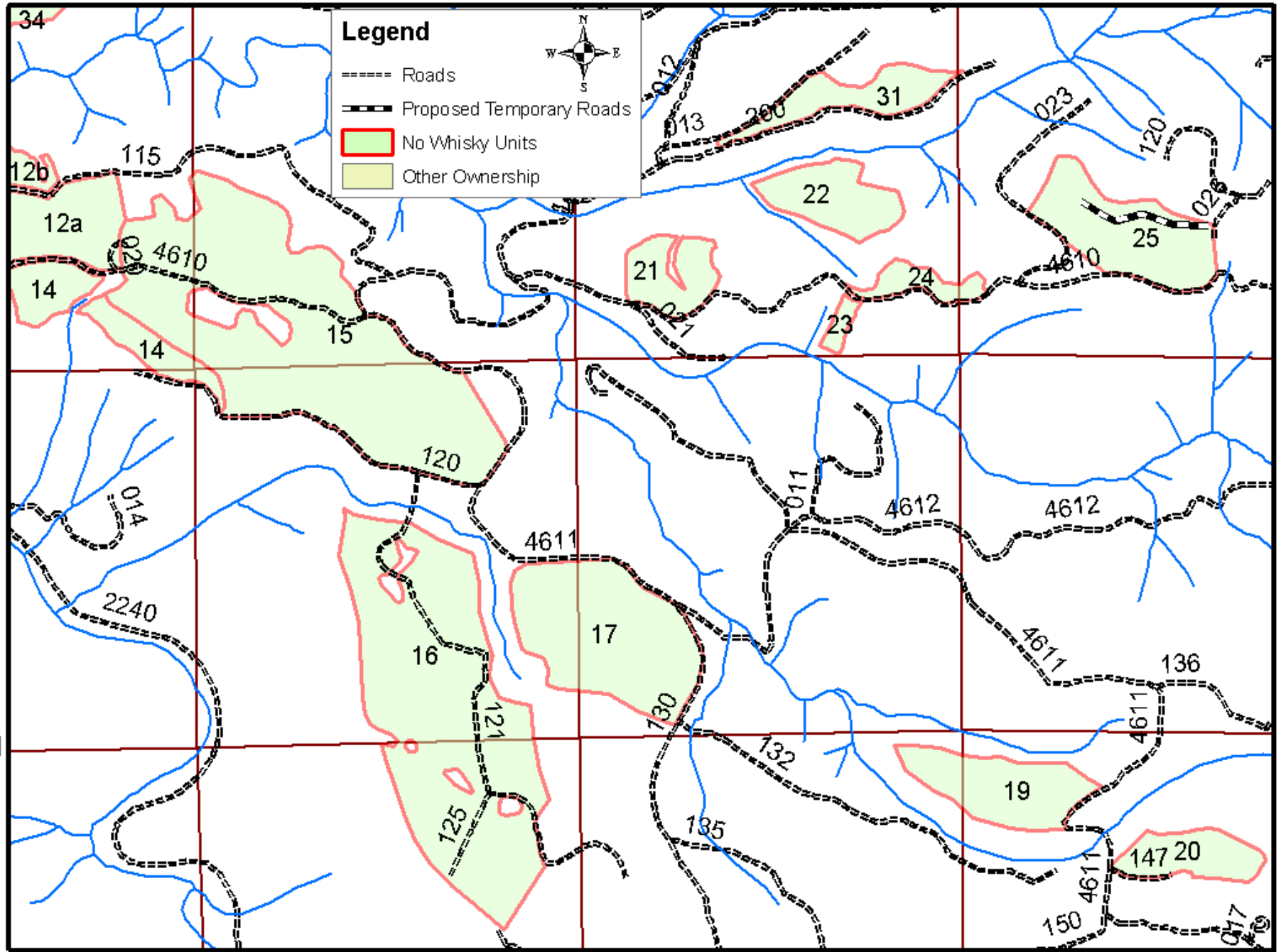
- Leave tree spacing would vary from a relative density of 20 to 35.
- Leave trees would include minor species
- Small skips and gaps would be created
- Leave trees would include trees with the elements of wood decay
- Leave trees would include some live trees where their crowns touch certain key snags
- All non-hazardous snags would be retained
- All existing down logs would be retained and key concentrations of woody debris in the older decay classes would be protected
- Some snags and down logs would be created

Forage - On areas proposed for matrix thinning, certain units were identified as needing increased forage for deer and elk. Where appropriate, a wider leave tree spacing would be used to allow increased sunlight to the forest floor to enhance the growth of palatable plants.

Roads - New temporary roads (1.5 miles) are needed to access the landings. These roads would be obliterated and revegetated after completion of the project.

Fertilization - The proposed action is to aerially apply 200 pounds of nitrogen per acre within the matrix.





Unit Table

Unit	Acres	Ground Based	Skyline	Helicopter
1	19		19	
2	85	85		
3	62	62		
4	16		16	
5	16	16		
6	125	125		
7	19	19		
8	19	19		
9	47	47		
10	72	72		
11	48	48		
12a	128	128		
12b	12		12	
13	21		21	
14	36		18	18
15	242	242		
16	211	211		
17	95	95		
19	45	45		
20	26	26		
21	25	17	8	
22	33			33
23	5		5	
24	13	3	10	
25	58	8	50	
31	29	15	14	
34	28			28
35	21			21
36	24	24		
37	17	17		
38	43	13	30	
39	56	28	28	
40	24	24		
	1720	1389	231	100

Alternative C

Alternative C would be similar to B except that no roads would be constructed. Helicopter or other systems would be used where needed.

Design Criteria

Snags, wildlife trees, skips and gaps: To enhance and restore diversity, variable density thinning would include the retention of snags and wildlife trees and the creation of skips and gaps.

- Snags would be retained in all units where safety permits.
- To increase the likelihood that snags would be retained, green trees would be marked as leave trees where their live crowns touch certain key snags.
- Certain live trees would also be selected as leave trees that have the “elements of wood decay” as described in the DecAid advisor. This may include trees with features such as dead tops, broken tops and heart rot. Five live trees per acre with “elements of wood decay” would be retained where available. They should be in the largest size class available.
- Gaps would be created by skyline corridors. Some natural root rot gaps are present.
- Skips would be created by leaving small portions of the units un-thinned. They would be centered around special microhabitat sites where available such as snags, wildlife trees, concentrations of large down wood, patches of deciduous shrubs, small seeps and springs, or uncommon tree species. Skips in riparian reserves would be up to 1/5 acre in size and would occur on up to 10% of the area in riparian reserves. Fewer and smaller skips would be placed in matrix.

Down Woody Debris: Old down logs currently on the forest floor would be retained. Prior to harvest, contract administrators would approve skid trail and skyline locations in areas that would avoid disturbing key concentrations of down logs or large individual down logs where possible. Additional down woody debris would be generated by the timber sale. This would include the retention of cull logs, tree tops, broken logs and any snags that would be felled for safety reasons.

Thinning in Riparian Reserves

Perennial streams - Establish a minimum 50 ft. no-harvest buffer along the active channel of all perennial streams. Larger buffer widths may be needed on a site-specific basis to prevent any increase in sediment delivery rates or a decrease in stream shading. Buffer width design would take into account the stream influence zone, steepness of slope, size and location of trees, orientation of the site to the sun (aspect), slope stability, and stream bank stability. Falling trees for skyline corridors would be avoided, but where necessary the material would be left as woody debris. Falling any trees within the no-harvest buffer would only be allowed if it would cause no increase to sediment or decrease in stream shading.

Intermittent streams (as defined in NWP) – Establish a minimum 30 ft. no-harvest buffer along the active channel of all intermittent streams. Smaller buffer widths would be allowed if it is determined on a site specific basis that there would be no increase in sediment delivery rates or a decrease in stream shading

which would alter stream temperatures. Buffer width design would take into account the stream influence zone, steepness of slope, size and location of trees, orientation of the site to the sun (aspect), slope stability, and stream bank stability. Falling trees or any equipment use within the no-harvest buffer would only be allowed if it would cause no increase to sediment or decrease in stream shading.

Within 50 feet of perennial or intermittent stream no-harvest buffers, only low impact harvesting equipment such as, but not limited to, mechanical harvesters or skyline systems, which have minimal ground disturbance would be allowed. Mechanical harvesting equipment would be required to operate on slash-covered paths. Trees in this zone would be directionally felled away from the no-harvest buffer to minimize the disturbance to the forest floor. These requirements would maintain the indicators for sediment, stream temperature, stream bank condition, and large woody material indicators.

Thinning in riparian reserves would emphasize the development of vegetative and structural diversity associated with mature and old-growth stand conditions. Thinning would leave approximately 80 or more trees per acre. While thinning in the riparian reserve may have short-term effects, the thinning would contribute to maintaining or restoring the fifth-field watershed over the long term. Thinning in riparian reserves would increase tree size, adequately protect the zone of shade influence along streams, and minimize the potential for sediment delivery to streams. This prescription would maintain water temperature, large woody debris, disturbance regime, and riparian reserve indicators.

Logging Systems

Avoid the use of ground based tractors or skidders on slopes generally greater than 30% and mechanical harvesters on slopes greater than 40% because of the risk of damage to soil and water resources.

Mechanical harvesters and forwarders would be required to work on a layer of residual slash and the operator would place slash in the harvester path prior to advancing the equipment.

In some units, ground-based logging is proposed for areas that have been previously harvested with ground-based systems. Existing temporary roads, landings and skid trails would generally be reused where feasible. There may be instances where it is not desirable to use an existing skid trail and in such cases, if a skid trail is needed in the area, a new skid trail would be located that minimizes the alteration of surface hydrology.

Where existing detrimental soil conditions exceed Forest Plan standards, existing temporary roads and landings that are reused, would be obliterated and revegetated.

Roads

During the wet season, log haul would only be permitted on asphalt and rock roads when conditions would prevent sediment delivery to streams.

If landings are needed in riparian reserves, they would be located on existing roadways that do not require expansion of the road prism or on existing landings that may require only minimum reconstruction (clearing vegetation, sloping for drainage, or surfacing for erosion control purposes) to be made suitable for use.

The re-opening of old temporary roads is encouraged over the construction of new roads if they are located in areas that would prevent sediment delivery to streams.

Newly constructed roads would not cross or be constructed parallel to stream channels. They would be built on ridge tops, benches, or gentle slopes and only where conditions would prevent sediment delivery to streams.

No road construction is proposed within riparian reserves.

Temporary roads would normally be constructed, used and obliterated in the same operating season. If this is not possible, due to fire season restrictions or other unforeseen delays, the road would be winterized prior to the end of the normal operating season by out-sloping, water-barring, effectively blocking the entrance, seeding, mulching and fertilizing.