A Brief Introduction to Forest Practices Regulations

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Some things are beyond the scope of this talk.

- Comprehensive review of regulations
- County-specific regulations
- How to fill out a forest practices application
Learning objectives:

- Awareness of the types of things regulated
- Basic understanding of leave tree requirements
- Assistance programs
- Where to go for help

- *The bottom line: Know when to call and whom to call.*
Regulated forest practices

- Timber harvest
  - Thinning
  - Salvage
- Road construction and maintenance
- Reforestation
- Brush control
- Chemical use
When you will need a Forest Practices Application/Notice:

- Commercial timber harvest (including salvage and thinning)
- Road construction
- Culvert installation/replacement
  - *In-stream work also requires a Hydraulics Project Approval (HPA) from WDFW*
- Aerial application of chemicals
A FPA/N is *not* required for:

- Planting trees
- Seedling protection devices
- Grass/forage seeding
- Hand slash vegetation control
- Harvest < 5 Mbf/yr (1 log-truck load) for personal use (with no resource issues)
Who is responsible for the FPA/N?

• The **landowner** is responsible for filing the FPA/N (but can designate an agent)
• The FPA/N must be signed by:
  – Landowner
  – Timber owner
  – Operator
• Any of the above may be liable in the event of a violation
Several people may be involved with an FPA/N.

- DNR
- Other state agencies
- Tribes
- Local governments
- Other interested parties
Water features require a riparian management zone (RMZ).

- **Water types**
  - Type S: “shorelines of the state”
  - Type F: contain fish *habitat*
  - Type Np: nonfish habitat, perennial
  - Type Ns: nonfish habitat, seasonal

- **Sensitive features**
  - Seeps
  - Springs
  - Intersections of Np streams
  - Unstable slopes
Westside Riparian Management Zone (RMZ) Rules

- First Issue: Parcel Size
  - Less than 20 contiguous acres?
  - Less than 80 acres of total in-state ownership?
  - Exempt from FFR
## 20-acre exemption rules

<table>
<thead>
<tr>
<th>Water Type</th>
<th>RMZ Width</th>
<th>Trees/1000’</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gravel/cobble</td>
<td>Boulder/bedrock</td>
<td></td>
</tr>
<tr>
<td>S/F ≥ 75’</td>
<td>29’ – 115’</td>
<td>58</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>S/F &lt; 75’</td>
<td>29’ – 86’</td>
<td>115</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>F ≥ 5’</td>
<td>29’ – 58’</td>
<td>86</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>F &lt; 5’</td>
<td>29’</td>
<td>29</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Np</td>
<td>29’</td>
<td>29</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

- RMZ harvest subject to shade requirements
- 20-acre exemption does NOT ensure compliance with ESA and CWA
FFR RMZ for Type S/F Waters

- **Core Zone**
  - 50’
  - No harvest
- **Inner Zone**
  - Core to 3/4 SPTH for large streams (>10’)
  - Core to 2/3 SPTH for small streams
  - 3 harvest possibilities
- **Outer Zone**
  - Inner to SPTH
  - Harvest allowed

*Note:* All zones are measured from bankfull width and apply to each side of the stream
## Site Potential Tree Height (SPTH)

<table>
<thead>
<tr>
<th>Site Class (King)</th>
<th>SPTH</th>
<th>3/4 SPTH</th>
<th>2/3 SPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>200</td>
<td>150</td>
<td>133</td>
</tr>
<tr>
<td>II</td>
<td>170</td>
<td>128</td>
<td>113</td>
</tr>
<tr>
<td>III</td>
<td>140</td>
<td>105</td>
<td>93</td>
</tr>
<tr>
<td>IV</td>
<td>110</td>
<td>83</td>
<td>73</td>
</tr>
<tr>
<td>V</td>
<td>90</td>
<td>68</td>
<td>60</td>
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</tbody>
</table>
Desired Future Conditions (DFC)

- Basal Area targets
  - Combined core/inner zones
  - For when stand is age 140
- 100% cruise required in core and inner zone before inner zone harvest
- Cruise data entered into DFC worksheet program to determine harvest options
Inner Zone Harvest Options

- Leave trees must meet DFC requirements
- Option 1
  - Thinning from below
  - Minimum of 57 trees per acre (TPA) must be retained
- Option 2
  - Leave trees closest to stream
  - Cannot harvest within:
    - 80’ of small stream (30’ from core)
    - 100’ of large stream (50’ from core)
    - Only available for Sites I-III (small) and Sites I-II (large)
  - Must leave 20 TPA (conifers ≥ 12” DBH) in harvested portion
Outer Zone Harvest

- Must leave 20 TPA
  - Conifers ≥ 12” DBH
  - Must be left through all future harvests
- Spatial options:
  - Evenly dispersed
  - Clumped
    - Around sensitive features
    - Well-distributed
DFC Worksheet

- https://fortress.wa.gov/dnr/dfc/
Inner Zone post-thinning Statistics

Trees / Acre: 62.26
Basal Area / Acre: 207.68
Percent Conifer: 98.2200012207031

Required Basal Area of Thinned Inner Zone at age 140 must be at least 328.93 Sq. Ft / Acre at age 140. Projected Basal Area of Thinned Inner Zone at age 140 will be at least 333.2 Sq. Ft / Acre at age 140.

The inner zone for Option 1 is from 50 to 113 feet.

Calculations → TPA = 62.26, Inner zone = 0.31 acres, 0.31*62.26 = 19.3 → 19 trees must be left

Inner Zone Stand Table

<table>
<thead>
<tr>
<th>DBH</th>
<th>Conifers: Can Be Cut</th>
<th>Required Leave Trees</th>
<th>Hardwood: Can Cut All</th>
<th>Required Leave Trees</th>
<th>Conifer BA Cut</th>
<th>Conifer BA Leave</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.26</td>
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<td>6</td>
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<td>0</td>
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<tr>
<td>10</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7.64</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5.5</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>7.48</td>
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<td>1.4</td>
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<td>18</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5.3</td>
</tr>
<tr>
<td>22</td>
<td>0</td>
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<td>0</td>
<td>10.56</td>
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<tr>
<td>24</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.14</td>
</tr>
<tr>
<td>26</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14.75</td>
</tr>
<tr>
<td>28</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12.83</td>
</tr>
<tr>
<td>30</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9.82</td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5.59</td>
</tr>
</tbody>
</table>

Totals: 38.99 Conifer BA Cut, 63.38 Conifer BA Leave
Type N Waters

- 30’ Equipment Limitation Zone (ELZ)
- 50’ no-cut buffer required for Np Waters:
  - Up to 500’ above confluence with Type S/F
  - At least 50% of total length
- Various buffers required around sensitive sites
  - Seeps – 50’ no-cut from edge
  - Springs – 56’ no-cut radius
  - Intersections of multiple Np waters – 56’ no-cut radius
Eastside 20-Acre Exemption Requirements

- **Type S/F**
  - **RMZ width**
    - 35’ – 58’ for partial cutting
    - Otherwise 35’ – 345’, with average of 58’
  - **Per Acre Leave Trees**
    - All trees ≤ 12” DBH
    - 18 conifers 12” – 20” DBH
    - 4 conifers ≥ 20” DBH
    - 2 largest hardwoods
    - 3 hardwoods 12” – 16” DBH
    - Any additional trees needed to meet minimums established by bed type
- **Type Np** – 29’ RMZ with 29 trees ≥ 6” DBH per 1000’ of stream if necessary
Eastside FFR Requirements for S/F

- **Core Zone**
  - 30’
  - No Harvest
- **Inner Zone**
  - 45’ for small streams (≤ 15’)
  - 70’ for large streams (> 15’)
  - Thinning may be allowed, subject to minimum TPA and BA requirements by “habitat type”
  - *Must leave all trees within 75’ for bull trout overlay*
- **Outer Zone**
  - 0 to 55’ depending on site class and stream size
  - Leave 10 or 15 TPA depending on habitat type
## Total RMZ Widths for Eastside

<table>
<thead>
<tr>
<th>Site Class</th>
<th>Small Stream</th>
<th>Large Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>130’</td>
<td>130’</td>
</tr>
<tr>
<td>II</td>
<td>110’</td>
<td>110’</td>
</tr>
<tr>
<td>III</td>
<td>90’</td>
<td>100’</td>
</tr>
<tr>
<td>IV</td>
<td>75’</td>
<td>100’</td>
</tr>
<tr>
<td>V</td>
<td>75’</td>
<td>100’</td>
</tr>
</tbody>
</table>
Type N Waters

- 30’ Equipment Limitation Zone (ELZ)
- 50’ buffer required for Np Waters:
  - Same rules as inner zone for partial cuts
  - No harvest similar to Westside rules for clear-cuts
Wetland Types

- Forested wetland:
  - Can support > 30% crown closure
- Non-Forested wetland
  - Type A
    - > 0.5 acre and associated with at least 0.5 acre of standing open water
    - Any bog > 0.25 acre
  - Type B:
    - Any other nonforested wetland > 0.25 acre
<table>
<thead>
<tr>
<th>Type</th>
<th>Size (ac)</th>
<th>Max</th>
<th>Avg</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt; 5</td>
<td>200’</td>
<td>100’</td>
<td>50’</td>
</tr>
<tr>
<td>A</td>
<td>≤ 5</td>
<td>100’</td>
<td>50’</td>
<td>25’</td>
</tr>
<tr>
<td>B</td>
<td>&gt; 5</td>
<td>100’</td>
<td>50’</td>
<td>25’</td>
</tr>
<tr>
<td>B</td>
<td>0.5 – 5</td>
<td></td>
<td></td>
<td>25’</td>
</tr>
<tr>
<td>B</td>
<td>0.25 – 0.5</td>
<td></td>
<td></td>
<td>No WMZ required</td>
</tr>
</tbody>
</table>
Wetland Harvest Restrictions

- Forested wetlands
  - Use low impact harvest or cable systems
  - Preference for wildlife reserve trees
- WMZ
  - Leave 75 representative TPA
    - > 6” DBH Westside
    - > 4” DBH Eastside
  - Group removal OK, but openings cannot be:
    - > 100’ wide
    - Within 200’ of each other
Other leave trees: Westside

- **Wildlife reserve trees:**
  - Defective/dead/damaged/dying
  - Westside: 3/ac
  - Eastside: 2/ac

- **Green recruitment trees:** 2/ac

- **Downed logs:** 2/ac
Leave Tree Placement

• 800’ Rule
  – Wildlife and recruitment trees can be left in clumps, but:
  – No point in the harvest unit can be > 800’ from a leave tree
• RMZ’s and WMZ’s count towards leave tree requirements
Other Issues: Harvest size

- Clear-cut size limitations
  - Nothing over 240 acres
  - 120-240 acres must be reviewed
- Perimeter “green-up” requirements
  - At least 30% > 30 years old and 60% > 15 years old or
  - At least 90% > 5 years old or average height > 4’
Reforestation requirements

- Planting
- Natural
- Established within 3 years:
  - East: 150 TPA (17’ x 17’)
  - West: 190 TPA (15’ x 15’
Road Maintenance and Abandonment Plan (RMAP)

- Required when:
  - Doing timber harvest or salvage
  - Hauling on existing roads on your property
  - Property > 20 ac (80 total)
- Small landowners (harvest < 2 MMbf/yr) can do a simplified “checklist” RMAP