APPENDIX

APPLICABLE OREGON FOREST PRACTICES RULES

Planning forest operations

629-605-0140: Notification to the state forester — types of operations
629-605-0173: Plans for an alternate practice

Forest practices reforestation rules

629-610-0000: Forest practices reforestation rules
629-610-0010: Forestlands suitable for reforestation
629-610-0020: Reforestation stocking standards
629-610-0030: Natural reforestation methods
629-610-0040: Time allowed for reforestation
629-610-0050: Acceptable species for reforestation and residual stand stocking
629-610-0060: Use of non-native tree species
629-610-0070: Suspension of the reforestation rules
629-610-0080: Revegetation when reforestation is not required
629-610-0090: Exemption from reforestation for land uses not compatible with forest tree cover
629-610-0100: Exemption from reforestation for wildlife food plots

This chapter provides in-depth information about timber harvest systems, as well as resources that can assist forest landowners.

CHAPTER INDEX

COMMON TYPES OF TIMBER HARVEST SYSTEMS

Cutting trees, moving logs to a landing and loading logs for transport to a mill are all part of a timber harvest system, which supplies wood products that everyone uses. Rules are covered in the Harvesting chapter. Advantages differ between timber harvest systems, which are described below. Modifications can make them even more versatile.

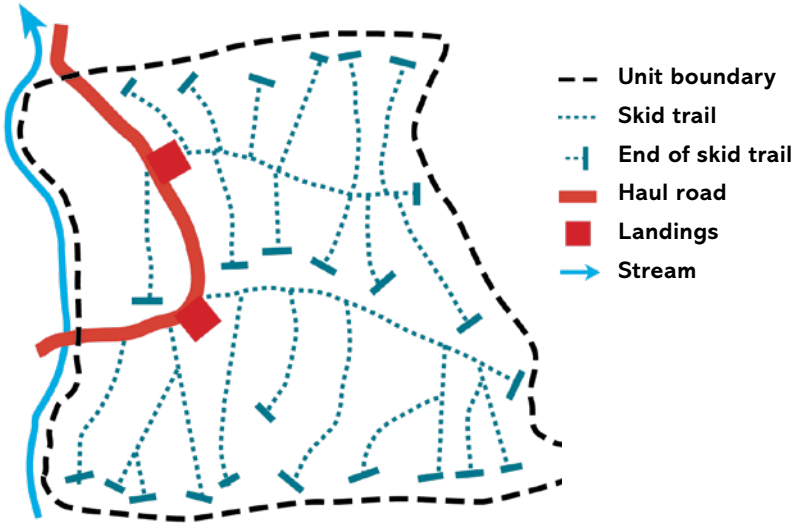
The terrain of the harvest unit will influence which logging system to use. On gentle terrain, tree processors and forwarders, excavators, tractors and skidders, and even horses, can be logical choices. On steep terrain, cable or helicopter logging systems make more sense

The harvest systems

1. conventional chainsaw and tractor/skidder harvest
2. cable logging
3. shovel logging
4. cut-to-length logging
5. whole-tree logging
6. helicopter logging
7. tethered logging

Conventional chainsaw and tractor/skidder harvest

Loggers use hand-operated chainsaws to cut, delimb and buck trees into logs at the stumps. They then use skidders or crawler tractors (dozers) to drag the logs to landings where they are loaded onto trucks.



This is a typical timber harvest layout. Skid trails should be planned and marked in advance. They often follow parallel branching patterns as shown. By winching logs across greater distances, skid trails can be located farther apart, reducing the area of skid trails and soil impacts from vehicle traffic.

A conventional timber harvest uses chainsaws for tree felling, limbing and bucking.

Advantages

- adaptable to smaller harvest locations
- generally uses less costly equipment

Equipment used

- chainsaw
- log skidder or crawler tractor (dozer)
- log loader or self-loading log truck

Topography considerations

- normally restricted to slopes less than 35%
- haul roads usually located at the bottom of the logging unit

Soil considerations

- use of designated skid trails keeps machines on planned routes to help reduce soil disturbance
- on weaker soils, heavy traffic may result in trail ruts that require more water bars after logging
- soil disturbance can be reduced with widely spaced trails and pulling a winch line farther to logs – synthetic lines and other equipment features can make this task easier
- tractors and skidders should lift the front end of logs to reduce soil gouging

Forest stand considerations

- provides flexibility with a variety of stand management goals

Slash disposal considerations

- lop-and-scatter possible with light accumulations of slash
- pile and burn is an option but requires additional steps and costs
- chipping and biomass energy use may be possible

Reforestation considerations

- yarding traffic or post-logging treatment can scarify ground and create areas for natural tree regeneration or hand-planting
- some advance regeneration may be lost or damaged by vehicle traffic

Economic considerations

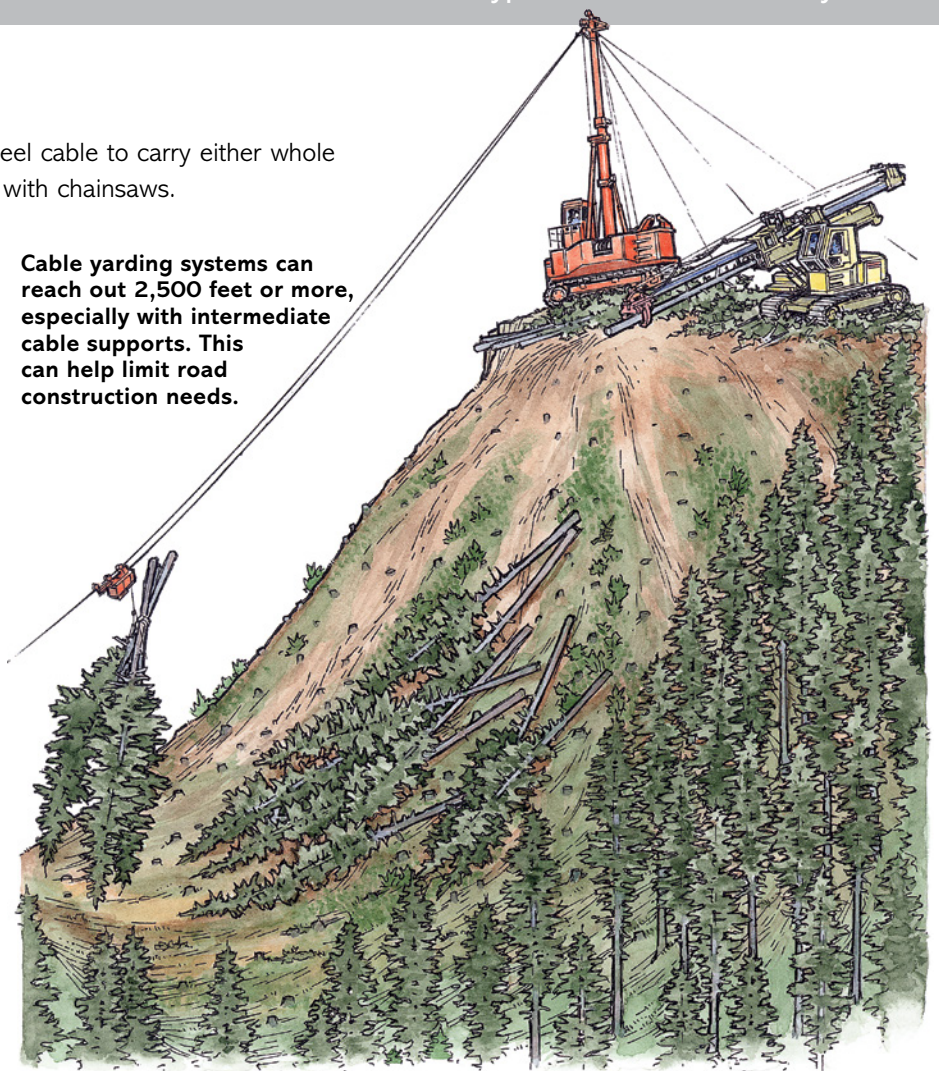
- often more labor intensive
- generally, more roads are necessary
- least expensive method if road construction is not needed or is budgeted separately

Skidders or dozers drag logs from the forest to the log landing. To reduce soil disturbance, rubber-tired skidders or crawler tractors should be kept on skid trails. Winch line and chokers pull logs to the machine.

At the landing, a log loader moves logs onto trucks for delivery to the mill.

Cable logging

On steep terrain, this logging system uses a steel cable to carry either whole trees or logs to a landing after trees are felled with chainsaws.



Cable yarding systems can reach out 2,500 feet or more, especially with intermediate cable supports. This can help limit road construction needs.

Advantages

- allows for harvesting on steep ground and other sensitive terrain
- eliminates the need for skid trails
- can reduce road construction needs
- can reduce need to build roads in less favorable locations

Equipment used

- chainsaw
- cable yarder
- delimber and log loader

Topography considerations

- well suited for slopes of 35% and greater
- concave slopes allow more cable deflection and greater system efficiency
- intermediate supports allow for log lift in uneven terrain
- haul roads usually located at the top of the logging unit

Soil considerations

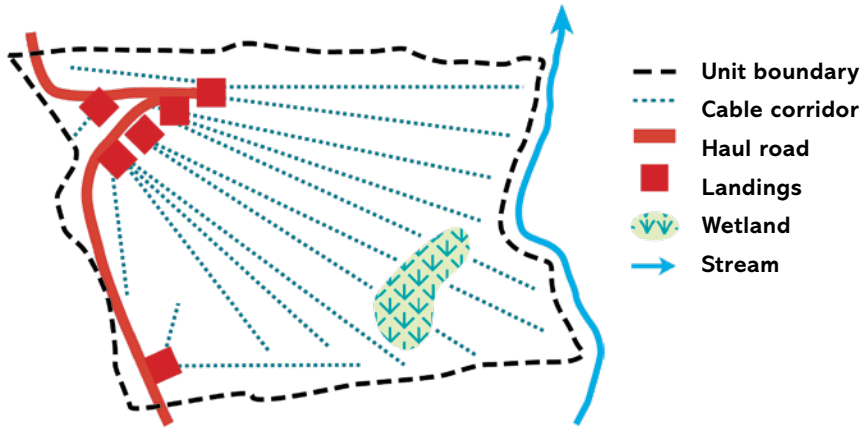
- can significantly reduce soil compaction and disturbance if logs are properly lifted
- heavy equipment is confined to roads and landings

Forest stand considerations

- primarily used with clearcuts and some partial cuts
- a more difficult method for thinning, with potential to damage residual stems

Slash disposal considerations

- if whole trees are brought to the landing, in-unit slash is minimized
- heavy slash piles at the landing must be treated or used
- if whole tree yarding is not used, prescribed burning of slash may be needed (see the Site Preparation chapter)



This is a typical cable harvest layout. Generally, logs are pulled uphill, but can also be moved downhill. With a strategic layout, logs can be lifted over perennial streams and canyons (see the Harvesting chapter).

Reforestation considerations

- may expose fewer spots making planting or natural seeding easier
- brush control needs also may be greater when scarification is reduced

Economic considerations

- can be more costly and specialized than ground-based systems
- small-scale systems can be competitive in some situations

Shovel logging

This ground-based harvest system uses a log loader (also called a shovel) to move logs rather than a skidder, tractor or forwarder. The shovel moves logs across the unit to locations near the road where they can be loaded onto log trucks. Logs are often picked up and moved ("swung") several times before reaching the road.

Advantages

- requires few people and machines
- few or no skid trails needed; existing roads may be adequate
- brush can be piled during harvest operations.

Equipment used

- chainsaw
- tracked excavator equipped with a grapple to grip and move logs

Topography considerations

- limited by slope due to machine instability on steep hillsides
- may allow for harvest of some sensitive areas, with less disturbance than other logging systems

Soil considerations

- less compaction and disturbance if machine passes are limited

Forest stand considerations

- used primarily in clearcuts or partial cuts
- requires clearing of roadsides for log decks

Slash disposal considerations

- while moving logs, the excavator can pile heavy concentrations of slash for burning, chipping or other uses

Reforestation considerations

- while, or after moving logs or slash, the excavator can prepare the site for planting or seeding

Economic considerations

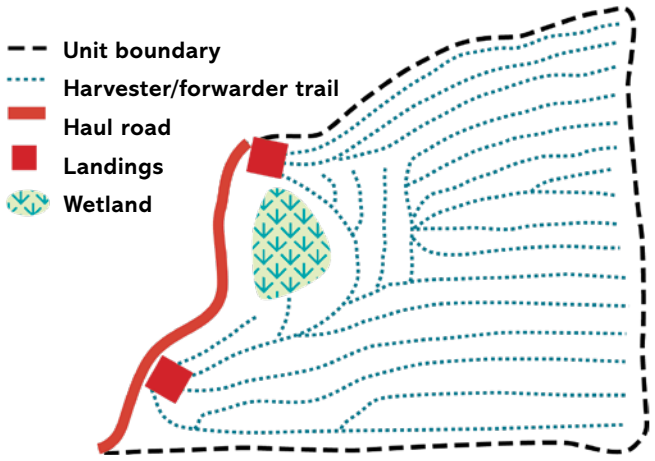
- small crew size
- one machine for multiple tasks can reduce costs
- efficiency improves with shorter yarding distances

Shovel logging starts at the nearest access point and moves logs until they are within reach of the road. From there, they can be loaded onto trucks.

Excavators equipped with grapples are common choices for handling logs and doing other useful tasks during shovel logging.

Cut-to-length logging

This ground-based system uses a mechanized harvester (tree processor) and a forwarder. The harvester severs, de-limbs and cuts each tree into logs and stacks them in the forest. The forwarder follows, picking up the logs and carrying loads to log trucks. It is also called a harvester-forwarder system.



This is a typical cut-to-length timber harvest unit layout. The designated harvester or forwarder trails are about 60 feet apart and often follow parallel patterns across the harvest units.

Advantages

- leaves slash (tree branches and tops) in the forest
- reduces the need for log landings and access roads

Equipment used

- harvester or processor (tracked or wheeled)
- forwarder (often wheeled)

Topography considerations

- normally limited to slopes less than 35%

Soil considerations

- can reduce compaction and disturbance, especially if the processor moves over duff and slash and if forwarders stay on slash-covered, designated skid trails
- slash left in the harvest unit will recycle nutrients and organic matter

Forest stand considerations

- an efficient method for commercial thinning
- typically used to move short logs out of the forest rather than long logs
- processor efficiency in dense stands is useful for forest health and fuel reduction treatments

Slash disposal considerations

- by traveling over and compacting the slash, the system can reduce wildfire hazards and may meet slash hazard control requirements with no further treatment
- equipment can be used for slash piling for burning, chipping or other uses

Reforestation considerations

- common for thinning where residual stocking does not trigger reforestation requirements
- if used for heavier cuts and slash loads, extra steps could create spots for tree planting or seeding

Economic considerations

- may not require new or improved roads
- relatively expensive and requires specialized machinery and skilled operators
- may require larger volumes or higher quality timber to improve efficiency

A single grip processor can reach out 30 feet, cut a tree, strip the limbs, cut the trunk into pre-programmed lengths and lay the logs on the ground, all in less than a minute. Ideally, these machines travel over the treetops and limbs they drop on the ground, minimizing disturbance.

A forwarder follows the harvester, picking up logs and delivering them to log trucks. They can travel long distances, reducing the need for logging roads.

Logs are offloaded from the forwarder directly onto log trucks.

A feller-buncher severs trees and lays them in bunches with limbs and tops attached. These bunches are oriented with tree trunks facing downhill.

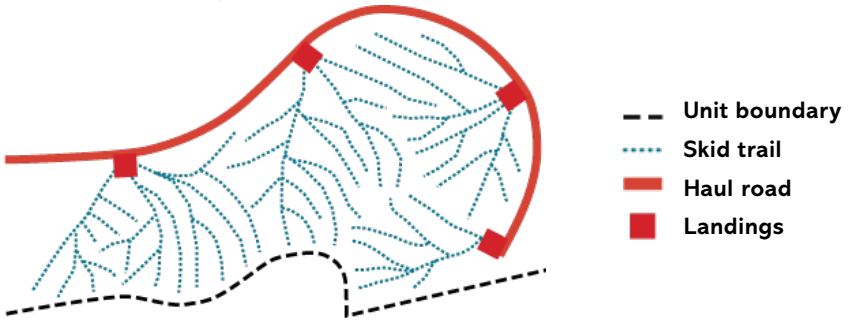
A crawler tractor or skidder with a grapple picks up the bunched trees and drags them to a landing or roadside. Some grapples can swing 180 degrees, making it easier to operate in tight spaces.

The stroke-boom de-limber operates at the landing or roadside, removing tree limbs and tops, cutting the stem into logs and stacking them.

The loader serves two needs: loading trucks and piling tops, branches and log chunks for later burning, chipping or other uses.

Whole-tree logging

This timber harvest system brings the entire tree to the landing or roadside. It can be used for both ground-based and cable applications. When used in ground applications, a feller-buncher often cuts and piles trees in the forest. Then a tractor or skidder drags the tree bundles to the landing or roadside. Finally, a de-limber converts the trees into logs.



This is a typical whole-tree timber harvest layout. The feller-buncher and grapple skidder travel over most of the unit. Confining multiple trips to primary skid trails can reduce soil disturbance.

Advantages

- can be relatively efficient, including use of smaller woody material
- slash is brought to the landing or roadside where it can be burned, chipped or otherwise used

Equipment used

- feller-buncher
- crawler tractor or skidder with grapple
- stroke-boom de-limber
- log loader

Topography considerations

- normally limited to slopes less than 35%
- with ground-based harvest, haul roads are usually at the bottom of the logging area

Soil considerations

- vehicles travel over a larger portion of the area as they cut, stack, gather and drag whole trees
- potential for more soil disturbance and compaction than other ground-based systems
- removal of tops and limbs does not recycle nutrients and organic matter near its source

Forest stand considerations

- efficient harvest and stand conversion when clearcutting
- can be used when thinning, but damage to remaining trees can be a problem

Slash disposal considerations

- slash can be piled and later burned, chipped or otherwise used
- slash returned to the harvest area can recycle nutrients and organic matter (see the Site Preparation chapter)

Reforestation considerations

- widespread traffic and large tree bundles may damage advance forest regeneration
- dragging tree bundles can expose areas for tree planting or seeding

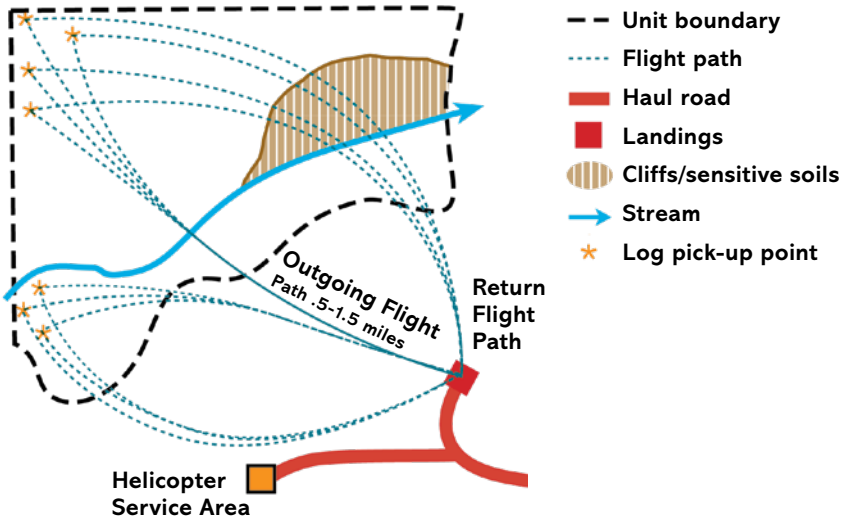
Economic considerations

- costs can increase on steeper ground or with longer skid distances
- bunching trees can help reduce the cost of handling small diameter trees.

Helicopter logging

This timber harvest system was once used exclusively for large, high-value timber. Though helicopter harvest remains a higher-cost alternative, it can be used for smaller logs when timber volumes and quality are adequate.

Typical harvest layout



This logging helicopter has a payload capacity of 6,000 pounds. Flight distances are kept to one-half to 1.5 miles. Longer distances are more costly. Planning to achieve optimum payloads of timber for each trip helps make helicopter logging operation pencil out

Advantages

- can harvest visually sensitive, inaccessible or other areas where other logging systems are unsuitable
- useful option for locations with high recreational use, special wildlife habitat, riparian areas, wetlands or geologic hazards
- may reduce or avoid new road construction, including in hazardous or sensitive locations

Equipment used

- chainsaw
- logging helicopter
- helicopter maintenance and fueling equipment
- log loader

Topography considerations

- can be used on any type of terrain with suitable landing and helicopter service area locations (i.e., adequate size, safety and efficiency)

Soil considerations

- minimizes in-unit soil disturbance and compaction because logs are fully suspended
- large landings and service areas may require extra drainage or other treatment

Forest stand considerations

- offers an efficient but costly method for commercial thinning
- large landings and service areas can locally impact forest stands

Slash disposal considerations

- lop-and-scatter methods typically are used to reduce fire hazards
- if further treatment is needed, it can be costly where road access is limited

Reforestation considerations

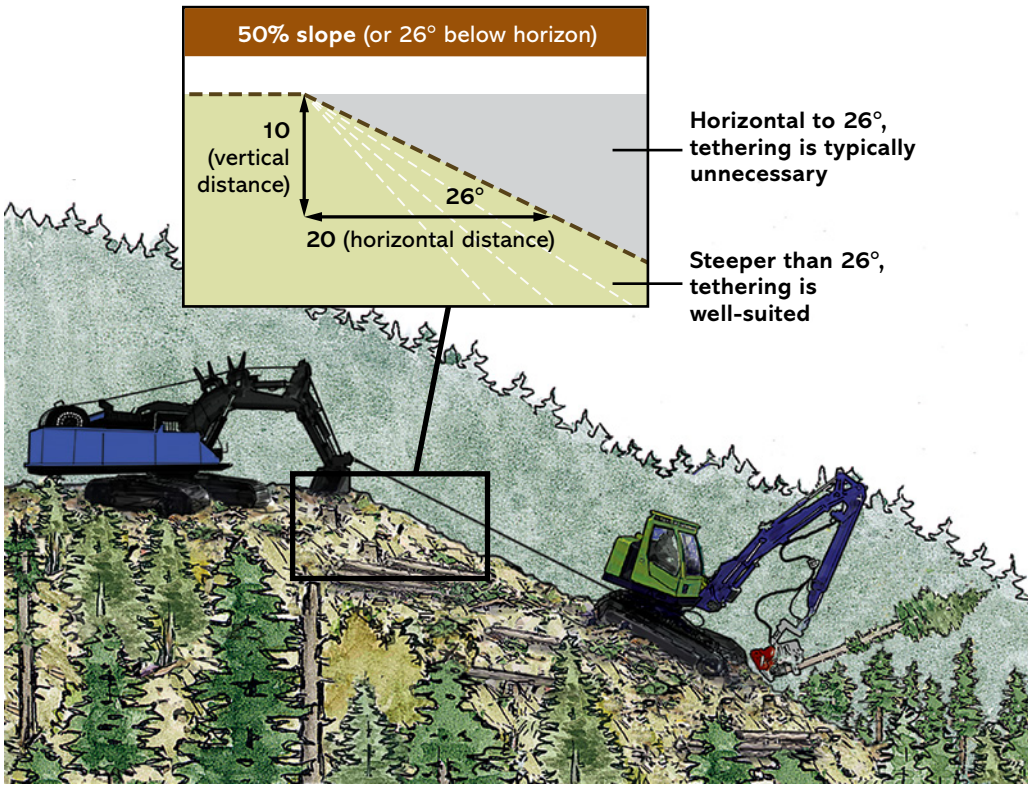
- slash left on-site and limited yarding disturbance result in fewer exposed spots for easy tree planting or natural seeding

Economic considerations

- typically the most expensive logging system
- equipment and crew needs can result in costs three to four times those of ground-based systems
- reduced road construction needs may help offset high costs
- without adequate volume of higher value logs, the harvest costs may exceed timber revenues

Tethered logging

This system uses two machines to efficiently cut and harvest trees on steep slopes: the tethering machine, which generally stays at the roadside, and the tethered machine that operates down the slope. The two machines are tied together by one or two winch cables. The tethering machine provides traction and stability assistance to the tethered machine that works on the slope.



Advantages

- allows for pre-bunching of felled timber, making easier for choker setting or bunched for grapple logging.
- increases the safety and production of the cable logging rigging crews
- replaces the use of timber fallers in steep terrain

Equipment used

- tethering machine
- self-leveling feller / buncher or skidder
- cable yarder with either a rigging crew or grapple yarding system

Topography considerations

- well-suited for slopes in excess of 50%
- generally limited to length of cable on the tethering machine, which is typically 1200' from roadside

Soil considerations

- recent studies show minimal soil impacts
- best used in loose soils or loose rock conditions
- difficult to operate on solid rock

Forest stand considerations

- primarily used in clearcut operations
- cannot fall oversize timber or work in excessively steep terrain

Slash disposal considerations

- sets up cable logging for a whole tree operation
- slash generally accumulates at the landing site, and it must be treated or used

Reforestation considerations

- whole tree logging generally removes the majority of the slash from the unit making tree planting easier

Economic considerations

- tethering system cost is higher than traditional hand falling
- reduces cable logging operating costs by pre-bunching the felled timber

CHOOSING LOGGING CONTRACTORS

These guidelines are based on information published in October 2017 by the Oregon State University Forestry & Natural Resources Extension Program. Authors: Tamara Cushing and Steve Bowers.

Choosing a logging contractor to harvest timber on your land is an important decision. Take time to select the right person for your property and your particular project.

Some of the decision making is tailored to each landowner's situation. There are some key questions about the contractor's ability to handle your specific issues that you should ask.

The questions below are not the only questions that could be asked and should not replace trusted relationships or "gut feelings." They are meant to help think through what to ask and what the contractors' responses mean.

Key questions to ask potential logging contractors

WHAT ARE YOUR QUALIFICATIONS?

Logging mistakes can be irreversible. Make sure to find a logging contractor who is appropriate for the type of work that needs to get done.

In Oregon, look for a qualified logging professional who participates in continuing education programs and keeps abreast of current forest and business regulations governing timber harvest operations in the state. Visit **oregonloggers.org/OPLDirectory** for a list of qualified logging professionals.

WHAT SERVICES DO YOU PROVIDE?

Some loggers only conduct regeneration timber harvests, while others work on both thinning and regeneration harvests.

Determine whether a contractor can address other project needs, such as log sales, harvest plans, road construction or maintenance, slash treatment, erosion control, reforestation, permitting and forest product harvest taxes.

HOW WILL I BE CHARGED FOR YOUR SERVICES?

There can be several different answers to this question. It's important to know upfront whether the charge will be on a percentage or dollar-per-unit basis. The landowner and contractor must agree on what services are included in agreed prices.

WHAT IS INCLUDED IN THE LOGGING PRICE?

It is very important to understand exactly what services will be delivered, when those services will happen and whether the services you require are included in the agreed price. The landowner and the contractor will need to agree on who is responsible (both financially and operationally) for any road improvements, installation of culverts, slash disposal, etc. Be sure to specifically agree that the price includes log trucking.

DO YOU DO ALL THE WORK YOURSELF, OR IS SOME OF IT SUBCONTRACTED?

It is normal for a logger to subcontract aspects of the timber harvest project. Find out if this is planned, and understand how the logger will manage subcontractors. It is also important that to know who is in charge, so you have a single a contact for the logging project.

DO YOU HAVE THE APPROPRIATE INSURANCE COVERAGE?

If something were to go wrong during the logging operation, both the landowner and the contractor need to be protected financially. Loggers should have sufficient insurance coverage for property damage and liability (including woods broadform liability, vehicle liability and workers' compensation). Ask to see certificates of coverage before signing a contract.

DO YOU USE A STANDARD WRITTEN CONTRACT?

Some people may operate without a written contract when there is an experienced relationship between contractor and landowner. However, it is best to have a written contract that specifies the responsibilities of both parties in the transaction. The contract is legally binding and protects both parties from painful misunderstandings and costly disputes.

IF I'M THINNING, HOW WILL YOU DETERMINE WHAT TREES TO CUT AND WHAT TREES TO PROTECT?

Both parties must agree in advance on how to determine what trees will be cut and which trees should be left standing. In thinning operations, some incidental damage to leave trees may occur. A logger should be able to discuss methods to minimize damage to the leave trees. Establish a specific measurement. For example, "Residual damage to trees will not surpass 5%." Stipulate in the contract any fines that will be charged if and when tree damage exceeds that level.

Establish realistic expectations

The landowner and logger should have frank discussions and clear agreements about the expectations of logging project results. Family forest landowners may have unrealistic expectations that conflict with the realities of logging capabilities. Logging small tracts is more expensive, time-consuming and difficult than larger commercial logging projects. Because managing a logging project is so complex, a family forest landowner may want to seek special assistance from either:

- a logging contractor whose experience is tailored to small projects or
- a forestry consultant who can plan and facilitate all contracted arrangements

Where to look for a logger

The list of individuals and firms who can handle family forest logging needs is constantly changing. Ways to find a list of potential loggers include:

- ask other landowners who they work with and trust.
  - > Oregon Small Woodlands Association: **oswa.org**
  - > Oregon Tree Farm System: **otfs.org**
- ask a forester.
  - > Society of American Foresters: **safnet.org**
  - > Association of Consulting Foresters: **acf-foresters.org**
  - > Oregon Department of Forestry: **oregon.gov/ODF/Working/Pages/FindAForester.aspx**
  - > Oregon State University Extension Service: **directory.forestry.oregonstate.edu**
- ask log buyers at local timber mills.
  - > Oregon State University Forest Industries Directory: **orforestdirectory.com**
  - > Associated Oregon Loggers, Inc.'s directory of qualified logging contractors: **oregonloggers.org/OPLDirectory**

Helpful resources

See these publications for more information about timber harvesting operations for your family forest:

- Contracts for Woodland Owners (EC 1192): **catalog.extension.oregonstate.edu/ec1192**
- Small-Scale Harvesting for Woodland Owners (EM 9129): **catalog.extension.oregonstate.edu/em9129**
- Timber Harvesting Options for Woodland Owners (EC 1582): **catalog.extension.oregonstate.edu/ec1582**
- Oregon Forest Resources Institute: **KnowYourForest.org**

CHOOSING A CHEMICAL APPLICATOR

These guidelines are based on information published in October 2017 by the Oregon State University Forestry & Natural Resources Extension Program.
Author: Brad Withrow-Robinson

Many family forest landowners depend on professional operators to help get things done on their property. This often includes the important task of weed control. Finding the right person for the job is important. Finding the right person starts with knowing what to look for when hiring.

Like most forestry practices, weed control is actually a mix of different activities. When hiring a chemical applicator, look for someone with the right mix of knowledge, skill, equipment and staff needed for the job.

It's important to get this right. Weed control is a very important step. Poor work can waste money or injure trees. Even worse, it could mean damaging the environment or neighboring crops, creating liability issues.

Choosing a chemical applicator boils down to communicating about your needs and expectations. Here are some key questions and specific things to talk about before hiring an applicator:

Key questions to ask potential applicators

WHAT ARE YOUR QUALIFICATIONS?

Before hiring anyone to apply chemicals, know that they are qualified to do the job well, and that they will do so legally, safely and without creating liability.

- Ask to see their commercial and/or consulting applicator's license and proof of business insurance. Are their license and insurance valid and current?
- Ask about the level of insurance they carry if that is appropriate for the specific job. Some applicators may be willing to list you as "additionally insured" on their insurance policy.
- Ask about their forestry application experience. Who have they worked for? What types of chemical application have they done? Will they provide references?

- Ask about their familiarity with the Oregon Department of Forestry (ODF) forest practice rules for spraying near required no-spray buffer zones, such as around schools and homes, weather restrictions, record keeping and using restricted herbicides.
- Are they up to speed on training their workers about the new U.S. Environmental Protection Agency Worker Protection Standard?
- Does their licensing and experience qualify them to develop chemical application prescriptions?

WHAT SERVICES DO YOU PROVIDE?

It's important to be clear about the services a chemical application operator offers to determine whether the operator has the knowledge, equipment and staff needed for the job.

Specific herbicides are used in many different situations, such as site preparation (before planting) or release (after planting), to control both leafy and woody plants. The herbicide application can be done in many different ways, including as a broadcast, spot or directed spray, "hack and squirt" or stump treatment. It can also be done using different tools, including backpack sprayers, vehicle-mounted sprayers or squirt bottles. The right combination and approach (generally referred to as the "prescription") depends on the season, type of weeds being targeted and crop tree species.

- Clarify what parts of the job the landowner is doing and what is being hired out, such as developing the prescription, doing the application or maybe both. Do their qualifications match the job?
- What types of chemical application can they do, and what equipment do they use?
- Who will provide the chemicals for the job?
- Who will submit the "Notice of Operation" to ODF for the application?

HOW WILL THE WORK BE DONE?

- Ask about their workforce (number and size of crews). What experience and certification does the foreperson who would oversee the job have?
- Will they be able to finish the job within the desired time frame?
- Ask how to ensure their crew understands exactly what and where to spray. What photos, maps or on-the-ground markings do they need from you?
- Will the operator provide official chemical application records in a timely manner? These include specifics on the chemicals used, location and rates at which they were applied, as well as information on weather conditions during application, etc.

HOW WILL I BE CHARGED FOR YOUR SERVICES?

There is a variety of ways to work this out. It's important that you communicate expectations and reach a clear agreement upfront. Shop around for bids and check references.

- Ask if the charge is by the acre or by the job, or if costs will be itemized.
- Ask about billing and when payment is due.
- Do they guarantee their work? Will they come back and fix something if it isn't done right? How will it be determined that service is satisfactory?
- Get a written estimate for the job.

Where to look for a chemical applicator

The list of individuals and firms who can handle chemical application needs is constantly changing. Look in these places to find a list of potential chemical applicators:

- Ask other landowners who they work with and trust.
  - > Oregon Small Woodlands Association: **oswa.org**
  - > Oregon Tree Farm System: **otfs.org**
- Ask a forester.
  - > Association of Consulting Foresters: **acf-foresters.org**
  - > Oregon State University Extension Service: **directory.forestry.oregonstate.edu**
  - > Society of American Foresters: **eforester.org**
- Oregon Department of Forestry: **oregon.gov/ODF/Working/Pages/FindAForester.aspx**
- Ask a neighboring industrial forester if they could share contacts for applicators they use.
- Ask ODF or the Oregon State University Extension Service for a list of applicators in your area. They can provide names but cannot make specific recommendations.

Helpful resources

See these publications for more information about safe herbicide use and regulations:

- Contracts for Woodland Owners (EC 1192): **catalog.extension.oregonstate.edu/ec1192**
- PNW Weed Management Handbook: **pnwhandbooks.org/weed**

CHECKLIST FOR SLASH PILE BURNING

Well-constructed slash piles that follow these guidelines will often burn for a week or more. Piles constructed with large material, stumps and dirt can burn for months. Piles that were lit in October have caused wildfires the following summer. See **KnowYourForest.org** for a video, webinar and publication on burning piles

PRE-HARVEST

- ☐ Determine if burning is an option.
- ☐ Identify sensitive resources.
- ☐ Work with the operator to agree on post-harvest conditions.
- ☐ Finalize the contract language and sign the contract.
- ☐ File a Notification of Operation with the Oregon Department of Forestry (ODF).

DURING HARVEST

- ☐ Administer the contract terms.

WEEKS BEFORE BURNING

- ☐ Estimate the tons of material to burn with fuel load estimate tools (**oregon.gov/odf/fire/pages/burn.aspx**).
- ☐ Fill out and submit a smoke management registration form and burn plan. (Smoke management forms can be found at **oregon.gov/odf/fire/pages/burn.aspx**.)
- ☐ Start monitoring the weather.

DAYS BEFORE BURNING

- ☐ Consult with ODF or the local fire department on burning opportunities.
- ☐ Watch the weather forecast.
- ☐ Obtain a burn permit or burn permission.

DAY OF THE BURN

- ☐ Follow the burn plan and burn permit instructions.
- ☐ Monitor burning.

DAYS FOLLOWING THE BURN

- ☐ Monitor the burn regularly.
- ☐ Watch the long-term weather forecast for east winds.
- ☐ Extinguish the burn if needed to prevent spread.
- ☐ Report burning accomplishments if required by your burn permit.

RESOURCES FOR FAMILY FOREST LANDOWNERS

This publication, developed by the Oregon Forest Resources Institute in cooperation with the Partnership for Forestry Education, is updated every two years, and details the many technical, financial and educational resources available to Oregon's family forest landowners, including:

- expert technical advice
- classes
- grants
- person-to-person counsel from peers
- online resources

The guidebook includes descriptions and contact information for each organization that helps forest landowners, as well as maps to find resources available in your area.

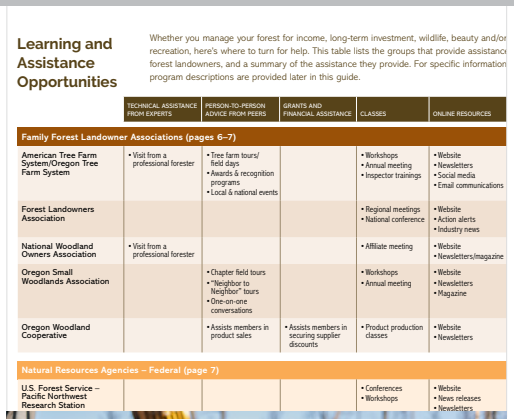
Download a digital copy:
site.OregonForests.org/media/2174

See also **KnowYourForest.org** for practical information about managing your forestland.

FOR FASTER ACCESS to items commonly referenced in this manual, bookmark this page:

KnowYourForest.org/manual-links

Verify rules with your Oregon Department of Forestry (ODF) stewardship forester before moving forward with an operation.



Learning and Assistance Opportunities

Whether you manage your forest for income, long-term investment, wildlife, beauty and/or recreation, here's where to turn for help. This table lists the groups that provide assistance forest landowners, and a summary of the assistance they provide. For specific information program descriptions are provided later in this guide.

	TECHNICAL ASSISTANCE FROM EXPERTS	PERSON-TO-PERSON ADVICE FROM PEERS	GRANTS AND FINANCIAL ASSISTANCE	CLASSES	ONLINE RESOURCES
Family Forest Landowner Associations (pages 6–7)					
American Tree Farm System/Oregon Tree Farm System	• Visit from a professional forester	• Tree farm tours/ field days • Awards & recognition programs • Local & national events		• Workshops • Annual meeting • Inspector trainings	• Website • Newsletters • Social media • Email communications
Forest Landowners Association				• Regional meetings • National conference	• Website • Action alerts • Industry news
National Woodland Owners Association	• Visit from a professional forester			• Affiliate meeting	• Website • Newsletters/magazine
Oregon Small Woodlands Association		• Chapter field tours • "Neighbor to Neighbor" tours • One-on-one conversations		• Workshops • Annual meeting	• Website • Newsletters • Magazine
Oregon Woodland Cooperative		• Assists members in product sales	• Assists members in securing supplier discounts	• Product production classes	• Website • Newsletters
Natural Resources Agencies – Federal (page 7)					
U.S. Forest Service – Pacific Northwest Research Station				• Conferences • Workshops	• Website • News releases • Newsletters

GLOSSARY

Many of these terms are defined in the Oregon Forest Practices Act (ORS 527.620) and Rules (OAR-629-600-0100). Always verify definitions to help ensure compliance with the act and rules.

Abandoned resource site
resource site that the Oregon Department of Forestry (ODF) stewardship forester determines is not active

Abandoned roads
roads that were constructed prior to 1972 and do not meet the criteria of active, inactive or vacated roads; this does not include skid trails

Acre
land area of 43,560 square feet, in any shape; if square, it would measure approximately 209 feet per side

Active channel width
stream width between the ordinary high-water lines, or at the channel bankfull elevation if the ordinary high-water lines are indeterminate

Active resource site
resource site that the ODF stewardship forester determines was used in recent past by a listed species; resource sites that are lost or rendered not viable by natural causes are not considered active

Active roads
roads currently being used or maintained for the purpose of removing commercial forest products

Adaptive Management Program Committee (AMPC)
participates in the adaptive management program with the Independent Research and Science Team (IRST) and the Adaptive Management Program Coordinator; together, they assess how well the forest practice rules are facilitating forest conditions and ecological processes to achieve biological goals and objectives

Afforestation
planting a forest in an area where the previous vegetation or land use was not a forest

Aggregate
mechanically crushed, angular rock used for forest road surfacing

Alternatives to burning
methods to reduce or avoid the need for slash burning, e.g., lop and scatter, chipping and biomass utilization

Anadromous fish
fish that are born and reared in fresh water, move to the ocean to grow, and mature and return to fresh water to reproduce, e.g., salmon and steelhead

Aquatic area
wetted area of streams, lakes, and wetlands up to the high-water level; oxbows and side channels are included if they are part of the flow channel or contain freshwater ponds

Aquatic resource
species identified by the Oregon Department of Forestry, along with the resources they need; these species and resources can also be identified in a federally approved habitat conservation plan

Area of inquiry
area along a Type N stream beginning at the confluence with a Type F or Type SSBT stream and extending either:

- to the first 250 feet encountered without a flow feature (Phase 1)
- to the longer of the modeled end plus 250 feet, or beyond the modeled end to the end of the first 250 feet encountered without a flow feature (Phase 2)

Artificial reforestation
restocking a site by planting trees or through the manual or mechanical distribution of seeds

Aspect
direction that a slope faces

Backwater
part of a river with little or no current; may be caused by an obstruction, like a dam

Bald eagle *(Haliaeetus leucocephalus)*
a large sea eagle found throughout North America; associated with watery habitats; bald eagles go through several age-related plumage stages, culminating in the iconic white head and tail, and huge bright yellow bill; adult features appear around 4.5 years of age; national bird of the United States

Band-tailed pigeon *(Patagioenas fasciata)*
a wild pigeon native to western North America that is slightly larger than the introduced rock pigeon; known to seek out and use mineral sites to supplement their diet

Bankfull elevation
point on a stream bank where overflow onto a floodplain begins

Basal area
area of the cross-section of a tree stem derived from diameter at breast height (DBH)

Basal area credit
given towards meeting the live tree requirements within riparian management areas for placing material such as logs, rocks or rootwads in a stream, or conducting other enhancement activities such as side channel creation or grazing enclosures

Beaver *(Castor canadensis)*
the largest living North American rodent; textbook keystone species and ecosystem engineer; famous for ability to modify its environment by felling trees, and creating dams, lodges and channels

Best available science
standards developed by the Independent Research and Science Team (IRST) to determine best available science based on criteria set by the IRST, using a peer review process, as well as testable hypotheses

Biological goals and objectives
determined for a habitat conservation plan to meet statutory requirements

Biomass

wood product obtained by chipping or grinding all or some portion of trees, e.g., tops, limbs, unmerchantable stems and other residues, usually for renewable energy production

Blowdown

trees felled by high winds

Bog

a wetland that is characterized by the formation of peat soils and that supports specialized plant communities; this hydrologically-closed system, without flowing water, is usually saturated, relatively acidic, and dominated by ground mosses, especially sphagnum; it may be forested or non-forested and is distinguished from a swamp and a marsh by the dominance of mosses and the presence of extensive peat deposits

Bull trout *(Salvelinus confluentus)*

a generally green and grayish fish in the salmon family with both resident and migratory forms; body is covered in pale or colorful spots, belly and fin edges are white; actually a species of char, thus not a true trout

Cable yarding

moving logs from the stump to the landing using an overhead system of winch-driven cables to which logs are attached with chokers

Certified steep slopes training

required training for large forest landowner representatives to determine the field delineation of the final boundaries for slope retention areas; provides evidence that trainee has demonstrated sufficient knowledge to determine the field delineation of the final boundaries for slope retention areas

Channel

a distinct bed, or banks scoured by water, that confines water and that periodically or continually contains flowing water

Channel migration zone (CMZ)

the area where the active channel of a stream is prone to move, resulting in a potential near-term loss of riparian function and associated habitat adjacent to the stream, except as modified by a permanent levee, dike, railroad lines or any public transportation infrastructure; for this purpose, near-term means the time scale required to grow a mature forest

Chemicals

includes all classes of pesticides, such as herbicides, insecticides, rodenticides, fungicides, plant defoliants, plant desiccants, and plant regulators, fertilizers, petroleum products used as carriers, and chemical application adjuvants, such as surfactants, drift control additives, antifoam agents, wetting agents and spreading agents

Clearcut

a logging and reforestation method for shade-intolerant tree species in which the entire timber stand is harvested, except for required leave trees

Coastal tailed frog *(Ascaphus truei)*

small frog with bumpy, flecked skin ranging from reddish-brown to gray; males have a short tail, even as adults; females are larger, growing up to 2 inches; lives in and around shallow, shaded, forested mountain streams with cold, clear, flowing water; habitat is usually fish-less headwaters

Cobble

specific size class of rock; 3 to 12 inches in diameter

Commercial

the exchange or buying and selling of commodities or services; this includes any forest activity undertaken with the intent of generating income or profit; this does not include cutting firewood or milling timber for personal use

Common ownership

direct ownership by one or more individuals, or by a corporation, partnership, association or other entity in which an individual owns a significant interest

Completion of the operation

point when logging operation area will not be further disturbed by timber harvest activities

Conflict

resource site abandonment or reduced resource site productivity that results from forest practices as determined by the ODF stewardship forester

Conifer

a tree with cones, often called "evergreen" because it keeps its foliage year-round (e.g., pine, spruce, fir and larch trees) and also known as "softwood" because of its wood characteristics

Covered species

species for which incidental take under the federal Endangered Species Act is authorized in an incidental take permit and covered under a habitat conservation plan

Culvert

pipe that channels water under a road

Culvert with imminent risk of failure

has some or all of these characteristics:

- actively diverts streams or ditchline runoff
- actively erodes the road prism or stream channel creating the potential to undermine the integrity of the culvert
- completely blocked, plugged, crushed or buried
- partially or completely failed fill
- high plugging potential as determined by the Stream Blocking Index or other comparable methodology, high magnitude of fill at risk, and high diversion potential in one or both directions

Culvert with minimal risks to public resources

has these characteristics:

- minimizes delivery of sediment to waterways
- has not diverted streams or ditchline runoff and does not have the potential to divert streams or ditchline runoff
- for Type F and Type SSBT streams:
  - > provides passage for all species of adult and juvenile fish
  - > provides passage of expected bed load and associated large woody material during flood events

Cut slope

the slope above a road, created by a cut into the face of a hill slope during road construction

D stream – see "Type D stream"

Debris flow

rapidly moving slurry of rock, soil, wood and water that is most often initiated by a landslide, while delivering and traveling through steep, confined stream channels

Debris flow traversal area (DFTA)

areas that the slopes model identifies as most likely to deliver debris flows to Type F or Type SSBT streams

Debris torrent-prone streams
designated by ODF to include channels and confining slopes that drain watersheds with high landslide hazard locations that are of sufficient confinement and channel gradient to allow shallow, rapid landslide movement

Deforestation
clearing a forest and putting the land into a nonforest use

Department
Oregon Department of Forestry (ODF)

Department reporting and notification system
forest activity electronic reporting and notification system operated by the Oregon Department of Forestry, used for a notification of operation and a permit to use fire or power-driven machinery, also known as the E-Notification system or FERNS

Designated debris flow traversal areas (DDFTA)
areas that the Oregon Department of Forestry slopes model identifies as most likely to deliver debris flows to Type F or Type SSBT streams; these have a probability of passing across, over or through (traversal) in the upper 50%, calculated consistent with the methods described in slopes model; the length of the DDFTA, as determined by the slopes model, is either:

- the entire length of the DDFTA that has a probability of traversal in the upper 20% or
- a maximum of 1,000 feet upstream of a Type F or Type SSBT stream confluence for a DDFTA that has a probability of traversal between 20% and 50% alone or in combination with a DDFTA that has a probability of traversal in the upper 20%

Designated sediment source areas (DSSA)
the Oregon Department of Forestry slopes model identifies these areas as most likely to experience landslides that initiate debris flows to Type F or Type SSBT streams; these areas, as identified by the slopes model, may or may not contain trigger sources; the slopes model identifies the hillslope areas greater than one quarter acre in size within debris flow traversal area sub-basins that provide the top 33% of the landslide-derived sediment to Type F or Type SSBT streams

Diameter at breast height (DBH)
the diameter of a tree outside of the bark at breast height (i.e., 4.5 feet above the ground, measured on the uphill side of the tree)

Domestic water use
the use of water for human consumption and other household human use

Down log
green tree or an existing log intentionally left on the ground after a harvest for wildlife habitat and other benefits

Downspout
an attachment (e.g., a half-round culvert section) to a culvert outlet that carries water beyond the fill slope to control erosion

Drain dip
shallow depression in the road surface to provide for surface drainage without interrupting vehicle traffic

Dry channel area
area between the inside edge of the small forestland owner minimum (SFO) option and the edge of the dry stream channel that:

- is within a surveyed dry channel portion of a small western Oregon Type Np stream that under the SFO minimum option is a required no-cut buffer
- does not have flowing water year-round
- is 100 feet or more in length

Eastern Oregon
the region east of Cascade Crest; see the map in the Riparian Management chapter

End haul
moving excavated roadway material by dump truck to another location instead of sidecasting the material next to the road

End of perenniality (EOP)
refers to a significant point on the ground that delineates between riparian protections; it refers to the modeled, verified or operational field survey EOP; for more information see the Riparian Management chapter

Equipment limitation zone (ELZ)
area where disturbance from equipment activity must be minimized

Estuary
a body of water semi-enclosed by land and connected with the open ocean where saltwater is usually diluted by freshwater; includes all estuarine waters, tidelands, tidal marshes and submerged lands extending upstream to the head of tidewater; note the Columbia River Estuary extends to the western edge of Puget Island

Every reasonable effort
actions required by the landowner or operator if a fire starts in an active forest operation; these actions maintain limited liability exposure and can vary based on amount and type of available resources

Exposure categories
used to designate the likelihood of people being present in structures or on public roads during periods when shallow, rapidly moving landslides may occur

F stream – see "Type F stream"

Filling
the deposit by artificial means of any materials, organic or inorganic

Fill slopes
result from construction of a roadway above the original ground level

Fish use
waters inhabited at any time of the year by anadromous or game fish species or fish that are listed as threatened or endangered species under the federal or state Endangered Species Act

Fledgling
a young bird learning to fly

Fledging tree
a tree or trees close to a nest that the ODF stewardship forester determines is/are regularly used by young birds to develop flying skills

Flow feature
flowing water for 25 feet or more

Flowing water
continuous, visibly flowing surface water within a channel

Flush
any activity that causes a sensitive wildlife species to leave its nest, roost or perch in a tree

Forage

plant species, or other source of food, that substantially contributes, either directly or indirectly, to nutrition of the target wildlife species or guild

Ford

a type of stream crossing where a vehicle's wheels are in the streambed or other installed structure when water is present

Forest conservation area

riparian forestland area that is not harvested and may be eligible for a Forest Conservation Tax Credit; the width of the eligible area is the difference between the outermost edge of the width of the riparian management area (RMA) for the standard practice and the outermost edge of the width of the RMA for the small forestland owner (SFO) minimum option

Forest Conservation Tax Credit (FCTC)

tax credit available to small forestland owners (SFOs) who choose to follow the standard practice used by large forest landowners instead of the SFO minimum option for riparian management area widths; they can claim a tax credit for some of the value of the additional timber left standing in riparian areas on their property for habitat conservation purposes

Forestland

land that is used to grow and harvest forest tree species, regardless of how the land is zoned or taxed or how any state or local statutes, ordinances, rules or regulations are applied

Forest practice

any operation conducted on or pertaining to forestland, including but not limited to:

- reforestation
- road construction and maintenance
- harvesting of forest tree species
- application of chemicals
- disposal of slash
- removal of woody biomass

Forest Practices Technical Guidance

advisory guidance, developed by ODF with stakeholder input, to assist landowners and resource professionals with implementing the Oregon Forest Practices Act (OFPA) and forest practice rules, including the Forest Road Inventory and Assessment (FRIA) road inventory, project planning and reporting process required of forest landowners who do not qualify to manage forestlands under the small forestland owner (SFO) minimum option

Forest tree species

any tree species capable of producing logs, fiber or other wood materials suitable for the production of lumber, sheeting, pulp, firewood or other commercial forest products, except trees grown to be Christmas trees on land used solely for the production of Christmas trees

Free-to-grow

a tree or a stand of well-distributed trees, of acceptable species and good form, that has a high probability of remaining or becoming vigorous, healthy and dominant over undesired competing vegetation; for the purpose of this definition, trees are considered well distributed if 80% or more of the operation area contains at least the required minimum per acre tree stocking and not more than 10% contains less than one-half of the required minimum per acre tree stocking

Full bench road

reserved for moderate or steep slopes, or where a road approaches or parallels a stream channel that could be impacted by sidecasting; a bench is cut into the rock or soil equal to the width of the road; no material is sidecast and soil is used to fill low areas or stream crossings along the road alignment

Fully functioning culvert in Type F or Type SSBT streams

at the time of the Forest Road Inventory and Assessment (FRIA) inspection, the culvert meets the requirements of the forest practice rules as of Jan. 1, 2022, and as described in the Forest Practices Technical Guidance for culverts existing prior to Jan. 1, 2024

Fully functioning culvert in Type N or D streams

at the time of the Forest Road Inventory and Assessment (FRIA) inspection, the culvert meets all requirements of the forest practice rules as of Jan. 1, 2022

Further review area

an area of land that may be subject to rapidly moving landslides as mapped by the Oregon Department of Geology and Mineral Industries or as otherwise determined by ODF

Geographic region

large areas where similar combinations of climate, geomorphology and potential natural vegetation occur, established for the purposes of implementing the Oregon Forest Practices Act (OFPA) water protection rules

Geotextile

synthetic fibers formed into woven or non-woven fabric used to separate, filter or reinforce; used in road surfaces to reduce rutting, stabilize the ground and increase the load-carrying capacity

Golden eagle (Aquila chrysaetos)

a large, soaring eagle associated with open, shrubby country and mountainous habitat; mostly dark brown with a lighter, golden nape; bill is smaller than a bald eagle's

Gradient

the slope of a road surface in the direction of travel, usually expressed in percent, e.g., a 10% grade equals a change along the road of 10 feet vertical in 100 horizontal feet

Granite soils (decomposed granites; granitics)

light-colored soils with a coarse texture due to particle sizes ranging from sand to small gravel; loose and highly erodible due to low clay content that does not hold particles together

Great blue heron *(Ardea herodias)*

a very common large, long-necked wading bird; grayish-blue overall, with a yellow or bi-colored bill; roosts collectively in rookeries consisting of up to hundreds of active nests

Green sturgeon *(Acipenser medirostris)*

a bottom-dwelling, migratory fish that grows up to 7 feet long; has bony plates on its back and green, sandpaper-like skin; travels along coastal waters, bays and estuaries; goes upriver to spawn and spends its first few years in the river before venturing toward the sea

Ground-based yarding

moving logs from the stump to the landing using a dozer, rubber-tired skidder or any other machine that maintains contact with the ground; logs are pulled behind the machine with chokers, or one end of the log is lifted and dragged with a grapple

Grubbing
refers to the clearing and removal of stumps and organic debris

Habitat conservation plan (HCP)
federal planning document designed to accommodate economic development, to the extent possible, by authorizing the limited and unintentional harm, "take," of listed species when it occurs incidental to otherwise lawful activities; a habitat conservation plan is designed not only to help landowners and communities, but also to provide long-term benefits to threatened and endangered wildlife species requirements as identified in the Endangered Species Act

Hardwood
a broadleaf, usually deciduous, tree, e.g., oak, maple, cottonwood, ash or madrone

Harvest Type 1
a timber harvest operation that requires reforestation but does not require wildlife leave trees; a Type 1 harvest is a logging operation that leaves a combined stocking level of free-to-grow seedlings, saplings, poles and larger trees that is less than the established stocking level and that represents adequate use of the harvest site's productivity

Harvest Type 2
a timber harvest operation that requires wildlife leave trees but does not require reforestation; a Type 2 harvest does not require reforestation because it has an adequate combined stocking of free-to-grow seedlings, saplings, poles and larger trees, but leaves:

- site-classified forest land, in terms of the capacity to grow repeated crops of wood; based on the maximum mean annual increment, in cubic feet per acre, of natural, well-stocked, even-aged stands of species suitable to the local site.
- on Site Class I, II or III, fewer than 50 trees that are 11-inch diameter at breast height (DBH), or less than an equivalent basal area in larger trees, per acre
- on Site Class IV or V, fewer than 30 trees that are 11-inch DBH, or less than an equivalent basal area in larger trees, per acre
- on Site Class VI, fewer than 15 trees that are 11-inch DBH, or less than an equivalent basal area in larger trees, per acre

Harvest Type 3
a timber harvest operation that requires reforestation and requires wildlife leave trees; the harvest unit size should not exceed 120 acres in size

Harvest Type 4
a timber harvest operation that commercially thins or spaces residual trees and does not require reforestation or retention of wildlife leave trees

Headwall
steep, concave slopes that can concentrate subsurface water, which can lead to increased landslide susceptibility; they are typically located at the head of stream channels, draws or swales; headwalls have slope gradients of 65% or greater in the Tyee Core Area and 70% or greater in the rest of the state, as measured in the axis of the headwall; landslides that occur in headwalls are more likely to initiate channelized debris flows that can travel down streams (also known as debris torrents) than landslides that occur in other areas of the slope

High landslide hazard location (HLHL)
specific site that is subject to the initiation of a shallow, rapidly moving landslide; the following criteria help to identify HLHLs:

- the presence, as measured on site, of any slope in western Oregon (excluding competent rock outcrops) steeper than 80%, except in the Tyee Core Area, where it is any slope steeper than 75%
- the presence, as measured on site, of any headwall or draw in western Oregon steeper than 70%, except in the Tyee Core Area, where it is any headwall or draw steeper than 65%
- notwithstanding the slopes specified above, field identification of atypical conditions by a geotechnical specialist may be used to develop site-specific slope steepness thresholds for any part of the state where the hazard is equivalent to the bullets above; the final determination of equivalent hazard will be made by ODF

High-water level
stage reached during a stream's average annual high flow; the high-water level often corresponds with the edge of streamside terraces, a change in vegetation or a change in soil or litter characteristics

Hog fuel
logging debris (e.g., defective logs, chunks, branches) that is ground up at a log landing and sold to and/or used by a mill to create electricity

Hydrologic connection
the ability of water to move through a watershed; connectivity can help maintain sediment balance and sustain riparian vegetation corridors

Hydrologic disconnection
removal of direct routes of drainage or overland flow of road runoff to waterways

Hydrologic function
soil, stream, wetland and riparian area properties related to the storage, timing, distribution and circulation of water

Important springs
springs in arid parts of eastern Oregon that have established wetland vegetation, flow year-round in most years, are used by a concentration of diverse animal species and, by reason of sparse occurrence, have a major influence on the distribution and abundance of upland species

Inactive roads
roads used for forest management purposes but not to remove commercial forest products

Independent Research and Science Team (IRST)
participates in the adaptive management program with the Adaptive Management Program Committee (AMPC) and the Adaptive Management Program coordinator; together they assess how well the water-related forest practice rules are facilitating forest conditions and ecological processes to achieve the biological goals and objectives outlined in the habitat conservation plan for private and other non-federal forests (more information about IRST see the Introduction)

Independent Research and Science Team (IRST) housing agency
a public body that houses and supports the Independent Research and Science Team (IRST); Oregon State University's Institute for Natural Resources is currently the IRST housing agency

Juvenile fish
immature fish or fingerlings; stream crossings must not impede their movement up or down stream

Key components

attributes that are essential to maintain the use and productivity of a wildlife resource site over time; the key components vary by species and resource site; examples of key components include fledging or perching trees

Lake

body of year-round standing open water; for the purposes of the forest practice rules, lakes include:

- the water itself, including any vegetation, aquatic life or habitats
- beds, banks or wetlands below the high-water level that may contain water, whether or not water is actually present

note that under the forest practice rules, lakes do not include water developments

Lamprey

member of the fish genera Entosphenus or Lampetra

Landowner

any individual, combination of individuals, partnership, corporation or association that holds an ownership interest in forestland, including the state and any political subdivision

Landslide mitigation

actions taken to reduce potential landslide velocity or redirect shallow, rapidly moving landslides near structures and roads to reduce risk to people

Large lake

a lake larger than eight acres

Large wood key piece

portion of a tree's trunk, with or without the root wad attached, which is wholly or partially within the stream, that meets the length and diameter standards appropriate to stream size and high-water volumes established in the Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration, developed by the Oregon Department of Forestry, Oregon Department of Fish and Wildlife, Oregon Department of State Lands and Oregon Watershed Enhancement Board, January 2010

Lateral Type Np stream

the largest Type Np stream by basin size that is immediately upstream of the end of a Type F or Type SSBT stream. (eastern Oregon region only)

Limited liability (fire suppression)

landowner or operator is responsible for fire suppression costs of no more than $300,000, given "every reasonable effort" and no willful, malicious or negligent actions were found to cause the fire

Live tree

a tree that has 10% or greater live crown

Local population

number of birds that live within a geographic area identified by ODF; for example, the area may be defined by physical boundaries, such as a drainage or subbasin

Log landing

area where logs may be collected, delimbed and loaded onto trucks

Main channel

a channel that has flowing water when average flows occur

Marbled murrelet (*Brachyramphus marmoratus*)

small, fast-flying seabird that spends most of its time in coastal waters but comes inland to nest in mature forests; their feathers have a marbled brown coloration in breeding season, and are dark gray and white in winter

Marsh

wetland formed in a shallow pond, depression, river margin or tidal area; characteristic plants include grasses, sedges, cattails and bulrushes

Modeled end

the upper-most point of perenniality on a perennial stream shown on the Oregon Department of Forestry's (ODF) maps and on its online reporting and notification system (FERNS); the modeled end may change over time in different phases or as updated by the Oregon Department of Fish and Wildlife (ODFW) pursuant to the established methods for field surveys

Mountain whitefish *(Prosopium williamson)*

a silvery, trout-like fish with a dark or bronze-colored back; distinguished from trout by small, downturned mouth; inhabits clear, cold water of many lakes and rivers

N stream – see "Type N stream"

Natural barrier to fish use

a waterfall, increase in stream gradient, channel constriction or other natural channel blockage that prevents upstream fish passage

Natural reforestation

restocking a site with self-grown trees resulting from self-seeding or vegetative means

Nest tree

tree, snag or other structure that contains a bird nest

Nesting territory

area identified by ODF that contains, or historically contained, one or more nests of a mated pair of birds

Northern goshawk *(Accipiter gentilis)*

large, nimble raptor specialized in hunting other birds; adults are mostly gray with dark eye stripes and white eyebrows; found in mature forests throughout the Northern Hemisphere

Northern spotted owl *(Strix occidentalis caurina)*

a mostly dark brown, non-migratory, medium-sized owl found in mature forests; it has dark eyes and feathers with creamy white mottling; the owl's signature call is a four-note hoot sequence, "Hoo, hoo-hoo, hoo"

Notification of Operation

a document required to be filed with the Oregon Department of Forestry 15 days prior to starting a forest operation

Operation

any commercial activity relating to establishing, managing or harvesting forest tree species, with these exceptions:

- Christmas trees on land used solely for Christmas tree growing
- hardwood timber, including but not limited to hybrid cottonwood that is:
  - > grown on land prepared by intensive cultivation methods and cleared of competing vegetation for at least three years after tree planting
  - > marketable as fiber for inclusion in the furnish for manufacturing paper products
  - > harvested on a rotation cycle 12 or fewer years after planting
  - > subject to intensive agricultural practices, such as fertilization,

cultivation, irrigation, insect control and disease control

- trees actively farmed or cultured for the production of agricultural tree crops, including nuts, fruits, seeds and nursery stock
- ornamental, street or park trees within an urbanized area
- juniper species conducted in a unit of less than 120 contiguous acres within a single ownership
- trees intended to mitigate the effects of agricultural practices on the environment or fish and wildlife resources, e.g., windbreaks, riparian filters or shade strips immediately adjacent to actively farmed lands
- approved land use change after timber harvest activities have been completed and land use conversion activities have commenced

Operator

any person, including a landowner or timber owner, who conducts an operation

Ordinary highwater line

the line on the bank or shore where the high water ordinarily rises annually during heavy rains

Osprey *(Pandion haliaetus)*

a large, highly migratory, fish-eating bird of prey; associated with watery habitats; its coloring is dark above and white below, with a black and white head; its wings are bent at a noticeable angle during flight

Other wetland

wetland that is not a significant wetland or stream-associated wetland

Outsloping

tilting the running surface of a road so it carries runoff to the downslope side of the road; outsloping is often used for roads without roadside ditches

Pacific eulachon/smelt *(Thaleichthys pacificus)*

a small, migratory fish with silvery sides and a bluish back; spends most of its life in the ocean but travels up rivers to spawn

Parcel

a contiguous single ownership recorded at the register of deeds within the county or counties where the property is located, including any parcel(s) touching along a boundary; a railroad, road, stream or utility-right-of-way may intersect the parcel; single ownership includes an individual, partnership, corporation, limited liability company, trust, holding company or other business entity, including the state or any political subdivision

Peak flow

highest stream flow from a large storm or snowmelt event; a 100-year return interval flow for stream crossing design

Perch tree

a tree identified by the ODF stewardship forester as being used by a bird for resting, marking its territory or as an approach to its nest

Perennial stream

a stream that has running water throughout the year under normal climatic conditions

Peregrine falcon *(Falco peregrinus)*

a medium-sized raptor with long, pointed wings and black masking on its face; famously recognized as the fastest animal on Earth; known to act boldly, challenging much larger raptors for prey and territory

Plan for an alternate practice (PFAP)

a document prepared by the landowner, operator or timber owner submitted to ODF for written approval describing forest practices different than those prescribed in state statute or administrative rule

Plantation

a reforested area composed primarily of trees established by planting or seeding practices

Pole

a young tree between 1 and 10 inches diameter at breast height (DBH)

Pre-existing culvert

a culvert with minimal risks to public resources that is also:

- a fully functioning culvert in a Type F or Type SSBT stream or
- a fully functioning culvert in a Type N or Type D stream.

Prescribed burn

deliberate burning of wildland fuels for the purpose of fire hazard reduction, with consideration of local weather, soil moisture, populated areas and time of day

Prior approval

formal permission from the Oregon Department of Forestry (ODF) for certain forest practices before they begin

Protected resources

Ecosystem elements with significant public value described in the Oregon Forest Practices Act that are the subject of specific practices to prevent their degradation

Pullback

the deconstruction (also known as "re-contouring" or "de-building") of the road subgrade to restore the original hillslope profile and contours

R-ELZ

a retention-equipment limitation zone in which disturbance from equipment activity should be minimized and all trees less than six inches diameter at breast height (DBH) and shrub species retained where possible

RH max

maximum distance upstream from the confluence with a Type F or Type SSBT stream that tree retention is required along a small Type Np stream

Ravel (dry ravel)

the particle-by-particle erosion of loose rock or dry soil fragments from steep slopes, driven by gravity and not water; common on road cutslopes and on steep slopes after wildfire

Reforestation

the re-establishment of forest cover either naturally or by planting or seeding trees

Relative humidity

the amount of water vapor present in air expressed as a percentage of the amount needed for saturation at the same temperature

Relief culvert

a structure to relieve surface runoff from roadside ditches to prevent excessive buildup in volume and velocity

Removal

taking or moving any amount of rock, gravel, sand, silt or other inorganic substances

Repeat violator

an operator, timber owner or landowner who ODF has found to have a history of multiple significant violations of the Oregon Forest Practices Act (OFPA), showing a pattern of willful disregard for following the OFPA rules

Replacement tree

means a tree or snag, within the nesting territory of a bird, that is identified by the ODF stewardship forester as being suitable to replace the nest tree or perch tree when these trees become unusable

Research agenda

the plan for proposed scientific research projects developed by the Adaptive Management Program Committee (AMPC); plan includes preliminary research questions and a proposal for answering the questions, as well as a timeline

Resource site

unique area used by sensitive, threatened or endangered wildlife species where protection measures are required, including nesting, roosting, watering and foraging locations such as:

- for threatened and endangered bird species, the resource site is the nest tree, and all identified key components
- for sensitive bird nesting, roosting and watering sites, the resource site is the nest tree, roost tree or mineral watering place, and all identified key components
- for significant wetlands resource sites, the wetland and the riparian management area (RMA) are identified by ODF

Retention harvest

a timber harvesting technique where stand elements such as mature trees, snags, and downed wood are retained within the harvest unit as biological legacies

Riparian area

the ground along a water body where the vegetation and microclimate are influenced by year-round or seasonal water, associated high-water tables and soils that exhibit some wetness characteristics

Riparian management area (RMA)

an area along each side of certain water bodies that requires vegetation retention and special management practices for the protection of water quality, hydrologic functions and fish and wildlife habitat

Riprapping

a layer of large stones that protects soil from erosion in areas of high or concentrated water flows; especially useful for armoring channel and ditch banks

Road management blocks

geographically distinct forest ownership blocks where a landowner is encouraged to conduct a Forest Road Inventory and Assessment (FRIA)

Road prism

the area of the ground containing the road surface, cut slope, and fill slope, e.g., the cross-section of a road between the points of excavation and fill

Rule of thumb

a simple guideline or procedure based on general concepts or experience that provides roughly correct but not strictly accurate or reliable results

Salamander

Oregon native species of salamander include:

- **Coastal giant salamander** *(Dicamptodon tenebrosus)* the largest salamander species in Oregon, growing up to 14 inches; aquatic juveniles are brown with frilly gills, and terrestrial adults are marbled tan and brown; lives in dense forest around cold and clear streams, lakes, and ponds
- **Columbia torrent salamander** *(Rhyacotriton kezeri)* a small salamander with green, brown, or gray back and sides with bright orange or yellow underside; grows up to 4 inches; lives in and around cold, clear waters, such as mountain streams, springs and seeps
- **Cope's giant salamander** *(Dicamptodon copei)* large salamander that typically remains in its aquatic form and never metamorphoses; brown with yellowish-tan patches; grows up to 8 inches; lives mostly in forested streams with cold, clear, flowing water
- **Southern torrent salamander** *(Rhyacotriton variegatus)* a small salamander with speckled brown upperparts and bright yellow underparts; lives in and around cold, clear waters, such as mountain streams, springs and seeps; has the southernmost range of all torrent salamanders

Salmon

any of the five salmon species that exist in Oregon; all are anadromous fish, migrating up rivers from the sea to spawn, except for some sockeye salmon; these species are:

- **Chinook salmon** *(Oncorhynchus tshawytscha)*, aka "king salmon," the largest of the Pacific salmon; they occasionally weigh 50 pounds, but average between 10 and 25 pounds; can be readily identified by the black gumline on their lower jaw; Oregon's state fish
- **Coho salmon** *(Oncorhynchus kisutch)*, aka "silver salmon," a medium-to-large species, rarely exceeding 15 pounds; differentiated from chinook by the white gumline on their lower jaw
- **Chum salmon** *(Oncorhynchus keta)*, aka "dog salmon" or "keta salmon," the second largest Pacific salmon species after chinook; develops a striking color pattern when returning to fresh water, becoming dark green to brown with red to purple vertical striping; spawning males also develop large canine-like fangs
- **Sockeye salmon** *(Oncorhynchus nerka)*, aka "red salmon," one of the smaller salmon species, weighing up to about 15 pounds; develops a bright red body and green head in spawning season; some sockeye spend their entire lives in fresh water and are known as "kokanee" in the Pacific Northwest
- **Pink salmon** *(Oncorhynchus gorbuscha)*, aka "humpback salmon" or "humpy," the smallest of the Pacific salmon, weighing about 5 pounds; breeding males grow a large dorsal hump

Saplings and poles

live trees of acceptable species, of good form and vigor, with a diameter at breast height (DBH) of 1 to 10 inches

Scarify

to mechanically remove competing vegetation or interfering debris and/or disturb the soil surface to improve reforestation success

Scenic highway

designated highways with special requirements for forest operations within specified distances from them

Seedlings

live trees of acceptable species of good form and vigor less than 1 inch diameter at breast heigh (DBH)

Seeps

features similar to springs, except without a well-defined point or points of groundwater surface discharge and usually very low flow

Shallow, rapidly moving landslide

any detached mass of soil, rock or debris that begins as a relatively small landslide on steep slopes and grows to a sufficient size to cause damage as it moves down a slope or a stream channel at a velocity difficult for people to outrun or escape

Shovel

excavator equipped with a grapple, used instead of a skidder or dozer to move logs

Sidecast

waste material that has been excavated or dredged to the side, rather than hauled away

Side channel

a channel other than a main channel of a stream that only has flowing water when high-water level occurs.

Significant violation

a violation of the Oregon Forest Practices Act (OFPA) that involves:

- engaging in an operation without filing the requisite prior notification
- continued operation in contravention of an order issued by ODF
- major damage to a resource for which restoration is expected to take more than 10 years

a significant violation does not include:

- unintentional operation in an area outside an operating area for which sufficient notification was filed
- continued operation in contravention of an order issued by ODF where an operator demonstrates that he or she did not receive the order or
- failure to timely notify ODF of an intent to continue an operation into the next calendar year

Significant wetlands

types of wetlands that require site-specific protection, including:

- wetlands larger than 8 acres
- estuaries
- bogs
- important springs in eastern Oregon

Site class

a grouping of site indexes that indicates their relative productivity

Site index

a measure of forest site quality based on the height of the dominant trees in a stand on that site at a specified age, usually 50 or 100 years

Site preparation

any treatment that enhances site conditions for tree plantation establishment or natural forest regeneration

Skidding

in ground-based logging, the process of dragging logs from the woods to a landing; called "yarding" in cable or helicopter logging

Slash

treetops, branches, bark and other natural debris, left after a logging operation

Slope (degrees or percent)

an incline measured as the change in surface level within a given horizontal distance, expressed in degrees or as a percentage (e.g., a rise of 2 feet that spans 100 feet is a 2% slope or an angle of 1.15 degrees)

Slope retention areas

designated sediment source areas in each timber harvest unit that should be left unharvested

Slopes model

the Oregon Department of Forestry's (ODF) computer-generated model to identify sites where specific forest practice rules must be followed when logging on steep slopes, including designated debris flow traversal areas, designated sediment source areas and trigger sources

Small forestland

forested properties held by landowners who own or have common ownership interest in less than 5,000 acres of forestland in Oregon

Small forestland owner (SFO)

a forest landowner who:

- owns, or holds common ownership in, less than 5,000 acres of forestland in Oregon
- has harvested no more than an average yearly volume of two million board feet of merchantable forest products when averaged over the three years prior to:
  - > the date the Oregon Department of Forestry (ODF) receives a timber harvest notification from the landowner
  - > if applying for a Small Forestland Investment in Stream Habitat Program (SFISH) grant, the date the landowner submits a grant application
- affirms that they do not expect to exceed an average yearly volume of two million board feet of merchantable forest products for 10 years after ODF receives the harvest notification or SFISH grant application

Small forestland owner minimum option

allows qualified small forest landowners to leave narrower no-cut tree retention areas along streams than the standard practice width required for large forest landowners

Snag

a dead tree that is still standing and has lost its leaves or needles and its small limbs

Sound snag

a snag that retains some intact bark or limb stubs

Spoil areas

places where excess material is removed or generated during road or landing construction and is not used for construction

Springs

water features where groundwater discharges to land surface or a surface water body at a well-defined point or points; spring water volumes range from small, intermittent trickles to millions of gallons per day, depending on the groundwater source and hydraulic head

Squash pipe

a type of culvert used to cross streams in areas with low road clearances or wide channels; also, can provide better conditions for fish passage

SSBT stream – see "Type SSBT stream"

State forester

Oregon's lead forester who heads the Oregon Department of Forestry (ODF) and is secretary to the Oregon Board of Forestry; he or she may delegate authorized

representatives to assist forest landowners; these representatives are stewardship foresters

Steelhead *(Oncorhynchus mykiss)*

a sea-run (anadromous) rainbow trout; grows larger than their freshwater-only counterparts; unlike salmon, steelhead can migrate and spawn multiple times during their lifetime

Stewardship foresters

an Oregon Department of Forestry (ODF) forester who is authorized by the State Forester to assist forest landowners with following the Oregon Forest Practices Act (OFPA) and enforce penalties on landowners and operators who violate the OFPA

Stocking

number of trees on a given area, as in the case of trees per acre required to be planted after a timber harvest

Stream

a channel, such as a river or creek, that carries flowing surface water during some portion of the year. For the purposes of the forest practice rules, streams include:

- the water itself, including any vegetation, aquatic life or habitats
- beds and banks below the high-water level that may contain water, whether or not water is actually present
- area between the high-water level of connected side channels
- beaver ponds, oxbows and side channels if they are connected by surface flow to the stream during a portion of the year
- stream-associated wetlands

streams do not include:

- ephemeral overland flow that does not have a channel
- road drainage systems or water developments

Stream-adjacent failures (SAF)

all slopes greater than 70% immediately adjacent to Type F or Type SSBT streams that are either:

- actively failing and delivering sediment, where erodible material and exposed soils are present and prone to continued shallow-rapid slope instability, with active features such as tension cracks, scarps, ground surface shearing, and oversteepened toes, or
- unstable due to the toe of the stream interacting directly with erosive forces of a stream, making it likely for a slope failure extending beyond the standard width of the riparian management area

Stream-associated wetland

wetland that is not classified as significant and that is next to a stream

Stream improvement

actions to improve aquatic habitat, including placing logs, trees or boulders in streams, fencing out livestock, constructing side channels, and afforestation

Structural exception

OEF determines that no actions are required to protect the wildlife resource site, meaning the entire resource site may be eliminated

Structural protection

ODF determines that actions are required to protect the wildlife resource site such as retaining a nest tree or perch tree for certain species of birds

Stumpage value

value of standing timber based on the value that would be received for the timber if harvested and delivered to a mill, minus the cost of harvest and delivery to the mill

Subgrade

layer of a roadbed on which the base or surface course is placed; on an unsurfaced road, this is the wearing surface (top layer upon which vehicles travel)

Talus

slope formed by an accumulation of rock debris, sometimes from a cliff or road cut above

Target wildlife

wildlife species or wildlife guild expected to benefit from the installation of a wildlife food plot

Temporal exception

ODF determines that no actions are required to prevent disturbance to birds during the critical period of use

Temporal protection

ODF determines that actions are required to prevent disturbance to birds during the critical period of use

Temporary crossing

stream crossing installed and used during a timber harvest and promptly removed when the logging operation is completed or prior to seasonal runoff, whichever comes first

Temporary fill

material (e.g., soil and rock) used to construct a temporary crossing that must be removed from below the high-water level of the stream at the completion of the logging operation

Terminal Type Np stream

largest Type Np stream by basin size that is immediately upstream of the end of a Type F or Type SSBT stream (eastern Oregon region only)

Threatened or endangered species

any species of plant or animal listed as in danger of becoming rare or extinct throughout all or a significant portion of its range, as defined by the Endangered Species Act of 1976

Timber owner

any individual, combination of individuals, partnership, corporation or association of whatever nature, other than a landowner, that holds an ownership interest in any forest tree species on forestland

Topography

the surface forms, elevations and contours of an area of land

Tree leaning over the channel

a tree within a riparian management area with a portion of its trunk crossing the vertical projection of the high-water level of a stream

Trigger sources

areas within designated sediment source areas that the Oregon Department of Forestry (ODF) slopes model identifies as most likely to trigger a high-volume debris flow; these areas have the top 20% probability of triggering a top 33% high-volume debris flow

Turbidity

the cloudy appearance of a water body, caused by suspended or dissolved solids, algae, etc.; can indicate natural or accelerated erosion

Tyee Core Area

location with geologic conditions that include thick sandstone beds with few

fractures; these sandstones weather rapidly and concentrate water in shallow soils, creating a higher shallow, rapidly moving landslide hazard; the Tyee Core area is located within coastal watersheds from the Siuslaw watershed south to and including the Coquille watershed, and that portion of the Umpqua watershed north of Highway 42 and west of Interstate 5; within these boundaries, locations where bedrock is highly fractured or not of sedimentary origin, as determined in the field by a geotechnical specialist, are not subject to the Tyee Core area slope steepness thresholds

Type D stream

a stream that has domestic water use, but no fish use

Type F stream

a stream with fish use, or both fish use and domestic water use

Type N stream

a stream with neither fish nor domestic water use

Type Np stream

all perennial non-fish-bearing streams that are not Type SSBT or Type F

Type Ns stream

all seasonal non-fish-bearing stream reaches that are not Type SSBT, Type F or Type Np streams

Type SSBT stream

a fish-bearing stream with salmon, steelhead or bull trout present or otherwise used by salmon, steelhead or bull trout at any time of the year

Understory vegetation

plants growing below the canopy formed by trees and other taller plants in a forest

Unit

an operation area submitted on a notification of operation to the Oregon Department of Forestry (ODF) that is identified on a map and that has a single continuous boundary; ODF uses unit size to determine the number of down logs, snags and green live trees that must be retained in the area that will be logged, and compliance with timber harvest Type 3 size limits and other applicable forest practice rules that the landowner or operator must follow

Vacated roads

impassable roads that are no longer used for forest management purposes or commercial forest harvesting activities left in a condition where road-related damage to nearby waterways is unlikely

Verified end

a stream's upper-most point of perenniality, as established pursuant to a specific process of field verification outlined in the Oregon Forest Practices Act (OFPA)

Waste disposal area

location for excess soil, rock and other debris from road construction that is stable, and is not in danger of the material entering nearby waterways

Water bar

a diversion ditch and/or hump in a trail or road for the purpose of carrying surface water runoff into the vegetation and duff, so that it does not gain the volume and velocity necessary to cause soil movement or erosion

Watercourse

natural or artificial channel through which water flows

Water development

water bodies developed for human purposes that are not part of a stream, such as waste treatment lagoons, reservoirs for industrial use, drainage ditches, irrigation ditches, farm ponds, stock ponds, settling ponds, gravel ponds, cooling ponds, log ponds, pump chances, or heliponds that are maintained for the intended use by human activity

Waters of the state

include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, wetlands, inlets, canals and the Pacific Ocean, that are located within the territorial limits of the State of Oregon; all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters) are included when they are wholly or partially within or bordering the state or within its jurisdiction

Western Oregon

the region of the state west of the Cascade Crest; see map in the Riparian Management chapter

Wetland

areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions; wetlands include marshes, swamps, bogs and similar areas; wetlands do not include water developments

Wildlife food plot

a small forestland area that instead of being used for growing and harvesting of a forest tree species, is planted with vegetation or has vegetation capable of substantially contributing to wildlife nutrition

Wildlife guild

a grouping of wildlife that has similar characteristics and fulfills similar ecological roles in the environment

Wildlife leave trees

live trees or snags that must be left standing after a timber harvest to provide habitat for wildlife

Wildlife tree

a green tree at least 30 feet tall and at least 11 inches diameter at breast height (DBH) planned to be left standing after a timber harvest to provide habitat for birds and other wildlife

Wingwalls

provide smooth entry of water into the bridge site and support and protect the embankment; wingwalls can serve as buttresses to support walls or be purely decorative

Written plan

a document prepared by an operator, timber owner or landowner that describes the plan for a proposed forest operation

ACRONYMS

AMPC	Adaptive Management Program Committee
AOI	area of interest
BA	basal area
BFW	bankfull width
BGOs	biological goals and objectives
CBM	certified burn manager
cfs	cubic feet per second
CIP	channel initiation point
CMP	corrugated metal pipes
CMZ	channel migration zone
CPP	corrugated polyethylene pipes
DBH	diameter at breast height
DDFTA	designated debris traversal area
DEQ	Department of Environmental Quality (Oregon)
DFTA	debris flow traversal area
DOGAMI	Department of Geology and Mineral Industries (Oregon)
DSL	Department of State Lands (Oregon)
DSSA	designated sediment source area
ELZ	equipment limitation zone
EOP	end of perenniality
EPA	Environmental Protection Agency (U.S.)
ESA	Endangered Species Act
FCTC	Forest Conservation Tax Credit
FERNS	Forest Activity Electronic Reporting and Notification System
FPA	Forest Practices Act (Oregon)
FRIA	Forest Road Inventory and Assessment
FSA	Farm Service Agency (U.S. Department of Agriculture)
HCP	Habitat Conservation Plan
HLHL	high landslide hazard location
IFPL	industrial fire precaution level
IPM	integrated pest management
IRST	Independent Research and Science Team
NHD	nationwide hydrologic data
NMFS	National Marine Fisheries Service (National Oceanic and Atmospheric Administration, U.S. Department of Commerce)
NRCS	National Resource Conservation Service (U.S. Department of Agriculture)
OAR	Oregon Administrative Rule
ODA	Oregon Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
OERS	Oregon Emergency Response System
OFPA	Oregon Forest Practices Act
OR-OSHA	Oregon Occupational Safety and Health (Department of Consumer and Business Services)
ORS	Oregon Revised Statutes
PDM	power-driven machinery
PFA	Private Forest Accord
PFAP	plan for an alternate practice
R-ELZ	retention-equipment limitation zone
RMA	riparian management area
SAF	stream-adjacent failure
SFISH	Small Forestland Investment in Stream Habitat Program
SFO	small forestland owner
SRA	slope retention area
SSBT	salmon, steelhead and/or bull trout (stream)
USFS	U.S. Forest Service
WRD	Water Resources Department (Oregon)

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Organization key

AOL	Associated Oregon Loggers
MSU	Michigan State University
ODFW	Oregon Department of Fish and Wildlife
ODF	Oregon Department of Forestry
OFIC	Oregon Forest Industries Council
OFRI	Oregon Forest Resources Institute
OSWA	Oregon Small Woodlands Association
OSU	Oregon State University

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For more details and links to the official state laws and rules regulating forestry practices on Oregon's private forests, including new riparian rules effective Jan. 1, 2024, please visit the Oregon Department of Forestry website: **oregon.gov/odf/pages/lawsrules.aspx**

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