

WASHINGTON STATE DEPARTMENT OF

Natural Resources

Peter Goldmark - Commissioner of Public Lands

Processing Forest Practices Applications with Potentially Unstable Slopes

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Forest Practices Rules State Environmental Policy Act Watershed Analysis Rule Identified Landforms

- Chapter 76.09 RCW
- Chapter 43.21C RCW, Chapter 197-11 WAC and Chapter 222-10 WAC
- Chapter 222-22 WAC
- > WAC 222-16-050



Rule Identified Landforms

- ➤ Inner gorges, convergent headwalls or bedrock hollows with slopes steeper than 70%
- ➤ Toes of deep-seated landslides with slopes steeper than 65%
- Groundwater recharge areas for glacial deepseated landslides
- Outer edges of meander bends along valley walls or high terraces of an unconfined meandering stream; or
- ➤ Any areas containing features indicating the presence of potential slope instability...



Watershed Analysis (WSA)

- Most WSAs mass wasting (MW) prescriptions rescinded
 - ✓ MW prescriptions used as screening tool

WSA MW prescriptions valid when associated with Habitat Conservation Plans (HCPs) and/or reanalysis



Office Review Process

- Forest Practices Application (FPA) screened for completeness
- Resource review via Forest Practices Risk Assessment Tool (FPRAT) and other tools
- FPA classification
- FPA entered into Forest Practices Application Review System (FPARS)





Forest Practices Application Questions 11 and 12

- 11. Are there potentially unstable slopes or landforms within the boundaries of your forest practices activity area?
 - No ☐ Yes attach geotechnical report and "Slope Stability Informational Form." If applicable, attach the SEPA checklist, HCP or Watershed Analysis prescriptions.
- 12. Are there potentially unstable slopes or landforms adjacent to your forest practices activity area?
 - No Yes complete and attach the "Slope Stability Informational Form." If applicable, attach geotechnical report, HCP or Watershed Analysis prescriptions.

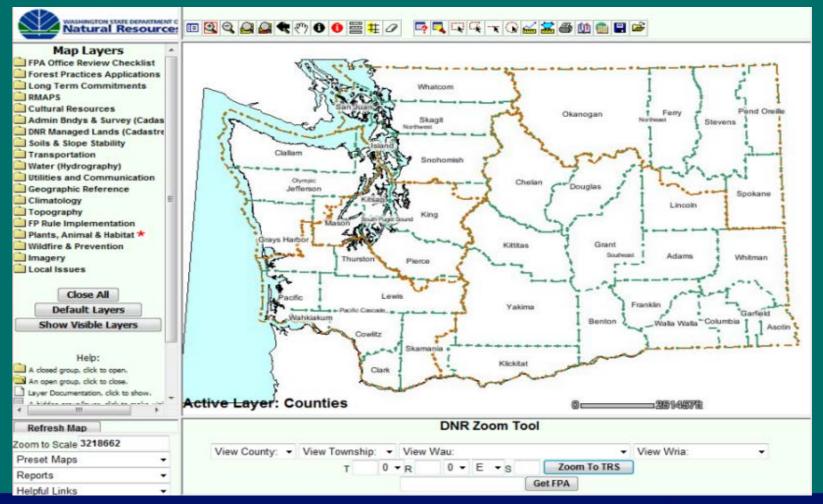
Slope Stability Informational Form

| uns | e: Complete and attach this form to your FPA if you answered "Yes" to FPA question 11 or 12. "Potentially table slopes or landforms" are defined in WAC 222-16-050(1)(d). See Board Manual Section 16 t 2.1 for descriptions of potentially unstable slopes. | | |
|-----|---|--|--|
| 1. | What screening tools were used? GIS, Aerial Photo, LiDAR, Other (describe): | | |
| 2. | What potentially unstable slopes were identified <u>within</u> the boundaries of your forest practices activity area? Check all that apply: Inner Gorge Groundwater recharge areas for glacial deep-seated landslides Bedrock Hollow Convergent Headwall Toe of deep-seated landslide Outer edges of meander bends Other (describe): | | |
| 3. | What potentially unstable slopes were identified <u>adjacent</u> to your forest practices activity area? Check all that apply: Inner Gorge | | |
| 4. | Date of field review: | | |
| 5. | Person(s) that conducted field review: | | |
| 6. | Name Title/position If any features identified in #2 and /or #3 were bounded out, describe the manner in which the boundary was determined: | | |
| | | | |

Show all field reviewed areas for potentially unstable slopes or landforms on a map (may use a forest practices
activity map, harvest map or GIS map – See map example on page 35). <u>This map is intended to be developed by</u>
the field practitioner.

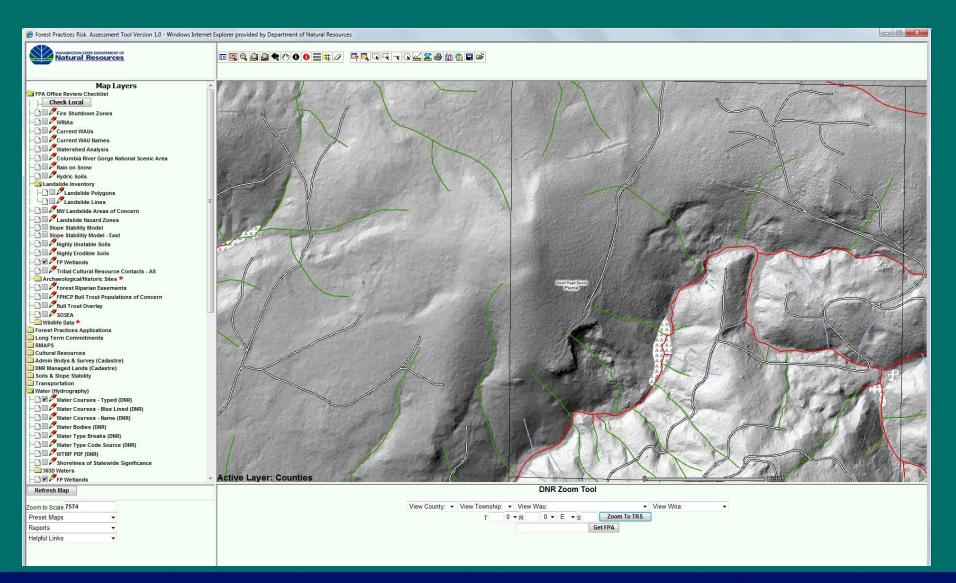


Forest Practices Risk Assessment Tool (FPRAT)

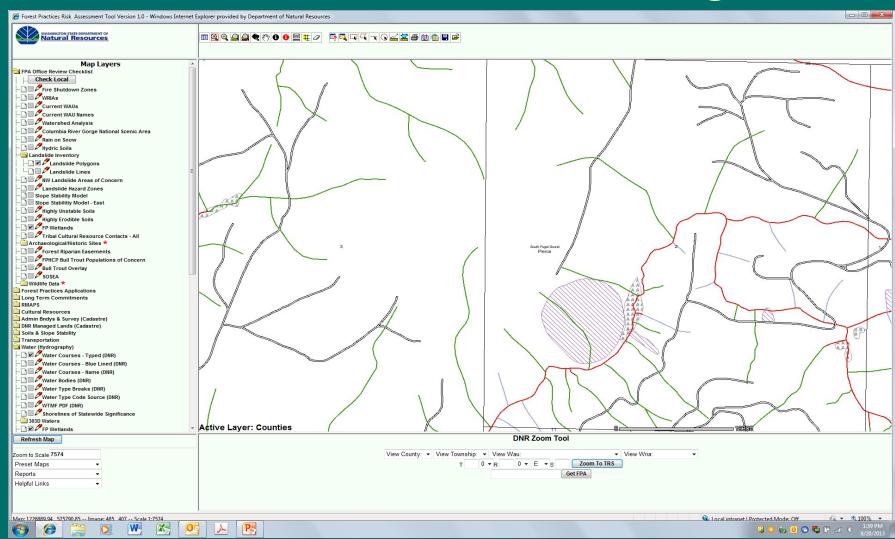




Lidar

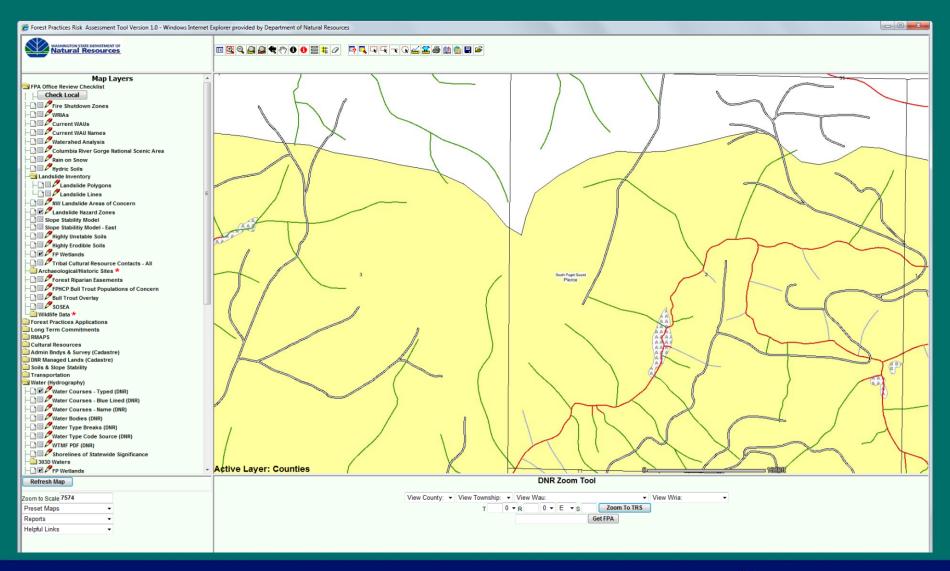


Landslide Inventory



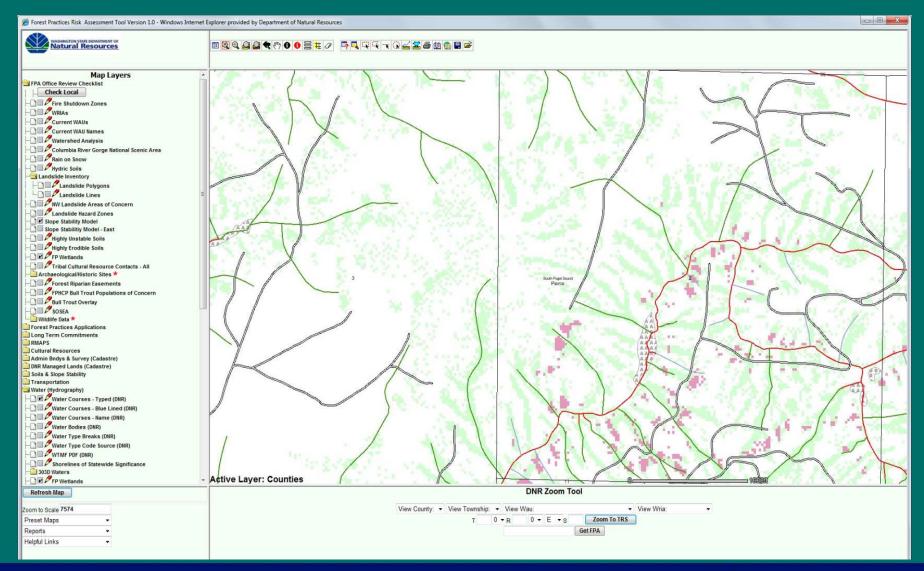


Landslide Hazard Zonation



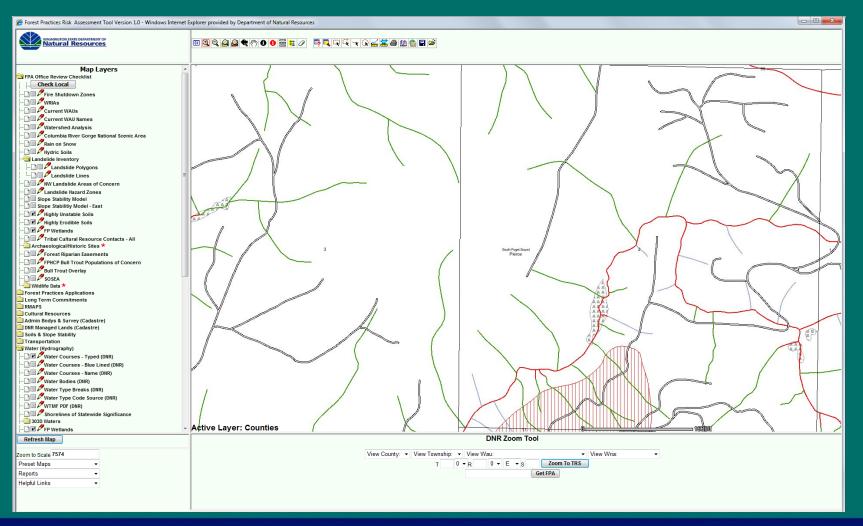


Slope Stability





Highly Unstable/ Erodible Soils







Forest Practices Application/Notification Office Checklist Page 1 ______Region

| Received Date: | |
|---------------------------------------|--|
| WDFW Concurrence Due Date: | |
| WDFW Concurrence Review Completed: | |
| Comments Due Date: | |
| Decision Due Date: | |
| FP Forester: | |
| Shutdown Zone: | |
| RMAP#: | |
| | |

| + | FPA/N CLASSIFICATION: [] [] [] VG [] VS Landowner Name: | RMAP Exempt: []80/20 []No Forest Roads []Ag []LLO Project Name: | | | |
|---|---|---|--|--|--|
| | WRIA: | WAU: | | | |
| | Legal Description: | | | | |
| | - | Spray ac Stream Crossing(s) | | | |
| | | | | | |
| | Borrow Pitac Road Construction _ | <u>ft</u> Road Abandonment <u>ft</u> | | | |
| | ALTERNATIVE PRESCRIPTIONS | | | | |
| | [] Alternate Plan | [] Habitat Conservation Plan | | | |
| | [] Ten-Year Forest Management Plan | [] Landowner Option Plan for Northern Spotted Owl | | | |
| | [] Columbia River Gorge National Scenic Area | [] Cooperative Habitat Enhancement Agreement | | | |
| | [] Watershed Analysis: | | | | |
| | RESOURCE REVIEW | | | | |
| | [] Unstable Slopes (Risk: Highway, Water;) | [] Bull Trout Overlay | | | |
| | [] Soils Map (Highly Erodible & Very Unstable) | [] HCP Bull Trout Population | | | |
| | [] SLPSTAB | [] Bald Eagle nest or roost within 660 feet | | | |
| | [] Landslide Hazard Zonation | [] Group A or B Water Supply (TRAX code DM or MU) | | | |
| | [] Landslide Polygon | [] Hatchery (TRAX code S)(Name:) | | | |
| | [] Rain-on-Snow and Outside Approved WA | [] Even-Aged Harvest greaterthan 120 Acres | | | |
| | [] HydricSoils []Wetland[]Forested,[]A,[]B | [] Volume greater than 5 MBF per acre | | | |
| | [] In WMZ of[] A, or[] B Wetland | [] Ground-based Equipment on Slopes greater than 40% | | | |
| | [] In RMZ/ELZ of Type[] S, [] F, [] N water | [] Road Construction on Slopes greater than 65% | | | |
| | [] Water Verification | [] Saltwater Islands (Name:) | | | |
| | | | | | |
| | ASSOCIATED NON-SCANNED DOCUMENTS - On file | e with the FPA/N at the region office. | | | |
| | [] SEPA Checklist/Documents | [] Large Landowner Road Maintenance and Abandonment Plan | | | |
| | A SSOCIATED SCANNED DOCUMENTS | | | | |
| | [] Conversion Option Harvest Plan | | | | |
| | [] FPHP Plans & Specifications | [] Hard wood Conversion Form | | | |
| | [] Qualified Expert Report | [] Wetland Mitigation Plan | | | |
| | [] Natural Regeneration Plan | [] Water Proto col Surveys[] Modification | | | |
| | [] Shoreline Permit | Form# | | | |
| | [] Marbled Murrelet Form | [] Water Classification Worksheet | | | |
| | [] FPBM Appendix(s) | [] Shade Documentation | | | |
| | [] Small Landowner RMAP Checklist | [] Watershed Analysis Worksheet | | | |
| | • • | [] DFC Printout | | | |



Resource Review

RESOURCE REVIEW Unstable Slopes (Risk: Highway, Water; Soils Map (Highly Erodible & Very Unstable) SLPSTAB Landslide Hazard Zonation Landslide Polygon Rain-on-Snow and Outside Approved WA Hydric Soils [] Wetland [] Forested, [] A, [] B In WMZ of [] A, or [] B Wetland In RMZ/ELZ of Type [] S, [] F, [] N water Water Verification



GIS Data Center

| | Fore | st Practice | es | | |
|--|----------|------------------|--------------|---------------------|--------------------|
| Description | Metadata | Download Data | File Format | Data Application | Program Website |
| East/West Dividing Line | • | (125KB) | ESRI .shp | • | • |
| Forest Practices Applications (All) | • | (35MB) | ESRI .shp | • | • |
| Forest Practices Applications (Active) | • | (5MB) | ESRI .shp | • | • |
| Master 2000 TICs | • | (3.3MB) | ESRI .gdb | • | • |
| Site Class | • | (44MB) | ESRI .gdb | • | • |
| Sitka Spruce Zone | • | (216KB) | ESRI .shp | • | • |
| Slope Stability | • | (93MB) | <u>.TIFF</u> | • | • |
| Slope Stability | • | (112MB) | ESRI .gdb | • | • |
| Stream Temperature Class | • | (375KB) | ESRI .e00 | • | • |
| FP Tribal Cultural Resources Contacts | • | (1MB) | ESRI .shp | • | • |
| Watershed Admin Units (WAU) April 2006 | • | (2.7MB) | ESRI .gdb | • | • |
| Forest Practices Wetlands December 2007 | • | (35MB) | ESRI .shp | • | • |

Back to top



Classification of Forest Practices Applications

WAC 222-16-050 (1)(d)

- Class I
- ➤ Class II
- ➤ Class III
- ➤ Class IV G
- ➤ Class IV S





Class II

- FPA indicates no resources at risk
- > 5 day review
- Local knowledge
 prompts field review
 by Forest Practices
 (FP) forester





Class III

*Note yellow highlighted boxes on flow chart 2

- ➤ FPA indicates public resources (water, T&E species, wetlands, soils, etc.) may be impacted by the forestry activity.
- ➤ Within 14 days the FP forester will field review:
 - ✓ Presence/absence of rule identified landforms



Slope Stability Informational Form

Note: Complete and attach this form to your EPA if you answered "Yes" to EPA question 11 or 12. "Potentially

| | stable slopes or landforms" are defined in WA art 2.1 for descriptions of potentially unstable slo | C 222-16-050(1)(d). | |
|----|--|--|--|
| 1. | What screening tools were used? GIS, Ae | erial Photo, 🗌 LiDAR, [| Other (describe): |
| 2. | What potentially unstable slopes were identified area? Check all that apply: Inner Gorge Groundwater rechar Bedrock Hollow Convergent Headward Outer edges of meander bends Othe | rge areas for glacial de all 🔲 Toe of deep- | ep-seated landslides seated landslide |
| 3. | What potentially unstable slopes were identified that apply: Inner Gorge Groundwater rechai Bedrock Hollow Convergent Headword Outer edges of meander bends Othe | rge areas for glacial de | ep-seated landslides seated landslide |
| 1. | Date of field review: | | |
| 5. | Person(s) that conducted field review: | | |
| | | Name | Title/position |
| | | Name | Title/position |
| 6. | If any features identified in #2 and /or #3 were bo was determined: | | |
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Show all field reviewed areas for potentially unstable slopes or landforms on a map (may use a forest practices
activity map, harvest map or GIS map – See map example on page 35). This map is intended to be developed by

the field practitioner.



Class III continued

- ➤ Within 14 days the FP forester will field review:
 - ✓ Consult with the FP Geologist
 - ID Team may be scheduled and conducted
 - ✓ WSA MW prescriptions, if applicable (see flow chart 1)
 - ✓ Supplemental information (forms, reports)



Class IV Special Office Review

- *Note green highlighted boxes on flow chart 2
- > FPA indicates unstable landforms in and around the FPA area
- Geotechnical report by Qualified Expert and State Environmental Policy Act (SEPA) checklist included
- Office reviews geotechnical report and SEPA checklist for completeness



Class IV Special Office Review continued

- > FPA classified as IV-S
- Stakeholders and FP forester notified via FPARS
- > SEPA and FPA process begins
- ➤ Public comment for SEPA and FPA begin at the same time and run concurrently
 - √14 day SEPA and FPA comment period



Class IV Special Field Review

- FPA sent/received by FP forester and FP Geologist for review
- > ID Team scheduled and conducted
- ➤ ID Team recommendations /conditions assessed by FP forester and DNR geologist
- Recommendations/conditions from the ID team are submitted to Region SEPA Responsible Official



Region SEPA Responsible Official Review

- ➤ The Region SEPA Responsible Official (RO) review
- ➤ Evaluate ID Team recommendations and SEPA comments
- Make the "threshold determination"



Region SEPA Responsible Official Review

- Determination of Non-Significance (DNS)
 - ✓ After field and SEPA review, the FP Forester approves/disapproves the FPA



Region Responsible Official Review continued

- Mitigated Determination of Non-Significance (MDNS)
 - ✓ Landowner incorporates mitigation
 - ✓ Per the ID team review and stakeholder recommendations, the FP Forester incorporates mitigation in the form of conditions on the FPA
 - ✓ FP Forester approves the FPA



Region Responsible Official Review continued

- Determination of Significance (DS)
 - ✓ Landowner has the option to pursue an Environmental Impact Statement (EIS)
 - ✓ Landowner may withdraw the FPA until the EIS is prepared and then resubmit the FPA with additional information



Class IV Special FPA Notice of Decision

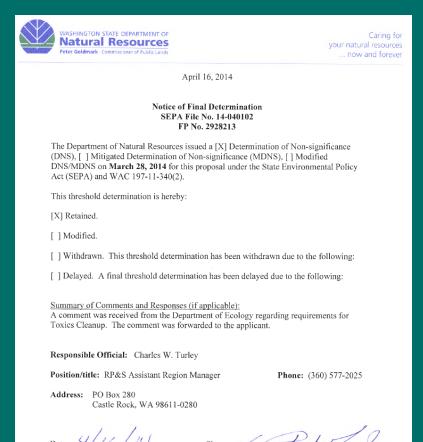
- Notice of Decision Page Notes:
 - ✓ Conditions, if applicable

| WASHINGTON STATE DEPARTMENT OF Natural Resources Peter Goldmark - Commissioner of Public Lands Forest Practices Application/Notification Notice of Decision | FPA/N No: Effective Date: Expiration Date: Shut Down Zone: EARR Tax Credit: [] Eligible [] Non-eligible Reference: |
|--|--|
| Decision Notification | ject to the conditions listed below. |
| FPA/N Classification [] Class II | Number of Years Granted on Multi-Year Request 1 4 years 5 years |
| Conditions on Approval / Reasons for Disapproval | |
| Issued By: | Region: |
| Title: | Date: |
| Copies to: [] Landowner, Timber Owner and Operator. Issued in person: [] Landowner [] Timber Owner [] Operator B | у: |



Class IV Special Notice of Final Determination

- Notice of Final Determination Notes:
 - ✓ Determination Made (DNS, MDNS, DS, etc.)
 - ✓ Summary of Comments



www.dnr.wa.gov/ResearchScience/sepa/Pages/Home.aspx



Questions?





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