

A comparison of Oregon & Washington Forest Practice Rules

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February 14, 2005

This paper compares forest practice regulations between Oregon and Washington for private forest lands. Some analysis is provided based on conversations with various foresters and activists in Oregon, however, it is intended to be a living document that will be changed and updated as we get feedback and learn about what actually occurs on the ground.

There are seven sections: Statistics, Policies, Stream Classification and Stream Buffers, Wildlife, Roads: Water Quality and Fish Passage, and Upland. Each section begins with a table comparing facts or regulations between Washington and Oregon, which is followed by a summary and analysis of the table.

Statistics

	Washington	Oregon
Acres	21.9 million forest acres (WFPA) 9.68 million acres federal (44%) 8.58 million acres private (39%) (1/2 industrial, 1/2 non-industrial) 2.42 million acres state & county (11%) 1.32 million acres tribal (6%)	27.5 million forested acres (extension bulletin) 15.6 million acres federal (57%) 6 million acres- large commercial (22%) 4.5 million acres non-industrial private forest (NIPF) (16%) 1.1 million acres state, county, municipal (4%) .27 million acres tribal (1%)
Management	~7.4 million acres reserved (34%) - NWFP, National Parks, wilderness	~6.3 million acres reserved (23%)- National Parks, old growth reserves, etc 5 million acres- not commercially viable 16 million acres- available for wood production (Forest Fact book 2003)
Volume	Harvest in million board feet- 2000 (peak) Private 3,507 (5,173 in 1973) Federal: 93.8 (1,839 in 1968) State: 559 (1,064 in 1986) Tribal/other: 51.9 (529 in 1968)	Harvest in million board feet- 2000, (peak): Private: 3,167 (3,721 in 1989) Federal: 328 (4,926 in 1988) State: 255 (270 in 1988) Local govt/tribal: 104 (168 in 1989)
Economics	\$12.8 billion, 15% of gross	\$12.8 billion, 6.9% of total state

	state business income (2000). 50,060 direct jobs are 2.5% of state employment.	industrial output. 75,000 jobs are 3.6% of state total (Forest Fact book 2003)
Acres in HCPs	2,401,252 acres (Not including the proposed 9.1 million acre Forest and Fish HCP)	303,400 acres
Tax Revenues (2000)	Timber harvest tax: \$62 million Property tax: \$11 million	Privilege tax (1999-2000): \$32.8 million (includes tax on volume of wood from both private <i>and</i> public lands) New tax laws took effect in 2004.

Policies

	Washington	Oregon
Responsible official	Lands Commissioner- state-wide, partisan elected official	State Forester- appointed by Board of Forestry
Regulatory Board	Forest Practice Board (FPB)- 12 member board. Chaired by lands commissioner representative, representatives from CTED, Ecology, Agriculture, WDFW, county representative, small landowner, independent logging contractor, 4 at large (generally environmental, tribal, industrial) appointed by the Governor. The FPB is an independent state agency, and is subject to all regulations governing state agencies.	Oregon Board of Forestry (BOF)- 7 member board appointed by Governor and confirmed by state Senate. Only three may be financially tied to industry, and each of the three ODF regions must be represented.
Responsibility of the Board	Where necessary to accomplish the purposes and policies stated in the act, the board is authorized to promulgate forest practices rules to establish minimum standards for forest practices, provide procedures for the voluntary development of resource management plans, set forth necessary administrative provisions, establish procedures	Adopt rules that shall ensure the continuous growing and harvesting of forests and shall provide for the maintenance of the following resources: air quality, water resources, soil productivity, and fish and wildlife. The board shall collect and analyze the best available information on and establish inventories of: T & E species, nesting sites, ecologically and scientifically

	<p>for the collection and administration of forest practice fees, allow for the development of watershed analyses, and establish the riparian open space program. The board also establishes which forest practices will be included within each class and is authorized to adopt rules. Promulgation of all forest practices rules shall be accomplished so that compliance with such forest practices rules will achieve compliance with the water quality laws. (WAC 222-12-010, RCW 76.09, 76.13.100-76.13.130, 77.85.180-77.85.190)</p>	<p>significant sites, and significant wetlands. If the board determines that one or more forest practices would conflict with resource sites in the inventory, the board shall consider the consequences of the conflicting uses and determine appropriate levels of protection and shall adopt rules appropriate to protect resource sites. (ORS 527.710)</p>
<p>Rule Changes</p>	<p>FPB may be petitioned to change the rules, and must address petitions within 30 days.</p> <p>All changes to riparian rules must go through Adaptive Management program. (WAC 222-12-045, RCW 76.09)</p>	<p>ORS 527.714 (5) the board may adopt such a rule only after determining that the following facts exist and standards are met:</p> <ul style="list-style-type: none"> (a) If forest practices continue to be conducted under existing regulations, there is monitoring or research evidence that documents that degradation of resources... is likely, or that there is a substantial risk of serious bodily injury or death; (b) If the resource to be protected is a wildlife species, the scientific or biological status of a species or resource site to be protected by the proposed rule has been documented using best available information; (c) The proposed rule reflects available scientific information, the results of relevant monitoring and, as appropriate, adequate field evaluation at representative locations in Oregon; (d) The objectives of the proposed rule are clearly defined, and the restrictions placed on forest practices as a result of adoption of the proposed rule:

		<p>(A) Are to prevent harm or provide benefits to the resource or resource site for which protection is sought, or to reduce risk of serious bodily injury or death; and</p> <p>(B) Are directly related to the objective of the proposed rule and substantially advance its purpose;</p> <p>(e) The availability, effectiveness and feasibility of alternatives to the proposed rule, including nonregulatory alternatives, were considered, and the alternative chosen is the least burdensome to landowners and timber owners, in the aggregate, while still achieving the desired level of protection; and</p> <p>(f) The benefits to the resource, or in the case of the benefits in reduction of risk of serious bodily injury or death, that would be achieved by adopting the rule are in proportion to the degree that existing practices of the landowners and timber owners, in the aggregate, are contributing to the overall resource concern that the proposed rule is intended to address.</p> <p>If the proposed rule would require new or increased standards for forest practices, as part of or in addition to the economic and fiscal impact statement, the board shall, prior to the close of the public comment period, prepare and make available to the public a comprehensive analysis of the economic impact of the proposed rule. The analysis shall include, but is not limited to:</p> <p>(a) An estimate of the potential change in timber harvest as a result of the rule;</p> <p>(b) An estimate of the overall statewide economic impact, including a change in output, employment and income;</p>
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		<p>(c) An estimate of the total economic impact on the forest products industry and common school and county forest trust land revenues, both regionally and statewide; and</p> <p>(d) Information derived from consultation with potentially affected landowners and timber owners and an assessment of the economic impact of the proposed rule under a wide variety of circumstances, including varying ownership sizes and the geographic location and terrain of a diverse subset of potentially affected forestland parcels.</p>
Permitting	15-45 day permit process with SEPA review for activities that could harm resources.	14-day notification system with limited appeal process. State does not have regulatory authority.
Environmental Review	<p>Class IV special- SEPA review*, Adaptive Management Program for aquatic resources, Watershed analysis (no longer being done). Ability to appeal FPAs to forest practice appeals board.</p> <p>* SEPA is a state-version of NEPA, requiring threshold determination of non-exempt actions, and environmental impact statement (EIS) for actions likely to have significant adverse impacts. By law, Forest Practices Board defines which forest practices are exempt from threshold determination under SEPA (Class I, II, and III) and those that require such review (Class IV).</p>	<p>Watershed Specific Practices for Water Quality Limited Watersheds and Threatened or Endangered Aquatic Species (ORS 629-635-0120)</p> <p>Process for determining whether additional watershed specific protection rules are needed for watersheds that have been designated as water quality limited or for watersheds containing threatened or endangered aquatic species.</p> <p>(2) The Board of Forestry shall appoint an interdisciplinary task force, including representatives of forest landowners within the watershed and appropriate state agencies, to evaluate a watershed, if the board has determined based on evidence presented to it that forest practices in a watershed are measurably limiting to water quality achievement or species maintenance, and either:</p> <p>(a) The watershed is designated by the Environmental Quality Commission as water quality limited;</p>

		<p>or</p> <p>(b) The watershed contains threatened or endangered aquatic species identified on lists that are adopted by rule by the State Fish and Wildlife Commission, or are federally listed under the Endangered Species Act of 1973 as amended.</p> <p>(3) The board shall direct the task force to analyze conditions within the watershed and recommend watershed specific practices to ensure water quality achievement or species maintenance.</p> <p>(4) The Board shall consider the report of the task force and take appropriate action.</p> <p>(5) Nothing in this rule shall be interpreted to limit the Board’s ability to study and address concerns for other species on a watershed basis.</p>
Planning	<p>Watershed Analysis (dead), WAC 197-11-305 (dead), Landowner option plans (LOPs) and Cooperative habitat enhancement agreements (CHEAs, NSO specific, not implemented)</p> <p>Road Maintenance and Abandonment Plans (RMAPs)</p>	<p>Stewardship agreements (ORS - 527.662) unused, and repealed. May resurface in conjunction with agricultural lands.</p>
Cumulative Effects	<p>Watershed analysis (dead). WAC 197-11-305- SEPA review of multiple exempt but “physically and functionally related” forest practices that together might have significant adverse impacts. Repealed by Ecology, challenge to repeal and related rule making petition pending at Superior Court.</p>	<p>If based upon the analysis... the board determines that additional rules are necessary to protect forest resources pursuant to ORS 527.630, the board shall adopt forest practice rules that reduce to the degree practicable the adverse impacts of cumulative effects of forest practices on air and water quality, soil productivity, fish and wildlife resources and watersheds. Such rules shall include a process for determining areas where adverse impacts from cumulative effects have occurred or are likely to occur, and</p>

		may require that a written plan be submitted for harvests in such areas.

Leadership

There are significant differences in the leadership in forest practices between Washington and Oregon, if not in their stated goals. Both have to balance protecting the timber industry with protecting natural resources. In addition to leadership differences, there is a fundamental difference in regulatory authority; in order to avoid ESA liability, Oregon yielded its regulatory authority entirely and no longer approves forest practices or written plans. Washington has a multi-tiered permit system, an appeals process, environmental review through SEPA for high risk applications, and is seeking federal assurances for riparian forest practice rules. Washington established a collaborative approach with tribes and the federal services through the TFW process that started in the late 1980's to negotiate changes in forest practice rules. Although the result has been regulations based on political compromise, they are overall more protective than Oregon forest practice regulations.

The highest position with forestry oversight in Washington is the public lands commissioner, who, in addition to managing state trust lands oversees the Department of Natural Resources (DNR). The lands commissioner is an elected position, and sits on both the regulatory board, the Forest Practice Board (FPB), and the Board of Natural Resources, the body that manages state trust lands. The FPB has twelve members from various agencies, as well as four at large members appointed by the governor that have traditionally represented tribes, industrial landowners, and the environmental community. The BNR represents financial beneficiaries and the governor only (no public interest of natural resource agency representation).

In Oregon, the state forester is the responsible official for forest practices, and is appointed by the Board of Forestry (BOF). The BOF has 7 members appointed by the governor and is supposed to only have three members that have significant financial interest in the timber industry.

Boards

The Washington FPB is generally conservative and incapable of making controversial decisions; both conservation groups and timber owners frequently bypass the board by using legislative or legal tools. The current lands commissioner is timber industry friendly, and his representative on the FPB is generally hostile to environmental concerns. The Oregon BOF is widely recognized as an extension of the timber industry in Oregon. The current board composition may not meet statutory requirements, and change towards adequate forest practice regulation has been slow to non-existent.

Institutional barriers to change in Washington include the mandate to balance timber industry viability with resource protection, even though 'viability' is not defined to the same extent that impacts to resources are. Washington has an elaborate adaptive

management program through the Forest and Fish program that must research, screen, and make recommendations on rule changes relating to riparian resources. The adaptive management program consists of a science body and a policy body composed of volunteer representatives from industry, the services, tribes, and other groups. So far, the program has failed to recommend any changes in the first five years despite several studies showing that key assumptions underlying the current rules are incorrect. Major rule packages typically go through SEPA, which imposes a significant time and cost consideration. SEPA, or the State Environmental Policy Act, is a Washington law modeled on the National Environmental Policy Act, which provides for environmental review of proposals that could result in significant adverse impacts.

Oregon, in addition to having strong timber interest representation on the BOF, has relied more on a 'collaborative' approach between landowners and ODF (e.g., written plans) rather than relying on regulations. In addition, there is a significant regulatory barrier to regulatory change: ORS 527.714, which requires evidence of degradation, extensive research on wildlife species, that there are no less burdensome alternatives to landowners, that the costs are spread around, and a detailed economic analysis. These requirements include elements of Washington's SEPA process, but seem to impose a higher burden to prove that a change is necessary, more detailed analysis requirements, and does not have a public involvement process.

Cumulative Effects and Landscape Planning

Both Oregon and Washington have provisions for addressing cumulative effects and landscape planning that have not been used. Washington cumulative effects regulations include watershed analysis, which attempts to address cumulative effects and provides for watershed-specific prescriptions. Landscape planning regulations include Landowner Option Plans and Cooperative Habitat Enhancement Agreements that are species-specific wildlife habitat management plans for spotted owls. A few dozen watershed analyses were conducted in the early to mid-nineties, but proved increasingly difficult to complete as they lead to restrictive prescriptions. When the Forest and Fish Rules were passed (2001), it replaced a significant portion of the Watershed analysis process, and none have been completed since. Only one small habitat management plan has been completed for the spotted owl since the rule was passed in 1996. The Forest and Fish adaptive management program has intensive watershed monitoring studies underway that may address cumulative impacts from current forest practice regulations.

Washington maintains that a suite of forest practice regulations including SEPA, minimum standards, road maintenance and abandonment plans, harvest unit size and timing limitations, watershed analysis and others regulations sufficiently address cumulative effects. Washington recently repealed the SEPA rule that allowed a cumulative effects review of multiple exempt forest practice applications. When petitioned to address cumulative effects, the FPB denied the petition. Both the repeal and the refusal to adopt rules are the subject of a lawsuit which will be heard in court March 4, 2005.

Oregon has a provision that allows the BOF to adopt rules addressing cumulative effects, but has not done so. (?) For landscape planning, there was a rule regarding stewardship agreements that was never implemented before it was repealed. There is an effort to replace the rule with a broader rule that would include agricultural landowners as well, but the status is unknown.

Measure 37

The current wildcard in Oregon Forestry policy is Measure 37. Measure 37 may apply to forest regulations, which would require the state to compensate landowners for timber set aside for riparian buffers and wildlife habitat. Measure 37 does not apply when compliance with federal regulations is required, as is the case for forest practice regulations and the Clean Water Act. In contrast, Oregon maintains that its regulatory framework is not intended to comply with the Endangered Species Act, so requiring wildlife habitat retention may require compensation under Measure 37. The uncertainties surrounding Measure 37 is one of the reasons the BOF stated for delaying action on proposed changes to riparian regulations.

Stream Classification and Stream Buffers

Stream Classification	<p>S- Shoreline F- Fish habitat or domestic water source Np- Non-fish perennially flowing Ns- Non-fish seasonal</p> <p>Np streams start at highest point of perennial flow and may include sections with intermittent flow below.</p> <p>DNR is rolling out new maps, which are more accurate than old, but extent of fish habitat has not been verified.</p>	<p>3 types, 3 sizes: F- Fish bearing D- Domestic water, no fish N- All others</p> <p>Small- <2cfs, <200acre basin, <4ft Med- 2-10cfs, 4-20 ft wide Large- >10cfs, <20 ft wide</p> <p>Fish classification is based on presence, not habitat. Habitat upstream of a blockage is not currently classified as fish bearing.</p>
Riparian Buffers	All buffers measured <i>horizontally</i> from outer edge of bankfull width or channel migration zone (CMZ)	Measured <i>along slope</i> from high water
Fish Bearing	<p>Three zones- core, inner, outer Core: No harvest except for road construction and yarding Western WA: 50' Eastern WA: 30' Inner: Buffers 10-100 feet from core, depending on stream size and site potential.</p>	<p>RMA's ranging from 50-100 ft, with basal area targets depending on region (~100 sq ft/acre). All require retention of all understory vegetation within 10' and trees within 20' of high water level. Retain all trees that lean over the channel and all snags and down</p>

	<p>Basal area of core + inner zone must meet DFC target at 140 years (190-285 sq ft/acre). Can manage by thinning from below or leaving trees closest to the water (pack and whack, which is prevalent).</p> <p>Outer: 22-67 foot width from inner buffer. Leave 20 TPA dispersed or clumped</p> <p>Meet shade requirements</p>	wood in the channel and RMA
Non-Fish bearing	<p>Type Np & Ns waters- 30' ELZ, mitigation required if > 10% of surface area is disturbed</p> <p>Western WA: Np RMZ- 50' no-harvest buffer on first 300-500' from confluence with Type F or S stream, 19-45% of length above 500' must be buffered, depending on length of Np stream. Other buffered areas: headwall seeps, side-slope seeps, confluence of Np streams, headwater springs</p>	<p>No RMAs required on most small type N streams.</p> <p>10' buffer retaining understory veg and non merch conifers (<6") for perennial streams in some regions. (not coast range or western cascades).</p> <p>Medium and large type D & N streams get 50 and 70 foot RMA, with 43-68 sq ft/acre basal area retention, which may be concentrated on downstream end near Type F waters.</p>
Channel Migration Zone	Buffers placed on streams that are prone to move to protect from near-term losses of riparian function.	No equivalent.
Wetlands	25-200 foot buffers for non-forested wetlands greater than ¼ acre. Leave 75 TPA and wildlife trees, no tractors or skidders in WMZ without permission.	<p>Significant wetlands and lakes >8 acres- RMA 50-100ft, leave understory, snags, down wood, ½ of the trees</p> <p>Stream associated wetlands- classed as stream- stream RMA includes it +25 ft.</p> <p>Other wetlands- > ¼ , - no RMA, leave snags and down wood, < ¼ acre- no leave requirements</p>

Summary:

- Oregon stream typing system does not subdivide perennial from intermittent non-fish streams.

- OR- no buffers required for small non-fish perennial or seasonal streams. WA- buffers required along portions of non-fish streams.
- Washington is in the process of updating the state-wide stream layer, and is developing a model to predict the upper extent of fish presence. It is problematic, but the stream layer itself is much better than old maps. The quality of Oregon stream maps is unknown to me at this point.
- Washington has channel migration zones (CMZ) to protect riparian function along streams that are “prone to move.” Riparian buffers begin at the edge of the CMZ. OR has no equivalent.
- Washington stream buffers are measured horizontally from edge of stream or CMZ, OR buffers are measured upslope, with the exception of extremely steep slopes. This reduces the width of buffers in OR compared to WA.
- OR stream typing for fish is based on presence/absence instead of physical criteria as in WA. Thus, only streams where fish are detected now are classified as fish bearing and given fish buffers. This has been identified as a serious problem because stream reaches that have been extirpated of fish, or where fish were not detected during the survey do not receive fish buffers.
- OR- only 20 foot no-touch buffer, 10 foot equipment limitation zone for fish streams. WA- 50 foot no-touch buffer for fish streams, 30 foot equipment limitation zone on perennial and seasonal non-fish streams. In practice, most landowners leave a portion of the inner zone in addition to the no-touch buffer to meet basal area requirements resulting in a wider no-touch buffer, but a narrower overall buffer.
- According to an EPA study comparing how different buffers lay out on the ground, a typical coastal watershed would have the following percentages in riparian buffers:
 - 8% under the Oregon FPRs
 - 16% under Washington’s Forest and Fish
 - 30-40% on Tribal lands
 - 70% under the Northwest Forest Plan
- Basal area targets for tree retention in riparian zones along fish-bearing streams are about double in Washington compared to Oregon:
 - 190-285 square feet per acre, depending on site class
 - about 100 square feet per acre, depending on region
- Washington requires buffers to maintain sufficient shade along fish bearing streams, Oregon buffers along fish bearing streams are recognized to be insufficient to prevent water temperature increases.
- Washington requires wetland buffers for wetlands greater than ¼ acre, while Oregon requires buffers on wetlands greater than 8 acres. Wetlands between ¼ acre and 8 acres in Oregon require that snags and down wood be retained.

Stream Classification

The stream classification schemes differ between Washington and Oregon. Although both systems differentiate fish-bearing from non-fish-bearing streams, Oregon classifies streams as fish-bearing based on presence surveys conducted by the state, a landowner-hired consultant, or a qualified biologist, instead of using habitat and physical criteria to delineate fish streams as in Washington. The result is that reaches that have been

extirpated of fish by degraded conditions, barriers, or reduced populations are not currently classified as fish-bearing segments in Oregon and do not receive Type F stream buffers. A change to using physical parameters for fish-bearing stream delineation was recommended by the Forest Practices Advisory Committee (FPAC).

Riparian Buffers

Riparian buffers as laid out under Oregon regulations cover about half the area within a typical coastal watershed (8%) when compared to Washington Forest and Fish buffers (15-16%). Oregon rules only require a 10-20 foot equipment limitation zone along fish bearing streams, and about half to a third of the basal area to be retained within the whole buffer when compared to Washington regulations (which may be increased based on adaptive management studies). The Sufficiency Analysis indicated that the riparian prescriptions for small and medium Type F streams may lead to increases in stream temperature and that basal area targets are not likely to meet the desired future conditions described in the Forest Practices Act. The Sufficiency Analysis and FPAC report describe a shortage in large woody debris in riparian areas and streams, and recommend actively placing wood in streams. In a letter to the ODF in 2001 regarding the Sufficiency Analysis, the US EPA, USFWS, and NMFS stated: “The evidence is, however, overwhelming that forest practices on private lands in Oregon contribute to widespread stream temperature problems and degraded salmonid habitat conditions. These effects of forest practices do not meet the goals of the CWA or ESA.”

The majority of non-fish streams in Oregon are classified as small Type N streams, which receive no stream buffers in the coastal range or western cascades. Other areas may receive a 10 foot buffer where unmerchantable conifers less than 6 inches and understory vegetation must be retained. In contrast, Washington perennial non-fish streams have a 30 foot equipment limitation zone, and a 50 foot no-touch buffer for the first 300-500 feet upstream from a fish-bearing stream, and about 30% of the length upstream from there buffered. In addition, headwall seeps, side-slope seeps, confluence of Np streams, and headwater springs also receive buffers. Lack of sufficient Type N stream buffers is recognized as contributing to increased downstream temperatures, and limiting large woody debris recruitment.

The BOF is currently considering implementing the changes proposed by the FPAC report, but indicated at the December meeting that the changes are on hold pending clarification of Measure 37.

Wildlife

	Washington	Oregon
State ESA	Only authority to list species. Required to develop recovery plans and review them every 5 years. Recovery plans are voluntary. Only a handful completed.	Applies only to state lands and agencies Take prohibition (but unclear what this actually means). Listing decision by Oregon Fish and Wildlife Commission.

	27 species on state endangered list, 11 species on state threatened list, 39 species on federal list.	Establish “survival guidelines” for threatened species, management plan for endangered species. Flexible- language for weighing potential public benefits versus harm 36 species on state list – 10 fish, 4 amphibians, 10 birds, 12 mammals 43 on federal list
Reporting	Applicants must report critical habitats on permit, if known.	Reporting requirement- if a ‘sensitive area’ is discovered, operations must stop and it must be reported to ODF
Leave Trees	Western WA: 3 wildlife reserve trees (if available), 2 green recruitment trees, 2 down logs per acre. Eastern WA: 2 wildlife reserve trees (if available), 2 green recruitment trees, 2 down logs per acre. Wildlife trees- > 10 feet tall, 10-12 inches dbh, leave largest Green trees- >30 feet tall, >10 inches dbh. Down logs: > 20 feet long, min 12 inches	Greater than 25 acres: Clearcuts- two wildlife trees, and 2 down logs per acre Other- leave certain number or basal area of trees>11” depending on site class Leave trees- 50% conifer, 30ft tall, 11”dbh, scattered or clustered, 25% may have to be left near stream if type F or D in addition to RMA Down logs- 50% conifer, 10 cubic ft volume, >6’ long Less than 25 acres: no requirements
Spotted Owls	Spotted owl special emphasis areas (SOSEAs): Retain 40% habitat within circles, landscape goals, disturbance restrictions. Outside SOSEAs- no operations within 70 acres of highest quality habitat or disturbance within .25 miles during nesting season (March 1-Aug 31)	For sites identified by state forester as having an active pair capable of breeding: written plan required, leave 70 acre core prevent disturbance during nesting season (March 1- Sept 30). Compliance with state rules does not mean compliance with ESA. Exemptions for HCPs. (OAR 629-665-0210, Interim Requirements for Northern Spotted Owl Nesting Sites)
Marbled Murrelets, sensitive sites	SEPA trigger: Occupied sites; within detection areas, habitat is	No regulations specific to the MM. However, MM sites are considered “sensitive resource

	<p>designated as having 5 platforms/acre, 2-4 platforms require a survey; Outside detection areas- 7 platforms/acre; special landscapes- 5 platforms/acre</p> <p>Detection areas are the section where the marbled murrelet was detected, and the eight adjacent sections surrounding it.</p> <p>No disturbance within .25 acres during daily peak activity period during critical nesting season.</p>	<p>sites”, and are maintained in an ODF database. ODF is responsible for notifying landowners if there is a site, the landowner is not responsible for surveying, but if a site is discovered, it must be reported. Protection is required if a conflict with a site exists- ODF works with landowner to determine: If the site is active, if there are conflicts, how the conflicts are resolved, developing a written plan (which does not need approval). If a site is inactive, there is no protection required. Compliance with ESA is not assured, but an HCP waives state rules.</p>
Other species with special management requirements	<p>Class IV, or SEPA trigger for:</p> <p>Bald Eagle- activity within ½ mile of active site during nesting season, ¼ mile other times</p> <p>Gray Wolf- 1 mile during denning, ¼ mile other times</p> <p>Grizzly Bear- 1 mile/ ¼ mile</p> <p>Mountain Caribou- ¼ mile</p> <p>Oregon silverspot butterfly- ¼ mile</p> <p>Peregrine falcon- ½ mile, ¼ mile</p> <p>Sandhill crane- ¼ mile</p> <p>Western Pond turtle- ¼ mile</p> <p>Other federally listed species.</p> <p>Exemptions for approved wildlife plans, HCPs, etc.</p>	<p>Bald Eagles- ½ mile trigger for written plan, ¼- ½ mile no disturbance zone during nesting/roosting period, buffer around sites (300 ft- roosting, 330 ft nesting).</p> <p>Great blue heron- ¼ mile disturbance zone, 300 ft harvest buffer</p> <p>Osprey- 600 ft no disturbance zone during critical period, retain 8-12 perch trees near nest</p>

Summary:

- Neither state has a meaningful state ESA equivalent- in Washington, species can be listed, but recovery is voluntary. In Oregon, it only applies to state lands (?), with conservation balanced with public good.
- Neither Oregon nor Washington have requirements for landowners to survey their lands for sensitive species. Both rely on state-managed databases of questionable quality.

- Washington requires three wildlife reserve trees in addition to two green trees, if they are available onsite and do not need to be removed for safety purposes, etc. Otherwise, Oregon and Washington are similarly deficient.
- Protections for spotted owls are much better inside of SOSEAs in Washington than in Oregon, but Oregon protections are better than Washington for sites outside of SOSEAs. Areas within SOSEAs were supposed to receive landscape-level plans, but instead default to circle management with protections similar to federal take guidelines.
- Marbled murrelets have substantial protections in Washington, and little in Oregon. Oregon requires written plan to deal with “sensitive resource site”. The quality of written plans is unknown.
- Other species: In Washington, a longer list of species with specific triggers for SEPA review. In Oregon, a shorter species list (three, in fact) with specific requirements. Neither state offers compliance with ESA, although Washington does have a SEPA trigger for all listed species.

Sensitive Species Management

Washington and Oregon both rely on centralized wildlife databases to alert landowners to wildlife issues. Databases in Washington generally rely on voluntarily submitted survey data, and there is no compulsive monitoring requirements for most species. For the spotted owl, the database quality is generally poor, with most survey data being outdated and concentrated on federal lands where there is the funding and interest to survey for owls.

For areas with known species, Washington relies on a SEPA trigger to evaluate potential impacts. Since the SEPA rules are detailed and well-established, most landowners opt not to do activities that trigger SEPA review. Oregon tends to rely on written plans, that, since 2003, do not require approval. Written plans are to be site-specific and developed between the landowner and ODF specialists. It is unclear how effective written plans are at protecting resources. They are not intended to comply with ESA.

Currently, the impact of Measure 37 is being debated by state and local governments. Landowners subject to state regulations that require to them leave harvestable timber for wildlife habitat may be entitled to compensation under the measure, which could result in the rules being waived for landowners who apply for compensation. Landowners are still subject to federal regulations such as the endangered species act and the clean water act, however, these agencies indicated that they do not have the resources (or political directive) to enforce the regulations on the ground. On the other hand, state regulations that have to comply with federal mandates are exempt from Measure 37, which could leverage to improve state regulations to bring them in compliance with federal standards.

Marbled Murrelet

Protections for marbled murrelet are substantially better in Washington than Oregon, with survey requirements in areas likely to have murrelets, and protection for murrelet habitat that has at least a 50% probability of occupancy (based on number of platforms/acre).

Oregon only requires a written plan for active sites, and the landowner is not responsible for surveying.

According to the 5-year review of the marbled murrelet, the extent of habitat loss on state and private lands can not be determined due to lack of data. It notes that private landowners typically do not consult when harvesting habitat, and that industrial forestlands are unlikely to contribute any murrelet habitat in the foreseeable future due to management in short rotations.

The report also states that five major HCPs include marbled murrelets resulting in about 131,300 acres of habitat in Washington that have been consulted on by the Services as compared to Oregon, where only 2,380 acres have been reviewed as part of the Elliot Forest HCP.

The result of the recent 5-year review was that the population listed under the original rule in 1992, which ranges from Central California to the Canadian border, does not meet the distinct population segment rule promulgated in 1996. Therefore, the USFWS is reconsidering the listing of the marbled murrelet by including the entire range, which extends through British Columbia to the Aleutian Islands in Alaska. The USFWS has indicated that this is not a priority, however, so in the meantime the marbled murrelet will remain as threatened. Modeling results from the 5-year report assigned a high probability of extinction for murrelet populations south of Puget Sound within the next 100 years.

Northern Spotted Owl

For spotted owls, Washington manages about 1.54 million acres in special emphasis areas (SOSEAs) where rules approximate the federal take guidelines of maintaining 40% habitat within circles. Sites can be 'decertified' if surveys do not detect occupancy in three years and logged. Circles outside of SOSEAs require that the core 70 acres be maintained only during the nesting season. In Oregon, the 70-acre core of suitable habitat is determined by the landowner and ODF, and is protected year round. Both Oregon and Washington have ¼ mile disturbance restrictions during nesting season, although Oregon defines the nesting season as extending to September 30, and Washington as August 31.

Although SOSEAs in Washington were intended to be managed under landscape plans for specific goals, only one minor plan has been completed in the eight years since the rules took effect. The result has been that habitat within some SOSEAs has been harvested resulting in the minimum 40% patches within regulated owl circles. Although specific data is lacking, most circles outside of SOSEAs are already below the 40% threshold and may no longer be viable. Owl-related regulations are currently under review in Washington, with initial studies by WDFW indicating that the rule has not been effective. In addition, a major habitat study is underway in Washington to measure the amount of habitat loss since the rule was enacted, and to determine the remaining habitat.

In Oregon, the rate of habitat loss and the number of remaining viable owl sites on private lands is unknown. There have been a few federal cases involving take on private

lands, with mixed results. Although a thorough review of ESA legal actions in Oregon has not been completed, a USFWS biologist indicated that there have been about two wins and two draws by the USFWS for owl cases in Oregon.

According to the most recent demographic study of the northern spotted owl throughout its range, populations are declining most rapidly in Washington, with an average annual decrease of about 7.5% per year for the past 12 years. The rate of decline is lower in Oregon, at about 2.8% per year over the past 13 years. The rate of decline in Washington is about double the rate anticipated by the Northwest Forest Plan.

Other Species

Other species protection is better in Washington than in Oregon. There are more species covered, and there is a SEPA trigger that acts as a deterrent from harvest. Oregon may have other species of concern on in its management database, but written plans do not appear to be nearly as effective as SEPA for protecting the resources.

Roads: Water Quality and Fish Passage

	Washington	Oregon
Standards	-Structures must pass 100-year flood. -SEPA review for roads on unstable slopes.	-Stream crossings will accommodate a 50-year peak flow. -Restrictions for roads built on unstable slopes with ‘substantial or intermediate downslope public safety risk’
Restoration	Road Maintenance and Abandonment Plans (RMAP)- all forest roads built since 1974 must be upgraded to meet current standards by 2016. Plans must be completed for landowners with over 500 acres by 2006 and prioritize the worst problems first. Exemption for small landowners defined as those harvesting less than 2 million board feet per year.	Roads built since 1994 must meet current standards for fish passage, compliance with rules, and maintenance. For roads constructed prior to 1994, a voluntary program under the Oregon Plan deals with roads on industrial and state lands, and to a lesser extent, small landowners.
Prior approval	Forest Practice permit or notification required for most road-related activities. SEPA review for roads on unstable slopes on state-designated critical habitat. Structures subject to WDFW hydraulic permits.	Required for: risk of materials entering waters of the state, machinery in Type F or D streams or significant wetlands, roads in RMAs, roads on high landslide areas, stream fills over 15 feet deep, stream enhancement
Fish	Hydraulic permits are currently	ODFW is lead agency for fish passage-

Passage	issued by WDFW for crossing structures in Type F or S waters. However, review of instream work in non-fish streams is being turned over to DNR as part of the FFR deal.	produces guidelines. DSL regulates standards for structures involving fill. Voluntary measures- Oregon Plan targets industrial and state lands over the next 10 years.
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Standards

Standards and BMPs for road construction are similar between Oregon and Washington with a few exceptions. For example, in-stream structures in Washington must pass a 100-year peak flow event, and only a 50-year event in Oregon. Road construction on unstable slopes is handled differently- Washington uses SEPA, Oregon prohibits it if there is a substantial downslope public safety risk, and requires a written plan with a geotechnical consultation if there is an intermediate downslope risk. How unstable slopes are defined is included in the section on Upland rules.

Road Maintenance and Upgrades

The Washington RMAP program is a mandatory program to identify and improve problem roads. It has a five-year deadline for improvement plans, and requires that all forest roads meet current standards by 2016. Plans must include abandoned and orphaned roads, and address the most severe problems first, including fish passage, sedimentation, mass wasting problems, hydrologic connectivity, and addressing stream-adjacent roads. Small landowners (<2 million board feet of harvest per year) are required to do a checklist instead of a full RMAP, and owners of less than 80 acres are not required to do the checklist (but they are supposed to read a brochure). The exemption for small landowners was passed in 2003, and represents a significant change since about half of the private forestlands in Washington are non-industrial, and it is unclear how many would be exempt from RMAPs.

Roads currently being used must be maintained in a condition that prevents damages to public resources.

Forest practice rules in Oregon between 1972 and 1994 required adequate fish passage for adult fish without consideration for juvenile passage. In 1994 the current rules were adopted that requires standards to “design, construct, and maintain stream crossing structures to allow migration of adult and juvenile fish upstream and downstream during conditions when fish movement normally occurs.” ODFW is the lead agency for developing fish passage guidelines, with Department of State Lands responsible for certain instream structures and fill permits. Maintenance is required to maintain passage for all roads that were built or reconstructed since 1994.

Upgrading roads constructed prior to 1994 occurs in Oregon through voluntary programs. The Oregon plan addresses problems on industrial and state forest lands over the next ten years with funding provided by the landowners and coordinated through the Oregon Watershed Enhancement Board (OWEB). About 32 million dollars were spent between

1995 and 1999 on private industrial lands. Non-industrial landowners can obtain financial support through OWEB or ODF. {Is it working?}

In 2002, the forest practice rules in Oregon were amended to incorporate recommendations from FPAC including sedimentation from wet-weather hauling, road location, and inadequate cross drains on steep or old roads {others?}. The rules regarding wet-weather hauling are fairly straightforward, although it only applies to Type F and D streams and compliance is uncertain. Guidance on road location and when additional cross drains are required are vague.

Upland

	Washington	Oregon
Aesthetics	Nothing in particular.	150 ft buffer along interstates and designated highways. Leave at least 50 tpa of 11" dbh until regrowth reaches 10' tall. Other restrictions apply, see rules for details.
Forest Chemicals	Hand application in RMZs, aerial application buffers on depending on nozzle, wind conditions. Generally, no application in inner zone of the RMZ.	Written plan for applications within 100 feet of Type F or D water, or 300 feet of a specified resource site. Herbicides, rodenticides, insecticides: Aerial- no application within 60' of Type F or D stream, wetlands, large lakes, water bodies >1/4 acre, ground application- 10 ft buffer. Fungicides, non-biological insecticides-aerial- 300 ft buffer, ground 10 ft buffer Fertilizers- No application within 100 feet of Type F or D stream, no direct application on any other water resource Type N streams generally exempt from any buffers.
Unit size & timing	Clearcuts over 240 acres prohibited, ID team review required for clearcuts over 120 acres. Adjacency requirements- 30% >30 years or 60% > 15 years or 90% at least 5 years	Clearcuts limited to 120 acres, 300' buffer between units. Limitation continues until trees in adjacent unit are 4' tall or was planted at least 4 years ago and is free to grow.
Rain on Snow	Clearcut sizes in ROS zone can be conditioned by the department where peak flows have resulted in material damages to public resources. Annual report must be filed,	No equivalent.

	however none has ever been prepared.	
Unstable slopes	SEPA review required for forest practices on potentially unstable slopes that has the potential to deliver sediment or debris to a public resource or that has the potential to threaten public safety, and which has been verified by the department. Landforms include: inner gorges, convergent headwalls, bedrock hollows, toes of landslides (with slopes > 65-70%), groundwater recharge areas, outer edges of meander bends, areas with indicators. Expert review required.	High landslide hazard locations: Any slope > 80% (Tyee area- 75%), headwall or draw > 75% (Tyee area- 65%), areas designated by specialists. Landowner must determine level of risk- High, intermediate, or low public safety risk and prepare a written plan and comply with restrictions for intermediate and high risk levels.

Aesthetics

Oregon deals with aesthetics issues in a few specific locations, while Washington has no mandatory requirements for aesthetics. Studies of forest aesthetics in Washington have demonstrated that clearcut size and location are generally below what the public finds acceptable.

Unit sizes and timing

Washington has the authority to limit clearcut sizes in the rain-on-snow zone for watersheds where there has been documented damages to public resources and where there has been no watershed analysis. However, there is no indication that they have ever used the authority, and they have never produced an annual report as described in the rule. Oregon has no rules specifically addressing rain-on-snow, but has the ability to pass rules to address cumulative effects (ORS 527.710) and the ability to pass specific protection rules for water quality limited watersheds or that contain T & E species (OAR 629-635-0120). Likewise, it is unlikely that Oregon has used these provisions (?).

Unit size and timing restrictions are similar, and both states require buffers and safe handling of pesticides, herbicides, and fertilizers. The efficacy of these buffers is unknown (to me). There have been recent cases in California involving forest chemical use, and with EPA-approved pesticide use near salmon streams. The injunction for 38 specific pesticides specifies a 20 yard buffer for all application, and 100 yards for aerial application. A least two common forest pesticides (2,4 D and tricopyr) are on the injunction list.

Unstable Slopes

Unstable slope rules in Oregon were updated in 2002 and now require coordination between the State Forester and the landowner to determine high landslide hazard locations, impact ratings, and downslope public safety risk. The rule is focused on public safety rather than risks to resources, and relies on landowners for information. Areas with substantial downslope public safety risk have restrictions on roadbuilding and harvesting. For areas with an intermediate downslope public safety risk, the goal is to manage for canopy closure and roads require a geotechnical specialist. Leave trees are also required along debris torrent-prone streams.

Washington also relies heavily on landowner identification of unstable slopes, and is not specific about when geotechnical expertise is required. However, the potential to affect public resources, including fish and wildlife, are included in the trigger for SEPA review of FPAs with unstable slopes. The adaptive management program in Washington has developed GIS-based landslide hazard screening tools and is in the process of testing them on selected watersheds. The definition of an unstable slope is narrower in Washington than in Oregon since it includes specific landforms such as bedrock hollows, convergent headwalls, and inner gorges rather than a broad category that includes any slope over 75-80%.