

**DIVISION 623**

**SHALLOW, RAPIDLY MOVING LANDSLIDES  
AND PUBLIC SAFETY**

**629-623-0000**

**Purpose**

(1) Shallow, rapidly moving landslides may be a public safety risk affected by forest operations. There is a high natural landslide hazard in certain locations. In the short term, forest practices regulations can reduce the risk to people who are present in locations prone to shallow, rapidly moving landslides. In the long term, effective protection of the public can only be achieved through the shared responsibilities of homeowners, road users, forestland owners, and state and local governments to reduce the number of persons living in or driving through locations prone to shallow, rapidly moving landslides during heavy rainfall periods.

(2) OAR 629-623-0000 through 629-623-0800 shall be known as the shallow, rapidly moving landslide and public safety rules.

(3) The purpose of the shallow, rapidly moving landslides and public safety rules is to reduce the risk of serious bodily injury or death caused by shallow, rapidly moving landslides directly related to forest practices. These rules consider the exposure of the public to these safety risks and include appropriate practices designed to reduce the occurrence, timing, or effects of shallow, rapidly moving landslides.

(4) These rules are based on the best scientific and monitoring information currently available. The department will continue to monitor factors associated with shallow, rapidly moving landslides and also review new research on this issue. The department will recommend rule changes if this new information suggests different forest practices may be appropriate.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

**629-623-0100**

**Screening for High Landslide Hazard Locations and Exposed Population**

(1) The State Forester will use further review area maps and/or other information to screen proposed operations for high landslide hazard locations that may affect exposed populations. Operators are encouraged to acquire available maps and other information and to conduct their own public safety screening.

(2) Upon notification by the State Forester, operators shall identify portions of the operation that contain high landslide hazard locations and shall also identify structures and paved public roads within further review areas below the operation area.

(3) The following criteria shall be used to identify high landslide hazard locations:

(a) The presence, as measured on site, of any slope in western Oregon (excluding competent rock outcrops) steeper than 80 percent, except in the Tyee Core Area, where it is any slope steeper than 75 percent; or

(b) The presence, as measured on site, of any headwall or draw in western Oregon steeper than 70 percent, except in the Tyee Core Area, where it is any headwall or draw steeper than 65 percent.

(c) Notwithstanding the slopes specified in (a) or (b) 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 (a) or (b) above. The final determination of equivalent hazard shall be made by the State Forester.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

**629-623-0200**

**Exposure Categories**

(1) The State Forester will verify the information provided by operators in OAR 629-623-0100 and use this information to determine the exposure category for the operation.

(2) Exposure Category A includes habitable residences, schools, and other buildings where people are normally present during periods when wet season rain storms are common.

(3) Exposure Category B includes paved public roads averaging over 500 vehicles per day, as determined, if possible during periods when wet season rain storms are common.

(4) Exposure Category C includes barns, outbuildings, recreational dwellings not included in Exposure Category A, low-use public roads, and other constructed facilities where people are not usually present when wet season rain storms are common.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

### 629-623-0250

#### Shallow, Rapidly Moving Landslide Impact Rating

(1) The State Forester will publish technical guidance for evaluating and rating shallow, rapidly moving landslide impact potential for any exposed population. Impact rating factors may include, but are not limited to: the location of the structure or road in relationship to the debris torrent-prone stream or steep slope; channel confinement; channel gradient; channel junction angles; and debris in the channel.

(2) Shallow, rapidly moving landslide impact potential is rated as unlikely, moderate, serious and in limited cases, extreme.

(3) The State Forester may require the landowner to submit a geotechnical determination of shallow, rapidly moving landslide impact rating for the proposed operation.

(4) The impact rating may include the potential for the failure of a structure in the direct path of a rapidly moving landslide resulting in a substantial risk of serious bodily injury or death to the exposed population below that structure.

(5) The State Forester will make the final impact rating.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

### 629-623-0300

#### Public Safety Risk Levels

(1) The exposure categories described in OAR 629-623-0200 and the impact rating described in OAR 629-623-0250 are used to determine the downslope public safety risk level and the applicable forest practice rules that apply to the operation, as described in Sections (2) through (10) of this rule.

##### Substantial downslope public safety risk

(2) For Exposure Category A, substantial downslope public safety risk exists if the impact rating is extreme or serious.

(3) For Exposure Category B, substantial downslope public safety risk exists if the impact rating is extreme and the State Forester informs the operator that these site specific conditions warrant substantial public safety risk practices.

(4) Substantial Downslope Public Safety Risk operations are regulated by OARs 629-623-0400, 629-623-0450, 629-623-0600, and 629-623-0700.

##### Intermediate downslope public safety risk

(5) For Exposure Category A, intermediate downslope public safety risk exists if the impact rating is moderate.

(6) For Exposure Category B, intermediate downslope public safety risk exists if the impact rating is serious.

(7) For Exposure Category C, intermediate downslope public safety risk exists if the impact rating is extreme and the State Forester informs the operator that these site specific conditions warrant intermediate public safety risk practices.

(8) Intermediate Downslope Public Safety Risk operations are regulated by OARs 629-623-0500, 629-623-0550, 629-623-0600, 629-623-0700, and 629-630-0500.

##### Low downslope public safety risk

(9) All other operations not described in sections 2, 3, 5, 6 and 7 of the rule are determined to have low downslope public safety risk.

(10) Low Downslope Public Safety Risk operations are regulated by OAR 629-630-0500 and by 629-625-0000 through 0700 and all other applicable rules.

##### Applicability of regulations and use of leave trees

(11) As required by subsection 4 (3) of chapter 1103, Oregon Laws 1999, forest practice rules shall not apply to risk situations arising solely from the construction of a building permitted under subsection (1)(c) of chapter 1103, Oregon Laws 1999.

(12) Leave trees required to comply with timber harvesting rules for shallow, rapidly moving landslides and public safety may also be used to comply with ORS 527.676 except those required to be retained in riparian management areas by OAR 629-640-0000 through 629-640-0500.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

### 629-623-0400

#### Restriction of Timber Harvesting — Substantial Down Slope Public Safety Risk

(1) Operators shall not remove trees from high landslide hazard locations with substantial downslope public safety risk unless a geotechnical report demonstrates to the State Forester that any landslides that might occur will not be directly related to forest practices because of very deep soil or other site-specific conditions. Removal of dead or diseased trees or trees from sites that have already failed is allowed if the operator demonstrates to the State Forester that the operation results in no increased overall downslope public safety risk.

(2) Operators shall leave a sufficient number and arrangement of trees adjacent to high landslide hazard locations to reduce the likelihood of trees retained in these locations blowing down.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

**629-623-0450**

**Restriction of Road Construction — Substantial Down Slope Public Safety Risk**

(1) Operators shall not construct new roads on high landslide hazard locations or other very steep slopes with substantial downslope public safety risk.

(2) Operators may reconstruct existing roads in high landslide hazard locations when the written plan required by OAR 629-623-0700 incorporates site-specific practices as directed by a geotechnical specialist and demonstrates that road reconstruction will reduce landslide hazard.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03; DOF 6-2005(Temp), f. & cert. ef. 8-2-05 thru 1-27-06; DOF 8-2005, f. 12-13-05, cert. ef. 1-1-06

**629-623-0500**

**Timber Harvesting — Intermediate Down Slope Public Safety Risk**

(1) The purpose of this rule is to manage canopy closure on high landslide hazard locations with intermediate downslope public safety risk.

(2) For harvesting operations that remove all or most of the largest trees, operators shall ensure that no more than half the area of high landslide hazard locations on a single ownership within the drainage or hillslope directly above the affected structure or road are in a 0 to 9 year-old age class or with reduced canopy closure in other age classes;

(3) For thinning or partial cutting operations, operators shall retain a vigorous stand that allows rapid canopy closure.

(4) Landowners shall use reforestation and stand management practices that result in rapid canopy closure.

(5) For timber harvesting operations, landowners shall describe in the written plan required by OAR 629-623-0700 how they will manage the high landslide hazard locations on their ownership within the affected drainage or hillslope with intermediate downslope public safety risk.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

**629-623-0550**

**Road Construction — Intermediate Down Slope Public Safety Risk**

(1) When constructing roads on high landslide hazard locations or other very steep slopes with intermediate downslope public safety risk, operators shall follow site-specific practices as directed by a geotechnical specialist.

(2) In addition to the road construction and maintenance rules in OAR 629-625-0100 through 629-625-0440, written plans shall include:

(a) an evaluation of cutslope stability that demonstrates major cutslope failure is very unlikely; and

(b) a description of measures to be taken to prevent water from draining onto high landslide hazard locations.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5), 527.674 & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03; DOF 6-2005(Temp), f. & cert. ef. 8-2-05 thru 1-27-06; DOF 8-2005, f. 12-13-05, cert. ef. 1-1-06

**629-623-0600**

**Protection Along Debris Torrent-Prone Streams**

(1) The purpose of this rule is to reduce or eliminate woody debris loading, and to retain large standing trees in locations where they might slow debris torrent movement along debris torrent-prone streams with substantial or intermediate downslope public safety risk.

(2) During timber harvesting operations, operators shall fell and yard trees in a manner to minimize slash and other debris accumulations in debris torrent-prone stream channels where there is substantial or intermediate downslope public safety risk.

(3) Operators shall remove logging slash piles and continuous logging slash deposits from debris torrent-prone stream channels where there is substantial or intermediate downslope public safety risk.

(4) Operators shall leave, and during felling and yarding activity, protect large standing trees along the likely depositional reaches of debris torrent-prone streams, as determined by the State Forester, in locations where there is substantial or intermediate downslope public safety risk. Leave trees shall:

(a) be larger than 20 inches in diameter breast height;

(b) be within 50 feet of the edge of the active channel along both sides of the stream;

(c) be left for a distance of 300 feet or the depositional length of the channel, whichever is less, as measured from the beginning of the forested portion of the stream reach above the road or structure;

(d) not include trees that pose a greater public safety risk because of windthrow or other risks as determined by the State Forester.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03

**629-623-0700**

**Written Plans to Evaluate Public Safety Risk**

(1) To allow evaluation of public safety risk and the appropriate methods for reducing this risk, operators shall submit a written plan for all timber harvesting or road construction operations with intermediate or substantial downslope public safety risk as described in OAR 629-623-0300. Written plans shall include:

- (a) A determination of public safety risk (OAR 629-623-0300);
- (b) A map showing those portion(s) of the operation containing high landslide hazard locations;
- (c) The location of all existing and proposed new roads crossing high landslide hazard locations;
- (d) A detailed road design for all new or reconstructed roads crossing high landslide hazard locations;
- (e) The location of habitable structures (Exposure Category A) and paved public roads (Exposure Category B) below the operation and within further review areas;
- (f) Locations where timber harvesting will not occur;
- (g) Locations where partial cutting will occur and the specific silvicultural prescription; and
- (h) Additional information related to the operation as requested by the State Forester.

(2) Operators shall submit a written plan for proposed stream crossing fills constructed across debris torrent-prone streams with substantial or intermediate downslope public safety risk.

(3) Operators shall submit a written plan for proposed waste fill areas within a drainage containing debris torrent-prone streams where there is substantial or intermediate downslope public safety risk.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5), 527.674 & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03; DOF 6-2005(Temp), f. & cert. ef. 8-2-05 thru 1-27-06; DOF 8-2005, f. 12-13-05, cert. ef. 1-1-06

**629-623-0800**

**Hazard Mitigation and Risk Reduction Projects**

(1) Completed landslide mitigation projects can be used to lower the shallow, rapidly moving landslide impact rating as described in OAR 629-623-0250.

(a) The landowners who own structures and are directly affected by the impact rating must agree to landslide mitigation.

(b) Structural measures designed and inspected by a geotechnical specialist are the preferred mitigation strategy.

(2) Landowners may remove trees on high landslide hazard locations above habitable structures or paved public roads where the public safety risk from trees blowing over is equal to or higher than the public safety risk from landslides. Supporting evidence for removing these trees must be included in the written plan required by OAR 629-623-0700.

(3) A homeowner may submit evidence in the form of a risk management plan to the State Forester to lower the exposure category (OAR 629-623-0200) from Exposure Category A to Exposure Category B. Risk management plans shall include:

(a) An evacuation plan that substantially reduces the risk to residents and visitors during periods when shallow, rapidly moving landslides may occur;

(b) A copy of the property title showing full disclosure of the elevated landslide hazard on that property, including a statement that it is the homeowner's responsibility to inform residents and visitors of the elevated landslide hazard and of the necessity to comply with the evacuation plan;

(c) Assumption by the homeowner of all liability for injury and property damage associated with shallow, rapidly moving landslides initiating within the operation; and

(d) The signatures of the homeowner and of a notary public.

Stat. Auth.: ORS 527.710(11)

Stats. Implemented: ORS 527.630(5) & 527.714

Hist.: DOF 13-2002, f. 12-9-02 cert. ef. 1-1-03