DIVISION 615
TREATMENT OF SLASH

PURPOSE
629-615-0000

(1) OAR 629-615-0000 to 0300 shall be known as the treatment of slash rules.

(2) For the purposes of these rules, treatment of slashing is recognized as a necessary tool for the protection of reproduction and residual stands from the risk of fire, insects, and disease, to prepare the site for future productivity and to minimize the risk of material entering streams. Such treatment may employ the use of mechanical processes, fire, chemical or other means to minimize competitive vegetation and residue from harvesting operations.

RULE COMPLIANCE:

This section is not subject to enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

This rule is a policy statement and provides the purpose of the slash disposal rules.

MAINTENANCE OF PRODUCTIVITY AND RELATED VALUES
629-615-0100

(1) Operators shall plan and conduct forest operations in a manner which will provide adequate consideration to treatment of slashing to protect residual stands of timber and reproduction to optimize conditions for reforestation of forest tree species, to maintain productivity of forestland, to maintain forest health, and maintain air and water quality and fish and wildlife habitat.

RULE COMPLIANCE:

This section is not subject to enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

This rule recognizes slash treatments must be considered and evaluated in the planning stages of any harvest operation. The rule identifies natural resource components which should be evaluated for protection during the planning phase of the operation. The intent of the rule is to advise operators that through the planning stages every opportunity should be taken to evaluate slash accumulations and provide acceptable treatment methods next to and around protected resources.

MAINTENANCE OF PRODUCTIVITY AND RELATED VALUES
629-615-0100

(2) Operators shall dispose of or disperse unstable slash accumulations around landings to prevent their entry into streams.

RULE COMPLIANCE:

This rule is subject to enforcement action. Compliance occurs when slash accumulations are disposed of or left in a stable condition so as not to enter waters of the state. A violation exists when slash left in an unstable condition enters waters of the state. A written statement is appropriate when slash is discovered in an unstable location but has not yet entered the waters of the state.

Example: *The operator left slash concentrations on slopes over 60 percent.*

- A written statement should be issued to direct the operator to spread out the overhanging slash concentrations, to address the unstable slope conditions.

ADMINISTRATION AND IMPLEMENTATION:

Unstable slash accumulations left on or around landings that have the potential to enter streams must be stabilized or disposed of to prevent entry into waters of the state. When unstable slash accumulations are present, appropriate repairs include removal and placement in a stable location, burning, or dispersing so that there are no overhangs. The end result must be a stable site (or as nearly stable as natural). Other rules which may correspond to this situation are OAR 629-630-0300 (drainage systems) and OAR 629-630-0400 (treatment of waste materials).

MECHANICAL SITE PREPARATION NEAR WATERS OF THE STATE
629-615-0200

(1) When mechanical site preparation is necessary in riparian management areas or near waters of the state, operators shall conduct the operations in a way that sediment or debris does not enter waters of the state.

RULE COMPLIANCE:

This section, the rule intent statement, can be subject to enforcement action. When possible, determination of rule compliance should be based on sections (2) through (4) of this rule. However, when mechanical site preparation operations cause damage in ways not addressed by sections (2) through (4), enforcement under this section is appropriate. Compliance occurs when mechanical site preparation is conducted and completed in a manner which ensures that sediment or debris does not or cannot enter waters of the state as a result of the operation.

ADMINISTRATION AND IMPLEMENTATION:

This section provides the resource protection objectives for mechanical site preparation operations near all waters of the state. It is intended mainly as guidance. Mechanical site preparation operations must keep sediment and debris out of waters of the state, and must not alter the ability of the RMA to filter sediment.

MECHANICAL SITE PREPARATION NEAR WATERS OF THE STATE
629-615-0200

(2) When using mechanical site preparation, operators shall provide adequate distance between disturbed soils and waters of the state to filter sediment from run-off water.

RULE COMPLIANCE:

This section is subject to enforcement action. Noncompliance includes:

1. Turbidity or evidence of sediment delivered to a stream of any size or type originating from ground disturbed by mechanical site preparation; or

2. Any compaction, rutting, or other ground disturbance from site preparation activity that is so close to any channel, lake or wetland that sediment delivery to that waterbody is likely. Prior to citing under this section, consult the area geotechnical specialist.

Noncompliance is normally a violation, since the ability to filter sediment has been lost for a period of time. Repair is generally not feasible.

ADMINISTRATION AND IMPLEMENTATION:

During mechanical site preparation, operators must leave a strip of undisturbed soils next to all streams, lakes and wetlands. This "filter strip" must be wide enough to trap any sediment generated by water flowing over the unit. The greater the disturbance in the unit, the wider the zone of undisturbed soils next to the waterbody. As a rule of thumb, soil displacement within 20 feet of any channel, lake or wetland does not leave enough distance for sediment filtration.

Vegetation within this filter strip may be removed so long as the soils are not compacted or moved. Soil organic matter must be retained in sufficient quantity for the strip to function as a sediment filter.

MECHANICAL SITE PREPARATION NEAR WATERS OF THE STATE
629-615-0200

(3) Operators shall not use mechanical site preparation in riparian management areas:
(a) On slopes over 35 percent, with the exception of excavator-type equipment used during dry periods; or
(b) On sites with evidence of surface or gully erosion; or
(c) Where exposure or compaction of the subsoil is likely to occur.

RULE COMPLIANCE:

This section is subject to enforcement action. After mechanical site preparation activity in an RMA, evidence of noncompliance includes:

1. Disturbance of slopes over 35 percent within the RMA, except by equipment which reached into the RMA and did not compact or move soils;

2. Physical disturbance caused by machines in or adjacent to any gully or other active erosion site within the RMA;

3. Rutting or puddling of soils, or exposure of the lighter-colored subsoils within the RMA.

Disturbance within skid roads is not evidence of noncompliance with this rule.

Noncompliance is normally a violation, since the ability to filter sediment has been lost for a period of time. In limited cases (i.e. flat ground, limited disturbance next to channel) mulching and seeding can prevent damage. Such cases should first be handled with a written statement.

ADMINISTRATION AND IMPLEMENTATION:

The types of operations described in subsections (a), (b), and (c) usually will cause erosion and sediment delivery to streams and therefore are to be prevented.

MECHANICAL SITE PREPARATION NEAR WATERS OF THE STATE
629-615-0200

(4) During mechanical site preparation, operators shall not place debris or soil in waters of the state or where it may enter waters of the state.

RULE COMPLIANCE:

This section is subject to enforcement action. Evidence of noncompliance includes slash or soil placed, pushed, or otherwise moved onto or over-hanging any streambank; in side channels; in or over-hanging wetlands; or in any aquatic area.

Noncompliance for wood placed below the high water level but outside of water in streams, lakes or wetlands should normally be handled through a written statement. Noncompliance where soil or debris has been placed in a stream, lake, or wetland or has been moved by erosion into these waters of the state is a violation. Citations should be issued for violations.

ADMINISTRATION AND IMPLEMENTATION:

Operators must **never push** slash or debris into any waters of the state. In some cases, large slash may be **placed** in streams, if consistent with stream enhancement, and done according to an approved plan for an alternate practice (PFAP).

PROTECTION OF SOIL PRODUCTIVITY DURING MECHANICAL SITE PREPARATION
629-615-0250

On land clearing projects where mechanical methods are used, operators shall minimize compaction and movement of topsoil to protect soil productivity.

RULE COMPLIANCE:

This section can be subject to enforcement action. Noncompliance exists when excessive soil deterioration occurs. In instances where disturbance and/or compaction appear excessive, consult with the regional geotechnical specialist and the Forest Practices Enforcement Coordinator for determination of noncompliance.

ADMINISTRATION AND IMPLEMENTATION:

Effects on soil productivity should be evaluated according to the soil deterioration guidelines in OAR 629-630-0100. Disturbing and piling excessive amounts of soil and duff during site preparation operations can reduce site productivity. In most cases, enforcement actions for soil productivity should be done with a written statement.

PRESCRIBED BURNING
629-615-0300

(1) Prescribed burning is a tool used to achieve reforestation, maintain forest health, improve wildlife habitat and reduce wildfire hazard. Prescribed burning is to be done consistent with protection of air and water quality, and fish and wildlife habitat. The purpose of this rule is to ensure that necessary prescribed burning is planned and managed to maximize benefits and minimize potential detrimental effects.

RULE COMPLIANCE:

This section is not subject to enforcement action. For unsatisfactory conditions resulting from prescribed burning which could have been avoided using proper burning practices, refer to OAR 629-615-0300(2)(b), (d), (e) or (f) for enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

This rule describes the objectives for prescribed burning operations. Prescribed burning conducted properly can be an important management tool, but it can have both positive and adverse effects on forest regeneration, wildfire hazard, air quality, and streams. Prescribed burning should be conducted in a way that minimizes adverse effects and maximizes positive effects.

Where prescribed burning may be necessary it should be considered as a part of the harvesting plan. Potential adverse effects should be anticipated prior to unit layout, harvesting, and actual prescribed burning. Proper planning is necessary to minimize adverse effects. Adverse effects prescribed burning can have on streams are:

- Consuming large woody debris in stream channels. (Large woody debris is to be maintained in channels; it plays a number of important roles such as storing sediment and providing aquatic habitat.)

- Substantially accelerating the dry ravel from steep slopes above streams.

- Consuming or killing the vegetation and woody debris that shade streams. (Absence of this shade can result in large increases in summer water temperatures.)

Stewardship Foresters (SFs) should use the contents of this rule to review written plans involving prescribed fire according to section (3) of this rule. SFs should also work with district protection personnel who may be issuing burning permits and burning plans, when required. Written plans which do not adequately address all of the specific sections should not be accepted as complete or “received”, OAR 629-605-0150(6).

Permit to Use Power-Driven Machinery (PDM)

A Notification of Operation and the Permit to Operate Power-Driven Machinery is required for operations inside or within one-eighth of one mile of a forest protection district. The PDM may be required by the local ODF district, when there is not a commercial forest operation. The PDM is a revocable permit with associated operator responsibilities for fire prevention and suppression. The permit also allows the State Forester to track operations and notify operators of changing fire prevention requirements. See also ORS 477.625 Permit to use fire or power-driven machinery; exception; conditions.

Note: The burning permit is a separate permit and is not issued simultaneously with acceptance of the Notification of Operation and Permit to Use Power-Driven Machinery.

PRESCRIBED BURNING
629-615-0300

(2) When planning and conducting prescribed burning, operators shall:
(a) Comply with the rules of Oregon's "Smoke Management Plan."

RULE COMPLIANCE:

This subsection is not subject to enforcement action. Noncompliance with the rules of Oregon's "Smoke Management Plan" will be enforced under OAR 629-43-043 or ORS chapter 477.

PRESCRIBED BURNING
629-615-0300

(2) When planning and conducting prescribed burning, operators shall:
(b) Adequately protect reproduction and residual timber, humus and soil surface.

RULE COMPLIANCE:

This subsection is subject to enforcement action. The intent of this subsection is to ensure that operators plan and conduct prescribed burns to adequately protect reproduction, residual timber, humus (duff), and soil. Compliance occurs when burning is accomplished and the above items have not been adversely affected over the majority of the burn area. A violation occurs when burns damage reproduction and residual timber so these items cannot provide the attributes for which they were left. Additionally, a violation occurs when burns excessively consume duff or damage soils to the extent that productivity is reduced and sedimentation to waters of the state occurs.

Operators considering prescribed burning units which could cause sedimentation to protected waters of the state must obtain prior approval of the methods that will be used to protect these resources. Prescribed burning of these units without a written plan is a procedural violation, unless there is damage, OAR 629-670-0125.

ADMINISTRATION AND IMPLEMENTATION:

Operators must avoid burning when conditions are such that duff over the majority of the unit will be totally consumed. In most instances total consumption of the duff layer coincides with excessive consumption of large woody debris and long term soil damage. Burning patterns, ignition methods, and fuel moisture should be used to provide the greatest amount of protection to riparian vegetation and to minimize humus (duff) consumption as much as possible. Minimizing duff consumption will help to provide soil protection as well as reduce emissions affecting air quality.

For units which require written plans for prescribed burning, operators must anticipate normal fire effects and describe these effects in the written plan. The plan must show how burning will be conducted to minimize adverse effects. The plan should include information on minimum fuel moisture (10-hour and 1000-hour), minimum humidity, maximum wind speed and direction, and maximum temperature that will be allowed. Burning patterns, ignition methods, fuel quantities, and burning conditions must be carefully evaluated for their effects on steep ravelly soils. The Smoke Management Directive 1-4-1-601 provides excellent references for evaluating fuel and duff consumption.

PRESCRIBED BURNING
629-615-0300

(2) When planning and conducting prescribed burning, operators shall:
(c) Consider possible detrimental effects of prescribed burning upon riparian management areas, streams, lakes, wetlands, and water quality, and how these effects can be best minimized.

RULE COMPLIANCE:

This subsection is not subject to enforcement action.

ADMINISTRATION AND IMPLEMENTATION:

This subsection is an awareness statement to help in the planning of prescribed burns which involve riparian management areas, streams, lakes, wetlands, and water quality.

PRESCRIBED BURNING
629-615-0300

(2) When planning and conducting prescribed burning, operators shall:
- ***(d) Lay out the unit and use harvesting methods that minimize detrimental effects to riparian management areas, streams, lakes, wetlands, and water quality during the prescribed burning operation.***
- ***(e) Fell and yard the unit to minimize accumulations of slash in channels and within or adjacent to riparian management areas.***
- ***(f) Minimize fire intensity and amount of area burned to that necessary to achieve reforestation, forest health or hazard reduction needs.***

RULE COMPLIANCE:

These subsections are subject to enforcement action. The intent of these rule subsections is to ensure that operators planning to use prescribed burning make front-end decisions when developing unit layout, selecting harvesting methods, and felling and yarding units, to minimize detrimental fire effects that may occur from burning. Compliance occurs when prescribed burning is accomplished and detrimental effects have been minimized so the above resources are not negatively impacted. A violation occurs when, as a result of the operation, these protected resources are negatively impacted by burning.

In situations where prescribed burning is planned after harvesting is completed, and detrimental effects to the protected resources is anticipated, an approved PFAP is required. In this situation compliance is achieved when an operator conducts burning and follows the approved PFAP. A violation exists when detrimental effects to the protected resources occur and burning was conducted under conditions not described in the PFAP.

ADMINISTRATION AND IMPLEMENTATION:

These are additional subsections that identify resources to be protected during slash burning operations. Unit layout and yarding should be planned to minimize fuel accumulations near riparian vegetation and within Type N stream channels. Operators should be expected to anticipate normal fire effects. When planning and conducting prescribed burns, fuel and weather conditions should be evaluated and selected to meet operator burning objectives while minimizing adverse effects. Burning patterns, ignition methods, and fuel moisture should be used which will provide the greatest amount of protection to riparian vegetation and minimize duff consumption.

Written plans, when required, should address all the necessary elements to minimize impacts on the vegetation required to be retained within RMAs and to minimize the effects of burning on steep and ravelly soils.

PRESCRIBED BURNING
629-615-0300

(3) When burning within 100 feet of Type F, Type SSBT and Type D streams, within 100 feet of large lakes, and within 100 feet of significant wetlands, operators shall describe in the written plan how detrimental effects will be minimized within riparian management areas; especially when burning on highly erosive soils, for example decomposed granite soils and slopes steeper than 60 percent.

RULE COMPLIANCE:

This section is not subject to enforcement action. Operators are in compliance with this rule when burning within the rule distances with a written plan. If intentional burning is conducted within these distances without a written plan, the operator is in violation of OAR 629-605-0170 and should be cited under that rule. If an operator conducts a prescribed burn with written plan but fails to follow the plan and non-reparable damage occurs, the operator is in violation of OAR 629-615-0300(4).

ADMINISTRATION AND IMPLEMENTATION:

Operators must describe in the written plan how the RMA and channel will be protected when slash burning within 100 feet of Type F, Type SSBT and Type D streams, within 100 feet of large lakes, or within 300 feet of significant wetlands.

It is strongly recommended that operators discuss harvesting and slash treatment methods in written plans for harvesting. SFs may ask operators to discuss the potential for slash burning in harvesting plans for RMAs. Insufficient discussion of slash burning in a written plan may be cause to ask for more information in written plans required under OAR 629-605-0170.

Operators must anticipate normal fire effects and describe these effects in the written plan required under this section. The plan must show that unit layout and yarding will minimize fuel accumulations near riparian vegetation **and within RMAs and Type N stream channels** as much as possible. The plan should include information on minimum fuel moisture (10-hour and 1000-hour), minimum humidity, maximum wind speed, and maximum temperature that will be allowed when burning adjacent to or within RMAs. Burning patterns and ignition methods which protect riparian vegetation as much as possible must also be specified.

Example: *The landowner proposes broadcast burning a harvest unit which has a protected RMA.*

- Require a written plan, which describes ignition patterns, recognizing 0-hour fuel moisture to minimize flame lengths, and 1000-hour fuel moistures to minimize heat retention along both sides of the RMA.

- The written plan must address all the necessary elements to minimize impacts on the vegetation required to be retained within RMAs and to minimize the effects of burning on steep and ravelly soils.
- **Fuel quantities and burning conditions should be carefully evaluated to determine if RMAs should be fire trailed or not.**

Burning within the RMA is allowed. The following rule section (OAR 629-615-0300(4)) provides details for acceptable burning within RMAs.

This rule also addresses hot burns on steep slopes with ravelly soils. Burning these slopes often results in increased erosion and stream sedimentation. SFs must carefully evaluate slopes over 60 percent, especially in the South Coast and Siskiyou Geographic Regions, to determine if burning is **essential** for hazard reduction or reforestation. If burning is essential, it should occur only when prescribed fire elements (fuel moisture, humidity, and wind speeds) are at the optimum to minimize consumption but meet landowner objectives. Plans should specify burning under 10-hour and 1000-hour fuel moistures which effectively combust the finer fuels, minimize duff consumption, and leave larger fuels intact.

See also ODF Smoke Management Directive 1-4-1-601 – *"Operational Guidance For The Oregon Smoke Management Program."*

PRESCRIBED BURNING
629-615-0300

(4) During prescribed burning operations, operators shall protect components such as live trees, snags, downed wood, and understory vegetation required to be retained by OAR 629-635-0310 through OAR 629-650-0040. When the operator has taken reasonable precautions to protect the components, but some detrimental effects occur, the intent of the rule is met if the overall integrity of the riparian management area is maintained. Operators shall not salvage trees killed by prescribed fire in a riparian management area if the trees were retained for purposes of OAR 629-635-0310 through OAR 629-655-0000.

RULE COMPLIANCE:

This section is subject to enforcement action. Noncompliance with this rule occurs when operators salvage fire-killed trees required to be left as RMA components. Refer to OAR 629-615-0300(3) for proper enforcement action when unsatisfactory prescribed burning damages RMA components. When prescribed burning occurs in RMAs, compliance is achieved when the benefits of burning are greater than the detrimental effects caused by the burning and any trees killed from the burning are left in place.

ADMINISTRATION AND IMPLEMENTATION:

During prescribed burns, operators must make all reasonable efforts to protect trees, snags, down wood, and protected RMA components. Required leave trees killed by fire cannot be salvaged. This rule allows some burning within the RMA, as long as the operator has taken reasonable steps to maintain the overall integrity of the RMA. Low intensity burns outside the RMA can be beneficial in assisting reforestation. The key is to **avoid** high intensity fires along and within RMAs.

PRESCRIBED BURNING
629-615-0300

(5) When, in the judgment of the State Forester, the need for prescribed burning outweighs the benefits of protecting components required to be left within the riparian area, aquatic area and wetlands, protection requirements may be modified. This judgment shall consider the environmental impacts and costs of alternative treatments.

RULE COMPLIANCE:

This section is not subject to enforcement action. Necessary enforcement action will relate to the written plan and should be taken under OAR 629-605-0170.

ADMINISTRATION AND IMPLEMENTATION:

This section gives the SF the ability to apply judgment relative to protecting riparian components to achieve sometimes-conflicting purposes. It allows modifying the protection requirements, including burning some riparian management area components, provided that the benefits of burning exceed the adverse effects. In developing plans to apply such modifications, the operator is expected to have a clear understanding of the reasons for requesting the modification, as well as a good justification of why burning is the necessary alternative. It is important the SF document any modifications within the written plan.

Approval of modifications should be based upon:
1. How important is the need for burning?
2. How viable are other slash treatment options?
3. An analysis that the positive outweighs the negative.

Examples: Burning to facilitate hardwood conversions on the westside and burning on the eastside to improve forest health and resilient forests.

Burning conducted under this section must still protect RMA components and waters of the State to the maximum extent possible consistent with reducing the hazard(s). The local ODFW district biologist and appropriate Forest Practices staff should be consulted prior to utilizing this section.

Do not use this section to allow operators to damage protected resources when they have not properly planned and executed harvesting operations to keep slash out of channels and away from RMAs and to protect other resources.

REFERENCE:

- *Oregon Forest Protection Laws, an Illustrated Manual,* Oregon Forest Resource Institute, Third Edition