



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**

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**Peter Goldmark** - Commissioner of Public Lands

**Forest Practices  
Unstable Slopes and  
Landforms  
Rules and Board Manual  
Guidance**



# Forests and Fish Report

- The authors of FFR recognized the need to prevent or avoid an increase or acceleration of the naturally occurring rate of landslides due to forest practices activities.
  - *Appendix C, Unstable Slopes*
- Legislature directed the Forest Practices Board in RCW 76.09.055 to adopt into rule recommendations contained in FFR



# Rules

**Goal:** to protect public resources and prevent threats to public safety.

Protection is provided through an outcome-based, decision making process that is conducted in accordance with two forest practices rules:

- **A Class IV-special rule** which describes the practices and landforms subject to SEPA analysis (WAC 222-16-050); and
- **A SEPA policies rule** for potentially unstable slopes and landforms (WAC 222-10-030)



# Class IV-special rule

- WAC 222-16-050(1)(d)
  - If proposed on specified potentially unstable slopes and landforms and have the potential to deliver sediment or debris to a public resource or has the potential to threaten public safety, the following forest practices are subject to a Class IV-special FPA classification and SEPA analysis:
    - Timber harvest; or
    - Construction of roads, landings, gravel pits, rock quarries, spoil disposal areas.



# Class IV-special rule, continued

- Lists potentially unstable slopes and landforms (a.k.a. rule-identified landforms):
  - (A) Inner gorges, convergent headwalls, and bedrock hollows steeper than 35 degrees (75%);
  - (B) Toes of deep-seated landslides steeper than 33 degrees (65%);
  - (C) Groundwater recharge areas for glacial deep-seated landslides;
  - (D) Outer edges of meander bends along valley walls or high terraces of an unconfined meandering stream; and
  - (E) Any areas containing features indicating the presence of potential slope instability which cumulatively indicate the presence of unstable slopes



# Class IV-special rule, continued

- “The department will base its classification of the [FPA] on professional knowledge of the area, information such as soils, geologic or hazard zonation maps and reports, review of approved watershed analysis mass wasting prescriptions ... or other information provided by the applicant.”
- The FPA would not be subject to the Class IV-special classification if the proposed forest practice would be in accordance with approved specific watershed analysis prescriptions.



# SEPA policies rule

## WAC 222-10-030

The following policies apply to forest practices described in WAC 222-16-050(1)(d) relating to construction or harvest on potentially unstable slopes or landforms:

- (1) In order to determine whether forest practices are likely to have a probable significant adverse impact, the applicant must submit the following information prepared by a qualified expert:
  - (a) Likelihood it would cause movement;
  - (b) Likelihood it would cause delivery of sediment or debris to public resource or threaten public safety; and
  - (c) Possible mitigation for the identified hazards or risks.





# SEPA policy rule, continued

(2) DNR's (SEPA) threshold determination will include an evaluation of whether the proposed forest practices:

(a) Are likely to increase the probability of mass movement on or near the site;

(b) Would deliver sediment or debris to a public resource or in a manner that would threaten public safety; and

(c) Whether such movement and delivery are likely to cause significant adverse impacts.

If DNR determines (a), (b), and (c) are likely to occur, then the forest practice is likely to have a probable significant adverse impact.



# SEPA policy rule, continued

(3) DNR will evaluate the proposal using appropriate expertise and in consultation with other affected agencies and Indian tribes.

(4) Specific mitigation measures or conditions must be designed to avoid accelerating rates and magnitudes of mass wasting that could deliver sediment or debris to a public resource or in a manner that would threaten public safety.

(5) Qualified expert ... means licensed under chapter 18.220 RCW as either an engineering geologist or hydrogeologist [with] 3 years experience in evaluating relevant problems in forested lands.



# Board Manual Section 16

## *Guidelines for Evaluating Unstable Slopes and Landforms*

- Provides an overview;
- Explains how to measure slope angles;
- Describes differences in slope form (key to recognizing unstable landforms);
- Describes potentially unstable landforms and processes; and
- Provides detailed guidance for qualified experts to complete geotechnical reports.





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