

DIVISION 650
WATER PROTECTION RULES: RIPARIAN MANAGEMENT AREAS
AND PROTECTION MEASURES FOR LAKES

RIPARIAN MANAGEMENT AREAS AND PROTECTION MEASURES FOR LAKES
OAR 629-650-0000

- (1) *The purpose of this rule is to protect the functions and values of lakes. Lakes on forestlands provide a wide range of functions and values, including those related to water quality, hydrologic functions, aquatic organisms, and fish and wildlife.*

RULE COMPLIANCE:

This section is not subject to enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

The difference between lakes and wetlands is not always clear. For the purposes of applying Forest Practice Rules, a “lake” is defined in OAR 629-600-0100(40) as a water body with year round standing open water. The water, vegetation, aquatic life or habitats, and the beds, banks or wetlands below the normal high water level are all considered to be a part of a lake. On many sites, lake and wetland areas may be interspersed. Classify such sites by the dominant feature; if it looks like a lake with some wetlands around it, call it a lake.

Lakes do not include "water developments," as defined in OAR 629-600-0100(90).

RELATED RULES AND STATUTES:

- OAR 629-600-0100 Definitions - (40) "Lake"
- OAR 629-600-0100 Definitions - (90) "Water Development"

REFERENCES:

- *Oregon's Forest Protection Laws An Illustrated Manual*, Oregon Forest Resources Institute, 2018

RIPARIAN MANAGEMENT AREAS AND PROTECTION MEASURES FOR LAKES

OAR 629-650-0000

- (2) *Operators shall protect riparian management areas extending:*
- (a) *100 feet from the high water mark of large lakes; and*
 - (b) *50 feet from the high water level of other lakes that have fish use or other lakes that are equal to or greater than one-half acre in size.*
 - (c) *No riparian management area is required for other lakes that do not have fish and are less than one-half acre.*

RULE COMPLIANCE:

This section is not subject to enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

Section (2) defines the RMA width for each lake classification. RMA widths are measured in slope distance from the high water level. The stated RMA widths are not averages; they must be applied strictly. Operators desiring to apply RMA widths as averages must submit alternate plans; Stewardship Foresters (SFs) may approve such plans if protection will be equal to or better than what would result from applying a strict, unvarying width.

The classification rules and protection rules work together to produce some *de facto* lake classifications that are not apparent without careful review of the rules. A brief listing of each classification is shown below:

1. Large lakes greater than eight acres, with or without fish; 100-foot RMA.
2. Other lakes less than eight acres (no minimum size) with fish; 50-foot RMA.
3. Other lakes between one-half acre and eight acres, no fish; 50-foot RMA.
4. Other lakes between one-quarter acre and one-half acre, no fish; no RMA, but OAR 629-650-0000(4) requires essentially the same protection as "other wetlands, greater than one-quarter acre." Protection requirements are listed in OAR 629-655-0000(2).
5. Other lakes less than one-quarter acre, no fish; no RMA, but OAR 629-650-0000(4) requires the same protection as "other wetlands, less than one-quarter acre." Protection requirements are listed in OAR 629-655-0000(3).

RELATED RULES AND STATUTES:

- OAR 629-655-0000(2),(3), (4) Protection measures for "other wetlands," seeps and springs

REFERENCES:

- *Oregon's Forest Protection Laws An Illustrated Manual*, OFRI, 2018

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OAR 629-650-0000

- (3) *For all lakes with riparian management areas, operators shall provide the following to the riparian management areas and the aquatic areas:*
- (a) *Live tree retention (OAR 629-650-0010);*
 - (b) *Soil and hydrologic function protection (OAR 629-650-0020);*
 - (c) *Understory vegetation protection (OAR 629-650-0030); and*
 - (d) *Snag and downed wood retention (OAR 629-650-0040).*
- (4) *For all lakes not having riparian management areas, the lakes shall be protected as other wetlands (OAR 629-655-0000).*

RULE COMPLIANCE:

These sections are not subject to enforcement action. Enforcement action will generally be taken under the appropriate section(s) in OAR 629-650-0010 through 0040.

ADMINISTRATION AND IMPLEMENTATION:

Section (3) refers to the protection measures required for lakes and RMAs.

Protection rules OAR 629-650-0010 through -0040 apply only to lakes that are assigned RMAs by OAR 629-650-0000(2). Each of the listed subsections discusses one facet of lake protection. SFs should keep in mind that the protection rules are all related; they must be considered as integral parts of the whole lake protection effort.

A non-statutory written plan is required for operations within 100 feet of large lakes (greater than 8 acres), OAR 629-605-170(10)(n) and OAR 629-650-0005. Written plans must describe how operations will be conducted to comply with lake protection rules.

A non-statutory written plan is **not required** for operations along other lakes (8 acres or less, even those with fish), unless there is risk of road-generated materials entering waters of the state, machine activity is conducted in the lake or a separate approved plan for alternate practices required for work near other lakes.

RELATED RULES AND STATUTES:

- OAR 629-605-0170(10)(n) Written plans for operating within 100 feet of a large lake
- OAR 629-625-0100(2) Written plan for machine activity near waters of the state
- OAR 629-650-0000(2) RMA and protection measures for lakes
- OAR 629-650-0005 Written plans operating within 100 feet of large lake
- OAR 629-650-0010 through 629-650-0040

REFERENCES:

- *Oregon's Forest Protection Laws An Illustrated Manual*, OFRI, 2018

WRITTEN PLANS**629-650-0005 Written Plans for Operations Near Large Lakes**

An operator shall submit a written plan to the State Forester before conducting an operation that requires notification under OAR 629-605-0140 and that is within 100 feet of a large lake.

RULE COMPLIANCE:

This section is used for enforcement. Existence of damage is not a prerequisite for enforcement action.

ADMINISTRATION AND IMPLEMENTATION:**Non-statutory Written Plans**

Non-statutory written plans are required by rule. Unlike statutory written plans that are required by law and mandatory, non-statutory plans may be waived, do not have a required comment period for interested parties (although written plans are public information), and are not subject to hearings and appeals. Non-statutory written plans require a 14 calendar day department comment period. Any or all of this comment period may be waived by the SF.

Requiring a Non-statutory Written Plan

Unlike statutory plans, there is no requirement for the SF to advise the operator of a non-statutory plan requirement. While it is reasonable to expect the operator to know what practices or operations require written plans, the SF should inform the operator of the written plan requirement whenever possible.

Waiving the Non-statutory Written Plan Requirement

Factors the SF may apply when considering waiving this requirement include site specific characteristics of the operation area and the knowledge, skills, and abilities of the operator. Any waiver of the requirement for a written plan must be indicated in FERNS Formal Comments. See additional discussion in Guidance for OAR 629-605-0170(10) non-statutory written plans.

RELATED RULES AND STATUTES:

- OAR 629-600-0100(43) definition of large lake
- OAR 629-605-0170(10)(n) Non-statutory written plan within 100 feet of large lake
- OAR 629-605-0170(10) and (11) Non-statutory written plan; review and comment
- OAR 629-605-0170(12) and (13) Written Plan Content

REFERENCES:

- *Oregon's Forest Protection Laws An Illustrated Manual*, Oregon Forest Resources Institute, 2018

LIVE TREE RETENTION FOR LAKES**OAR 629-650-0010**

- (1) *Operators shall retain in the riparian management areas of lakes approximately 50 percent of the original live trees, by species, in each of the following diameter classes (DBH):*
- (a) *6 to 10 inches;*
 - (b) *11 to 20 inches;*
 - (c) *21 to 30 inches;*
 - (d) *larger than 30 inches.*

RULE COMPLIANCE:

This section is subject to enforcement action. Noncompliance with this section occurs when:

1. The live post-harvest stand in the RMA is not representative of the pre-operation live stand, by species, diameter class, and spatial distribution; or
2. Less than approximately 50 percent of the live trees in the RMA remain on site.

Failure to retain the required trees results in adverse impacts to water quality, and aquatic and wildlife habitats. Failure to comply results in a violation since there is no opportunity to avoid the adverse impacts. In cases where operators retain trees adequately but damage them through careless operations, refer to the guidance under OAR 629-630-0600 through -0800 and OAR 629-615-0200 for appropriate enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

Section (1) requires operators to leave approximately half of the pre-operation live trees by species and diameter in lake RMAs. The Board of Forestry intended the "approximately 50 percent" to be applied literally. The post-operation stand should generally approximate the species and size distribution of the pre-operation stand. Operators are not required to make exact counts of pre-operation versus post-operation live trees by diameter class and species.

SFs should not routinely conduct formal surveys to determine compliance but make initial checks by visual observations. Where noncompliance is obvious, surveys are not necessary; photographs that clearly illustrate the situation will be sufficient evidence of noncompliance. Where noncompliance is less obvious, surveys may be necessary. Contact the Forest Practices Field Coordinator in these situations before conducting surveys or taking enforcement action.

Once the "approximately 50 percent" of the live trees have been removed, further harvest entries into the lake RMA are prohibited until the next rotation, or until the pre-operation stand conditions are reestablished. **However, trees removed from harvests that occurred before the water protection rules were in effect should not be considered as part of the "original" live trees.** The water protection rules became effective September 1994.

The Board intended that live trees be retained in a pattern of generally even distribution over forested portions of the lake RMA. Live trees required to be left in lake RMAs may not be counted to meet the standing tree or snag requirements in clearcuts. ORS 527.676(2) authorizes the Board of Forestry to make rules to meet the wildlife leave tree requirements with the trees that are otherwise required to be left for significant wetland, but the Board as not made such rules.

RELATED RULES AND STATUTES:

- OAR 629-630-0600 through 0800 Felling; removal of slash; Yarding; cable equipment; and Yarding; ground-based equipment
- OAR 629-615-0200 Mechanical site preparation

REFERENCES:

- *Oregon's Forest Protection Laws An Illustrated Manual*, Oregon Forest Resources Institute, 2018

LIVE TREE RETENTION FOR LAKES***OAR 629-650-0010***

- (2) *As part of the live trees in subsection (1) above, trees on the edges of lakes shall be retained.*

RULE COMPLIANCE:

This section is subject to enforcement action. Noncompliance with this section occurs when trees on the edge of high water are cut. Failure to retain the required trees results in adverse impacts to water quality, and aquatic and wildlife habitat. Failure to comply results in a violation since there is no opportunity to prevent the adverse impacts.

ADMINISTRATION AND IMPLEMENTATION:

- Section (2) specifies that trees along the edges of lakes must be left. Trees closest to lake edges provide the greatest benefit to lakes.

REFERENCES:

- *Oregon's Forest Protection Laws An Illustrated Manual*, Oregon Forest Resources Institute, 2018

SOIL AND HYDROLOGY PROTECTION FOR LAKES**OAR 629-650-0020**

- (1) *Operators shall protect soil within the riparian management areas of lakes from disturbances that result in impaired water quality, hydrologic functions, or soil productivity. Operators shall protect hydrologic functions by minimizing disturbances and shall prevent accelerating the natural conversions of lakes to uplands.*

RULE COMPLIANCE:

This section is subject to enforcement action. Failure on the operator's part to minimize soil disturbance sufficiently in lake RMAs to meet the standards in section (1) is noncompliance. Noncompliance results in adverse impacts to water quality, hydrologic function, and soil productivity.

ADMINISTRATION AND IMPLEMENTATION:

Harvesting and reforestation activities are allowed in lake RMAs. However, operators must keep soil disturbance below the threshold where water quality, hydrologic functions, or soil productivity would be impaired, or natural conversion of lakes to uplands would be accelerated. Careful planning and execution of activities is needed to protect lakes and RMAs while growing and harvesting trees. For large lakes, operators must submit detailed written plans showing all activities that will be conducted and how lake values and functions will be protected.

Following are guidelines for applying protection rules, evaluating written plans, and determining compliance. If the guidelines do not match local site conditions, SFs should encourage operators to submit alternate plans.

Harvesting

To protect understory vegetation during falling operations operators must:

- Carefully plan skid trails and fall trees to lead.
- Carefully select trees for harvest that may be felled with least disturbance to understory vegetation.
- Comply with OAR 629-630-0600 Felling; Removal of Slash.

Ground-Based Yarding

To protect soil productivity, hydrologic function, water quality, and understory vegetation, operators must:

- Avoid equipment entry into aquatic areas, riparian areas, and wet soil areas, even during dry periods.

- Keep skid roads at least 35 feet from the high water level.
- Restrict equipment to upland areas in the RMA.
- Keep skid roads at least 100 feet apart, unless limited application of closer spacing will better protect lake values and functions. Spacing should be greater whenever possible.
- Retain sufficient areas of undisturbed soil and understory vegetation along aquatic areas to filter sediment from water running off of disturbed areas.
- Avoid equipment entry onto areas steeper than 35% slope unless the entry can be made without cutting or filling more than one foot.
- Avoid diverting water into or out of lakes.
- Avoid locating landings in RMAs. Operators, in cooperation with SFs, should consider all options to keep landings out of lake RMAs.

Cable Yarding

To protect retained live trees, soil productivity, hydrologic function, and understory vegetation, operators must:

- Obtain prior approval before cable yarding across any lake. A written plan is required for any operations within 100 feet of large lakes; prior approval for cable yarding is obtained in that process. When operators propose yarding over "other lakes," prior approval is still required, but SFs have discretion in determining if a written plan is needed.
- Fully suspend logs over aquatic areas and riparian areas. At least one-end suspension is required over other portions of RMAs.
- Space yarding roads or corridors at least 100 feet apart, unless limited application of closer spacing would better protect lake values and functions.
- Keep yarding corridors to less than 20 feet in width; SFs should encourage operators to keep corridor widths to 10 feet wherever possible.
- Avoid locating landings in RMAs. Operators, in cooperation with SFs, should consider all options to keep landings out of lake RMAs.

Mechanical Site Preparation

To protect all lake functions and values, operators must:

- Avoid equipment entry into aquatic areas and riparian areas, or wet soil areas, even during dry periods.
- Avoid use of "dozer and blade" for scarification or piling in RMAs. Excavators or "slashbuster" type equipment may be used to create planting spots on upland areas. Limited piling of slash with excavators is acceptable if it is necessary to accomplish reforestation. Only slash may be piled; naturally downed wood must be left in place. Equipment should use existing skid trails for access as much as possible.
- Avoid site preparation activities within 10 feet of the high water level.
- Avoid site preparation activities in wetland areas within RMAs.
- Retain sufficient areas of undisturbed soil and understory vegetation along aquatic areas to filter sediment from water running off of disturbed areas.
- Avoid entry of equipment onto areas steeper than 35% slope unless the entry can be made without cutting or filling more than one foot.
- Avoid diverting water into or out of lakes.

Roads

Roads should not be constructed in lake RMAs. Operators, in cooperation with SFs, should consider all options to keep roads out of lake RMAs. SFs may approve alternate plans for minor road construction in RMAs. SFs should contact the ODF Area Geotechnical Specialist and Wildlife Biologist if operators propose any more than minor road construction in RMAs.

Where operations result in conversion to uplands, SFs should contact the Forest Practices Field Coordinator, who will in turn contact the Department of State Lands (DSL); rules administered by that agency may have been violated.

RELATED RULES AND STATUTES:

- OAR 629-630-0600 Felling; removal of slash

REFERENCES:

- Memorandum of Agreement Between ODF and DSL, dated February 27, 1996
- *Oregon's Forest Protection Laws An Illustrated Manual*, OFRI, Third Edition, 2018

SOIL AND HYDROLOGY PROTECTION FOR LAKES
OAR 629-650-0020

- (2) *Operators shall not drain lakes, except for lakes formed by plugged culverts or beaver dams and as allowed in rule for road maintenance.*

RULE COMPLIANCE:

This section is subject to enforcement action. Failure to comply, results in adverse impacts to hydrologic functions in lakes, since there is no opportunity to avoid the adverse impacts. Where operations result in conversion to uplands, SFs should contact the Forest Practices Field Coordinator, who will in turn contact the DSL; rules administered by that agency may have been violated.

ADMINISTRATION AND IMPLEMENTATION:

With exceptions made for road maintenance, section (2) prohibits operators from draining lakes.

Examples of prohibited activity include, but are not limited to: diverting water out of or away from lakes, construction of drainage ditches, or removal of obstructions that impound lake water.

SFs may allow operators to remove obstructions when impounded water poses hazards to protected resources or public safety. SFs should seek solutions that will satisfy concerns for resource protection and public safety. More guidance on operations and public safety is available under OAR 629-605-0500.

The reference in section (2) to "in rule for road maintenance" applies to OAR 629-660-0050 (Beaver dams or other natural obstructions) which specifies when removal of beaver dams or other natural obstructions may be allowed, and when prior approval is required.

RELATED RULES AND STATUTES:

- OAR 629-605-0500 Modification of requirements for forest health and public safety

UNDERSTORY VEGETATION RETENTION FOR LAKES**OAR 629-650-0030**

- (1) *The purpose of retaining understory vegetation is to provide soil stability and bank stability along lakes, to maintain cover and shade for wildlife habitat and aquatic habitat, and to protect water quality.*
- (2) *To achieve the purpose of understory retention, operators shall limit disturbances of understory vegetation within riparian management areas of lakes to the minimum necessary to remove timber harvested from the areas and to achieve successful reforestation.*

RULE COMPLIANCE:

Section (2) is subject to enforcement action. Failure to protect understory vegetation is noncompliance, which results in adverse impacts to water quality, or aquatic or wildlife habitat. Noncompliance results in a violation, since there is no opportunity to avoid the adverse impacts.

ADMINISTRATION AND IMPLEMENTATION:

Section (1) describes the values that are protected by retaining understory vegetation. SFs should use section (1) as a guide for applying and enforcing section (2) of this rule. Section (2) allows operations in lake RMAs, if lake values listed in section (1) of this rule are protected by retaining understory vegetation. Refer to OAR 629-650-0020(1) for harvesting and reforestation guidance within lake RMAs.

RELATED RULES AND STATUTES:

- OAR 629-650-0020(1) Soil and hydrology protection for lakes

SNAG AND DOWNED WOOD RETENTION FOR LAKES**OAR 629-650-0040**

- (1) *For lakes, operators shall retain all snags and downed trees within the lakes and the applicable riparian management areas.*
- (2) *Notwithstanding subsection (1) of this rule, any snag defined to be a safety hazard under the safety requirements found in OAR 437, Division 6, Forest Activities, or determined to be a fire hazard by the State Forester, may be felled. Any snag felled because of a safety or fire hazard shall be left unyarded.*

RULE COMPLIANCE:

These sections are subject to enforcement action. Compliance is achieved by the retention of all snags and downed trees within the lakes and RMAs. Compliance requires that snags felled for safety or fire hazard reasons be retained where they were felled in the RMA or lake.

An unsatisfactory condition occurs if operators do any of the following in lakes or RMAs:

1. Fell snags that are not fire hazards or operational safety hazards; or
2. Remove snags that have been felled as fire hazards or operational safety hazards; or
3. Remove downed wood that existed prior to the operation.

Unsatisfactory conditions should be evaluated for the opportunity to repair adverse impacts. If repair is not possible or not completed a violation exists.

ADMINISTRATION AND IMPLEMENTATION:

Downed trees referred to in section (1) are defined as trees or portions of trees that have fallen naturally; slash, in contrast, is defined as trees or portions of trees that have fallen as a result of harvesting operations. OAR 629-630-0600(3)(a) requires operators to remove slash from lakes within 24 hours after it has entered the lake.

The determination of snags that are operational safety hazards, as determined by OAR 437, Division 6, Forest Activities (administered by OR-OSHA), should normally be left to the operator. Felling of live trees that are operational safety hazards (spike-tops, for example) is covered within OAR 629-605-0400. Snags in RMAs are rarely fire hazards; thus, operators must obtain approval from the SF before felling such snags.

Snags felled under either of these two conditions must be left where they fall. Except as permitted by OAR 629-650-0040(3), operators are never allowed to yard felled snags to landings, or to remove the snags from lakes and RMAs. Unless there is a safety-related reason for urgent action, operators must obtain prior approval in the written plan required by OAR 629-605-0170(1)(c) before removing hazard snags from RMAs.

When public safety, rather than operational safety, is at issue, SFs should consult the guidance for OAR 629-605-500.

RELATED RULES AND STATUTES:

- OAR 437, Division 6, Forest activities (administered by OR-OSHA)
- OAR 629-605-0170(1)(c) Written plans
- OAR 629-605-400 Forest activity safety
- OAR 629-605-0500 Modification of requirements for forest health and public safety
- OAR 629-630-0600(3)(a) Felling; removal of slash
- OAR 629-650-0040(3) Snag and downed wood retention for lakes

REFERENCES:

- *"Oregon Guidelines For Selecting Wildlife Trees"*; Oregon OSHA, et al, 1995

SNAG AND DOWNED WOOD RETENTION FOR LAKES**OAR 629-650-040**

- (3) *Notwithstanding subsection (1) of this rule, retention requirements may be modified for reasons of forest health for trees that are dying or recently dead or dying because of fire, insect or disease epidemics, or other catastrophic events when addressed in a written plan approved by the State Forester.*
- (4) *Snags and downed wood left pursuant to subsection (1) of this rule may not be counted toward the requirements of Section 5, chapter 919, Oregon Laws 1991.*

RULE COMPLIANCE:

This section is not subject to enforcement action. Enforcement action for removal of snags or downed wood from lakes will be taken under OAR 629-650-040(1). Failure to obtain or follow an approved written plan will also generally be involved; see the guidance under OAR 629-605-0170 for appropriate enforcement action

ADMINISTRATION AND IMPLEMENTATION:

Section (3) allows SFs to approve alternate plans that address genuine forest health problems. For large lakes, operators must submit written plans, which are subject to the 14-day public review period. For other lakes with RMAs, operators must submit written alternate plans. Written plans must describe the forest health concerns, the proposed operations, and how the operations will address the concerns.

The following excerpt from the 1991 Statement of Board of Forestry Intent - Significant Wetland Rules was meant for significant wetlands, but applies to lakes in this case:

" . . . regarding removal of dead or dying trees from [riparian] management areas, [the section] is written primarily in response to forest health concerns in eastern Oregon and is not intended to be applied on an individual tree basis. Rather, when leaving large numbers of dead trees in an area poses a realistic threat to the health of the surrounding forest, exceptions may be granted through the written plan approval process."

The excerpt refers "primarily" to eastern Oregon; section (3) may also be applied where similar concerns are present on western Oregon sites.

Although section (3) applies only to trees that are "recently dead or dying," the concept of allowing alternate retention practices also applies to snags and downed trees, when there is a genuine concern for forest health. SFs should work with operators and appropriate specialists to protect lakes while meeting forest health concerns. The Board of Forestry has the authority to adopt rules that allow double counting of trees and downed logs but has not done so.

RELATED RULES AND STATUTES:

- OAR 629-605-0170 Written plans
- OAR 629-650-0040(1) Snag and downed wood retention for lakes
- ORS 527.676 [Section 9, Chapter 9, Oregon Laws 1996 Special Session] Leaving snags and downed logs in harvest type 2 or type 3 units: green trees to be left near certain streams

REFERENCE:

- Statement of Board of Forestry Intent - Significant Wetland Rules, 1991