



PROPOSED RULE MAKING

CR-102 (June 2004)

(Implements RCW 34.05.320)

Do NOT use for expedited rule making

Agency: Forest Practices Board

- | | |
|---|---|
| <input checked="" type="checkbox"/> Preproposal Statement of Inquiry was filed as WSR <u>09-02-019</u> ; or | <input checked="" type="checkbox"/> Original Notice |
| <input type="checkbox"/> Expedited Rule Making--Proposed notice was filed as WSR _____; or | <input type="checkbox"/> Supplemental Notice to WSR _____ |
| <input type="checkbox"/> Proposal is exempt under RCW 34.05.310(4). | <input type="checkbox"/> Continuance of WSR _____ |

Title of rule and other identifying information: (Describe Subject)

Amend Title 222 WAC, Forest Practices rules, related to Northern Spotted Owl conservation.

Hearing location(s):

Natural Resources Building
1111 Washington Street SE
Olympia, WA 98504

Date: September 29, 2009

Time: 6 p.m.

Submit written comments to:

Name: Patricia Anderson
Address: Forest Practices Board
DNR, Forest Practices Division
PO Box 47012
Olympia, WA 98504-7012
e-mail forest.practicesboard@dnr.wa.gov
fax (360) 902-1428 by 5 p.m. on September 30, 2009

Assistance for persons with disabilities: Contact

Forest Practices Division at (360) 902-1400 by September 15, 2007 TTY (360) 902-1125

Date of intended adoption: November 10, 2009

(Note: This is NOT the effective date)

Purpose of the proposal and its anticipated effects, including any changes in existing rules:

The purpose of the rule is to assure that no habitat important to the Northern Spotted Owl is altered through forest practices while the Board determines a long-term strategy for spotted owl habitat conservation. It imposes additional analysis, by a "spotted owl conservation advisory group", of forest lands surveyed by forest landowners that indicate the absence of spotted owls. These surveys are reviewed by Washington Department of Fish and Wildlife. With this rule proposal, the site may not be decertified (that is, the spotted owl site center status may not be changed) unless the advisory group reaches consensus that the site center need not be maintained while the Board determines a long-term strategy. The duration of the advisory group's existence is from January 1, 2009 through December 31, 2009.

Reasons supporting proposal:

The Forest Practices Board established a Policy Working Group on Northern Spotted Owl Conservation on December 16, 2008 to recommend measures that will result in strategic contributions from non-federal lands in Washington to the broader goal of conservation of a viable population of the Northern Spotted Owl. The Board expects recommendations from this group late in 2009. The recommendations may result in changes to Title 222 WAC concerning conservation of this species' habitat on non-federal lands.

In the meantime, this proposed rule making is an interim measure to assure that no habitat important to the Northern Spotted Owl is altered through forest practices while the Board determines a long-term strategy for spotted owl habitat conservation.

Statutory authority for adoption:

RCW 76.09.040

Statute being implemented:

N/A

Is rule necessary because of a:

- | | | |
|-------------------------|------------------------------|--|
| Federal Law? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Federal Court Decision? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| State Court Decision? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
- If yes, CITATION:

DATE August 13, 2009

NAME (type or print)

Peter Goldmark

SIGNATURE

TITLE

Chair

CODE REVISER USE ONLY

**OFFICE OF THE CODE REVISER
STATE OF WASHINGTON
FILED**

DATE: August 18, 2009

TIME: 1:36 PM

WSR 09-17-113

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters:

Name of proponent: (person or organization)

Forest Practices Board

- Private
 Public
 Governmental

Name of agency personnel responsible for:

Name	Office Location	Phone
Drafting..... Marc Engel	1111 Washington Street SE, Olympia	(360) 902-1390
Implementation.... Mary McDonald	1111 Washington Street SE, Olympia	(360) 902-1415
Enforcement..... Mary McDonald	1111 Washington Street SE, Olympia	(360) 902-1415

Has a small business economic impact statement been prepared under chapter 19.85 RCW?

Yes. Attach copy of small business economic impact statement.

A copy of the statement may be obtained by contacting:

Name: Gretchen Robinson

Address: Department of Natural Resources

P.O. Box 47012

Olympia, WA 98504-7012

phone (360) 902.1705

fax (360)902.1428

e-mail gretchen.robinson@dnr.wa.gov

No. Explain why no statement was prepared.

Is a cost-benefit analysis required under RCW 34.05.328?

Yes A preliminary cost-benefit analysis may be obtained by contacting:

Name: Gretchen Robinson

Address: Department of Natural Resources

P.O. Box 47012

Olympia, WA 98504-7012

phone (360) 902.1705

fax (360)902.1428

e-mail gretchen.robinson@dnr.wa.gov

Please note: the preliminary cost-benefit analysis and small business economic impact statement are combined in the attached draft economic analysis.

No: Please explain:

AMENDATORY SECTION (Amending WSR 08-17-092, filed 8/19/08, effective 9/19/08)

WAC 222-16-010 *General definitions. Unless otherwise required by context, as used in these rules:

"Act" means the Forest Practices Act, chapter 76.09 RCW.

"Affected Indian tribe" means any federally recognized Indian tribe that requests in writing from the department information on forest practices applications and notification filed on specified areas.

"Alluvial fan" see "sensitive sites" definition.

"Appeals board" means the forest practices appeals board established in the act.

"Aquatic resources" means water quality, fish, the Columbia torrent salamander (*Rhyacotriton kezeri*), the Cascade torrent salamander (*Rhyacotriton cascadae*), the Olympic torrent salamander (*Rhyacotriton olympian*), the Dunn's salamander (*Plethodon dunni*), the Van Dyke's salamander (*Plethodon vandyke*), the tailed frog (*Ascaphus truei*) and their respective habitats.

"Area of resource sensitivity" means areas identified in accordance with WAC 222-22-050 (2)(d) or 222-22-060(2).

"Bankfull depth" means the average vertical distance between the channel bed and the estimated water surface elevation required to completely fill the channel to a point above which water would enter the flood plain or intersect a terrace or hillslope. In cases where multiple channels exist, the bankfull depth is the average depth of all channels along the cross-section. (See board manual section 2.)

"Bankfull width" means:

(a) For streams - the measurement of the lateral extent of the water surface elevation perpendicular to the channel at bankfull depth. In cases where multiple channels exist, bankfull width is the sum of the individual channel widths along the cross-section (see board manual section 2).

(b) For lakes, ponds, and impoundments - line of mean high water.

(c) For tidal water - line of mean high tide.

(d) For periodically inundated areas of associated wetlands - line of periodic inundation, which will be found by examining the edge of inundation to ascertain where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland.

"Basal area" means the area in square feet of the cross section of a tree bole measured at 4 1/2 feet above the ground.

"Bedrock hollows" (colluvium-filled bedrock hollows, or hollows; also referred to as zero-order basins, swales, or bedrock

depressions) means landforms that are commonly spoon-shaped areas of convergent topography within unchannelled valleys on hillslopes. (See board manual section 16 for identification criteria.)

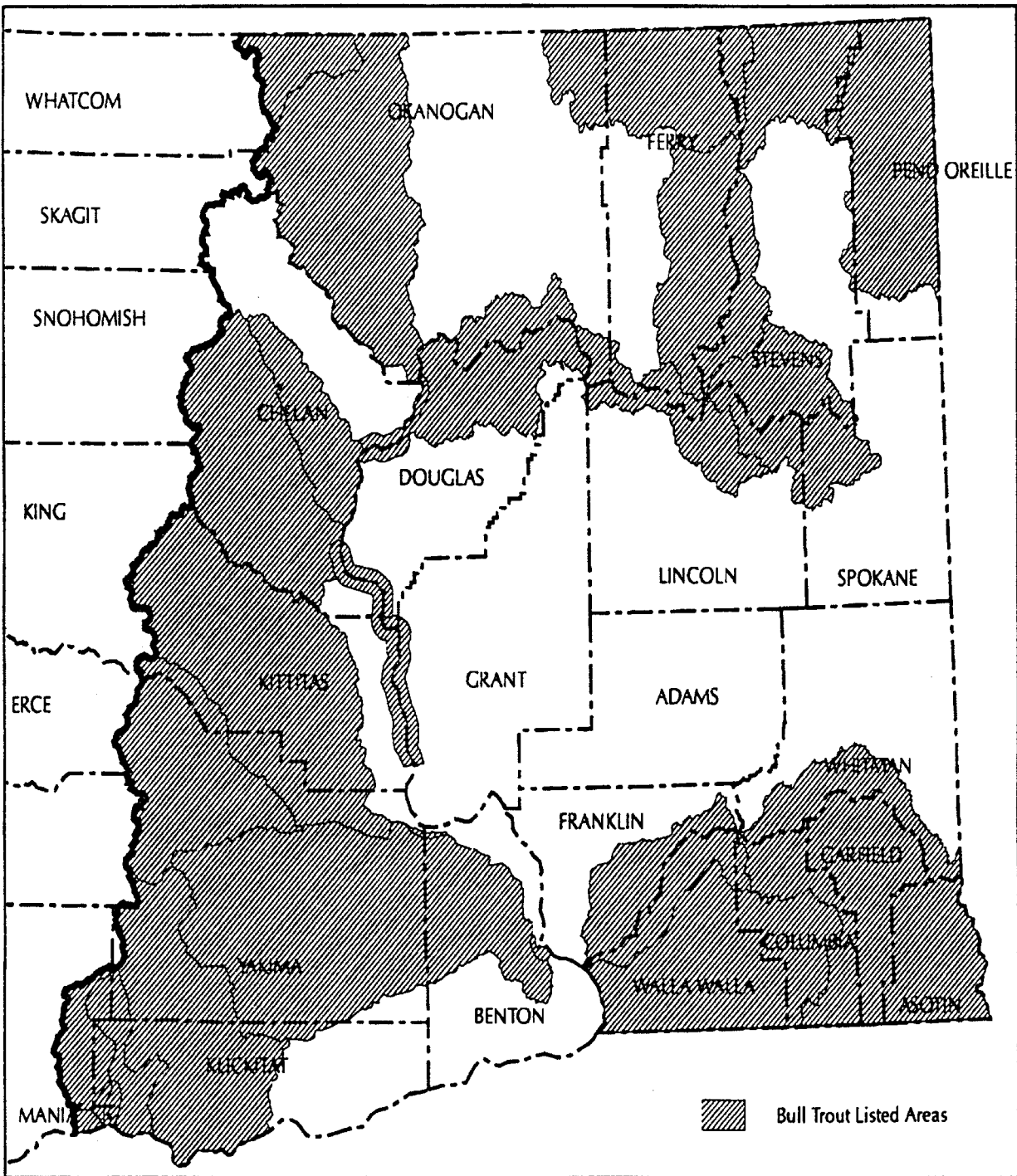
"Board" means the forest practices board established by the act.

"Bog" means wetlands which have the following characteristics: Hydric organic soils (peat and/or muck) typically 16 inches or more in depth (except over bedrock or hardpan); and vegetation such as sphagnum moss, Labrador tea, bog laurel, bog rosemary, sundews, and sedges; bogs may have an overstory of spruce, western hemlock, lodgepole pine, western red cedar, western white pine, Oregon crabapple, or quaking aspen, and may be associated with open water. This includes nutrient-poor fens. (See board manual section 8.)

"Borrow pit" means an excavation site outside the limits of construction to provide material necessary to that construction, such as fill material for the embankments.

"Bull trout habitat overlay" means those portions of Eastern Washington streams containing bull trout habitat as identified on the department of fish and wildlife's bull trout map. Prior to the development of a bull trout field protocol and the habitat-based predictive model, the "bull trout habitat overlay" map may be modified to allow for locally-based corrections using current data, field knowledge, and best professional judgment. A landowner may meet with the departments of natural resources, fish and wildlife and, in consultation with affected tribes and federal biologists, determine whether certain stream reaches have habitat conditions that are unsuitable for supporting bull trout. If such a determination is mutually agreed upon, documentation submitted to the department will result in the applicable stream reaches no longer being included within the definition of bull trout habitat overlay. Conversely, if suitable bull trout habitat is discovered outside the current mapped range, those waters will be included within the definition of "bull trout habitat overlay" by a similar process.

Bull Trout Overlay Map



"**Channel migration zone (CMZ)**" means the area where the active channel of a stream is prone to move and this results in a potential near-term loss of riparian function and associated habitat adjacent to the stream, except as modified by a permanent levee or dike. For this purpose, near-term means the time scale required to grow a mature forest. (See board manual section 2 for descriptions and illustrations of CMZs and delineation guidelines.)

"**Chemicals**" means substances applied to forest lands or timber including pesticides, fertilizers, and other forest chemicals.

"Clearcut" means a harvest method in which the entire stand of trees is removed in one timber harvesting operation. Except as provided in WAC 222-30-110, an area remains clearcut until:

It meets the minimum stocking requirements under WAC 222-34-010(2) or 222-34-020(2); and

The largest trees qualifying for the minimum stocking levels have survived on the area for five growing seasons or, if not, they have reached an average height of four feet.

"Columbia River Gorge National Scenic Area or CRGNSA" means the area established pursuant to the Columbia River Gorge National Scenic Area Act, 16 U.S.C. § 544b(a).

"CRGNSA special management area" means the areas designated in the Columbia River Gorge National Scenic Area Act, 16 U.S.C. § 544b(b) or revised pursuant to 16 U.S.C. § 544b(c). For purposes of this rule, the special management area shall not include any parcels excluded by 16 U.S.C. § 544f(o).

"CRGNSA special management area guidelines" means the guidelines and land use designations for forest practices developed pursuant to 16 U.S.C. § 544f contained in the CRGNSA management plan developed pursuant to 15 U.S.C. § 544d.

"Commercial tree species" means any species which is capable of producing a merchantable stand of timber on the particular site, or which is being grown as part of a Christmas tree or ornamental tree-growing operation.

"Completion of harvest" means the latest of:

Completion of removal of timber from the portions of forest lands harvested in the smallest logical unit that will not be disturbed by continued logging or an approved slash disposal plan for adjacent areas; or

Scheduled completion of any slash disposal operations where the department and the applicant agree within 6 months of completion of yarding that slash disposal is necessary or desirable to facilitate reforestation and agree to a time schedule for such slash disposal; or

Scheduled completion of any site preparation or rehabilitation of adjoining lands approved at the time of approval of the application or receipt of a notification: Provided, That delay of reforestation under this paragraph is permitted only to the extent reforestation would prevent or unreasonably hinder such site preparation or rehabilitation of adjoining lands.

"Constructed wetlands" means those wetlands voluntarily developed by the landowner. Constructed wetlands do not include wetlands created, restored, or enhanced as part of a mitigation procedure or wetlands inadvertently created as a result of current or past practices including, but not limited to: Road construction, landing construction, railroad construction, or surface mining.

"Contamination" means introducing into the atmosphere, soil, or water, sufficient quantities of substances as may be injurious to public health, safety or welfare, or to domestic, commercial, industrial, agriculture or recreational uses, or to livestock, wildlife, fish or other aquatic life.

"Convergent headwalls" (or headwalls) means teardrop-shaped landforms, broad at the ridgetop and terminating where headwaters converge into a single channel; they are broadly concave both longitudinally and across the slope, but may contain sharp ridges separating the headwater channels. (See board manual section 16 for identification criteria.)

"Conversion activities" means activities associated with conversions of forest land to land uses other than commercial timber operation. These activities may be occurring during or after timber harvest on forest land. They may include but are not limited to the following:

- Preparation for, or installation of, utilities on the forest practices activity site. The development or maintenance of existing rights of way providing utilities exclusively for other ownerships shall not be considered conversions of forest land (see WAC 222-20-010(5)).

- Any of, or any combination of, the following activities in preparation for nonforestry use of the land: Grading, filling, or stump removal.

- Preparation for, or construction of, any structure requiring local government approval.

- Construction of, or improvement of, roads to a standard greater than needed to conduct forest practices activities.

- Clearing for, or expansion of, rock pits for nonforest practices uses or developing surface mines.

"Conversion option harvest plan" means a voluntary plan developed by the landowner and approved by the local governmental entity indicating the limits of harvest areas, road locations, and open space.

"Conversion to a use other than commercial timber operation" means a bona fide conversion to an active use which is incompatible with timber growing.

"Cooperative habitat enhancement agreement (CHEA)" see WAC 222-16-105.

"Critical habitat (federal)" means the habitat of any threatened or endangered species designated as critical habitat by the United States Secretary of the Interior or Commerce under Sections 3 (5)(A) and 4 (a)(3) of the Federal Endangered Species Act.

"Critical nesting season" means for marbled murrelets - April 1 to August 31.

"Critical habitat (state)" means those habitats designated by the board in accordance with WAC 222-16-080.

"Cultural resources" means archaeological and historic sites and artifacts, and traditional religious, ceremonial and social uses and activities of affected Indian tribes.

"Cumulative effects" means the changes to the environment caused by the interaction of natural ecosystem processes with the effects of two or more forest practices.

"Daily peak activity" means for marbled murrelets - one hour before official sunrise to two hours after official sunrise and one hour before official sunset to one hour after official sunset.

"Debris" means woody vegetative residue less than 3 cubic feet in size resulting from forest practices activities which would reasonably be expected to cause significant damage to a public resource.

"Deep-seated landslides" means landslides in which most of the area of the slide plane or zone lies below the maximum rooting depth of forest trees, to depths of tens to hundreds of feet. (See board manual section 16 for identification criteria.)

"Demographic support" means providing sufficient suitable spotted owl habitat within the SOSEA to maintain the viability of northern spotted owl sites identified as necessary to meet the SOSEA goals.

"Department" means the department of natural resources.

"Desired future condition (DFC)" is a reference point on a pathway and not an endpoint for stands. DFC means the stand conditions of a mature riparian forest at 140 years of age, the midpoint between 80 and 200 years. Where basal area is the only stand attribute used to describe 140-year old stands, these are referred to as the "Target Basal Area."

"Diameter at breast height (dbh)" means the diameter of a tree at 4 1/2 feet above the ground measured from the uphill side.

"Dispersal habitat" see WAC 222-16-085(2).

"Dispersal support" means providing sufficient dispersal habitat for the interchange of northern spotted owls within or across the SOSEA, as necessary to meet SOSEA goals. Dispersal support is provided by a landscape consisting of stands of dispersal habitat interspersed with areas of higher quality habitat, such as suitable spotted owl habitat found within RMZs, WMZs or other required and voluntary leave areas.

"Drainage structure" means a construction technique or feature that is built to relieve surface runoff and/or intercepted ground water from roadside ditches to prevent excessive buildup in water volume and velocity. A drainage structure is not intended to carry any typed water. Drainage structures include structures such as: Cross drains, relief culverts, ditch diversions, water bars, or other such structures demonstrated to be equally effective.

"Eastern Washington" means the geographic area in Washington east of the crest of the Cascade Mountains from the international border to the top of Mt. Adams, then east of the ridge line dividing the White Salmon River drainage from the Lewis River drainage and east of the ridge line dividing the Little White Salmon River drainage from the Wind River drainage to the Washington-Oregon state line.

Eastern Washington Definition Map



"Eastern Washington timber habitat types" means elevation ranges associated with tree species assigned for the purpose of riparian management according to the following:

Timber Habitat Types	Elevation Ranges
ponderosa pine	0 - 2500 feet
mixed conifer	2501 - 5000 feet
high elevation	above 5000 feet

"Edge" of any water means the outer edge of the water's bankfull width or, where applicable, the outer edge of the associated channel migration zone.

"End hauling" means the removal and transportation of excavated material, pit or quarry overburden, or landing or road cut material from the excavation site to a deposit site not adjacent to the point of removal.

"Equipment limitation zone" means a 30-foot wide zone measured horizontally from the outer edge of the bankfull width of a Type Np or Ns Water. It applies to all perennial and seasonal nonfish bearing streams.

"Erodible soils" means those soils that, when exposed or displaced by a forest practices operation, would be readily moved by water.

"Even-aged harvest methods" means the following harvest methods:

Clearcuts;

Seed tree harvests in which twenty or fewer trees per acre remain after harvest;

Shelterwood regeneration harvests in which twenty or fewer trees per acre remain after harvest;

Group or strip shelterwood harvests creating openings wider than two tree heights, based on dominant trees;

Shelterwood removal harvests which leave fewer than one hundred fifty trees per acre which are at least five years old or four feet in average height;

Partial cutting in which fewer than fifty trees per acre remain after harvest;

Overstory removal when more than five thousand board feet per acre is removed and fewer than fifty trees per acre at least ten feet in height remain after harvest; and

Other harvesting methods designed to manage for multiple age classes in which six or fewer trees per acre remain after harvest.

Except as provided above for shelterwood removal harvests and overstory removal, trees counted as remaining after harvest shall be at least ten inches in diameter at breast height and have at least the top one-third of the stem supporting green, live crowns. Except as provided in WAC 222-30-110, an area remains harvested by even-aged methods until it meets the minimum stocking requirements under WAC 222-34-010(2) or 222-34-020(2) and the largest trees qualifying for the minimum stocking levels have survived on the area for five growing seasons or, if not, they have reached an average height of four feet.

"Fen" means wetlands which have the following characteristics: Peat soils 16 inches or more in depth (except over bedrock); and vegetation such as certain sedges, hardstem bulrush and cattails; fens may have an overstory of spruce and may be associated with open water.

"Fertilizers" means any substance or any combination or mixture of substances used principally as a source of plant food or soil amendment.

"Fill" means the placement of earth material or aggregate for road or landing construction or other similar activities.

"Fish" means for purposes of these rules, species of the vertebrate taxonomic groups of *Cephalospidomorphi* and *Osteichthyes*.

"Fish habitat" means habitat, which is used by fish at any life stage at any time of the year including potential habitat likely to be used by fish, which could be recovered by restoration or management and includes off-channel habitat.

"Fish passage barrier" means any artificial in-stream structure that impedes the free passage of fish.

"Flood level - 100 year" means a calculated flood event flow based on an engineering computation of flood magnitude that has a 1 percent chance of occurring in any given year. For purposes of field interpretation, landowners may use the following methods:

Flow information from gauging stations;

Field estimate of water level based on guidance for "Determining the 100-Year Flood Level" in the forest practices board manual section 2.

The 100-year flood level shall not include those lands that can reasonably be expected to be protected from flood waters by flood control devices maintained by or under license from the federal government, the state, or a political subdivision of the

state.

"Forest land" means all land which is capable of supporting a merchantable stand of timber and is not being actively used for a use which is incompatible with timber growing. Forest land does not include agricultural land that is or was enrolled in the conservation reserve enhancement program by contract if such agricultural land was historically used for agricultural purposes and the landowner intends to continue to use the land for agricultural purposes in the future. For small forest landowner road maintenance and abandonment planning only, the term "forest land" excludes the following:

(a) Residential home sites. A residential home site may be up to five acres in size, and must have an existing structure in use as a residence;

(b) Cropfields, orchards, vineyards, pastures, feedlots, fish pens, and the land on which appurtenances necessary to the production, preparation, or sale of crops, fruit, dairy products, fish, and livestock exist.

"Forest landowner" means any person in actual control of forest land, whether such control is based either on legal or equitable title, or on any other interest entitling the holder to sell or otherwise dispose of any or all of the timber on such land in any manner. However, any lessee or other person in possession of forest land without legal or equitable title to such land shall be excluded from the definition of "forest landowner" unless such lessee or other person has the right to sell or otherwise dispose of any or all of the timber located on such forest land. The following definitions apply only to road maintenance and abandonment planning:

(1) **"Large forest landowner"** is a forest landowner who is not a small forest landowner.

(2) **"Small forest landowner"** is a forest landowner who at the time of submitting a forest practices application or notification meets all of the following conditions:

- Has an average annual timber harvest level of two million board feet or less from their own forest lands in Washington state;

- Did not exceed this annual average harvest level in the three year period before submitting a forest practices application or notification;

- Certifies to the department that they will not exceed this annual harvest level in the ten years after submitting the forest practices application or notification.

However, the department will agree that an applicant is a small forest landowner if the landowner can demonstrate that the harvest levels were exceeded in order to raise funds to pay estate taxes or to meet equally compelling and unexpected obligations such as court-ordered judgments and extraordinary medical expenses.

"Forest practice" means any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing timber, including but not limited to:

Road and trail construction;

Harvesting, final and intermediate;

Precommercial thinning;
Reforestation;
Fertilization;
Prevention and suppression of diseases and insects;
Salvage of trees; and
Brush control.

"Forest practice" shall not include: Forest species seed orchard operations and intensive forest nursery operations; or preparatory work such as tree marking, surveying and road flagging; or removal or harvest of incidental vegetation from forest lands such as berries, ferns, greenery, mistletoe, herbs, mushrooms, and other products which cannot normally be expected to result in damage to forest soils, timber or public resources.

"Forest road" means ways, lanes, roads, or driveways on forest land used since 1974 for forest practices. "Forest road" does not include skid trails, highways, or local government roads except where the local governmental entity is a forest landowner. For road maintenance and abandonment planning purposes only, "forest road" does not include forest roads used exclusively for residential access located on a small forest landowner's forest land.

"Forest trees" does not include hardwood trees cultivated by agricultural methods in growing cycles shorter than 15 years if the trees were planted on land that was not in forest use immediately before the trees were planted and before the land was prepared for planting the trees. "Forest trees" includes Christmas trees but does not include Christmas trees that are cultivated by agricultural methods, as that term is defined in RCW 84.33.035.

"Full bench road" means a road constructed on a side hill without using any of the material removed from the hillside as a part of the road. This construction technique is usually used on steep or unstable slopes.

"Green recruitment trees" means those trees left after harvest for the purpose of becoming future wildlife reserve trees under WAC 222-30-020(11).

"Ground water recharge areas for glacial deep-seated slides" means the area upgradient that can contribute water to the landslide, assuming that there is an impermeable perching layer in or under a deep-seated landslide in glacial deposits. (See board manual section 16 for identification criteria.)

"Headwater spring" means a permanent spring at the head of a perennial channel. Where a headwater spring can be found, it will coincide with the uppermost extent of Type Np Water.

"Herbicide" means any substance or mixture of substances intended to prevent, destroy, repel, or mitigate any tree, bush, weed or algae and other aquatic weeds.

"Horizontal distance" means the distance between two points measured at a zero percent slope.

"Hyporheic" means an area adjacent to and below channels where interstitial water is exchanged with channel water and water movement is mainly in the downstream direction.

"Identified watershed processes" means the following

components of natural ecological processes that may in some instances be altered by forest practices in a watershed:

- Mass wasting;
- Surface and road erosion;
- Seasonal flows including hydrologic peak and low flows and annual yields (volume and timing);
- Large organic debris;
- Shading; and
- Stream bank and bed stability.

"Inner gorges" means canyons created by a combination of the downcutting action of a stream and mass movement on the slope walls; they commonly show evidence of recent movement, such as obvious landslides, vertical tracks of disturbance vegetation, or areas that are concave in contour and/or profile. (See board manual section 16 for identification criteria.)

"Insecticide" means any substance or mixture of substances intended to prevent, destroy, repel, or mitigate any insect, other arthropods or mollusk pests.

"Interdisciplinary team" (ID Team) means a group of varying size comprised of individuals having specialized expertise, assembled by the department to respond to technical questions associated with a proposed forest practices activity.

"Islands" means any island surrounded by salt water in Kitsap, Mason, Jefferson, Pierce, King, Snohomish, Skagit, Whatcom, Island, or San Juan counties.

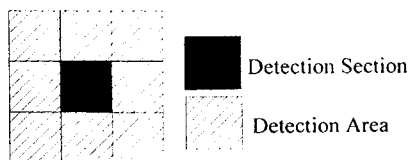
"Limits of construction" means the area occupied by the completed roadway or landing, including the cut bank, fill slope, and the area cleared for the purpose of constructing the roadway or landing.

"Load bearing portion" means that part of the road, landing, etc., which is supportive soil, earth, rock or other material directly below the working surface and only the associated earth structure necessary for support.

"Local governmental entity" means the governments of counties and the governments of cities and towns as defined in chapter 35.01 RCW.

"Low impact harvest" means use of any logging equipment, methods, or systems that minimize compaction or disturbance of soils and vegetation during the yarding process. The department shall determine such equipment, methods or systems in consultation with the department of ecology.

"Marbled murrelet detection area" means an area of land associated with a visual or audible detection of a marbled murrelet, made by a qualified surveyor which is documented and recorded in the department of fish and wildlife data base. The marbled murrelet detection area shall be comprised of the section of land in which the marbled murrelet detection was made and the eight sections of land immediately adjacent to that section.



"Marbled murrelet nesting platform" means any horizontal tree structure such as a limb, an area where a limb branches, a surface created by multiple leaders, a deformity, or a debris/moss platform or stick nest equal to or greater than 7 inches in diameter including associated moss if present, that is 50 feet or more above the ground in trees 32 inches dbh and greater (generally over 90 years of age) and is capable of supporting nesting by marbled murrelets.

"Median home range circle" means a circle, with a specified radius, centered on a spotted owl site center. The radius for the median home range circle in the Hoh-Clearwater/Coastal Link SOSEA is 2.7 miles; for all other SOSEAs the radius is 1.8 miles.

"Merchantable stand of timber" means a stand of trees that will yield logs and/or fiber:

Suitable in size and quality for the production of lumber, plywood, pulp or other forest products;

Of sufficient value at least to cover all the costs of harvest and transportation to available markets.

"Multiyear permit" means a permit to conduct forest practices which is effective for longer than two years but no longer than five years.

"Northern spotted owl site center" means (:

~~(1) Until December 31, 2008, the location of northern spotted owls:~~

~~(a) Recorded by the department of fish and wildlife as status 1, 2 or 3 as of November 1, 2005; or~~

~~(b) Newly discovered, and recorded by the department of fish and wildlife as status 1, 2 or 3 after November 1, 2005.~~

~~(2) After December 31, 2008,)) the location of status 1, 2 or 3 northern spotted owls based on the following definitions:~~

Status 1: Pair or reproductive - a male and female heard and/or observed in close proximity to each other on the same visit, a female detected on a nest, or one or both adults observed with young.

Status 2: Two birds, pair status unknown - the presence or response of two birds of opposite sex where pair status cannot be determined and where at least one member meets the resident territorial single requirements.

Status 3: Resident territorial single - the presence or response of a single owl within the same general area on three or more occasions within a breeding season with no response by an owl of the opposite sex after a complete survey; or three or more responses over several years (i.e., two responses in year one and one response in year two, for the

same general area).

In determining the existence, location, and status of northern spotted owl site centers, the department shall consult with the department of fish and wildlife and use only those sites documented in substantial compliance with guidelines or protocols and quality control methods established by and available from the department of fish and wildlife.

"Notice to comply" means a notice issued by the department pursuant to RCW 76.09.090 of the act and may require initiation and/or completion of action necessary to prevent, correct and/or compensate for material damage to public resources which resulted from forest practices.

"Occupied marbled murrelet site" means:

(1) A contiguous area of suitable marbled murrelet habitat where at least one of the following marbled murrelet behaviors or conditions occur:

- (a) A nest is located; or
 - (b) Downy chicks or eggs or egg shells are found; or
 - (c) Marbled murrelets are detected flying below, through, into or out of the forest canopy; or
 - (d) Birds calling from a stationary location within the area;
- or

(e) Birds circling above a timber stand within one tree height of the top of the canopy; or

(2) A contiguous forested area, which does not meet the definition of suitable marbled murrelet habitat, in which any of the behaviors or conditions listed above has been documented by the department of fish and wildlife and which is distinguishable from the adjacent forest based on vegetative characteristics important to nesting marbled murrelets.

(3) For sites defined in (1) and (2) above, the sites will be presumed to be occupied based upon observation of circling described in (1)(e), unless a two-year survey following the 2003 Pacific Seabird Group (PSG) protocol has been completed and an additional third-year of survey following a method listed below is completed and none of the behaviors or conditions listed in (1)(a) through (d) of this definition are observed. The landowner may choose one of the following methods for the third-year survey:

(a) Conduct a third-year survey with a minimum of nine visits conducted in compliance with 2003 PSG protocol. If one or more marbled murrelets are detected during any of these nine visits, three additional visits conducted in compliance with the protocol of the first nine visits shall be added to the third-year survey. Department of fish and wildlife shall be consulted prior to initiating third-year surveys; or

(b) Conduct a third-year survey designed in consultation with the department of fish and wildlife to meet site specific conditions.

(4) For sites defined in (1) above, the outer perimeter of the occupied site shall be presumed to be the closer, measured from the point where the observed behaviors or conditions listed in (1) above occurred, of the following:

(a) 1.5 miles from the point where the observed behaviors or conditions listed in (1) above occurred; or

(b) The beginning of any gap greater than 300 feet wide lacking one or more of the vegetative characteristics listed under "suitable marbled murrelet habitat"; or

(c) The beginning of any narrow area of "suitable marbled murrelet habitat" less than 300 feet in width and more than 300 feet in length.

(5) For sites defined under (2) above, the outer perimeter of the occupied site shall be presumed to be the closer, measured from the point where the observed behaviors or conditions listed in (1) above occurred, of the following:

(a) 1.5 miles from the point where the observed behaviors or conditions listed in (1) above occurred; or

(b) The beginning of any gap greater than 300 feet wide lacking one or more of the distinguishing vegetative characteristics important to murrelets; or

(c) The beginning of any narrow area of suitable marbled murrelet habitat, comparable to the area where the observed behaviors or conditions listed in (1) above occurred, less than 300 feet in width and more than 300 feet in length.

(6) In determining the existence, location and status of occupied marbled murrelet sites, the department shall consult with the department of fish and wildlife and use only those sites documented in substantial compliance with guidelines or protocols and quality control methods established by and available from the department of fish and wildlife.

"Old forest habitat" see WAC 222-16-085 (1)(a).

"Operator" means any person engaging in forest practices except an employee with wages as his/her sole compensation.

"Ordinary high-water mark" means the mark on the shores of all waters, which will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation: Provided, That in any area where the ordinary high-water mark cannot be found, the ordinary high-water mark adjoining saltwater shall be the line of mean high tide and the ordinary high-water mark adjoining freshwater shall be the line of mean high-water.

"Other forest chemicals" means fire retardants when used to control burning (other than water), nontoxic repellents, oil, dust-control agents (other than water), salt, and other chemicals used in forest management, except pesticides and fertilizers, that may present hazards to the environment.

"Park" means any park included on the parks register maintained by the department pursuant to WAC 222-20-100(2). Developed park recreation area means any park area developed for high density outdoor recreation use.

"Partial cutting" means the removal of a portion of the merchantable volume in a stand of timber so as to leave an uneven-aged stand of well-distributed residual, healthy trees that will

reasonably utilize the productivity of the soil. Partial cutting does not include seedtree or shelterwood or other types of regeneration cutting.

"Pesticide" means any insecticide, herbicide, fungicide, or rodenticide, but does not include nontoxic repellents or other forest chemicals.

"Plantable area" is an area capable of supporting a commercial stand of timber excluding lands devoted to permanent roads, utility rights of way, that portion of riparian management zones where scarification is not permitted, and any other area devoted to a use incompatible with commercial timber growing.

"Power equipment" means all machinery operated with fuel burning or electrical motors, including heavy machinery, chain saws, portable generators, pumps, and powered backpack devices.

"Preferred tree species" means the following species listed in descending order of priority for each timber habitat type:

Ponderosa pine habitat type	Mixed conifer habitat type
all hardwoods	all hardwoods
ponderosa pine	western larch
western larch	ponderosa pine
Douglas-fir	western red cedar
western red cedar	western white pine
	Douglas-fir
	lodgepole pine

"Public resources" means water, fish, and wildlife and in addition means capital improvements of the state or its political subdivisions.

"Qualified surveyor" means an individual who has successfully completed the marbled murrelet field training course offered by the department of fish and wildlife or its equivalent.

"Rehabilitation" means the act of renewing, or making usable and reforesting forest land which was poorly stocked or previously nonstocked with commercial species.

"Resource characteristics" means the following specific measurable characteristics of fish, water, and capital improvements of the state or its political subdivisions:

For fish and water:

Physical fish habitat, including temperature and turbidity;
Turbidity in hatchery water supplies; and
Turbidity and volume for areas of water supply.

For capital improvements of the state or its political subdivisions:

Physical or structural integrity.

If the methodology is developed and added to the manual to analyze the cumulative effects of forest practices on other characteristics of fish, water, and capital improvements of the state or its subdivisions, the board shall amend this list to include these characteristics.

"Riparian function" includes bank stability, the recruitment

of woody debris, leaf litter fall, nutrients, sediment filtering, shade, and other riparian features that are important to both riparian forest and aquatic system conditions.

"Riparian management zone (RMZ)" means:

(1) **For Western Washington**

(a) The area protected on each side of a Type S or F Water measured horizontally from the outer edge of the bankfull width or the outer edge of the CMZ, whichever is greater (see table below); and

Site Class	Western Washington Total RMZ Width
I	200'
II	170'
III	140'
IV	110'
V	90'

(b) The area protected on each side of Type Np Waters, measured horizontally from the outer edge of the bankfull width. (See WAC 222-30-021(2).)

(2) **For Eastern Washington**

(a) The area protected on each side of a Type S or F Water measured horizontally from the outer edge of the bankfull width or the outer edge of the CMZ, whichever is greater (see table below); and

Site Class	Eastern Washington Total RMZ Width
I	130'
II	110'
III	90' or 100'*
IV	75' or 100'*
V	75' or 100'*

* Dependent upon stream size. (See WAC 222-30-022.)

(b) The area protected on each side of Type Np Waters, measured horizontally from the outer edge of the bankfull width. (See WAC 222-30-022(2).)

(3) **For exempt 20 acre parcels**, a specified area alongside Type S and F Waters where specific measures are taken to protect water quality and fish and wildlife habitat.

"RMZ core zone" means:

(1) **For Western Washington**, the 50 foot buffer of a Type S or F Water, measured horizontally from the outer edge of the bankfull width or the outer edge of the channel migration zone, whichever is greater. (See WAC 222-30-021.)

(2) **For Eastern Washington**, the thirty foot buffer of a Type S or F Water, measured horizontally from the outer edge of the bankfull width or the outer edge of the channel migration zone, whichever is greater. (See WAC 222-30-022.)

"RMZ inner zone" means:

(1) **For Western Washington**, the area measured horizontally from the outer boundary of the core zone of a Type S or F Water to the outer limit of the inner zone. The outer limit of the inner zone is determined based on the width of the affected water, site class and the management option chosen for timber harvest within the inner zone. (See WAC 222-30-021.)

(2) **For Eastern Washington**, the area measured horizontally from the outer boundary of the core zone 45 feet (for streams less than 15 feet wide) or 70 feet (for streams more than 15 feet wide) from the outer boundary of the core zone. (See WAC 222-30-022.)

"RMZ outer zone" means the area measured horizontally between the outer boundary of the inner zone and the RMZ width as specified in the riparian management zone definition above. RMZ width is measured from the outer edge of the bankfull width or the outer edge of the channel migration zone, whichever is greater. (See WAC 222-30-021 and 222-30-022.)

"Road construction" means either of the following:

- (a) Establishing any new forest road;
- (b) Road work located outside an existing forest road prism, except for road maintenance.

"Road maintenance" means either of the following:

- (a) All road work located within an existing forest road prism;
- (b) Road work located outside an existing forest road prism specifically related to maintaining water control, road safety, or visibility, such as:
 - Maintaining, replacing, and installing drainage structures;
 - Controlling road-side vegetation;
 - Abandoning forest roads according to the process outlined in WAC 222-24-052(3).

"Rodenticide" means any substance or mixture of substances intended to prevent, destroy, repel, or mitigate rodents or any other vertebrate animal which the director of the state department of agriculture may declare by regulation to be a pest.

"Salvage" means the removal of snags, down logs, windthrow, or dead and dying material.

"Scarification" means loosening the topsoil and/or disrupting the forest floor in preparation for regeneration.

"Sensitive sites" are areas near or adjacent to Type Np Water and have one or more of the following:

(1) **Headwall seep** is a seep located at the toe of a cliff or other steep topographical feature and at the head of a Type Np Water which connects to the stream channel network via overland flow, and is characterized by loose substrate and/or fractured bedrock with perennial water at or near the surface throughout the year.

(2) **Side-slope seep** is a seep within 100 feet of a Type Np Water located on side-slopes which are greater than 20 percent, connected to the stream channel network via overland flow, and characterized by loose substrate and fractured bedrock, excluding muck with perennial water at or near the surface throughout the year. Water delivery to the Type Np channel is visible by someone

standing in or near the stream.

(3) **Type Np intersection** is the intersection of two or more Type Np Waters.

(4) **Headwater spring** means a permanent spring at the head of a perennial channel. Where a headwater spring can be found, it will coincide with the uppermost extent of Type Np Water.

(5) **Alluvial fan** means a depositional land form consisting of cone-shaped deposit of water-borne, often coarse-sized sediments.

(a) The upstream end of the fan (cone apex) is typically characterized by a distinct increase in channel width where a stream emerges from a narrow valley;

(b) The downstream edge of the fan is defined as the sediment confluence with a higher order channel; and

(c) The lateral margins of a fan are characterized by distinct local changes in sediment elevation and often show disturbed vegetation.

Alluvial fan does not include features that were formed under climatic or geologic conditions which are not currently present or that are no longer dynamic.

"Shorelines of the state" shall have the same meaning as in RCW 90.58.030 (Shoreline Management Act).

"Side casting" means the act of moving excavated material to the side and depositing such material within the limits of construction or dumping over the side and outside the limits of construction.

"Site class" means a grouping of site indices that are used to determine the 50-year or 100-year site class. In order to determine site class, the landowner will obtain the site class index from the state soil survey, place it in the correct index range shown in the two tables provided in this definition, and select the corresponding site class. The site class will then drive the RMZ width. (See WAC 222-30-021 and 222-30-022.)

(1) **For Western Washington**

Site class	50-year site index range (state soil survey)
I	137+
II	119-136
III	97-118
IV	76-96
V	<75

(2) **For Eastern Washington**

Site class	100-year site index range (state soil survey)	50-year site index range (state soil survey)
I	120+	86+
II	101-120	72-85
III	81-100	58-71
IV	61-80	44-57
V	≤60	<44

(3) For purposes of this definition, the site index at any location will be the site index reported by the *Washington State Department of Natural Resources State Soil Survey*, (soil survey) and detailed in the associated forest soil summary sheets. If the soil survey does not report a site index for the location or indicates noncommercial or marginal forest land, or the major species table indicates red alder, the following apply:

(a) If the site index in the soil survey is for red alder, and the whole RMZ width is within that site index, then use site class V. If the red alder site index is only for a portion of the RMZ width, or there is on-site evidence that the site has historically supported conifer, then use the site class for conifer in the most physiographically similar adjacent soil polygon.

(b) In Western Washington, if no site index is reported in the soil survey, use the site class for conifer in the most physiographically similar adjacent soil polygon.

(c) In Eastern Washington, if no site index is reported in the soil survey, assume site class III, unless site specific information indicates otherwise.

(d) If the site index is noncommercial or marginally commercial, then use site class V.

See also section 7 of the board manual.

"Site preparation" means those activities associated with the removal of slash in preparing a site for planting and shall include scarification and/or slash burning.

"Skid trail" means a route used by tracked or wheeled skidders to move logs to a landing or road.

"Slash" means pieces of woody material containing more than 3 cubic feet resulting from forest practices activities.

"Small forest landowner long-term application" means a proposal from a small forest landowner to conduct forest practices activities for terms of three to fifteen years. Small forest landowners as defined in WAC 222-21-010(13) are eligible to submit long-term applications.

"SOSEA goals" means the goals specified for a spotted owl special emphasis area as identified on the SOSEA maps (see WAC 222-16-086). SOSEA goals provide for demographic and/or dispersal support as necessary to complement the northern spotted owl protection strategies on federal land within or adjacent to the SOSEA.

"Spoil" means excess material removed as overburden or generated during road or landing construction which is not used within limits of construction.

"Spotted owl conservation advisory group" means a three-person advisory group designated by the board as follows: One person shall be a representative of Washington's forest products industry, one person shall be a representative of a Washington-based conservation organization actively involved with spotted owl conservation, and one person shall be a representative of the department's forest practices program. Members of the group shall have a detailed working knowledge of spotted owl habitat

relationships and factors affecting northern spotted owl conservation.

"Spotted owl dispersal habitat" see WAC 222-16-085(2).

"Spotted owl special emphasis areas (SOSEA)" means the geographic areas as mapped in WAC 222-16-086. Detailed maps of the SOSEAs indicating the boundaries and goals are available from the department at its regional offices.

"Stop work order" means the "stop work order" defined in RCW 76.09.080 of the act and may be issued by the department to stop violations of the forest practices chapter or to prevent damage and/or to correct and/or compensate for damages to public resources resulting from forest practices.

"Stream-adjacent parallel roads" means roads (including associated right of way clearing) in a riparian management zone on a property that have an alignment that is parallel to the general alignment of the stream, including roads used by others under easements or cooperative road agreements. Also included are stream crossings where the alignment of the road continues to parallel the stream for more than 250 feet on either side of the stream. Not included are federal, state, county or municipal roads that are not subject to forest practices rules, or roads of another adjacent landowner.

"Sub-mature habitat" see WAC 222-16-085 (1)(b).

"Suitable marbled murrelet habitat" means a contiguous forested area containing trees capable of providing nesting opportunities:

(1) With all of the following indicators unless the department, in consultation with the department of fish and wildlife, has determined that the habitat is not likely to be occupied by marbled murrelets:

(a) Within 50 miles of marine waters;

(b) At least forty percent of the dominant and codominant trees are Douglas-fir, western hemlock, western red cedar or sitka spruce;

(c) Two or more nesting platforms per acre;

(d) At least 7 acres in size, including the contiguous forested area within 300 feet of nesting platforms, with similar forest stand characteristics (age, species composition, forest structure) to the forested area in which the nesting platforms occur.

"Suitable spotted owl habitat" see WAC 222-16-085(1).

"Temporary road" means a forest road that is constructed and intended for use during the life of an approved forest practices application/notification. All temporary roads must be abandoned in accordance to WAC 222-24-052(3).

"Threaten public safety" means to increase the risk to the public at large from snow avalanches, identified in consultation with the department of transportation or a local government, or landslides or debris torrents caused or triggered by forest practices.

"Threatened or endangered species" means all species of wildlife listed as "threatened" or "endangered" by the United

States Secretary of the Interior or Commerce, and all species of wildlife designated as "threatened" or "endangered" by the Washington fish and wildlife commission.

"Timber" means forest trees, standing or down, of a commercial species, including Christmas trees. However, timber does not include Christmas trees that are cultivated by agricultural methods, as that term is defined in RCW 84.33.035.

"Unconfined avulsing stream" means generally fifth order or larger waters that experience abrupt shifts in channel location, creating a complex flood plain characterized by extensive gravel bars, disturbance species of vegetation of variable age, numerous side channels, wall-based channels, oxbow lakes, and wetland complexes. Many of these streams have dikes and levees that may temporarily or permanently restrict channel movement.

"Validation," as used in WAC 222-20-016, means the department's agreement that a small forest landowner has correctly identified and classified resources, and satisfactorily completed a roads assessment for the geographic area described in Step 1 of a long-term application.

"Water bar" means a diversion ditch and/or hump in a trail or road for the purpose of carrying surface water runoff into the vegetation duff, ditch, or other dispersion area so that it does not gain the volume and velocity which causes soil movement and erosion.

"Watershed administrative unit (WAU)" means an area shown on the map specified in WAC 222-22-020(1).

"Watershed analysis" means, for a given WAU, the assessment completed under WAC 222-22-050 or 222-22-060 together with the prescriptions selected under WAC 222-22-070 and shall include assessments completed under WAC 222-22-050 where there are no areas of resource sensitivity.

"Weed" is any plant which tends to overgrow or choke out more desirable vegetation.

"Western Washington" means the geographic area of Washington west of the Cascade crest and the drainages defined in Eastern Washington.

"Wetland" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, such as swamps, bogs, fens, and similar areas. This includes wetlands created, restored, or enhanced as part of a mitigation procedure. This does not include constructed wetlands or the following surface waters of the state intentionally constructed from wetland sites: Irrigation and drainage ditches, grass lined swales, canals, agricultural detention facilities, farm ponds, and landscape amenities.

"Wetland functions" include the protection of water quality and quantity, providing fish and wildlife habitat, and the production of timber.

"Wetland management zone" means a specified area adjacent to Type A and B Wetlands where specific measures are taken to protect

the wetland functions.

"Wildlife" means all species of the animal kingdom whose members exist in Washington in a wild state. The term "wildlife" includes, but is not limited to, any mammal, bird, reptile, amphibian, fish, or invertebrate, at any stage of development. The term "wildlife" does not include feral domestic mammals or the family Muridae of the order Rodentia (old world rats and mice).

"Wildlife reserve trees" means those defective, dead, damaged, or dying trees which provide or have the potential to provide habitat for those wildlife species dependent on standing trees. Wildlife reserve trees are categorized as follows:

Type 1 wildlife reserve trees are defective or deformed live trees that have observably sound tops, limbs, trunks, and roots. They may have part of the top broken out or have evidence of other severe defects that include: "Cat face," animal chewing, old logging wounds, weather injury, insect attack, or lightning strike. Unless approved by the landowner, only green trees with visible cavities, nests, or obvious severe defects capable of supporting cavity dependent species shall be considered as Type 1 wildlife reserve trees. These trees must be stable and pose the least hazard for workers.

Type 2 wildlife reserve trees are dead Type 1 trees with sound tops, limbs, trunks, and roots.

Type 3 wildlife reserve trees are live or dead trees with unstable tops or upper portions. Unless approved by the landowner, only green trees with visible cavities, nests, or obvious severe defects capable of supporting cavity dependent species shall be considered as Type 3 wildlife reserve trees. Although the roots and main portion of the trunk are sound, these reserve trees pose high hazard because of the defect in live or dead wood higher up in the tree.

Type 4 wildlife reserve trees are live or dead trees with unstable trunks or roots, with or without bark. This includes "soft snags" as well as live trees with unstable roots caused by root rot or fire. These trees are unstable and pose a high hazard to workers.

"Windthrow" means a natural process by which trees are uprooted or sustain severe trunk damage by the wind.

"Yarding corridor" means a narrow, linear path through a riparian management zone to allow suspended cables necessary to support cable logging methods or suspended or partially suspended logs to be transported through these areas by cable logging methods.

"Young forest marginal habitat" see WAC 222-16-085 (1) (b).

WAC 222-16-080 Critical habitats (state) of threatened and endangered species. (1) Critical habitats (state) of threatened or endangered species and specific forest practices designated as Class IV-Special are as follows:

(a) Bald eagle (*Haliaeetus leucocephalus*) - harvesting, road construction, aerial application of pesticides, or site preparation within 0.5 mile of a known active nest site, documented by the department of fish and wildlife, between the dates of January 1 and August 15 or 0.25 mile at other times of the year; and within 0.25 mile of a communal roosting site. Communal roosting sites shall not include refuse or garbage dumping sites.

(b) Gray wolf (*Canis lupus*) - harvesting, road construction, or site preparation within 1 mile of a known active den site, documented by the department of fish and wildlife, between the dates of March 15 and July 30 or 0.25 mile from the den site at other times of the year.

(c) Grizzly bear (*Ursus arctos*) - harvesting, road construction, aerial application of pesticides, or site preparation within 1 mile of a known active den site, documented by the department of fish and wildlife, between the dates of October 1 and May 30 or 0.25 mile at other times of the year.

(d) Mountain (woodland) caribou (*Rangifera tarandus*) - harvesting, road construction, aerial application of pesticides, or site preparation within 0.25 mile of a known active breeding area, documented by the department of fish and wildlife.

(e) Oregon silverspot butterfly (*Speyeria zerene hippolyta*) - harvesting, road construction, aerial or ground application of pesticides, or site preparation within 0.25 mile of an individual occurrence, documented by the department of fish and wildlife.

(f) Peregrine falcon (*Falco peregrinus*) - harvesting, road construction, aerial application of pesticides, or site preparation within 0.5 mile of a known active nest site, documented by the department of fish and wildlife, between the dates of March 1 and July 30; or harvesting, road construction, or aerial application of pesticides within 0.25 mile of the nest site at other times of the year.

(g) Sandhill crane (*Grus canadensis*) - harvesting, road construction, aerial application of pesticides, or site preparation within 0.25 mile of a known active nesting area, documented by the department of fish and wildlife.

(h) Northern spotted owl (*Strix occidentalis caurina*)

(i) **Within a SOSEA boundary** (see maps in WAC 222-16-086), except as indicated in (h) (ii) of this subsection, harvesting, road construction, or aerial application of pesticides on suitable spotted owl habitat within a median home range circle that is centered within the SOSEA or on adjacent federal lands.

(ii) **Within the Entiat SOSEA**, harvesting, road construction, or aerial application of pesticides within the areas indicated for demographic support (see WAC 222-16-086(2)) on suitable spotted owl

habitat located within a median home range circle that is centered within the demographic support area.

(iii) **Outside of a SOSEA**, harvesting, road construction, or aerial application of pesticides, between March 1 and August 31 on the seventy acres of highest quality suitable spotted owl habitat surrounding a northern spotted owl site center located outside a SOSEA. The highest quality suitable habitat shall be determined by the department in cooperation with the department of fish and wildlife. Consideration shall be given to habitat quality, proximity to the activity center and contiguity.

(iv) **Small parcel northern spotted owl exemption.** Forest practices proposed on the lands owned or controlled by a landowner whose forest land ownership within the SOSEA is less than or equal to 500 acres and where the forest practice is not within 0.7 mile of a northern spotted owl site center shall not be considered to be on lands designated as critical habitat (state) for northern spotted owls.

(i) Western pond turtle (*Clemmys marmorata*) - harvesting, road construction, aerial application of pesticides, or site preparation within 0.25 mile of a known individual occurrence, documented by the department of wildlife.

(j) Marbled murrelet (*Brachyramphus marmoratus*)

(i) Harvesting, other than removal of down trees outside of the critical nesting season, or road construction within an occupied marbled murrelet site.

(ii) Harvesting, other than removal of down trees outside of the critical nesting season, or road construction within suitable marbled murrelet habitat within a marbled murrelet detection area.

(iii) Harvesting, other than removal of down trees outside of the critical nesting season, or road construction within suitable marbled murrelet habitat containing 7 platforms per acre outside a marbled murrelet detection area.

(iv) Harvesting, other than removal of down trees outside of the critical nesting season, or road construction outside a marbled murrelet detection area within a marbled murrelet special landscape and within suitable marbled murrelet habitat with 5 or more platforms per acre.

(v) Harvesting within a 300 foot managed buffer zone adjacent to an occupied marbled murrelet site that results in less than a residual stand stem density of 75 trees per acre greater than 6 inches in dbh; provided that 25 of which shall be greater than 12 inches dbh including 5 trees greater than 20 inches in dbh, where they exist. The primary consideration for the design of managed buffer zone widths and leave tree retention patterns shall be to mediate edge effects. The width of the buffer zone may be reduced in some areas to a minimum of 200 feet and extended to a maximum of 400 feet as long as the average of 300 feet is maintained.

(vi) Except that the following shall not be critical habitat (state):

(A) Where a landowner owns less than 500 acres of forest land within 50 miles of saltwater and the land does not contain an occupied marbled murrelet site; or

(B) Where a protocol survey (see WAC 222-12-090(14)) has been conducted and no murrelets were detected. The landowner is then relieved from further survey requirements. However, if an occupied marbled murrelet site is established, this exemption is void.

(2) The following critical habitats (federal) designated by the United States Secretary of the Interior or Commerce, or specific forest practices within those habitats, have been determined to have the potential for a substantial impact on the environment and therefore are designated as critical habitats (state) of threatened or endangered species.

(3) For the purpose of identifying forest practices which have the potential for a substantial impact on the environment with regard to threatened or endangered species newly listed by the Washington fish and wildlife commission and/or the United States Secretary of the Interior or Commerce, the department shall after consultation with the department of fish and wildlife, prepare and submit to the board a proposed list of critical habitats (state) of threatened or endangered species. This list shall be submitted to the board within 30 days of the listing of the species. The department shall, at a minimum, consider potential impacts of forest practices on habitats essential to meeting the life requisites for each species listed as threatened or endangered. Those critical habitats (state) adopted by the board shall be added to the list in subsection (1) of this section. See WAC 222-16-050 (1) (b).

(4) For the purpose of identifying any areas and/or forest practices within critical habitats (federal) designated by the United States Secretary of the Interior or Commerce which have the potential for a substantial impact on the environment, the department shall, after consultation with the department of fish and wildlife, submit to the board a proposed list of any forest practices and/or areas proposed for inclusion in Class IV - Special forest practices. The department shall submit the list to the board within 30 days of the date the United States Secretary of the Interior or Commerce publishes a final rule designating critical habitat (federal) in the Federal Register. Those critical habitats included by the board in Class IV - Special shall be added to the list in subsection (2) of this section. See WAC 222-16-050 (1) (b).

(5) (a) Except for bald eagles under subsection (1) (a) of this section, the critical habitats (state) of threatened and endangered species and specific forest practices designated in subsections (1) and (2) of this section are intended to be interim. These interim designations shall expire for a given species on the earliest of:

(i) The effective date of a regulatory system for wildlife protection referred to in (b) of this subsection or of substantive rules on the species.

(ii) The delisting of a threatened or endangered species by the Washington fish and wildlife commission and by the United States Secretary of Interior or Commerce.

(b) The board shall examine current wildlife protection and department authority to protect wildlife and develop and recommend a regulatory system, including baseline rules for wildlife

protection. To the extent possible, this system shall:

- (i) Use the best science and management advice available;
- (ii) Use a landscape approach to wildlife protection;
- (iii) Be designed to avoid the potential for substantial impact to the environment;
- (iv) Protect known populations of threatened and endangered species of wildlife from negative effects of forest practices consistent with RCW 76.09.010; and
- (v) Consider and be consistent with recovery plans adopted by the department of fish and wildlife pursuant to RCW 77.12.020(6) or habitat conservation plans or 16 U.S.C. 1533(d) rule changes of the Endangered Species Act.

(6) Regardless of any other provision in this section, forest practices applications shall not be classified as Class IV-Special based on critical habitat (state) (WAC 222-16-080 WAC 222-16-050 (1)(b)) for a species, if the forest practices are consistent with one or more of the following:

(a) Documents addressing the needs of the affected species provided such documents have received environmental review with an opportunity for public comment under the National Environmental Policy Act, 42 U.S.C. section 4321 et seq.:

(i) A habitat conservation plan and incidental take permit; or an incidental take statement covering such species approved by the Secretary of the Interior or Commerce pursuant to 16 U.S.C. § 1536(b) or 1539(a); or

(ii) An "unlisted species agreement" covering such species approved by the U.S. Fish and Wildlife Service or National Marine Fisheries Service; or

(iii) Other conservation agreement entered into with a federal agency pursuant to its statutory authority for fish and wildlife protection that addresses the needs of the affected species; or

(iv) A rule adopted by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service for the conservation of an affected species pursuant to 16 U.S.C. section 1533(d); or

(b) Documents addressing the needs of the affected species so long as they have been reviewed under the State Environmental Policy Act;

(i) A landscape management plan; or

(ii) Another cooperative or conservation agreement entered into with a state resource agency pursuant to its statutory authority for fish and wildlife protection;

(c) A special wildlife management plan (SWMP) developed by the landowner and approved by the department in consultation with the department of fish and wildlife;

(d) A bald eagle management plan approved under WAC 232-12-292;

(e) A landowner option plan (LOP) for northern spotted owls developed pursuant to WAC 222-16-100(1);

(f) A cooperative habitat enhancement agreement (CHEA) developed pursuant to WAC 222-16-105; or

(g) A take avoidance plan issued by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service prior to March 20,

2000;

(h) From January 1, 2009, through December 31, 2009, surveys demonstrating the absence of northern spotted owls at a northern spotted owl site center have been reviewed and approved by the department of fish and wildlife and all three of the following criteria have been met:

(i) The site has been evaluated by the spotted owl conservation advisory group; and

(ii) As part of the spotted owl conservation advisory group's evaluation, the department's representative has consulted with the department of fish and wildlife; and

(iii) The spotted owl conservation advisory group has reached consensus that the site need not be maintained while the board completes its evaluation of rules affecting the northern spotted owl. The spotted owl conservation advisory group shall communicate its findings to the department in writing within sixty days of the department of fish and wildlife's approval of surveys demonstrating the absence of northern spotted owls.

In those situations where one of the options above has been used, forest practices applications may still be classified as Class IV-Special based upon the presence of one or more of the factors listed in WAC 222-16-050(1), other than critical habitat (state) for the species covered by the existing plan.

(7) The department, in consultation with the department of fish and wildlife, shall review each SOSEA to determine whether the goals for that SOSEA are being met through approved plans, permits, statements, letters, or agreements referred to in subsection (6) of this section. Based on the consultation, the department shall recommend to the board the suspension, deletion, modification or reestablishment of the applicable SOSEA from the rules. The department shall conduct a review for a particular SOSEA upon approval of a landowner option plan, a petition from a landowner in the SOSEA, or under its own initiative.

(8) The department, in consultation with the department of fish and wildlife, shall report annually to the board on the status of the northern spotted owl to determine whether circumstances exist that substantially interfere with meeting the goals of the SOSEAs.

PRELIMINARY ECONOMIC ANALYSIS
Forest Practices Board
Rule Making Affecting Northern Spotted Owl Habitat
By Phil Aust, Lead Economist and Gretchen Robinson, Natural Resource Specialist,
Department of Natural Resources
July 2009

OBJECTIVES

The Forest Practices Board is considering a rule proposal to amend WAC 222-16-010 that could affect timber harvest in Northern Spotted Owl circles within Spotted Owl Special Emphasis Areas (SOSEAs) in Washington State. The objectives of this economic analysis are to analyze the costs and benefits of the proposal pursuant to [RCW 34.05.328](#), and to determine whether the costs to comply with the proposal are likely to disproportionately impact the state's small businesses pursuant to [RCW 19.85.040](#).

According to the Administrative Procedure Act (chapter RCW 34.05) agencies must complete a cost-benefit analysis (CBA) to:

- Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented; and
- Determine, after considering alternative versions of the rule, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives of the statute that the rule implements.

A small business economic impact statement (SBEIS) is required by the Regulatory Fairness Act (chapter RCW 19.85) to consider the impacts of administrative rules adopted by state agencies on small businesses. The statute defines small businesses as those with 50 or fewer employees. To determine whether the proposed rule will have a disproportionate cost impact on small businesses, the impact statement compares the cost of compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules.

CONTEXT

Since 2005, the Board considered whether and how the forest practices rules should be changed to conserve habitat for the Northern Spotted Owl. In November 2005, the Forest Practices Board adopted rules that placed a temporary moratorium on the practice of decertifying spotted owl site centers to allow time to develop a long-term conservation strategy. This was due to reported declines in suitable habitat in the decade since the 1996 adoption of state rules to conserve spotted owl habitat¹, and in Washington's spotted owl population since the species was listed as threatened in 1990 under the Endangered Species Act.² The Board maintained the moratorium, through a succession of emergency and permanent rules, through December 31, 2008.

¹ See *An Assessment of Spotted Owl Habitat on Non-federal Lands in Washington Between 1996 and 2004*, John D. Pierce et al., August 2005 at http://wdfw.wa.gov/wlm/research/papers/spotted_owl/index.htm.

² See *Final Briefing Report to the Washington State Forest Practices Board Regarding Spotted Owl Status and Forest Practices Rules*, Joseph B. Buchanan and Paula Swedeen, August 2005 at http://wdfw.wa.gov/wlm/research/papers/spotted_owl/forest_practices.htm.

Under current rules, with no moratorium on decertification, a landowner may, after having followed survey protocol for two consecutive years, petition the Department of Fish and Wildlife (WDFW) to decertify the owl circle. If WDFW finds that the landowner has properly followed the survey protocol it may change the status of the site center and the restrictions on harvest within the circle are lifted.

To help develop a long-term conservation strategy for the spotted owl, on July 7, 2008 the Board established a multi-stakeholder Policy Working Group on Northern Spotted Owl Conservation. This group is to recommend measures that result in strategic contribution from non-federal lands in Washington to the conservation of a viable population of the Northern Spotted Owl. The Board expects recommendations from this group by the end of 2009.

On December 16, 2008, the Board adopted an emergency rule that deleted language pertaining to the moratorium, and created a multi-stakeholder advisory group to review any surveys demonstrating the absence of spotted owls at spotted owl site centers. The Board also directed staff to begin the permanent rule making process with the same rule language. Because emergency rules are effective for only 120 days unless an agency is actively undertaking the appropriate procedures to adopt the rule as permanent, the Board re-adopted the emergency rule twice while permanent rule making is in progress. Two steps in rule making are already completed, the CR-101 *Pre-proposal Statement of Inquiry* pursuant to RCW 34.05.310 and the 30-day review pursuant to RCW 76.09.040(2). This economic analysis is part of the next step in evaluating the proposed permanent rule.

PROPOSED RULE

The proposed rule has three parts:

1. Removes language from WAC 222-16-010 “Northern Spotted owl site center” pertaining to the moratorium on the decertification of Northern Spotted Owl site centers which expired on December 31, 2008;
2. creates in WAC 222-16-010 the “spotted owl conservation advisory group”; and
3. adds language to WAC 222-16-080, “critical habitats”, which specifies that for the period from January 1, 2009 through December 31, 2009 the advisory group will determine if “the site need not be maintained while the board completes its evaluation of rules affecting the northern spotted owl”, and indicates the advisory group’s existence is limited to the above mentioned period.

Purpose of the proposed rule change: The primary purpose of the proposed rule change is to assure that no habitat important to the Northern Spotted Owl is altered through forest practices while the Board determines a long-term strategy for spotted owl habitat conservation.

The concept of the spotted owl conservation advisory group was a result of a stakeholder (state, forest industry, conservation community) agreement to have an interim process in place while the Policy Working Group on Northern Spotted Owl Conservation develops recommendations for a long-term conservation strategy. The advisory group consists of three representatives, one from the Washington forest products industry, one from a Washington-based conservation organization actively involved with spotted owl conservation, and one from the forest practices program. Members of the group will have a detailed working knowledge of spotted owl relationships and factors affecting spotted owl conservation.

The advisory group's role is to evaluate whether historical habitat should be maintained after WDFW approves surveys demonstrating the absence of spotted owls as performed consistent with survey protocols. If the advisory group members reach consensus that the site center need not be maintained while the Board completes its evaluation of rules affecting the Northern Spotted Owl, then and only then can the site center be decertified. In such case, the advisory group will communicate its findings to the Department of Natural Resources (DNR) in writing within 60 days of WDFW's approval of the survey.

In short, the rule imposes additional analysis by experts on any survey submitted and approved by WDFW during the year 2009. The site may not be decertified unless the advisory group reaches consensus that the site center need not be maintained while the Board determines a long-term conservation strategy. The duration of the advisory group's existence is from January 1, 2009 through December 31, 2009.

COST-BENEFIT ANALYSIS

To estimate the economic impacts of the proposed rule change, cost estimates are analyzed quantitatively and discussed in terms of probability of occurrence. The potential benefits are described only qualitatively. It is important to note that both costs and benefits are uncertain because it is unknown whether WDFW will receive and approve any surveys during the short timeframe of the advisory group's existence. To date no surveys have been approved.

BENEFITS

This rule is intended to benefit Washington State's Northern Spotted Owl population. This species is designated "state endangered" and "federal threatened." As explained under "CONTEXT", for the past several years the Board has been concerned about whether to increase spotted owl habitat protection on non-federal lands. This is because suitable habitat has declined under the current rules, and also Washington's spotted owl population has declined since the species was listed as threatened in 1990 under the Endangered Species Act. The Board established the Policy Working Group for Northern Spotted Owl Conservation to develop recommendations for a long-term conservation strategy, and is looking for the group's recommendations by the end of 2009.

As previously explained, the Board desires additional analysis by experts on any survey submitted to and approved by WDFW, in which a landowner demonstrated the absence of spotted owls at a spotted owl site center (circle), for the year 2009. It is expected that this will add assurance that no potentially important habitat is lost through harvest while the Board determines any appropriate changes to its rules related to spotted owl habitat conservation.

COSTS

The rule-complying community affected by the proposal is businesses that own or control the cutting rights on the above-described forest land or those with the right to dispose of the timber (all hereafter referred to as "landowners"). However, for landowners owning less than 500 acres in a SOSEA, the effects of the proposed rules are limited to habitat within the inner 0.7-mile circle of a site center.

Part one of the proposed rule is the removal of language about a past moratorium on spotted owl site center decertification which is no longer relevant. As such, it has no economic impact.³

It is the other parts of the proposed rule that have potential to result in economic impact on those that must comply with the proposed rule. As explained above, the proposed rule creates the spotted owl conservation advisory group to evaluate any spotted owl site center that WDFW determines is no longer occupied. Under existing permanent rule, the site would be decertified. Under the proposed rule, if the advisory group reaches consensus that the site need not be maintained while the Board completes its evaluation of rules affecting the spotted owl, then the site will be decertified. If the advisory group cannot reach a consensus decision on this question, the site may retain its current status with restriction on harvest similar to other sites.

For the proposed rule, additional costs would accrue to the landowners of “suitable spotted owl habitat”⁴ within particular site centers (circles) (see Step 1 below) only if all of the following activities have occurred:

- An owner of forest land within the site center (circle) completed two years of surveys according to current federal protocol, which demonstrated the absence of spotted owls.
- The landowner submitted the appropriate survey documentation to WDFW.
- WDFW reviewed and approved the surveys were performed appropriately.
- The advisory group evaluated the surveys and the location of the site center.
- The advisory group could not reach consensus that the site need not be maintained while the Board completes its evaluation of the forest practices rules affecting the spotted owl.

In short, costs will only be imposed on owners of forest land within any spotted owl site center (circle) that the advisory group decides, by not being able to reach consensus to the contrary, should not be decertified until the Board determines a long-term strategy for spotted owl conservation. However, it is not known exactly what length of time such a circle will not be allowed to be decertified, and therefore eligible for harvest. It is also unknown whether any landowners will submit, or would submit, in the absence of this rule, surveys to WDFW. To date, no complete surveys have been submitted to WDFW since the end of the moratorium on December 31, 2008. Therefore, we estimated timber volume and value calculations for individual circles to show possible impacts on forest landowners within each circle.

We took the following steps to estimate timber value in each circle:

- Step 1. Identified owl circles potentially affected by the rule change.
- Step 2. Determined forest land acreage within the owl circles identified in Step 1 that potentially could be affected by the rule change.
- Step 3. Estimated the timber volume on acres identified in Step 2 that potentially could be harvested.
- Step 4. Estimated the stumpage value of the timber volume identified in Step 3.

Step 1. Identify owl circles potentially affected by the rule change.

Forest lands within 12 site centers (circles) were identified as potentially being affected by the rule. These circles are within SOSEA boundaries, excluding forest land owned by the federal government, or covered by an HCP or landowner option plan. The forest land potentially affected within those

³ The impacts of imposing the moratorium were analyzed as part of the rule making in 2006 and 2008.

⁴ WAC 222-16-085(1)

circles is “suitable spotted owl habitat” described in WAC 222-16-085(1), that is, “old forest”, “sub-mature”, “mixed forest”, and “young forest marginal.”

Step 2. Determine forest land acreage within the owl circles identified in Step 1 that potentially could be affected by the rule change.

This acreage was determined by analyzing DNR Geographic Information System data for each owl circle identified in Step 1. Each circle’s acreage was calculated as an individual circle by suitable spotted owl habitat type. The results are summarized in column C-1 of Table 1.

Step 3. Estimate the timber volume on acres identified in step 2 above that potentially could be harvested.

Aerial stereo photos were used to estimate tree heights for each habitat type in each circle. Using the Log Scaling and Timber Cruising book (J.R. Dilworth, 1975, p.444), the average heights were used to find normal tree diameters at breast height (DBH) for trees of these heights. The average tree height and the DBH were used in conjunction with tariff table #40 to find the volume in board feet for each tree. The volume per tree was then multiplied by the trees per acre (TPA) requirements specified in WAC 222-16-085 to calculate the volume per acre. The ranges of TPA for each habitat type were averaged. To estimate the total board feet per habitat type for each circle, the board feet per acre total was multiplied by the number of acres of each habitat type for each circle. The results of this analysis are summarized in column C-2 of Table 1.

The estimated volume per acre was then multiplied by the number of acres per habitat type to determine the total volume affected by the rule; these volumes are shown in column C-3. This volume category was then reduced by a factor of 13 percent (shown in column C-4) to account for a timber volume in riparian zones that cannot be harvested under the Forest Practices rules.⁵ The resulting estimated forgone volume is shown in column C-5.

Step 4. Estimate the stumpage value of the timber volume identified in Step 3.

The price per thousand board feet of \$209/mbf was used to calculate stumpage value. This is based on the estimated stumpage price for Westside Douglas fir DNR stumpage over the last year. The price is based on the average composite DNR log price for Douglas fir during the twelve month period ending in June 2009 of \$359/mbf, less an estimated harvest and delivery cost of \$150 per million board feet.⁶ Applying the estimated value of \$209/mbf resulted in the estimated stumpage value shown in column C-6.

Cost Analysis

In total, the 12 circles cover 23,452 acres of habitat that currently cannot be harvested that would be released for harvest should the circles be decertified. However, it is extremely unlikely that this rule will impact all of the circles, and in fact may not impact any of the circles. It is more reasonable to consider the cost of the rule based on individual circles. As can be observed on Table 1 and Figure 1, the current potential timber value within a given circle ranges from \$0.0 to over \$20 million. The averages for all 12 circles in volume and timber value are 50.1 million board feet and \$12.0 million. The three circles in the Mineral SOSEA have little or no habitat currently, therefore the cost of maintaining the habitat in these circles would be low. If we calculate the average cost after removing these three circles, the average increases to \$16 million.

⁵ Based on the estimate from the 2001 cost-benefit analysis of the Forests and Fish rules; available upon request.

⁶ Unpublished data on file with the author and available upon request.

It is important to stress that the foregone value of timber revenue (cost) estimated as a possible impact of the rule proposal (shown in column C-8 of Table 1) would accrue only to the landowners of “suitable spotted owl habitat” within particular site centers (circles). It bears repeating that landowners would be impacted only when all of the following activities have occurred:

- An owner of forest land within the site center completed two years of surveys according to current federal protocol which demonstrated the absence of spotted owls.
- The landowner submitted the appropriate survey documentation to WDFW.
- WDFW reviewed and approved the surveys were performed appropriately.
- The advisory group evaluated the surveys and the location of the site center.
- The advisory group could not reach consensus that the site need not be maintained while the Board completes its evaluation of the forest practices rules affecting the Northern Spotted Owl.

Between January 1, 2009 and July 14, 2009, only one landowner submitted survey documentation to WDFW. In that case, WDFW found the documentation to be incomplete and returned it to the landowner as disapproved. DNR program staff are unaware of any other landowner who is conducting a survey during the period covered by this rule.

Based on this information, and after staff conversations with WDFW and DNR field staff, our professional opinion is that the probability that all of the above-listed events will occur even for one owl circle is very low, and therefore the probable cost of the proposed rule change is considerably less than even the average cost of one owl circle of \$12.0 million, if not zero. The cost could be from \$0 to \$144.4 million, depending on whether no site centers, or any number of site centers (between 1 and 12), are affected by the advisory group’s analysis during the group’s one-year life span.

Table 1: Potentially Affected Acres and Volume, and Associated Values

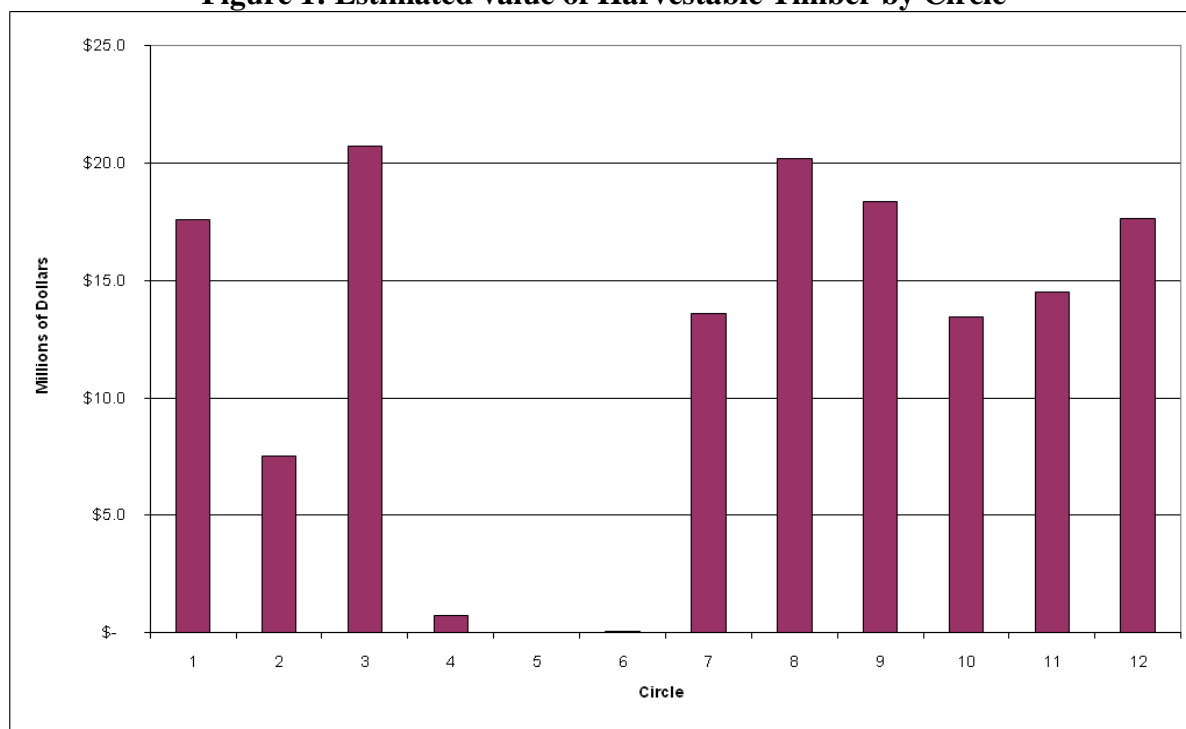
Column=====			C-1	C-2	C-3	C-4	C-5	C-6
SOSEA	Site Center Designator	NSO_HABITAT CODE	Habitat Acres Including Core Areas	Volume/Acre Including Core Area*	Total Volume Including Core Area*	Estimated RMZ Volume*	Estimated Foregone Volume*	Estimated value of harvestable timber***
I-90W	1	Old Forest Habitat	482	17,050	8,222,874	1,070,002	7,152,872	\$ 1.5
		Sub-Mature Forest Habitat	705	43,340	30,568,569	3,977,738	26,590,831	\$ 6.4
		Mixed Forest Habitat	319	34,500	11,008,605	1,432,496	9,576,109	\$ 2.3
		Young Forest Marginal Habitat	919	37,430	34,411,645	4,477,819	29,933,826	\$ 7.2
		Total	2,426	34,711	84,211,693	10,958,055	73,253,637	\$ 17.6
	2	Old Forest Habitat	852	14,850	12,647,003	1,645,693	11,001,310	\$ 2.6
		Sub-Mature Forest Habitat	709	29,550	20,951,541	2,726,321	18,225,220	\$ 4.4
		Mixed Forest Habitat	184	13,790	2,530,879	329,331	2,201,548	\$ 0.5
		Total	1,744	20,714	36,129,422	4,701,345	31,428,077	\$ 7.6
		Finney Block	3	Old Forest Habitat	1,264	14,850	18,775,746	2,443,196
Sub-Mature Forest Habitat	172			45,310	7,794,226	1,014,225	6,780,002	\$ 1.6
Mixed Forest Habitat	1,461			46,500	67,913,715	8,837,279	59,076,436	\$ 14.2
Young Forest Marginal Habitat	109			43,340	4,743,130	617,200	4,125,929	\$ 1.0
Total	3,006			33,006	99,226,817	12,911,900	86,314,917	\$ 20.7
Mineral	4	Old Forest Habitat	207	14,850	3,078,851	400,636	2,678,215	\$ 0.6
		Mixed Forest Habitat	17	33,000	544,500	70,853	473,647	\$ 0.1
		Total	224	16,188	3,623,351	471,489	3,151,862	\$ 0.8
	5	No Habitat	0		0		0	\$ -
		Total	0		0		0	\$ -
6	Old Forest Habitat	5	14,850	74,993	9,758	65,234	\$ 0.0	
	Total	5	14,850	74,993	9,758	65,234	\$ 0.0	
White Salmon	7	Young Forest Marginal Habitat - Closed Canopy	1,928	24,000	46,266,480	6,020,431	40,246,049	\$ 9.7
		Young Forest Marginal Habitat - Open Canopy	780	24,000	18,727,440	2,436,910	16,290,530	\$ 3.9
		Total	2,708	24,000	64,993,920	8,457,341	56,536,579	\$ 13.6
N. Blewett	8	Sub-Mature Forest Habitat	61	35,200	2,159,520	281,008	1,878,512	\$ 0.5
		Young Forest Marginal Habitat - Closed Canopy	1,856	38,000	70,540,540	9,179,095	61,361,445	\$ 14.7
		Young Forest Marginal Habitat - Open Canopy	798	30,000	23,940,300	3,115,234	20,825,066	\$ 5.0
		Total	2,716	35,586	96,640,360	12,575,337	84,065,023	\$ 20.2
I-90E	9	Sub-Mature Forest Habitat	88	35,200	3,095,136	402,755	2,692,381	\$ 0.6
		Young Forest Marginal Habitat - Closed Canopy	2,819	30,000	84,582,300	11,006,281	73,576,019	\$ 17.7
		Young Forest Marginal Habitat - Open Canopy	10	24,000	251,280	32,698	218,582	\$ 0.1
		Total	2,918	30,135	87,928,716	11,441,733	76,486,983	\$ 18.4
	10	Sub-Mature Forest Habitat	17	30,400	531,392	69,147	462,245	\$ 0.1
		Young Forest Marginal Habitat - Closed Canopy	2,502	24,000	60,038,400	7,812,503	52,225,897	\$ 12.5
		Young Forest Marginal Habitat - Open Canopy	155	24,000	3,719,040	483,940	3,235,100	\$ 0.8
	Total	2,674	24,042	64,288,832	8,365,591	55,923,241	\$ 13.4	
	11	Sub-Mature Forest Habitat	42	24,000	1,000,560	130,198	870,362	\$ 0.2
		Young Forest Marginal Habitat - Closed Canopy	2,185	30,000	65,543,100	8,528,803	57,014,297	\$ 13.7
		Young Forest Marginal Habitat - Open Canopy	120	24,000	2,880,720	374,854	2,505,866	\$ 0.6
	Total	2,346	29,586	69,424,380	9,033,855	60,390,525	\$ 14.5	
Entiat Ridge**	12	Sub-Mature Forest Habitat	50	30,400	1,524,256	198,344	1,325,912	\$ 0.3
		Young Forest Marginal Habitat - Closed Canopy	2,157	30,000	64,703,400	8,419,537	56,283,863	\$ 13.5
		Young Forest Marginal Habitat - Open Canopy	478	38,000	18,148,040	2,361,516	15,786,524	\$ 3.8
		Total	2,685	31,431	84,375,696	10,979,396	73,396,300	\$ 17.6
Grand Totals			23,452	29,461	690,918,179	89,905,801	601,012,378	\$ 144.4
Average per Circle			1,954	29,461	57,576,515	7,492,150	50,084,365	\$ 12.0

* Volume in Board Feet

** Habitat Layer Updated after initial analysis

*** Millions of Dollars assumes \$209/mbf

Figure 1: Estimated value of Harvestable Timber by Circle



SMALL BUSINESS IMPACTS

The proposal does not require any change in reporting, recordkeeping, and other compliance requirements, nor is it anticipated that there will be an increase in the professional services that a small business is likely to need in order to comply with the proposed rules.

The Regulatory Fairness Act definition of small business is one with 50 or fewer employees. RCW 19.85.040 directs that:

To determine whether the proposed rule will have a disproportionate cost impact on small businesses, the impact statement must compare the cost of compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules ...

To make the comparison required in this statute, we obtained employment information from the Washington State Department of Employment Security. There are 46 separate businesses within the 12 subject circles classified as “resource production and extraction” lands per county records. Employment Security records show that 43 of those businesses employ 50 or fewer employees, which is the legal definition of “small business.” However, in this case, 5 of the 46 businesses are the “ten percent of businesses that are the largest businesses required to comply with the proposed rules.” So, we must compare the costs for the 5 largest businesses with the costs for the 41 smallest businesses that would be required to comply with the proposed rule.

Small business analysis: The largest businesses own 59 percent of the “resource production and extraction” lands in the 12 circles, while small businesses own 41 percent. Based on this information, we estimate the average value of harvestable timber for the largest businesses is \$1.4 million per firm

(\$12.0 million*59%/5=\$1.4 million per large business) while the average value for the small businesses is \$120,000 per firm (12.0 million*41%/41=\$120,000 per small business).

This shows that the average value of timber owned by small business is about 8 percent (\$120,000/\$1,400,000) of that for the largest businesses. This comparison indicates that the proposed rule has no adverse disproportionate impact on small businesses when compared to the largest businesses.

Estimated Number of Jobs Created or Lost. RCW 19.85.040 (2)(d) requires that the economic analysis include “(a)n estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rule.” In 2005, the Department of Employment Security showed 37,178 covered employments in the Forest and Logging, Wood Production, and Paper Manufacturing industries. This employment was supported by a harvest in Washington of 3.730 billion board feet, which results in approximately one primary job for every hundred thousand board feet harvested per year. Assuming a proportional relationship between timber volume and the timber related jobs, and given the total potential impact of 600 thousand board feet shown in Column C-5 of Table 1, this rule could have an estimated maximum impact of six jobs for one year, if this rule impacted all of the site centers, which is highly unlikely. The average impact of one site center would be just one half of a job for one year.

Reducing costs for small businesses. RCWs 19.85.030 and -.040 address an agency’s responsibility in rule making to consider how costs may be reduced for small businesses, based on the extent of disproportionate impact on the small businesses. We have found that this rule would not have a disproportionate impact on small businesses and therefore no mitigation is required by the law. However, the existing forest practices rules do limit the restrictions for landowners owning less than 500 acres in a SOSEA to the area within the inner 0.7-mile circle of a site center, and this could be expected to reduce cost to small businesses.

LEAST BURDENSOME ALTERNATIVE

The Administrative Procedure Act states that agencies shall determine after considering alternative versions of the rule, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives of the statute that the rule implements.

The Forest Practices Act indicates that, coincident with maintenance of a viable forest products industry, it is important to afford protection to a variety of public resources including wildlife.⁷ In addition, the Board’s rules include protection of critical habitats of threatened and endangered species, one of which is the Northern Spotted Owl.

Because of the precarious circumstances of Washington’s Northern Spotted Owl habitat and population (as explained in the “CONTEXT” section), the Board is considering a long-term conservation strategy for the conservation of spotted owl habitat. The rule currently under analysis is a temporary measure intended to ensure that habitat deemed to be currently unoccupied (as concluded from spotted owl protocol surveys) is not altered if it is determined to be potentially important to Washington’s spotted owl population.

⁷ RCW 76.09.010
July 2009

Adopting the proposed rule would be less burdensome overall than not adopting the rule largely because, from the cost perspective it is a temporary measure, and from the wildlife conservation perspective it may conserve potentially important habitat for the spotted owl.

CONCLUSIONS

This economic analysis estimates the cost of the proposed rule to those who are required to comply with the rule. The costs are the result of the potential loss of harvest opportunity on lands within 12 owl circles potentially affected by the proposed rule. The analysis estimates that a total of \$144.4 million or an average of \$12 million worth of timber per site potentially could be impacted by the rule. However, the probability of even one of the twelve sites being impacted by this rule are judged to be very low, if not zero, and therefore the expected value of the cost of this rule is only a fraction of the average value of timber per site of \$12 million. The cost could be from \$0 to \$144.4 million, depending on whether no site centers, or any number of site centers (between 1 and 12), are affected by the advisory group's analysis during the group's one-year life span.

This rule is intended to benefit Washington State's Northern Spotted Owl population. The Forest Practices Board has expressed the desire for additional analysis of any survey submitted to and approved by WDFW, in which a landowner demonstrated the absence of spotted owls at a spotted owl site center (circle), for the year 2009. It is expected that the proposed rule will add assurance that no potentially important habitat is lost through harvest while the Board determines any appropriate long-term changes to its rules related to spotted owl habitat conservation. The expected probability that even one of the 12 circles will be impacted by this rule is judged to be very low if not zero, and therefore the expected cost of the rule is proportionately low if not zero. Therefore it is reasonable to conclude that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs of the proposed rule.

A comparison of the estimated potential impact to small business, and the 10 percent of the largest businesses that are required to comply with the rule, shows that the impact on small businesses is likely to be less per firm than for large businesses, and therefore would not disproportionately impact small businesses. Furthermore, the existing 500 acre rule may help to mitigate the impact on small businesses. Therefore, the proposed rule is not expected to impose more than minor costs on Washington's small businesses as a whole, although it is possible that individual landowners will be impacted. The analysis indicates that the rule will have only a minor, if any, impact on overall employment.

Adopting the proposed rule would be less burdensome overall than not adopting the rule, largely because from the cost perspective it is a temporary measure, and from the wildlife conservation perspective it may conserve potentially important habitat for the spotted owl.

RESOURCES CITED

J. R. Dilworth, *Scaling and Timber Cruising* (1975).

Washington Forest Practices Board, *New Proposed Forest Practices Rules Cost-Benefit Analysis* (February 21, 2001).