

## **GROUND BASED HARVESTING**

This information is intended to help operators, landowners, and the public understand the Oregon Forest Practice rules regarding ground-based harvesting. Forest Practice rules apply to commercial operations on all non-federal forestlands in Oregon. Operators and landowners should pre-plan all forest operations, and are encouraged to work closely with their local forest practices forester (FPF) to make sure that a proposed ground-based harvest operation meets or exceeds the Forest Practices Act (FPA).

### **Purpose and Summary of the Ground-Based Harvesting Rules**

The purpose of the ground-based harvesting rules is to define standards for operations that minimize soil and debris entering streams, and that protect fish and wildlife habitat. Harvesting trees is an important part of forest management, however, such harvesting results in a temporary disturbance to the forest.

Ground-based harvesting rules are organized into the following categories:

- skidding practices;
- landings;
- drainage systems;
- treatment of waste materials;
- harvesting on high risk sites in western Oregon;
- felling;
- removal of slash; and
- ground-based skidding new streams.

The objective of these rules is to minimize impacts on water quality from ground-based harvesting operations.

### **Skidding Practices**

To avoid soil deterioration and to protect water quality, operators are required to design logging methods and use equipment which are appropriate to the given slope, landscape, and soil properties.

Generally, if more than 20 percent of the soils within the harvest area are adversely impacted, the operation is not in compliance. Ground-based skidding should be avoided on unstable, wet, or easily compacted soils and on slopes which exceed 35 percent unless operations can be conducted without damaging soil productivity through soil disturbance, compaction, or erosion.

Skid trails should be located where sidecasting can be minimized and on stable areas to minimize the amount of materials entering streams. Skidding practices should be designed to prevent sediment from entering streams.

Locations which are not stable for skid trails include:

- actively moving landslides;
- high-risk sites in western Oregon;
- all slopes steeper than 70 percent;
- slopes of non-cohesive soils which are greater than 60 percent; and
- slumps or slides.

### **Landings**

Landing size should be as small as possible but big enough to ensure a safe operation. Landings should be located on stable areas that minimize the risk of materials entering waterways. Landings should not be placed in Riparian Management Areas (RMAs). If it is necessary to place a landing in an RMA, an operator must obtain prior approval of the State Forester.

Slash, logs, or other large quantities of forest matter shall not be incorporated into landing fills. Excess material from landing construction should be deposited in stable locations well above the high water level of streams.

### **Drainage Systems**

Operators are required to provide and maintain a drainage system for each landing, skid trail, and fire trail that will control and disperse surface runoff to minimize the risk of sediment entering waterways. Dips, grade reversals, waterbars or other effective water-diversion designs should be constructed into skid trails, landings, and fire trails as needed to minimize soil displacement and to ensure that runoff water is filtered before entering waterways. This drainage system should be in place immediately following completion of the skidding operation and prior to periods when sufficient rainfall and runoff are likely. Avoid impacting water quality by installing drainage systems in landings, skid trails, and fire trails.

### **Treatment of Waste Materials**

Debris, slash, sidecast, and other waste material associated with harvesting shall be left or placed where it does not end up in Oregon's waterways.

Operators are required to:

- stabilize potentially unstable or erodible sidecast material, or exposed soils by pullback, spreading out, seeding, or other effective methods; and

- remove all debris, including machine parts, wire rope, trash, and petroleum product-related waste. This waste includes crankcase oil, oil filters, grease, and oil containers.

### **Harvesting on High-Risk Sites in Western Oregon**

Operators need to obtain prior approval from the State Forester before conducting harvesting operations on high-risk sites in the northwest and southwest Oregon. Written plans required for harvesting on high-risk sites must describe how harvesting operations will be conducted to minimize impacts on soil and water.

### **Felling: Removal of Slash**

Operators are required to fell, buck, and limb trees in ways that minimize disturbance to channels, soils, and retained vegetation in RMAs, streams, lakes, and wetlands. Slash accumulations in channels, significant wetlands, and lakes must be minimized.

Here are some simple guidelines to effectively minimize slash:

- fell conifer trees away from RMAs, streams, lakes, and significant wetlands when possible except trees felled for approved stream-improvement projects;
- use directional felling practices such as jacking, line pulling high stumps, whole tree yarding, or stage cutting on steep slopes to prevent damage to vegetation in RMAs, soils, streams, lakes, and significant wetlands; and
- when hardwood must be felled into or across streams, lakes, or significant wetlands, yard the trees or logs away from water before limbing, and buck and yard the trees to minimize damage to stream beds, banks, and retained vegetation.

Operators must minimize the effects of slash that enters waterways during felling, bucking, limbing, or yarding by:

- removing slash from Type F and D streams, lakes, and significant wetlands within 24 hours;
- not allowing slash to accumulate in Type N streams, lakes, or wetlands in quantities that threaten water quality or increase the potential for mass movement; and
- placing slash above high-water levels where it will not enter waterways.

### **Skidding: Ground-based Equipment near Streams, Lakes, and Wetlands**

Operators shall conduct forest operations in ways that protect and retain required vegetation in RMAs. Disturbances to stream beds and banks, lakes, wetlands, and retained vegetation during ground-based skidding operations must be minimized. Operators can not use ground-based equipment in any stream channel except as allowed in the rules for temporary stream crossings. The number of such crossings shall be kept to a minimum.

*Temporary Crossings:* When crossing streams containing water during an operation, the operator is required to:

- construct temporary crossings, such as log crossings, culvert installations, or fords that are adequate to pass likely stream flows and be designed to withstand erosion by streams and minimize sedimentation;
- choose crossing locations which minimize cuts, fills, or other disturbances to the stream banks;
- minimize the volume of material in any fills constructed at stream crossings. Prior approval by the State Forester of a written plan is required for temporary crossings over 8 feet deep;
- design temporary structures so that fish passage is not impaired; and
- remove all temporary crossings immediately after completion of operations, or prior to seasonal runoff which exceeds the capacity of the structures, whichever comes first.

Removed fill material must be placed where it will not enter stream channels.

Soil that enters channels during yarding must be removed and placed above the high-water mark after the operation is completed, or prior to its being picked up by stream flow, whichever comes first. Sediment barriers such as waterbars and dips on stream-crossing approaches must be built when either the operation is complete or prior to rainy season runoff.

Machine activity within 100 feet of streams, lakes, and wetlands is to be conducted to minimize the amount of exposed soils and the risk of sediment entering stream channels. Skid trails can not be located within 35 feet of Type F or D streams except at stream crossings.

***Ground Based Harvest Unit Chart goes here***

# ODF Field Offices Directory

## Northwest Oregon Area

Astoria District  
Route 1, Box 950  
Astoria, OR 97103  
503-325-5451

Tillamook District  
4907 E. 3rd St.  
Tillamook, OR 97141  
503-842-2545

Forest Grove District  
801 Gales Creek Road  
Forest Grove, OR 97116  
503-357-2191

Clackamas-Marion District  
14995 S. Hwy 211  
Molalla, OR 97038  
503-829-2216

West Oregon District  
25433 Alsea Hwy  
Philomath, OR 97370  
541-929-3266

## Southern Oregon Area

Douglas District  
1758 N.E. Airport Road  
Roseburg, OR 97470  
541-440-3412

Western Lane District  
P.O. Box 157  
Veneta, OR 97847  
541-35-2283

Western Lane District  
P.O. Box 157  
Veneta, OR 97847  
541-35-2283

Linn District  
4690 Hwy 20  
Sweet Home, OR 97386  
541-367-6108

Southwest Oregon District  
5286 Table Rock Road  
Central Point, OR 97502  
541-664-3328

Coos District  
300 5th St., Bay Park  
Coos Bay, OR 97420  
541-267-4136

## Eastern Oregon Area

Central Oregon District  
Route 2, Box 357  
Prineville, OR 97754  
541-447-5658

Klamath-Lake District  
3400 Greensprings Drive  
Klamath Falls, OR 97601  
541-883-5681

Northeast Oregon District  
611 20th St.  
La Grande, OR 97850  
541-963-3168

## Salem Headquarters

2600 State Street  
Salem, OR 97310  
503-945-7470

## ODF on the Internet

For current Oregon forest practice rule information, connect to the Oregon Department of Forestry's Forest Practices Program world wide web page at:

<http://www.odf.state.or.us/forprac.htm/>



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