

WAC 220-140-040 Project funds from the sale of surplus salmon carcasses and eggs. (1) Regional fisheries enhancement groups whose projects produce surplus salmon carcasses and eggs may request that the department sell such surplus, providing the following conditions are met:

(a) Salmon must be returning to a department approved group facility (hatchery, trap or weir);

(b) An approved and current salmon rearing project must be on file with the department;

(c) The department must declare that a surplus exists beyond the needs of the department, tribes, other public entities, and group project requirements; and

(d) Use of funds generated by such sale will be approved by the regional fisheries enhancement group advisory board and the department, using the same procedure as established for handling moneys allocated from the regional fisheries enhancement group account.

(2) The department may sell the surplus salmon carcasses, nonviable eggs and viable eggs of a group project. Surplus viable salmon eggs shall be sold by the department as prescribed in chapter 220-74 WAC, Surplus salmon eggs. A group may not sell any salmon products resulting from its activities.

(3) All money received by the department from the sale of group surplus salmon carcasses, nonviable eggs and viable eggs shall be placed into the regional fisheries enhancement group account and used solely to fund the expenses of approved activities for the group that developed the project.

(4) All money received by the department from the sale of surplus salmon carcasses, nonviable eggs and viable eggs returning to state funded hatcheries shall be placed into the general regional fisheries enhancement group account. Eighty percent of this money will be distributed equally to each of the twelve groups and twenty percent will be used by the department to administer the program.

(5) All fish produced from an approved group project are intended for release into state waters. Live fish will not be transported from a group project without prior written approval of the department.

(6) Surplus carcasses from salmon returning to a group project may be seeded into and along streams if a plan to do so has been preapproved and coordinated by the department.

[Statutory Authority: RCW 75.50.100 and 75.52.035. 98-02-017 (Order 97-245), § 220-140-040, filed 12/30/97, effective 1/30/98.]

Title 222 WAC FOREST PRACTICES BOARD

Chapters

- 222-08** Practices and procedures.
- 222-10** State Environmental Policy Act guidelines.
- 222-12** Policy and organization.
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- 222-20** Application and notification procedures.
- 222-22** Watershed analysis.
- 222-24** Road construction and maintenance.
- 222-30** Timber harvesting.
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- 222-46** Consultation and enforcement.
- 222-50** Relationship to other laws and regulations.

Chapter 222-08 WAC PRACTICES AND PROCEDURES

WAC

- 222-08-035 Continuing review of forest practices regulations.

WAC 222-08-035 Continuing review of forest practices regulations. *(1) Annual evaluations. The department, after consulting with affected state agencies, Indian tribes, forest landowners, fish and wildlife, natural resources, and environmental interest groups, shall beginning July 1, 1988, report annually to the forest practices board an assessment of how regulations and voluntary processes are working.

(2) Adaptive management. The department is directed to report to the board on opportunities to modify these regulations when baseline data, monitoring, evaluation or the use of interdisciplinary teams show that such adaptive management will better meet the purposes and policies of the Forest Practices Act.

(3) Resource management plans. The department is directed to develop a method for cooperative voluntary resource management planning among forest landowners, governmental agencies, affected Indian tribes, and environmental groups which would result in the development of plans which might be used as an alternative to the forest practice regulations in achieving the purposes and policies set forth in the act. This should be done through pilot projects, at least one of which should be located on the east side of the Cascade summit and one on the west side of the Cascade summit.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-08-035, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), § 222-08-035, filed 11/16/87, effective 1/1/88.]

Chapter 222-10 WAC STATE ENVIRONMENTAL POLICY ACT GUIDELINES

WAC

- 222-10-040 Class IV-Special threatened and endangered species SEPA policies.
- 222-10-042 Marbled murrelets.

WAC 222-10-040 Class IV-Special threatened and endangered species SEPA policies. In addition to the SEPA policies established elsewhere in this chapter, the following policies shall apply to Class IV-Special forest practices involving threatened or endangered species.

(1) The department shall consult with the department of fish and wildlife, other agencies with expertise, affected

landowners, affected Indian tribes, and others with expertise when evaluating the impacts of forest practices. If the department does not follow the recommendations of the department of fish and wildlife, the department shall set forth in writing a concise explanation of the reasons for its action.

(2) In order to determine whether forest practices are likely to have a probable significant adverse impact, and therefore require an environmental impact statement, the department shall evaluate whether the forest practices reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of the survival or recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

(3) Specific mitigation measures or conditions shall be designed to reduce any probable significant adverse impacts identified in subsection (2) of this section.

(4) The department shall consider the species-specific policies in WAC 222-10-041 and 222-10-042 when reviewing and evaluating SEPA documents and the impacts of forest practices.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-10-040, filed 12/3/97, effective 1/3/98. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038 and 96-14-081, § 222-10-040, filed 5/31/96 and 7/1/96, effective 7/1/96 and 8/1/96.]

WAC 222-10-042 Marbled murrelets. The following policies shall apply to forest practices subject to SEPA where the forest practices may cause adverse impacts to marbled murrelets.

(1) Within an occupied marbled murrelet site, forest practices that will adversely impact this habitat will likely have a probable significant adverse impact on the environment except where the department determines, in consultation with the department of fish and wildlife, that the applicant's proposal will actually have no significant adverse impact.

(2) Within marbled murrelet detection areas:

(a) Suitable marbled murrelet habitat with at least a 50% probability of occupancy is assumed to have a high likelihood of marbled murrelet occupancy. It is currently assumed that 5 platforms per acre meets the 50% probability of occupancy. Without survey information, forest practices that will adversely impact this habitat may have a probable significant adverse impact on the environment.

(b) Suitable marbled murrelet habitat with at least a 30%, but less than 50% probability of occupancy has a sufficiently high likelihood of marbled murrelet occupancy to warrant a survey. This additional information is necessary for the department to evaluate the environmental impact of the forest practice. It is currently assumed that 2 platforms per acre meets the 30% probability of occupancy.

A landowner may request the department of fish and wildlife to survey. The department of fish and wildlife should survey to the maximum extent practicable based on an appropriation to survey marbled murrelet suitable habitat within detection areas where the landowner provides access for surveys to the department of fish and wildlife, and sufficient time is allowed to complete the protocol surveys. The department shall provide a notice to the landowner within 60 days from the date of application of the department of fish and wildlife's intent to survey. If the depart-

ment of fish and wildlife cannot conduct marbled murrelet surveys the responsibility for surveys remains with the landowner.

(3) Outside a marbled murrelet detection area:

(a) Suitable marbled murrelet habitat with at least a 60% probability of occupancy is assumed to have a high likelihood of marbled murrelet occupancy. It is currently assumed that 7 platforms per acre meets the 60% probability of occupancy. Without survey information, forest practices that will adversely impact this habitat may have a probable significant adverse impact on the environment.

(b) Within a marbled murrelet special landscape suitable marbled murrelet habitat with at least a 50% probability of occupancy is assumed to have a high likelihood of marbled murrelet occupancy. Without survey information, forest practices that will adversely impact this habitat may have a probable significant adverse impact on the environment.

(4) When determining whether a forest practice will have a probable significant adverse impact on the environment, the department shall, in consultation with the department of fish and wildlife, evaluate the impacts on the statewide, regional (Southwest Washington, Olympic Peninsula, Hood Canal, North Puget Sound, South Puget Sound and South Cascades) and local (within the marbled murrelet detection area) marbled murrelet populations and associated habitats. The department should consider a variety of information including but not limited to survey data, habitat quality and patch size, the amount of edge in relation to the area of habitat, amount of interior habitat, distance from saltwater, detection rates, the amount and quality of habitat, the likelihood of predation and the recovery goals for the marbled murrelet.

(5) The platform assumptions set forth above are based on regional data. Applicants or others may submit information to the department which was gathered in conjunction with a marbled murrelet survey agreement with the department of fish and wildlife, and other reliable information that is more current, or specific to the platform numbers in the marbled murrelet suitable habitat definition. The department shall use such information in making its determinations under this section where the department finds, in consultation with the department of fish and wildlife, that the information is more likely to be valid for a particular WRIA or physiographic province. If the department does not use the information, it shall explain its reasons in writing to the applicant.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-15-105, § 222-10-042, filed 7/21/97, effective 8/21/97.]

Chapter 222-12 WAC POLICY AND ORGANIZATION

WAC

222-12-040	Alternate plans.
222-12-046	Cumulative effects.
222-12-050	Notices to comply—Stop work orders.
222-12-090	Forest practices board manual.

WAC 222-12-040 *Alternate plans. All forest practice operations must comply with the act and further with the rules promulgated pursuant to the act, unless an

alternate plan has been approved by the department. An applicant may submit an alternate plan for any or all of the activities described in the application. The department may approve an application which departs from the specific provisions of chapters 222-22 through 222-38 WAC, provided that the plan must, in the determination of the department, equal or exceed the protection of public resources as provided in the Forest Practices Act and rules and regulations. The department shall provide an opportunity for comment to the departments of fish and wildlife, ecology, other state agencies, and affected Indian tribes prior to approval of any alternate plan.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-12-040, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-12-040, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), § 222-12-040, filed 11/16/87, effective 1/1/88; Order 263, § 222-12-040, filed 6/16/76.]

WAC 222-12-046 Cumulative effects. The purpose of this section is to identify how the forest practices rules address changes to the environment caused by the interaction of natural ecosystem processes with the effects of two or more forest practices. This interaction is referred to as "cumulative effects." The following approaches have been taken:

(1) Title 222 WAC establishes minimum standards for all forest practices, regardless of the class of forest practice application.

(2) Forest practices which have a potential for a substantial impact on the environment are classified as Class IV-Special or Class IV-General by WAC 222-16-050 and receive an evaluation as to whether or not a detailed statement must be prepared pursuant to chapter 43.21C RCW.

(3) Certain rules are designed to focus on specific aspects of cumulative effects of forest practices. For example:

(a) WAC 222-08-035 requires continuing review of the forest practices regulations and voluntary processes and adopts the concept of adaptive management. WAC 222-12-045 also adopts adaptive management.

(b) WAC 222-12-040 allows alternate plans that equal or exceed the protection of public resources as provided in the act and rule.

(c) WAC 222-24-050(1) allows the department to require road maintenance and abandonment plans for those drainages or road systems the department determines based on physical evidence to have a potential to damage public resources.

(d) WAC 222-30-025 addresses harvest unit size and separation requirements.

(e) Chapter 222-22 WAC addresses cumulative effects on the public resources of fish, water, and capital improvements of the state or its political subdivisions.

(f) Chapter 222-46 WAC establishes the enforcement policy for forest practices.

(4) The board is considering measures to further protect cultural resources and wildlife resources. The board shall continue consultation with the departments of ecology, fish and wildlife, natural resources, forest landowners, and federally recognized tribes on these resource issues.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-12-046, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-12-046, filed 7/2/92, effective 8/2/92.]

WAC 222-12-050 Notices to comply—Stop work orders. (1) **Violations.** When a forest practice has been completed, the department may issue a notice to comply requiring the operator or landowner to correct or compensate for damage to public resources where there was:

(a) A violation of the act, or these rules, or

(b) A deviation from the approved application, or

(c) A willful or negligent disregard for potential damage to a public resource.

(2) **Other required action.** When a forest practice has not yet been completed, the department may issue either a notice to comply to the operator and/or landowner, or a stop work order to the operator, requiring him/her to prevent potential or continuing damage to a public resource where:

(a) The need for additional actions or restrictions has become evident, and

(b) The department determines that a specific course of action is needed to prevent potential or continuing damage to public resources, and

(c) The damage would result or is resulting from the forest practices activities, whether or not the activities involve any violation, unauthorized deviation or negligence.

(3) **No notice to comply** shall be issued to require a person to prevent, correct, or compensate for any damage to public resources which occurs more than 1 year after the date of completion of the forest practices operations involved exclusive of reforestation, unless such forest practices were not conducted in accordance with forest practices rules: *Provided*, That this provision shall not relieve the forest landowner from any obligation to comply with forest practices rules and regulations pertaining to providing continuing road maintenance.

(4) **No notice to comply** to recover money damages shall be issued more than 2 years after the date the damage involved occurs.

(5) **In emergency action**, where the department requires the operator or landowner to do immediate work in the bed of the stream the department shall first seek approval from the department of fish and wildlife.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-12-050, filed 12/3/97, effective 1/3/98; 93-12-001, § 222-12-050, filed 5/19/93, effective 6/19/93; Order 263, § 222-12-050, filed 6/16/76.]

WAC 222-12-090 Forest practices board manual. When approved by the board the manual serves as an advisory technical supplement to these forest practices regulations. The department, in cooperation with the departments of fish and wildlife, agriculture, ecology, and such other agencies, affected Indian tribes, or interested parties as may have appropriate expertise, is directed to prepare, and submit to the board for approval, revisions to the forest practices board manual. The manual shall include:

(1) **Method for determination of adequate shade requirements on streams** needed for use with WAC 222-30-040.

(2) **The standard methods** for measuring channel width, stream gradient and flow which are used in the water typing criteria WAC 222-16-030.

(3) **A chart** for establishing recommended permanent culvert sizes and associated data.

(4) **Guidelines** for clearing slash and debris from Type 4 and 5 Waters.

(5) **Guidelines** for landing location and construction.

(6) **Guidelines** for determining acceptable stocking levels.

(7) **Guidelines** for calculating average widths of riparian management zones.

(8) **Guidelines** for wetland delineation.

(9) **Guidelines** for wetland replacement or substitution.

(10) A list of nonnative wetland plant species.

(11) The standard methodology, which shall specify the quantitative methods, indices of resource conditions, and definitions, for conducting watershed analysis under chapter 222-22 WAC. The department, in consultation with Timber/Fish/Wildlife's Cooperative Monitoring, Evaluation and Research Committee (CMER), may make minor modifications to the version of the standard methodology approved by the board. Substantial amendments to the standard methodology requires approval by the board.

(12) A list of special concerns related to aerial application of pesticides developed under WAC 222-16-070(3).

(13)

(14) **Survey protocol for marbled murrelets.** The Pacific seabird survey protocol in effect March 1, 1997, shall be used when surveying for marbled murrelets in a stand. Surveys conducted before the effective date of this rule are valid if they were conducted in substantial compliance with generally accepted survey protocols in effect at the beginning of the season in which they were conducted.

(15) The department shall, in consultation with the department of fish and wildlife, develop **platform protocols** for use by applicants in estimating the number of platforms, and by the department in reviewing and classifying forest practices under WAC 222-16-050. These protocols shall include:

(a) A sampling method to determine platforms per acre in the field;

(b) A method to predict the number of platforms per acre based on information measurable from typical forest inventories. The method shall be derived from regression models or other accepted statistical methodology, and incorporate the best available data; and

(c) Other methods determined to be reliable by the department, in consultation with the department of fish and wildlife.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-12-090, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-12-090, filed 7/21/97, effective 8/21/97. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-113, § 222-12-090, filed 7/21/92, effective 8/21/92. Statutory Authority: RCW 76.09.040. 88-19-112 (Order 551, Resolution No. 88-1), § 222-12-090, filed 9/21/88, effective 11/1/88; 87-23-036 (Order 535), § 222-12-090, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-12-090, filed 8/3/82, effective 10/1/82; Order 263, § 222-12-090, filed 6/16/76.]

Chapter 222-16 WAC

DEFINITIONS

WAC

222-16-010	General definitions.
222-16-030	Water typing system.
222-16-035	Wetland typing system.
222-16-050	Classes of forest practices.
222-16-070	Pesticide uses with the potential for a substantial impact on the environment.
222-16-080	Critical wildlife habitats (state) and critical habitat (federal) of threatened and endangered species.
222-16-087	Marbled murrelet special landscape.
222-16-100	Planning options for the northern spotted owl.
222-16-105	Cooperative habitat enhancement agreements.

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

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

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

"**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, cedar, whitepine, crabapple, or aspen, and may be associated with open water. This includes nutrient-poor fens. See the *Forest Practices Board Manual*.

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

"**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.

"**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 the 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.

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

"Conversion to a use other than commercial timber operation" shall mean 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 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 wildlife 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 practice activities which would reasonably be expected to cause significant damage to a public resource.

"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.

"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.

"Eastern Washington" means the lands of the state lying east of an administrative line which approximates the change from the Western Washington timber types to the Eastern Washington timber types described as follows:

Beginning at the International Border and Okanogan National Forest boundary at the N1/4 corner Section 6, T. 40N, R. 24E., W.M., south and west along the Pasayten Wilderness boundary to the west line of Section 30, T. 37N, R. 19E.,

Thence south on range line between R. 18E. and R. 19E., to the Lake Chelan-Sawtooth Wilderness at Section 31, T. 35N, R. 19E.,

Thence south and east along the eastern wilderness boundary of Lake Chelan-Sawtooth Wilderness to the west line of Section 18, T. 31N, R. 19E. on the north shore of Lake Chelan,

Thence south on the range line between R. 18E. and R. 19E. to the SE corner of T. 28N, R. 18E.,

Thence west on the township line between T. 27N, and T. 28N to the NW corner of T. 27N, R. 17E.,

Thence south on range line between R. 16E. and R. 17E. to the Alpine Lakes Wilderness at Section 31, T. 26N, R. 17E.,

Thence south along the eastern wilderness boundary to the west line of Section 6, T. 22N, R. 17E.,

Thence south on range line between R. 16E. and R. 17E. to the SE corner of T. 22N, R. 16E.,

Thence west along township line between T. 21N, and T. 22N to the NW corner of T. 21N, R. 15E.,

Thence south along range line between R. 14E. and R. 15E. to SW corner of T. 20N, R. 15E.,

Thence east along township line between T. 19N, and T. 20N to the SW corner of T. 20N, R. 16E.,

Thence south along range line between R. 15E. and R. 16E. to the SW corner of T. 18N, R. 16E.,

Thence west along township line between T. 17N, and T. 18N to the SE corner of T. 18N, R. 14E.,

Thence south along range line between T. 14E. and R. 15E. to the SW corner of T. 14N, R. 15E.,

Thence south and west along Wenatchee National Forest Boundary to the NW corner of T. 12N, R. 14E.,

Thence south along range line between R. 13E. and R. 14E. to SE corner of T. 10N, R. 13E.,

Thence west along township line between T. 9N, and T. 10N to the NW corner of T. 9N, R. 12E.,

Thence south along range line between R. 11E. and R. 12E. to SE corner of T. 8N, R. 11E.,

Thence west along township line between T. 7N, and T. 8N to the Gifford Pinchot National Forest Boundary,

Thence south along Forest Boundary to SE corner of Section 33, T. 7N, R. 11E.,

Thence west along township line between T. 6N, and T. 7N to SE corner of T. 7N, R. 9E.,

Thence south along Skamania-Klickitat County line to Oregon-Washington state line.

"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.

"Erodible soils" means those soils exposed or displaced by a forest practice operation, that 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 222-30-010(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, hard-stem 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. Fill does not include the growing or harvesting of timber including, but not limited to, slash burning, site preparation, reforestation, precommercial thinning, intermediate or final harvesting, salvage of trees, brush control, or fertilization.

"Flood level - 50 year." For purposes of field interpretation of these regulations, the 50-year flood level shall be considered to refer to a vertical elevation measured from the ordinary high-water mark which is 1.25 times the vertical distance between the average stream bed and the ordinary high-water mark, and in horizontal extent shall not exceed 2 times the channel width measured on either side from the ordinary high-water mark, unless a different area is specified by the department based on identifiable topographic or vegetative features or based on an engineering computation of flood magnitude that has a 2 percent chance of occurring in any given year. The 50-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 owner" shall mean 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: *Provided*, That 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 land owner" 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.

"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 trees" excludes trees cultivated by agricultural methods in growing cycles shorter than ten years: *Provided*, That Christmas trees are forest trees and: *Provided further*, That this exclusion applies only to trees 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.

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

"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.

"Historic site" includes:

Sites, areas and structures or other evidence of human activities illustrative of the origins, evolution and development of the nation, state or locality; or

Places associated with a personality important in history; or

Places where significant historical events are known to have occurred even though no physical evidence of the event remains.

"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.

"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 practice 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 government 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.

"Northern spotted owl site center" means 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) 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.

(4) 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.

(5) 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**" shall mean 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.

"**Public resources**" means water, fish, and wildlife and in addition shall mean 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.

"**Relief culvert**" means a structure to relieve surface runoff from roadside ditches to prevent excessive buildup in water volume and velocity.

"**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 management zone**" means a specified area alongside Type 1, 2 and 3 Waters where specific measures are taken to protect water quality and fish and wildlife habitat.

"**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.

"**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 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 practice activities.

"**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 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.

"**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 40% 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).

"**Threatened or endangered species**" means all species of wildlife listed as "threatened" or "endangered" by the United States Secretary of the Interior, and all species of wildlife designated as "threatened" or "endangered" by the Washington fish and wildlife commission.

"**Timber**" shall mean forest trees, standing or down, of a commercial species, including Christmas trees.

"**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 lands of the state lying west of the administrative line described in the definition of 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.

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

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-16-010, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-16-010, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-16-010, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 94-17-033, § 222-16-010, filed 8/10/94, effective 8/13/94; 93-12-001, § 222-16-010, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-16-010, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 92-03-028, § 222-16-010, filed 1/8/92, effective 2/8/92; 91-23-052, § 222-16-010, filed 11/15/91, effective 12/16/91. Statutory Authority: RCW 76.09.040. 88-19-112 (Order 551, Resolution No. 88-1), § 222-16-010, filed 9/21/88, effective 11/1/88; 87-23-036 (Order 535), § 222-16-010, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-16-010, filed 8/3/82, effective 10/1/82; Order 263, § 222-16-010, filed 6/16/76.]

WAC 222-16-030 Water typing system. *The department in cooperation with the departments of fish and wildlife, and ecology, and in consultation with affected Indian tribes shall classify streams, lakes and ponds and prepare stream classification maps showing the location of Type 1, 2, 3 and 4 Waters within the various forested areas of the state. Such maps shall be available for public inspection at region offices of the department. The waters will be classified using the following criteria. If a dispute arises concerning a water type the department shall make available informal conferences, which shall include the departments of fish and wildlife, and ecology, and affected Indian tribes and those contesting the adopted water types. These conferences shall be established under procedures established in WAC 222-46-020.

*(1) "**Type 1 Water**" means all waters, within their ordinary high-water mark, as inventoried as "shorelines of the state" under chapter 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW, but not including those waters' associated wetlands as defined in chapter 90.58 RCW.

*(2) "**Type 2 Water**" shall mean segments of natural waters which are not classified as Type 1 Water and have a high fish, wildlife, or human use. These are segments of natural waters and periodically inundated areas of their associated wetlands, which:

(a) Are diverted for domestic use by more than 100 residential or camping units or by a public accommodation facility licensed to serve more than 100 persons, where such diversion is determined by the department to be a valid

appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type 2 Water upstream from the point of such diversion for 1,500 feet or until the drainage area is reduced by 50 percent, whichever is less;

(b) Are within a federal, state, local, or private campground having more than 30 camping units: *Provided*, That the water shall not be considered to enter a campground until it reaches the boundary of the park lands available for public use and comes within 100 feet of a camping unit, trail or other park improvement;

(c) Are used by substantial numbers of anadromous or resident game fish for spawning, rearing or migration. Waters having the following characteristics are presumed to have highly significant fish populations:

(i) Stream segments having a defined channel 20 feet or greater in width between the ordinary high-water marks and having a gradient of less than 4 percent.

(ii) Lakes, ponds, or impoundments having a surface area of 1 acre or greater at seasonal low water; or

(d) Are used by salmonids for off-channel habitat. These areas are critical to the maintenance of optimum survival of juvenile salmonids. This habitat shall be identified based on the following criteria:

(i) The site must be connected to a stream bearing salmonids and accessible during some period of the year; and

(ii) The off-channel water must be accessible to juvenile salmonids through a drainage with less than a 5% gradient.

* (3) "**Type 3 Water**" shall mean segments of natural waters which are not classified as Type 1 or 2 Water and have a moderate to slight fish, wildlife, and human use. These are segments of natural waters and periodically inundated areas of their associated wetlands which:

(a) Are diverted for domestic use by more than 10 residential or camping units or by a public accommodation facility licensed to serve more than 10 persons, where such diversion is determined by the department to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type 3 Water upstream from the point of such diversion for 1,500 feet or until the drainage area is reduced by 50 percent, whichever is less;

(b) Are used by significant numbers of anadromous fish for spawning, rearing or migration. Waters having the following characteristics are presumed to have significant anadromous fish use:

(i) Stream segments having a defined channel of 5 feet or greater in width between the ordinary high-water marks; and having a gradient of less than 12 percent and not upstream of a falls of more than 10 vertical feet.

(ii) Ponds or impoundments having a surface area of less than 1 acre at seasonal low water and having an outlet to an anadromous fish stream.

(c) Are used by significant numbers of resident game fish. Waters with the following characteristics are presumed to have significant resident game fish use:

(i) Stream segments having a defined channel of 10 feet or greater in width between the ordinary high-water marks; and a summer low flow greater than 0.3 cubic feet per second; and a gradient of less than 12 percent.

(ii) Ponds or impoundments having a surface area greater than 0.5 acre at seasonal low water; or

(d) Are highly significant for protection of downstream water quality. Tributaries which contribute greater than 20 percent of the flow to a Type 1 or 2 Water are presumed to be significant for 1,500 feet from their confluence with the Type 1 or 2 Water or until their drainage area is less than 50 percent of their drainage area at the point of confluence, whichever is less.

*(4) "**Type 4 Water**" classification shall be applied to segments of natural waters which are not classified as Type 1, 2 or 3, and for the purpose of protecting water quality downstream are classified as Type 4 Water upstream until the channel width becomes less than 2 feet in width between the ordinary high-water marks. Their significance lies in their influence on water quality downstream in Type 1, 2, and 3 Waters. These may be perennial or intermittent.

*(5) "**Type 5 Water**" classification shall be applied to all natural waters not classified as Type 1, 2, 3 or 4; including streams with or without well-defined channels, areas of perennial or intermittent seepage, ponds, natural sinks and drainageways having short periods of spring or storm runoff.

*(6) For purposes of this section:

(a) "Residential unit" means a home, apartment, residential condominium unit or mobile home, serving as the principal place of residence.

(b) "Camping unit" means an area intended and used for:

(i) Overnight camping or picnicking by the public containing at least a fireplace, picnic table and access to water and sanitary facilities; or

(ii) A permanent home or condominium unit or mobile home not qualifying as a "residential unit" because of part time occupancy.

(c) "Resident game fish" means game fish as described in the Washington game code that spend their life cycle in fresh water. Steelhead, searun cutthroat and Dolly Varden trout are anadromous game fish and should not be confused with resident game fish.

(d) "Public accommodation facility" means a business establishment open to and licensed to serve the public, such as a restaurant, tavern, motel or hotel.

(e) "Natural waters" only excludes water conveyance systems which are artificially constructed and actively maintained for irrigation.

(f) "Seasonal low flow" and "seasonal low water" mean the conditions of the 7-day, 2-year low water situation, as measured or estimated by accepted hydrologic techniques recognized by the department.

(g) "Channel width and gradient" means a measurement over a representative section of at least 500 linear feet with at least 10 evenly spaced measurement points along the normal stream channel but excluding unusually wide areas of negligible gradient such as marshy or swampy areas, beaver ponds and impoundments. Channel gradient may be determined utilizing stream profiles plotted from United States geological survey topographic maps.

(h) "Intermittent streams" means those segments of streams that normally go dry.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-16-030, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-16-030,

filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-16-030, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), § 222-16-030, filed 11/16/87, effective 1/1/88; Order 263, § 222-16-030, filed 6/16/76.]

WAC 222-16-035 Wetland typing system. *The department in cooperation with the departments of fish and wildlife, and ecology, and affected Indian tribes shall classify wetlands. The wetlands will be classified in order to distinguish those which require wetland management zones and those which do not. Wetlands which require wetland management zones shall be identified using the following criteria. Accurate delineation of wetlands in accordance with the manual shall be required only where necessary to determine whether replacement by substitution or enhancement is required pursuant to WAC 222-24-025(10) and shall be limited to the area of wetland proposed to be filled. For the purposes of determining acreage to classify or type wetlands under this section, approximate determination using aerial photographs and maps, including the national wetlands inventory, shall be sufficient. In addition, the innermost boundary of the wetland management zone on Type A or B wetlands may be determined by either of two methods: Delineation of the wetland edge, or identifying the point where the crown cover changes from less than 30% to 30% or more. Except where necessary to determine whether replacement by substitution or enhancement is required pursuant to WAC 222-24-025(10), accurate delineation shall not be required under this Title 222 WAC for activities regulated by these rules, including but not limited to the location of roads, landings, culverts, and cross drains. Landowners are encouraged to leave vegetation in these forested wetlands in undisturbed leave areas where possible. When so requested by any affected landowners, applicant or aggrieved person, the department shall make available informal conferences, which shall include the departments of fish and wildlife, and ecology, and affected Indian tribes and those contesting the adopted wetland types. These conferences shall be established under procedures established in WAC 222-46-020.

*(1) "**Nonforested wetlands**" means any wetland or portion thereof that has, or if the trees were mature would have, a crown closure of less than 30 percent.

(a) "**Type A Wetland**" classification shall be applied to all nonforested wetlands which:

(i) Are greater than 0.5 acre in size, including any acreage of open water where the water is completely surrounded by the wetland; and

(ii) Are associated with at least 0.5 acre of ponded or standing open water. The open water must be present on the site for at least 7 consecutive days between April 1 and October 1 to be considered for the purposes of these rules; or

(b) "**Type B Wetland**" classification shall be applied to all other nonforested wetlands greater than 0.25 acre.

*(2) "**Forested wetland**" means any wetland or portion thereof that has, or if the trees were mature would have, a crown closure of 30 percent or more.

*(3) "**All forested and nonforested bogs**" greater than 0.25 acres shall be considered Type A Wetlands.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-16-035, filed 12/3/97, effective 1/3/98; 94-17-033, § 222-16-035, filed 8/10/94, effective 8/13/94. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-16-035, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-16-035, filed 7/2/92, effective 8/2/92.]

WAC 222-16-050 Classes of forest practices. There are 4 classes of forest practices created by the act. All forest practices (including those in Classes I and II) must be conducted in accordance with the forest practices regulations.

(1) **"Class IV - special."** Application to conduct forest practices involving the following circumstances requires an environmental checklist in compliance with the State Environmental Policy Act (SEPA), and SEPA guidelines, as they have been determined to have potential for a substantial impact on the environment. It may be determined that additional information or a detailed environmental statement is required before these forest practices may be conducted.

*(a) Aerial application of pesticides in a manner identified as having the potential for a substantial impact on the environment under WAC 222-16-070 or ground application of a pesticide within a Type A or B wetland.

(b) Specific forest practices listed in WAC 222-16-080 on lands designated as:

(i) Critical wildlife habitat (state) of threatened or endangered species; or

(ii) Critical habitat (federal) of threatened or endangered species except those excluded by the board under WAC 222-16-080(3).

(c) Harvesting, road construction, aerial application of pesticides and site preparation on all lands within the boundaries of any national park, state park, or any park of a local governmental entity, except harvest of less than 5 MBF within any developed park recreation area and park managed salvage of merchantable forest products.

*(d) Construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on slide prone areas as defined in WAC 222-24-020(6) and field verified by the department, in a watershed administrative unit that has not undergone a watershed analysis under chapter 222-22 WAC, when such slide prone areas occur on an uninterrupted slope above water typed pursuant to WAC 222-16-030, Type A or Type B Wetland, or capital improvement of the state or its political subdivisions where there is potential for a substantial debris flow or mass failure to cause significant impact to public resources.

*(e) Timber harvest in a watershed administrative unit that has not undergone a watershed analysis under chapter 222-22 WAC, on slide prone areas, field verified by the department, where soils, geologic structure, and local hydrology indicate that canopy removal has the potential for increasing slope instability, when such areas occur on an uninterrupted slope above any water typed pursuant to WAC 222-16-030, Type A or Type B Wetland, or a capital improvement of the state or its political subdivisions where there is a potential for a substantial debris flow or mass failure to cause significant impact to public resources.

(f) Timber harvest, in a watershed administrative unit that has not undergone a watershed analysis under chapter 222-22 WAC, construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on snow avalanche slopes within those areas designated by the

department, in consultation with department of transportation, as high avalanche hazard.

(g) Timber harvest, construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on archaeological or historic sites registered with the Washington state office of archaeology and historic preservation, or on sites containing evidence of Native American cairns, graves, or glyptic records, as provided for in chapters 27.44 and 27.53 RCW. The department shall consult with affected Indian tribes in identifying such sites.

*(h) Forest practices subject to a watershed analysis conducted under chapter 222-22 WAC in an area of resource sensitivity identified in that analysis which deviates from the prescriptions (which may include an alternate plan) in the watershed analysis.

*(i) Filling or draining of more than 0.5 acre of a wetland.

(2) **"Class IV - general."** Applications involving the following circumstances are "Class IV - general" forest practices unless they are listed in "Class IV - special." Upon receipt of an application, the department will determine the lead agency for purposes of compliance with the State Environmental Policy Act pursuant to WAC 197-11-924 and 197-11-938(4) and RCW 43.21C.037(2). Such applications are subject to a 30-day period for approval unless the lead agency determines a detailed statement under RCW 43.21C.030 (2)(c) is required. Upon receipt, if the department determines the application is for a proposal that will require a license from a county/city acting under the powers enumerated in RCW 76.09.240, the department shall notify the applicable county/city under WAC 197-11-924 that the department has determined according to WAC 197-11-938(4) that the county/city is the lead agency for purposes of compliance with State Environmental Policy Act.

(a) Forest practices (other than those in Class I) on lands platted after January 1, 1960, or on lands being converted to another use.

(b) Forest practices which would otherwise be Class III, but which are taking place on lands which are not to be reforested because of likelihood of future conversion to urban development. (See WAC 222-16-060 and 222-34-050.)

(3) **"Class I."** Those operations that have been determined to have no direct potential for damaging a public resource are Class I forest practices. When the conditions listed in "Class IV - Special" are not present, these operations may be commenced without notification or application.

(a) Culture and harvest of Christmas trees and seedlings.

*(b) Road maintenance except: (i) Replacement of bridges and culverts across Type 1, 2, 3 or flowing Type 4 Waters; or (ii) movement of material that has a direct potential for entering Type 1, 2, 3 or flowing Type 4 Waters or Type A or B Wetlands.

*(c) Construction of landings less than 1 acre in size, if not within a shoreline area of a Type 1 Water, the riparian management zone of a Type 2 or 3 Water, the ordinary high-water mark of a Type 4 Water, a wetland management zone or within a wetland.

*(d) Construction of less than 600 feet of road on a sideslope of 40 percent or less if the limits of construction are not within the shoreline area of a Type 1 Water, the riparian management zone of a Type 2 or Type 3 Water, the

ordinary high-water mark of a Type 4 Water, a wetland management zone or within a wetland.

*(e) Installation or removal of a portable water crossing structure where such installation does not take place within the shoreline area of a Type 1 Water and does not involve disturbance of the beds or banks of any waters.

*(f) Initial installation and replacement of relief culverts and other drainage control facilities not requiring a hydraulic permit.

(g) Rocking an existing road.

(h) Loading and hauling timber from landings or decks.

(i) Precommercial thinning and pruning.

(j) Tree planting and seeding.

(k) Cutting and/or removal of less than 5,000 board feet of timber (including live, dead and down material) for personal use (i.e., firewood, fence posts, etc.) in any 12-month period.

(l) Emergency fire control and suppression.

(m) Slash burning pursuant to a burning permit (RCW 76.04.205).

*(n) Other slash control and site preparation not involving either off-road use of tractors on slopes exceeding 40 percent or off-road use of tractors within the shorelines of a Type 1 Water, the riparian management zone of any Type 2 or 3 Water, or the ordinary high-water mark of a Type 4 Water, a wetland management zone or within a wetland.

*(o) Ground application of chemicals. (See WAC 222-38-020 and 222-38-030.)

*(p) Aerial application of chemicals (except insecticides) when applied to not more than 40 contiguous acres if the application is part of a combined or cooperative project with another landowner and where the application does not take place within 100 feet of lands used for farming, or within 200 feet of a residence, unless such farmland or residence is owned by the forest landowner. Provisions of chapter 222-38 WAC shall apply.

(q) Forestry research studies and evaluation tests by an established research organization.

(r) Any of the following if none of the operation or limits of construction takes place within the shoreline area of a Type 1 Water or the riparian management zone of a Type 2 or 3 Water, or within the ordinary high-water mark of a Type 4 Water or flowing Type 5 Water, and the operation does not involve off-road use of tractor or wheeled skidding systems on a sideslope of greater than 40 percent:

(i) Any forest practices within the boundaries of existing golf courses.

(ii) Any forest practices within the boundaries of existing cemeteries which are approved by the cemetery board.

(iii) Any forest practices involving a single landowner where contiguous ownership is less than two acres in size.

(s) Removal of beaver structures from culverts on active and inactive roads. A hydraulics project approval from the Washington department of fish and wildlife may be required.

(4) "**Class II.**" Certain forest practices have been determined to have a less than ordinary potential to damage a public resource and may be conducted as Class II forest practices: *Provided*, That no forest practice enumerated below may be conducted as a Class II forest practice if the

operation requires a hydraulic project approval (RCW 75.20.100) or is within a "shorelines of the state," or involves a bond in lieu of landowners signature (other than renewals). Such forest practices require an application. No forest practice enumerated below may be conducted as a "Class II" forest practice if it takes place on lands platted after January 1, 1960, or on lands being converted to another use. Such forest practices require a Class IV application. Class II forest practices are the following:

(a) Renewal of a prior Class II notification.

(b) Renewal of a previously approved Class III or IV forest practice application where:

(i) No modification of the uncompleted operation is proposed;

(ii) No notices to comply, stop work orders or other enforcement actions are outstanding with respect to the prior application; and

(iii) No change in the nature and extent of the forest practice is required under rules effective at the time of renewal.

*(c) Any of the following if none of the operation or limits of construction takes place within the riparian management zone of a Type 2 or 3 Water, within the ordinary high-water mark of a Type 4 Water, within a wetland management zone or within a wetland:

(i) Construction of advance fire trails.

(ii) Opening a new pit of, or extending an existing pit by, less than 1 acre.

*(d) Any of the following if none of the operation or limits of construction takes place within the riparian management zone of a Type 2 or 3 Water, within the ordinary high-water mark of a Type 4 Water, within a wetland management zone or within a wetland; and if none of the operations involve off-road use of tractor or wheeled skidding systems on a sideslope of greater than 40 percent:

Salvage of logging residue.

*(e) Any of the following if none of the operation or limits of construction takes place within the riparian management zone of a Type 2 or 3 Water, within the ordinary high-water mark of a Type 4 Water, within a wetland management zone or within a wetland and if none of the operations involve off-road use of tractor or wheeled skidding systems on a sideslope of greater than 40 percent, and if none of the operations are located on lands with a likelihood of future conversion (see WAC 222-16-060):

(i) West of the Cascade summit, partial cutting of 40 percent or less of the live timber volume.

(ii) East of the Cascade summit, partial cutting of 5,000 board feet per acre or less.

(iii) Salvage of dead, down, or dying timber if less than 40 percent of the total timber volume is removed in any 12-month period.

(iv) Any harvest on less than 40 acres.

(v) Construction of 600 or more feet of road, provided that the department shall be notified at least 2 business days before commencement of the construction.

(5) "**Class III.**" Forest practices not listed under Classes IV, I or II above are "Class III" forest practices. Among Class III forest practices are the following:

(a) Those requiring hydraulic project approval (RCW 75.20.100).

*(b) Those within the shorelines of the state other than those in a Class I forest practice.

*(c) Aerial application of insecticides, except where classified as a Class IV forest practice.

*(d) Aerial application of chemicals (except insecticides), except where classified as Class I or IV forest practices.

*(e) Harvest or salvage of timber except where classed as Class I, II or IV forest practices.

*(f) All road construction and reconstruction except as listed in Classes I, II and IV forest practices.

(g) Opening of new pits or extensions of existing pits over 1 acre.

*(h) Road maintenance involving:

(i) Replacement of bridges or culverts across Type 1, 2, 3, or flowing Type 4 Waters; or

(ii) Movement of material that has a direct potential for entering Type 1, 2, 3 or flowing Type 4 Waters or Type A or B Wetlands.

(i) Operations involving an applicant's bond in lieu of a landowner's signature.

(j) Site preparation or slash abatement not listed in Classes I or IV forest practices.

(k) Harvesting, road construction, site preparation or aerial application of pesticides on lands which contain cultural, historic or archaeological resources which, at the time the application or notification is filed, are:

(i) On or are eligible for listing on the National Register of Historic Places; or

(ii) Have been identified to the department as being of interest to an affected Indian tribe.

(l) Harvesting exceeding 19 acres in a designated difficult regeneration area.

(m) Utilization of an alternate plan. See WAC 222-12-040.

*(n) Any filling of wetlands, except where classified as Class IV forest practices.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-16-050, filed 12/3/97, effective 1/3/98; 93-12-001, § 222-16-050, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-16-050, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23-052, § 222-16-050, filed 11/15/91, effective 12/16/91. Statutory Authority: RCW 76.09.040. 88-19-112 (Order 551, Resolution No. 88-1), § 222-16-050, filed 9/21/88, effective 11/1/88; 87-23-036 (Order 535), § 222-16-050, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-16-050, filed 8/3/82, effective 10/1/82; Order 263, § 222-16-050, filed 6/16/76.]

WAC 222-16-070 Pesticide uses with the potential for a substantial impact on the environment. *To identify forest practices involving pesticide uses that have the potential for a substantial impact on the environment, the department shall apply the process prescribed in this section. See WAC 222-16-050 (1)(a).

(1) Pesticide list - The department shall maintain a list of all pesticides registered under chapter 15.58 RCW for use in forest practices. The department shall conduct, in consultation with the departments of ecology, health, agriculture, and fish and wildlife, an annual review of the list for the purpose of including new pesticides and/or removing those pesticides which have been prohibited from use. The list shall be available to the public at each of the

department's offices. A list of the department's offices and their addresses appears at WAC 332-10-030. In preparing the pesticide list, the department shall include information on the following characteristics:

(a) Active ingredients, name brand or trade mark, labeled uses, pesticide type, EPA-registration number;

(b) Toxicity of the pesticide based on the Environmental Protection Agency (EPA) label warning under 40 C.F.R. 156.10 (h)(1), listed as "caution," "warning," "danger," or "danger - poison" except as modified to consider aquatic or mammalian toxicity; and

(c) Whether the pesticide is a state restricted use pesticide for the protection of ground water under WAC 16-228-164(1).

(2) Key for evaluating applications. To determine whether aerial application of a pesticide has the potential for a substantial impact on the environment, the department shall apply the following analysis:

Key for Evaluation of Site Specific Use of Aerially Applied Chemicals

Question #	Question Description	Resp.	Action
1(a)	Is the pesticide on the pesticide list (WAC 222-16-070(1))?	Yes No	Go to 2 Go to 1(b)
1(b)	Is the pesticide being used under a Dept. of Agriculture experimental use permit? (WAC 16-228-125)	Yes No	Class III Class IV-S
2	Is the toxicity rating for the pesticide to be used "Danger-Poison" as designated in the pesticide list? (WAC 222-16-070(1)(b))	Yes No	Class IV-S Go to 3(a)
3(a)	Is <i>Bacillus thuringiensis</i> (BT) the only pesticide being used on this application?	Yes No	Go to 3(b) Go to 4(a)
3(b)	Is there a threatened or endangered species or the critical habitat (federal) or critical wildlife habitat (state) of a species within the application area that is susceptible to the BT strain being used?	Yes No	Class IV-S Class III
4(a)	Is this operation occurring over ground water with a high susceptibility to contamination as specified in EPA 910/9-87-169 or in documentation provided by the Dept. of Ecology?	Yes No	Go to 4(b) Go to 5(a)
4(b)	Is this pesticide a state restricted use pesticide for the protection of ground water under WAC 16-228-164(1)?	Yes No	Class IV-S Go to 5(a)
5(a)	Is the operation adjacent (within 100 ft.) of surface water?	Yes No	Go to 5(b) Go to 5(e)
5(b)	Determine the toxicity rating from the pesticide list: • Is the toxicity rating "Caution" or "Warning"? • Is the toxicity rating "Danger"?	Yes Yes	Go to 5(c) Go to 5(d)
5(c)	Is there a Group A or B water surface water system (WAC 246-290-020) intake OR a fish hatchery intake within one half mile downstream of the operation?	Yes No	Class IV-S Go to 5(e)
5(d)	Is there a Group A or B water surface system intake OR a fish hatchery intake within one mile downstream of the operation?	Yes No	Class IV-S Go to 5(e)
5(e)	Is the operation within 200 feet of the intake of a Group A or B spring water system?	Yes No	Class IV-S Go to 5(f)
5(f)	Is the operation applying a pesticide in a Type A or B wetland?	Yes No	Class IV-S Go To 6(a)
6(a)	Does any portion of the planned operation cover 240 or more contiguous acres? Pesticide treatment units will be considered contiguous if they are separated by less than 300 feet or treatment dates of adjacent units are less than 90 days apart.	Yes No	Class IV-S Go to 6(b)
6(b)	Is there a threatened or endangered species or the critical habitat (federal) or critical wildlife habitat (state) of a species within the application area?	Yes No	Class IV-S Go to 6(c)
6(c)	If there is a special concern identified for this pesticide in the Board Manual, does it apply to this application?	Yes No	Class IV-S Class III

(3) Special concerns (see WAC 222-16-070 (2)(c)) shall be evaluated by the department of agriculture. Information regarding special concerns shall be presented to the board for review. Approved special concerns shall be included in the board's manual. Special concerns shall include situations where use of pesticides has the potential for a substantial impact on the environment, beyond those covered specifically in the key in subsection (2) of this section.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-16-070, filed 12/3/97, effective 1/3/98; 93-12-001, § 222-16-070, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-16-070, filed 7/2/92, effective 8/2/92.]

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

(a) Bald eagle - 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 - 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 - 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 caribou - 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 - 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 - 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 - 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 - the following shall apply through June 30, 1996: Harvesting, road construction, or aerial application of pesticides on the most suitable 500 acres of nesting, roosting, and foraging habitat surrounding the northern spotted owl site center. The most suitable habitat shall be determined by the department in cooperation with

the department of fish and wildlife, tribes, and others with applicable expertise. Consideration shall be given to habitat quality, proximity to the activity center and contiguity in selecting the most suitable 500 acres of habitat.

Beginning July 1, 1996, the following shall apply for the northern spotted owl:

(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 wildlife habitat (state) for northern spotted owls.

(i) Western pond turtle - 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.

(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 consider-

ation 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 wildlife 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 specific forest practices within those habitats, have been determined to not have the potential for a substantial impact on the environment:

Marbled murrelet critical habitat 50 C.F.R. § 17.95(b), 61 Fed. Reg. 26256 as a result of provisions of the state's marbled murrelet rule.

(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, the department shall after consultation with the department of fish and wildlife, prepare and submit to the board a proposed list of critical wildlife habitats (state) of threatened or endangered species. This list shall be submitted to the board within 15 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 wildlife 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)(i).

(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 which do not 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 exclusion from Class IV - special forest practices. The department shall submit the list to the board within 120 days of the date the United States Secretary of the Interior publishes a final rule designating critical habitat (federal) in the Federal Register. Those critical habitats excluded by the board from Class IV - Special shall be added to the list in subsection (2) of this section. See WAC 222-16-050 (1)(b)(ii).

(5)(a) Except for bald eagles under subsection (1)(a) of this section, the critical wildlife habitats (state) of threatened and endangered species and specific forest practices designated in subsection (1) 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.

(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 wildlife habitat (state) (WAC 222-16-080(1)) or critical habitat (federal) (WAC 222-16-050 (1)(b)(ii)) for a species if the forest practices are consistent with one of the following proposed for protection of the species:

(a) A habitat conservation plan and 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); an "unlisted species agreement" covering such species approved by the U.S. Fish and Wildlife Service or National Marine Fisheries Service; or a "no-take letter" or other cooperative or conservation agreement entered into with a federal or state fish and wildlife agency pursuant to its statutory authority for fish and wildlife protection that addresses the needs of the affected species and that is subject to review under the National Environmental Protection Act, 42 U.S.C. §4321 et seq., or the State Environmental Policy Act, chapter 43.21C RCW, as applicable;

(b) A rule adopted by the U.S. Fish and Wildlife Service for the conservation of a particular threatened species pursuant to 16 U.S.C. 1533(d);

(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); or

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

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 wildlife habitat (state) or critical habitat (federal) for the species covered by the existing plan.

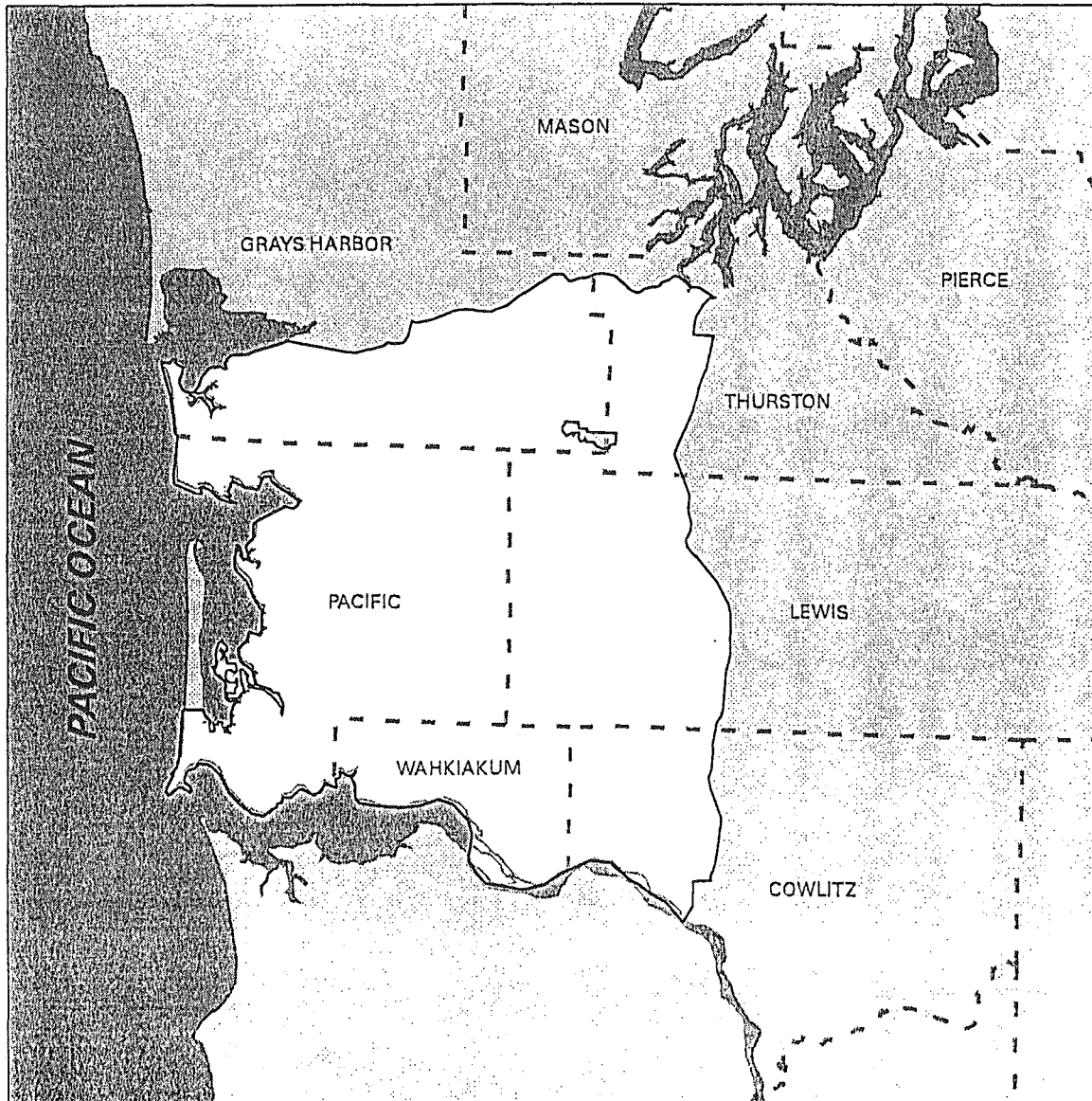
(7) The department, in consultation with the department of fish and wildlife, shall review each SOSEA to determine whether the goals for that SOSEA are being met through approved plans, permits, statements, letters, or agreements referred to in subsection (6) of this section. Based on the consultation, 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.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-16-080, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-16-080, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-16-080, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 93-12-001, § 222-16-080, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-16-080, filed 7/2/92, effective 8/2/92.]

WAC 222-16-087 Marbled murrelet special landscape. Marbled murrelet special landscape means the following geographic area as mapped. A detailed map of the marbled murrelet special landscape indicating the boundaries is available from the department at its regional offices.

Southwest Washington Special Landscape



[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-15-105, § 222-16-087, filed 7/21/97, effective 8/21/97.]

WAC 222-16-100 Planning options for the northern spotted owl. (1) **Landowner option plans for the northern spotted owl.** Landowner option plans (LOPs) are intended to provide landowners with a mechanism, entered into voluntarily, to contribute to the protection of northern spotted owls by considering the needs of overall population maintenance or dispersal habitat across a defined geographic area. Forest practices applications that are in an area covered by an LOP, and that are consistent with the LOP, will not be classified as Class IV-Special on the basis of critical wildlife habitat (state) or critical habitat (federal) for the northern spotted owl. This does not preclude classification as Class IV-Special because of the presence of other factors listed in WAC 222-16-050(1).

(a) **Required elements of LOPs.** The level of detail to be included in a LOP will depend on the area of ownership involved, the time period for which the plan will be in effect, and the complexity of the management strategy. Nevertheless, each plan shall contain the elements set forth in this subsection.

(i) **Goals and objectives.** The specific goals and objectives for the landowner's contributions proposed under the LOP shall be developed by the landowner and approved by the department in consultation with the department of fish and wildlife based on the following:

(A) Mitigation under the plan must be reasonable and capable of being accomplished;

(B) To the maximum extent practicable, the plan must minimize and mitigate significant adverse impacts caused by, and identified in, the plan on individual northern spotted owl site centers or the ability of the SOSEA to meet SOSEA goals. Specific short (one to five-year) and long (greater than five-year) term goals and objectives for the LOP should be clearly stated, where applicable; and

(C) LOPs should be designed to achieve an appropriate contribution from nonfederal lands toward meeting SOSEA goals and are intended to be an efficient and effective alternative to site-by-site management planning. In Eastern Washington, LOPs must also consider the need to protect the forests from catastrophic loss from wildfire, insects, and diseases.

(ii) **Other required elements:**

(A) A description of the planning area. The LOP planning area shall include a sufficient amount of the landowner's forest land within the SOSEA to meet the goals and objectives of the plan.

(B) A description of the physical features in the planning area (e.g., geology, topography, etc.).

(C) The current habitat status. Suitable spotted owl habitat should be categorized and mapped as old forest, sub-mature, young forest marginal, or dispersal.

(D) The current species status. All status 1, 2, and 3 northern spotted owl site centers and the associated median home range circles that overlap any of the landowner's ownership within the LOP boundary must be mapped.

(E) Management proposals and relevant operations plans.

(F) Projected suitable habitat development.

(G) A plan for training.

(H) A monitoring program.

(I) Reporting standards.

(J) The conditions under which the LOP may be modified.

(K) The term of the LOP and conditions for termination. The term of the LOP shall be sufficient to meet its goals and objectives. The conditions of the LOP run with the land unless the LOP specifies alternative means to achieve the LOP goals and objectives upon mid-term sale or transfer. In addition to any other termination provisions in the LOP, plans may be terminated by mutual agreement of the landowner and the department.

(b) **Approval of LOPs.** Upon receipt of a landowner option plan, the department shall circulate the plan to the department of fish and wildlife, affected Indian tribes, local government entities, other forest landowners in the SOSEA, and the public for a thirty-day review and comment period. The department may extend this review period for up to thirty additional days. Within ninety days of receipt of the plan, the department shall review the comments and approve or disapprove the plan or submit the plan to the landowner to revise as appropriate. The department, after consultation with the department of fish and wildlife, shall approve the plan if:

(i) The plan contains all of the elements required under this section;

(ii) The plan is expected to be effective in meeting its goals and objectives;

(iii) The plan will not have a probable significant adverse impact on the ability of the SOSEA to meet its goals; and

(iv) The plan will not appreciably reduce the likelihood of the survival and recovery of the northern spotted owl in the wild.

In making its determination under this subsection, the department shall consider the direct, indirect, and cumulative effects of the plan; both the short-term and long-term effects of the plan; and whether local, state, or federal land management, regulatory, or nonregulatory requirements will mitigate identified significant adverse impacts. If the department does not approve the plan, or approves it over the objections of the department of fish and wildlife, the department shall set forth in writing a concise explanation of the reasons for its action.

(c) **Enforcement of LOPs.** The department shall review all applications and notifications from the landowner, proposed within the plan area, for consistency with the plan. Any applications or notifications found to be inconsistent with the plan shall be returned to the landowner for modification. After landowner review, applications and notifications which are not consistent with the plan shall be classified as Class IV-Special.

(2) See WAC 222-16-105 for CHEAs.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-15-105, § 222-16-100, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-16-100, filed 5/31/96, effective 7/1/96.]

WAC 222-16-105 Cooperative habitat enhancement agreements. (1) **Purpose.** A cooperative habitat enhancement agreement (CHEA) is intended to remove disincentives

for landowners who create, enhance, or maintain habitat for the northern spotted owl or marbled murrelet by providing them with protection against future spotted owl or marbled murrelet regulation caused by their enhancement activities. A CHEA is an agreement between the department and a landowner, developed in cooperation with the department of fish and wildlife, for the purpose of creating, enhancing, or maintaining northern spotted owl habitat and/or marbled murrelet habitat. The agreement will apply only to forest land identified by the landowner:

(a) For northern spotted owls, outside of the median home range circles of northern spotted owl site centers in existence at the time of implementation.

(b) For marbled murrelets, any current unoccupied or potential future habitat.

(2) **Authority.** Outside of the median home range circles of northern spotted owls or an occupied marbled murrelet site, the department, in consultation with the department of fish and wildlife, may enter into agreements with nonfederal landowners to create, enhance, or maintain habitat that the northern spotted owl and/or the marbled murrelet can be expected to utilize. During the term of these agreements, forest practices covered by the agreements shall not be classified as Class IV-Special on the basis of critical wildlife habitat (state) or critical habitat (federal) for the northern spotted owl or the marbled murrelet. This does not preclude classification as Class IV-Special because of the presence of other factors listed in WAC 222-16-050(1).

(3) **Baseline.**

(a) Each agreement shall identify a baseline level of habitat, and the department shall not permit forest practices that reduce the habitat below the baseline during the term of the agreement.

(b) For northern spotted owls, the baseline may range from zero habitat to the overall levels of suitable spotted owl habitat and dispersal habitat that existed across the land in question at the time the agreement is entered into.

(c) For marbled murrelets, the baseline may range from zero habitat to the overall levels of suitable marbled murrelet habitat that existed across the land in question at the time the agreement is entered into.

(d) The department shall determine, working with the landowner and in consultation with the department of fish and wildlife, the appropriate baseline, taking into consideration:

(i) The size of the landowner's ownership and the ability of the landowner to maintain habitat conditions across the landscape in question over time;

(ii) The overall benefits of the agreement to the northern spotted owl or marbled murrelet including both the proposed measures to create, enhance, or maintain habitat and the proposed baseline levels; and

(iii) The term of the agreement.

(4) **Form and content of CHEAs.**

(a) The department shall, in consultation with the department of fish and wildlife, have the authority to define the form and content of CHEAs. The form and content may vary among agreements, but each must provide sufficient information for the department, the public, and other reviewers to understand and evaluate the agreement against the standards established under this section.

(b) For northern spotted owls, in addition to the elements required by the department, each agreement shall include a plan to avoid harvesting, road construction, or the aerial application of pesticides, between March 1 and August 31, on the seventy acres of highest quality suitable spotted owl habitat surrounding any known northern spotted owl site centers on lands covered by the agreement.

(5) **Approval of a CHEA.** Upon receipt of a CHEA, the department shall circulate the agreement to the department of fish and wildlife, affected Indian tribes, local government entities, other forest landowners in the SOSEA (if the CHEA is in a SOSEA), and the public for review and comment. Within sixty days of receipt of the agreement, the department shall review the comments and approve or disapprove the agreement or submit the agreement to the landowner to revise as appropriate. The department, after consultation with the department of fish and wildlife, may approve the agreement if the agreement will create, enhance, or maintain habitat conditions for:

(a) The northern spotted owl in a manner that provides a measurable contribution toward meeting the goals of the SOSEA or a measurable benefit to northern spotted owls outside SOSEAs.

(b) The marbled murrelet in a manner that provides a measurable benefit to the species.

(6) **Enforcement of CHEAs.** The department shall review all applications and notifications from the landowner, proposed within the agreement area, for consistency with the agreement. Any applications or notifications found to be inconsistent with the agreement shall be returned to the landowner for modification. After landowner review, applications and notifications which are not consistent with the agreement shall be classified based on the rules in effect at the time of application and without any of the benefits of the agreement.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-15-105, § 222-16-105, filed 7/21/97, effective 8/21/97.]

Chapter 222-20 WAC

APPLICATION AND NOTIFICATION PROCEDURES

WAC

222-20-060 Deviation from prior application or notification.

WAC 222-20-060 Deviation from prior application or notification. Substantial deviation from a notification or an approved application requires a revised notification or application. Other deviations may be authorized by a supplemental directive, notice to comply or stop work order. The department shall notify the departments of fish and wildlife, and ecology, and affected Indian tribes and the appropriate county of any supplemental directive, notice to comply or stop work order involving a deviation from a prior notification or approved application, except where such notice has been waived.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-20-060, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), § 222-20-060, filed 11/16/87, effective 1/1/88; Order 263, § 222-20-060, filed 6/16/76.]

Chapter 222-22 WAC
WATERSHED ANALYSIS

WAC

222-22-020	Watershed administrative units.
222-22-040	Watershed prioritization.
222-22-050	Level 1 watershed resource assessment.
222-22-080	Approval of watershed analysis.
222-22-090	Use and review of watershed analysis.

WAC 222-22-020 Watershed administrative units.

*(1) For purposes of this chapter, the state is divided into areas known as watershed administrative units (WAUs). The department shall, in cooperation with the departments of ecology, fish and wildlife, federally recognized Indian tribes, local government entities, forest land owners, and the public, define WAUs throughout the state. The department shall identify WAUs on a map.

*(2) WAUs should generally be between 10,000 to 50,000 acres in size and should be discrete hydrologic units. The board recognizes, however, that identified watershed processes and potential effects on resource characteristics differ, and require different spatial scales of analysis, and the department's determination of the WAUs should recognize these differences. The board further recognizes that mixed land uses will affect the ability of a watershed analysis to predict probabilities and identify causation as required under this chapter, and the department's conduct and approval of a watershed analysis under this chapter shall take this effect into account.

*(3) The department is directed to conduct periodic reviews of the WAUs adopted under this chapter to determine whether revisions are needed to more efficiently assess potential cumulative effects. The department shall consult the departments of ecology, fish and wildlife, affected Indian tribes, forest land owners, local government entities, and the public. From time to time and as appropriate, the department shall make recommendations to the board regarding revision of watershed administrative units.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-22-020, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-22-020, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-22-020, filed 7/2/92, effective 8/2/92.]

WAC 222-22-040 Watershed prioritization. *(1)

The department shall determine, by region, the order in which it will analyze WAUs. The department shall cooperate with the departments of ecology, fish and wildlife, affected Indian tribes, forest land owners, and the public in setting priorities. In setting priorities or reprioritizing WAUs, the department shall consider the availability of participation and assistance that may be provided by affected Indian tribes and local government entities.

*(2) Except as set forth in subsection (3) of this section, the department shall undertake a watershed analysis on each WAU, in the order established under subsection (1) of this section.

*(3) The owner or owners of ten percent or more of the nonfederal forest land acreage in a WAU may notify the department in writing that the owner or owners intend to

conduct a level 1 assessment, level 2 assessment, or both, and the prescription recommendation process on the WAU under this chapter at their own expense. The notice shall identify the teams proposed to conduct the watershed analysis, which shall be comprised of individuals qualified by the department pursuant to WAC 222-22-030. The department shall promptly notify any owner or owners sending notice under this subsection if any member of the designated teams is not so qualified. Within 30 days of delivering a notice to the department under this subsection, the forest land owner or owners shall begin the level 1 assessment under WAC 222-22-050 or, at its option, the level 2 assessment under WAC 222-22-060. An approved forest land owner team shall, while and only for the purposes of conducting a watershed analysis in a WAU, be a duly authorized representative of the department for the purposes of RCW 76.09.150. The board encourages forest land owners conducting assessments under this chapter to include available, qualified expertise from state and federal agencies, affected Indian tribes, forest land owners, local government entities, and the public.

*(4) Before beginning an analysis in a WAU, the department or the forest land owner conducting the analysis shall provide reasonable notice, including notice by regular United States mail where names and addresses have been provided to the department, to all forest land owners in the WAU, and to affected Indian tribes. The department or the forest land owner shall provide reasonable notice to the public and to state, federal, and local government entities, by, among other things, posting the notice conspicuously in the office of the departmental region containing the WAU. The notice shall be in a form designated by the department and give notice that an analysis is being conducted, by whose team, the time period of the analysis, and the dates and locations in which the draft analysis will be available for review and comment.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-22-040, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-22-040, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-22-040, filed 7/2/92, effective 8/2/92.]

WAC 222-22-050 Level 1 watershed resource assessment. *(1)

To begin a watershed resource analysis on a WAU, the department shall assemble a level 1 assessment team consisting of analysts qualified under WAC 222-22-030(1). A forest land owner or owners acting under WAC 222-22-040(3) may assemble a level 1 assessment team consisting of analysts qualified under WAC 222-22-030(1) or, at its option, may begin the analysis under WAC 222-22-060. Each level 1 team shall include persons qualified in the disciplines indicated as necessary in the methodology, and should generally include persons qualified in:

- (a) Forestry;
- (b) Forest hydrology;
- (c) Forest soil science or geology;
- (d) Fisheries science; and
- (e) Geomorphology.

Any owner, and any cooperating group of owners, of ten percent or more of the nonfederal forest land acreage in the WAU and any affected Indian tribe shall be entitled to

include one qualified individual to participate on the team at its own expense.

*(2) The level 1 team shall perform an inventory of the WAU utilizing the methodology, indices of resource condition, and checklists set forth in the manual in accordance with the following:

(a) The team shall survey the WAU for fish, water, and capital improvements of the state or its political subdivisions and shall display their location on a map of the WAU. The team shall determine the current condition of the resource characteristics of these resources, shall classify their condition as "good," "fair," or "poor," and shall display this information on the map of the WAU. The criteria used to determine current resource conditions shall include indices of resource condition, in addition to such other criteria as may be included in the manual. The indices will include two levels, which will distinguish between good, fair, and poor conditions.

(b) The team shall assess the likelihood that identified watershed processes in a given physical location will be adversely changed by one forest practice or by cumulative effects and that, as a result, a material amount of water, wood, sediment, or energy (e.g., affecting temperature) will be delivered to fish, water, or capital improvements of the state or its political subdivisions. (This process is referred to in this chapter as "adverse change and deliverability.") (For example, the team will address the likelihood that road construction will result in mass wasting and a slide that will in turn reach a stream.) The team shall rate this likelihood of adverse change and deliverability as "high," "medium," "low," or "indeterminate." Those likelihoods rated high, medium, or indeterminate shall be displayed on the map of the WAU.

(c) For each instance of high, medium, or indeterminate likelihood of adverse change and deliverability identified under (b) of this subsection, the team shall assess the vulnerability of potentially affected resource characteristics. Criteria for resource vulnerability shall include indices of resource condition as described in (a) of this subsection and quantitative means to assess the likelihood of material adverse effects to resource characteristics caused by forest practices. (For example, the team will assess the potential damage that increased sediment caused by a slide reaching a stream will cause to salmon spawning habitat that is already in fair or poor condition.) The team shall rate this vulnerability "high," "medium," "low," or "indeterminate" and shall display those vulnerabilities on the map of the WAU. If there are no other criteria in the manual to assess vulnerability at the time of the assessment, current resource condition shall be used, with good condition equivalent to low vulnerability, fair condition equivalent to medium vulnerability, and poor condition equivalent to high vulnerability.

(d) The team shall identify as areas of resource sensitivity, as provided in table 1 of this section, the locations in which a management response is required under WAC 222-22-070(3) because, as a result of one forest practice or of cumulative effects, there is a combination of a high, medium, or indeterminate likelihood of adverse change and deliverability under (b) of this subsection and a low, medium, high, or indeterminate vulnerability of resource characteristics under (c) of this subsection:

Table 1
Areas of Resource Sensitivity and Management Response

Likelihood of Adverse Change and Deliverability

	Low	Medium	High
<i>Vulnerability</i> Low	Standard rules	Standard rules	Response: Prevent or avoid
Medium	Standard rules	Response: Minimize	Response: Prevent or avoid
High	Standard rules	Response: Prevent or avoid	Response: Prevent or avoid

The team shall display the areas of resource sensitivity on the map of the WAU.

(e) The decision criteria used to determine low, medium, and high likelihood of adverse change and deliverability shall be as set forth in the manual. A low designation generally means there is minimal likelihood that there will be adverse change and deliverability. A medium designation generally means there is a significant likelihood that there will be adverse change and deliverability. A high designation generally means that adverse change and deliverability is more likely than not with a reasonable degree of confidence. Any areas identified as indeterminate in the level 1 assessment shall be classified for the purposes of the level 1 assessment as medium until a level 2 assessment is done on the WAU under WAC 222-22-060, during which the uncertainties shall be resolved.

(f) The team shall prepare a causal mechanism report regarding the relationships of each process identified in (b) and (c) of this subsection. The report shall demonstrate that the team's determinations were made in accordance with the manual. If, in the course of conducting a level 1 assessment, the team identifies areas in which voluntary corrective action will significantly reduce the likelihood of material, adverse effects to the condition of a resource characteristic, the team shall include this information in the report, and the department shall convey this information to the applicable land owner.

*(3) Within 21 days of mailing notice under WAC 222-22-040(4), the level 1 team shall submit to the department its draft level 1 assessment, which shall consist of the map of the WAU marked as set forth in this section and the causal mechanism report proposed under subsection (2)(f) of this section. If the level 1 team is unable to agree as to one or more resource sensitivities or potential resource sensitivities, or the casual mechanism report, alternative designations and an explanation therefor shall be included in the draft assessment. Where the draft level 1 assessment delivered to the department contains alternative designations, the department shall within 21 days of the receipt of the draft level 1 assessment make its best determination and approve that option which it concludes most accurately reflects the proper application of the methodologies, indices of resource condition, and checklists set forth in the manual.

*(4) If the level 1 assessment contains any areas in which the likelihood of adverse change and deliverability or resource vulnerability are identified as indeterminate under this section or if the level 1 methodology recommends it, the department shall assemble a level 2 assessment team under WAC 222-22-060 to resolve the uncertainties in the assessment, unless a forest land owner acting under WAC 222-22-040(3) has conducted a level 2 assessment on the WAU.

*(5) Pending the completion of the level 2 assessment, if any, on the WAU, the department shall select interim prescriptions using the process and standards described in WAC 222-22-070 (1), (2), and (3) and 222-22-080(3) and shall apply them to applications and notifications as provided in WAC 222-22-090 (1) and (2). Before submitting recommended interim prescriptions to the department, the field managers' team under WAC 222-22-070(1) shall review the recommended prescriptions with available representatives of the jurisdictional management authorities of the fish, water,

and capital improvements of the state or its political subdivisions in the WAU, including, but not limited to, the departments of fish and wildlife, ecology, and affected Indian tribes.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-22-050, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-22-050, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-22-050, filed 7/2/92, effective 8/2/92.]

WAC 222-22-080 Approval of watershed analysis.

*(1) Upon receipt of the recommended prescriptions resulting from a level 2 assessment under WAC 222-22-060 or a level 1 assessment under WAC 222-22-050 where a level 2 assessment will not be conducted, the department shall select prescriptions. The department shall circulate the draft watershed analysis to the departments of ecology, fish and wildlife, affected Indian tribes, local government entities, forest land owners in the WAU, and the public for review and comment. The prescriptions recommended by the field managers' team shall be given substantial weight. Within thirty days of receipt of the prescriptions, the department shall review comments, revise the watershed analysis as appropriate, and approve or disapprove the watershed analysis for the WAU.

*(2) The department should notify any governmental agency or Indian tribe having jurisdiction over activities which are not regulated under chapter 76.09 RCW but which are identified in the draft analysis as having a potential for an adverse impact on identified fish, water, and capital improvements of the state or its political subdivisions.

*(3) The department shall approve the draft watershed analysis unless it finds:

(a) For any level 1 assessment or level 2 assessment, that:

(i) The team failed in a material respect to apply the methodology, indices of resource condition, or checklists set forth in the manual; or

(ii) A team meeting the criteria promulgated by the department and using the defined methodologies, indices of resource conditions, and checklists set forth in the manual could not reasonably have come to the conclusions identified in the draft level 1 or level 2 assessment; and

(b) For the prescriptions, that they will not accomplish the purposes and policies of this chapter and of the Forest Practices Act, chapter 76.09 RCW.

(c) In making its findings under this subsection, the department shall take into account its ability to revise assessments under WAC 222-22-090(3).

*(4) If the department does not approve the draft watershed analysis, it shall set forth in writing a detailed explanation of the reasons for its disapproval.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-22-080, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-22-080, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-22-080, filed 7/2/92, effective 8/2/92.]

WAC 222-22-090 Use and review of watershed analysis. *(1) Where a watershed analysis has been completed for a WAU under this chapter:

(a) Forest practices applications and notifications submitted to the department shall indicate whether an area of resource sensitivity will be affected and, if so, which prescription the operator, timber owner, or forest land owner shall use in conducting the forest practice in the area of resource sensitivity;

(b) The department shall assist operators, timber owners, and forest land owners in obtaining governmental permits required for the prescription (see WAC 222-50-020 and 222-50-030);

(c) The department shall confirm that the prescription selected under (a) of this subsection was one of the prescriptions approved for the area of resource sensitivity under WAC 222-22-080 and shall require the use of the prescription; and

(d) The department shall not further condition forest practice applications and notifications in an area of resource sensitivity in a WAU where the applicant will use a prescription contained in the watershed analysis nor shall the department further condition forest practice applications and notifications outside an area of resource sensitivity in a WAU, except for reasons other than the watershed processes and fish, water, and capital improvements of the state or its political subdivisions analyzed in the watershed analysis in the WAU, and except to correct mapping errors, misidentification of soils, landforms, vegetation, or stream features, or other similar factual errors.

*(2) Pending completion of a watershed analysis for a WAU, the department shall process forest practices notifications and applications in accordance with the other chapters of this title, except that applications and notifications received for forest practices on a WAU after the date notice is mailed under WAC 222-22-040(4) commencing a watershed analysis on the WAU shall be conditioned to require compliance with interim, draft, and final prescriptions, as available. Processing and approval of applications and notifications shall not be delayed by reason of review, approval, or appeal of a watershed analysis.

*(3) The board encourages cooperative and voluntary monitoring. Evaluation of resource conditions may be conducted by qualified specialists, analysts, and field managers as determined under WAC 222-22-030. Subsequent watershed analysis and management strategies in response to areas where recovery is not occurring shall be conducted in accordance with this chapter.

*(4) Where the condition of resource characteristics in a WAU are fair or poor, the department shall evaluate the effectiveness of the prescriptions applied under this chapter to the WAU in providing for the protection and recovery of the resource characteristic. If the department finds that the prescriptions are not providing for such protection and recovery over a period of 3 years, the department shall repeat the watershed analysis in the WAU. Aside from the foregoing, once a watershed analysis is completed on a WAU, it shall be revised in whole or in part upon the earliest of the following to occur:

(a) Five years after the date the watershed analysis is final, if necessary;

(b) The occurrence of a natural disaster having a material adverse effect on the resource characteristics of the WAU;

(c) Deterioration in the condition of a resource characteristic in the WAU measured over a 12-month period or no improvement in a resource characteristic in fair or poor condition in the WAU measured over a 12-month period unless the department determines, in cooperation with the departments of ecology, fish and wildlife, affected Indian tribes, forest land owners, and the public, that a longer period is reasonably necessary to allow the prescriptions selected to produce improvement; or

(d) The request of an owner of forest land in the WAU which wishes to conduct a watershed analysis at its own expense.

Revision of an approved watershed analysis shall be conducted in accordance with the processes, methods, and standards set forth in this chapter, except that the revised watershed analysis shall be conducted only on the areas affected in the case of revisions under (b) or (c) of this subsection, and may be conducted on areas smaller than the entire WAU in the case of revisions under (a) and (d) of this subsection. The areas on which the watershed analysis revision is to be conducted shall be determined by the department and clearly delineated on a map before beginning the assessment revision. Forest practices shall be conditioned under the current watershed analysis pending the completion of any revisions.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-22-090, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-22-090, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-22-090, filed 7/2/92, effective 8/2/92.]

Chapter 222-24 WAC

ROAD CONSTRUCTION AND MAINTENANCE

WAC

222-24-030	Road construction.
222-24-040	Water crossing structures.
222-24-050	Road maintenance.

WAC 222-24-030 Road construction. (1) **Right of way timber.** Merchantable right of way timber shall be removed or decked in suitable locations where the decks will not be covered by fill material or act as support for the fill or embankment.

*(2) Debris burial.

(a) In permanent road construction, do not bury:

(i) Loose stumps, logs or chunks containing more than 5 cubic feet in the load-bearing portion of the road, except as puncheon across wetlands or for culvert protection.

(ii) Any significant amount of organic debris within the top 2 feet of the load-bearing portion of the road, except as puncheon across wetlands or for culvert protection.

(iii) Excessive accumulation of debris or slash in any part of the load-bearing portion of the road fill, except as puncheon across wetlands or for culvert protection.

(b) In the cases where temporary roads are being constructed across known areas of unstable soils and where possible construction failure would directly impact waters,

the requirements in (a), (i), (ii) and (iii) of this subsection shall apply. A temporary road is a roadway which has been opened for the purpose of the forest practice operation in question, and thereafter will be an inactive or abandoned road.

(3) **Compact fills.** During road construction, fills or embankments shall be built up by layering. Each layer shall be compacted by operating the tractor or other construction equipment over the entire surface of the layer. Chemical compacting agents may be used in accordance with WAC 222-38-020.

*(4) **Stabilize soils.** When soil, exposed by road construction, appears to be unstable or erodible and is so located that slides, slips, slumps, or sediment may reasonably be expected to enter Type 1, 2, 3 or 4 Water and thereby cause damage to a public resource, then such exposed soil areas shall be seeded with grass, clover, or other ground cover, or be treated by erosion control measures acceptable to the department. Avoid introduction of nonnative plant species, as listed in the board manual, to wetlands and wetland management zones.

*(5) **Channel clearance.** Clear stream channel of all debris and slash generated during operations prior to the removal of equipment from the vicinity, or the winter season, whichever is first.

*(6) **Drainage.**

(a) All required ditches, culverts, cross drains, drainage dips, water bars, and diversion ditches shall be installed concurrently with the construction of the roadway.

(b) Uncompleted road construction to be left over the winter season or other extended periods of time shall be drained by outloping or cross draining. Water bars and/or dispersion ditches may also be used to minimize eroding of the construction area and stream siltation. Water movement within wetlands must be maintained.

*(7) **Moisture conditions.** Construction shall be accomplished when moisture and soil conditions are not likely to result in excessive erosion and/or soil movement, so as to avoid damage to public resources.

*(8) **End haul/sidecasts.** End haul or overhaul construction is required where significant amounts of sidecast material would rest below the 50-year flood level of a Type 1, 2, 3, or 4 Water, within the boundary of a Type A or Type B Wetland or wetland management zones or where the department determines there is a potential for mass soil failure from overloading on unstable slopes or from erosion of side cast material causing damage to the public resources.

*(9) **Waste disposal.** When spoil, waste and/or other debris is generated during construction, this material shall be deposited or wasted in suitable areas or locations and be governed by the following:

(a) Spoil or other debris shall be deposited above the 50-year flood level of Type 1, 2, 3, or 4 Waters or in other locations so as to prevent damage to public resources. The material shall be stabilized by erosion control measures as necessary to prevent the material from entering the waters.

(b) All spoils shall be located outside of Type A and Type B Wetlands and their wetland management zones. Spoils shall not be located within the boundaries of forested wetlands without written approval of the department and unless a less environmentally damaging location is unavail-

able. No spoil area greater than 0.5 acre in size shall be allowed within wetlands.

(10) **Disturbance avoidance for northern spotted owls.** Road construction, operation of heavy equipment and blasting within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center between March 1 and August 31, provided that, this restriction shall not apply if:

(a) The landowner demonstrates that the owls are not actively nesting during the current nesting season; or

(b) The forest practice is operating in compliance with a plan or agreement developed for the protection of the northern spotted owl under WAC 222-16-080 (6)(a), (e), or (f).

(11) **Disturbance avoidance for marbled murrelets.**

(a) Road construction and operation of heavy equipment shall not be allowed within 0.25 mile of an occupied marbled murrelet site during the daily peak activity periods within the critical nesting season; and

(b) Blasting shall not be allowed within 0.25 mile of an occupied marbled murrelet site during the critical nesting season.

(c) Provided that, these restrictions shall not apply if the forest practice is operating in compliance with a plan or agreement developed for the protection of the marbled murrelet under WAC 222-16-080 (6)(a) or (c).

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-24-030, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-24-030, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-24-030, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.060, 76.09.040 and chapter 34.05 RCW. 92-23-056, § 222-24-030, filed 11/17/92, effective 12/18/92. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-24-030, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), § 222-24-030, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-24-030, filed 8/3/82, effective 10/1/82; Order 263, § 222-24-030, filed 6/16/76.]

WAC 222-24-040 Water crossing structures. *(1) Bridge construction.

(a) Bridges are required for new crossings of any Type 1 or 2 Waters regularly used for recreational boating.

(b) Permanent bridges shall not constrict clearly defined channels and shall be designed to pass the 50-year flood level or the road shall be constructed to provide erosion protection from the 50-year flood waters which exceed the water-carrying capacity of the drainage structure.

(c) One end of each new permanent log or wood bridge shall be tied or firmly anchored if any of the bridge structure is within 10 vertical feet of the 50-year flood level.

(d) Excavation for bridges, placement of sills or abutments, and the placement of stringers or girders shall be accomplished from outside the ordinary high-water mark of all waters, except when such operations are authorized by a hydraulic project approval.

(e) Earth embankments constructed for use as bridge approaches shall be protected from erosion by high water. Some examples of protection are: Planted or seeded ground cover, bulkheads, rock riprap, or retaining walls.

(f) When earthen materials are used for bridge surfacing, curbs of sufficient size shall be installed to be above the

surface material and prevent such surface material from falling into the stream bed.

***(2) Culvert installation:** All permanent culverts installed in forest roads shall be of a size that is adequate to carry the 50-year flood or the road shall be constructed to provide erosion protection from the 50-year flood waters which exceed the water-carrying capacity of the drainage structure. Refer to "Recommended culvert sizes" in the forest practices board manual for the size of permanent culverts recommended for use in forest roads. If the department determines that because of unstable slopes the culvert size shown on that table is inadequate to protect public resources, it may require culvert sizes in accordance with the nomograph (chart) contained in the forest practices board manual or with other generally accepted engineering principles.

(a) No permanent culverts shall be installed that are smaller than:

(i) 24 inches in diameter or the equivalent for anadromous fish streams or wetlands where anadromous fish are present.

(ii) 18 inches or the equivalent for resident game fish streams.

(iii) 18 inches or the equivalent for all other water or wetland crossings in western Washington.

(iv) 15 inches or the equivalent for all other water or wetland crossings in eastern Washington.

(b) The alignment and slope of the culvert shall parallel the natural flow of the stream whenever possible.

(c) When fish life is present, construct the bottom of the culvert at or below the natural stream bed at the inlet and outlet.

(d) Terminate culverts on materials that will not readily erode, such as riprap, the original stream bed (if stable), or other suitable materials.

(e) If water is diverted from its natural channel, return this water to its natural stream bed via culvert, flume, spillway, or the equivalent.

(f) When flumes, downspouts, downfall culverts, etc., are used to protect fill slopes or to return water to its natural courses, the discharge point shall be protected from erosion by: (i) Reducing the velocity of the water, (ii) use of rock spillways, (iii) riprap, (iv) splash plates, or (v) other methods or structures demonstrated to be equally effective.

(g) Stream beds shall be cleared for a distance of 50 feet upstream from the culvert inlet of such slash or debris that reasonably may be expected to plug the culvert.

(h) The entrance of all culverts should have adequate catch basins and headwalls to minimize the possibility of erosion or fill failure.

***(3) Culverts in anadromous fish streams.** In addition to the requirements of subsection (2) of this section, in streams used by anadromous fish:

(a) Culverts shall be either open bottomed or have the bottom covered with gravel and installed at least 6 inches below the natural stream bed at the inlet and outlet.

(b) Closed bottom culverts shall not slope more than 1/2 percent; except as provided in (e) of this subsection; open bottom culverts shall not slope more than the natural slope of the stream bed.

(c) Where multiple culverts are used, one culvert shall be at least 6 inches lower than the other(s).

(d) Culverts shall be set to retain normal stream water depth throughout the culvert length. A downstream control may be required to create pooled water back into the culvert and to insure downstream stream bed stability.

(e) Closed bottom culverts, set at existing stream gradients between 1/2 percent and 3 percent slope shall be designed with baffles for water velocity control, or have an approved designed fishway.

(f) The department, after consultation with the department of fish and wildlife, shall impose any necessary limitations on the time of year in which such culverts may be installed to prevent interference with migration or spawning of anadromous fish.

(g) Any of the requirements in (a) through (f) of this subsection may be superseded by a hydraulic project approval.

***(4) Temporary water crossings.**

(a) Temporary bridges and culverts, adequate to carry the highest anticipated flow in lieu of carrying the 50-year flood, may be used:

(i) In the westside region if installed after June 1 and removed by September 30 of the same year.

(ii) In the eastside region if installed after the spring runoff and removed prior to the snow buildup which could feed a heavy runoff.

(iii) At other times, when the department and applicant can agree to specific dates of installation and removal.

(b) Temporary bridges and culverts shall be promptly removed upon completion of use, and the approaches to the crossing shall be water barred and stabilized at the time of the crossing removal.

(c) Temporary wetland crossings shall be abandoned and restored based on a written plan approved by the department prior to construction.

(5) Properly prepared and maintained fords may be used during periods of low water providing a hydraulic permit is acquired.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-24-040, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-24-040, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.060, 76.09.040 and chapter 34.05 RCW. 92-23-056, § 222-24-040, filed 11/17/92, effective 12/18/92. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-24-040, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), § 222-24-040, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-24-040, filed 8/3/82, effective 10/1/82; Order 263, § 222-24-040, filed 6/16/76.]

WAC 222-24-050 Road maintenance. *(1) Road maintenance and abandonment plan.

(a) The landowner when notified by the department shall submit a plan for road maintenance and abandonment for those drainages or road systems the department determines based on physical evidence to have a potential to damage public resources. The plan is subject to annual review and shall include:

(i) Ownership maps showing the road or road system;

(ii) Road status, whether active, inactive, abandoned or planned for abandonment;

(iii) Maintenance schedule and priorities for the year; and

(iv) Plan for further maintenance and reconstruction beyond the current year for repair of extensive damage.

(b) The plan shall be submitted to the department region office on or before June 30, 1988, and each June 30th thereafter unless the department agrees that no further plans are necessary.

(c) The department will review the plan annually with the landowner to determine whether it will be effective and is being implemented.

(d) Such plans shall also be reviewed with departments of ecology, fish and wildlife, and affected Indian tribes, any of whom may request an informal conference with the landowner.

***(2) Active roads.** An active road is a forest road being actively used for hauling of logs, pulpwood, chips, or other major forest products or rock and other road building materials. To the extent necessary to prevent damage to public resources, the following maintenance shall be conducted on such roads:

(a) Culverts and ditches shall be kept functional.

(b) Road surface shall be maintained as necessary to minimize erosion of the surface and the subgrade.

(c) During and on completion of operations, road surface shall be crowned, outslopped, or water barred and berms removed from the outside edge except those intentionally constructed for protection of fills.

***(3) Inactive roads.** An inactive road is a forest road on which commercial hauling is discontinued for 1 or more logging seasons, and the forest landowner desires continuation of access for fire control, forest management activities, Christmas tree growing operations, occasional or incidental use for minor forest products harvesting or similar activities on such inactive roads:

(a) Before the first winter rainy season following termination of active use, nonfunctional ditches and culverts shall be cleared and the road surface shall be crowned, outslopped, water barred or otherwise left in a condition not conducive to accelerated erosion or interrupt water movement within wetlands; and

(b) Thereafter, except as provided in (c) of this subsection, the landowner shall clear or repair ditches or culverts which he/she knows or should know to be nonfunctional and causing or likely to cause material damage to a public resource.

(c) The landowner shall not be liable for penalties or monetary damages, under the act, for damage occurring from a condition brought about by public use, unless he/she fails to make repairs as directed by a notice to comply.

***(4) Additional culverts/maintenance.** If the department determines based on physical evidence that the above maintenance has been or will be inadequate to protect public resources and that additional measures will provide adequate protection it shall require the landowner or operator to either elect to:

(a) Install additional or larger culverts or other drainage improvements as deemed necessary by the department; or

(b) Agree to an additional road maintenance program. Such improvements in drainage or maintenance may be required only after a field inspection and opportunity for an informal conference.

***(5) Abandoned roads.** An abandoned road is a forest road which the forest landowner has abandoned in accordance with procedures of (a) through (e) of this subsection. Roads are exempt from maintenance only after (e) of this subsection is completed:

(a) Roads are outslopped, water barred, or otherwise left in a condition suitable to control erosion and maintain water movement within wetlands; and

(b) Ditches are left in a suitable condition to reduce erosion; and

(c) The road is blocked so that four wheel highway vehicles can not pass the point of closure at the time of abandonment; and

(d) Bridges, culverts, and fills on all waters are removed, except where the department determines other measures would provide adequate protection to public resources.

(e) The department shall determine whether the road has been abandoned according to procedures of this subsection. If the department determines the road is properly abandoned, it shall within thirty days notify the landowner in writing that the road is officially abandoned.

***(6) Brush control.** Chemical control of roadside brush shall not be done where chemicals will directly enter any Type 1, 2, or 3 or flowing Type 4 or 5 Water or Type A or B Wetlands. Refer to WAC 222-38-020 for additional information.

***(7) Road surface treatment.**

(a) Apply oil to the road surface only when the temperature is above 55 degrees F and during the season when there is a minimal chance of rain for the next 48 hours. Use of waste oil is subject to RCW 70.951.060(5).

(b) Water the road surface prior to application of oil to assist in penetration.

(c) Construct a temporary berm along the road shoulder wherever needed to control runoff of the applied chemical.

(d) Take extreme care to avoid excess application of road chemicals. Shut off the flow at all bridges.

(e) When cleaning out chemical storage tanks or the application equipment tanks used for storage and application of road treatment materials, dispose of the rinse water fluids on the road surface or in a place safe from potential contamination of water.

(f) The use of dry road chemicals shall be in compliance with WAC 222-38-020.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-24-050, filed 12/3/97, effective 1/3/98; 93-12-001, § 222-24-050, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-24-050, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), § 222-24-050, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050, 82-16-077 (Resolution No. 82-1), § 222-24-050, filed 8/3/82, effective 10/1/82; Order 263, § 222-24-050, filed 6/16/76.]

Chapter 222-30 WAC TIMBER HARVESTING

WAC

222-30-020	Harvest unit planning and design.
222-30-050	Felling and bucking.
222-30-060	Cable yarding.
222-30-065	Helicopter yarding.
222-30-070	Tractor and wheeled skidding systems.

222-30-100 Slash disposal or prescribed burning.

WAC 222-30-020 Harvest unit planning and design.

(1) **Logging system.** The logging system should be appropriate for the terrain, soils, and timber type so yarding or skidding can be economically accomplished in compliance with these regulations.

*(2) **Landing locations.** Locate landings to prevent damage to public resources. Avoid excessive excavation and filling.

*(3) **Western Washington riparian management zones.** These zones shall be measured horizontally from the ordinary high-water mark of Type 1, 2 or 3 Water and extend to the line where vegetation changes from wetland to upland plant community, or the line required to leave sufficient shade as required by WAC 222-30-040, whichever is greater, but shall not be less than 25 feet in width nor more than the maximum widths described in (c) of this subsection, provided that the riparian management zone width shall be expanded as necessary to include wetlands or ponds adjacent to the stream. When the riparian management zone overlaps a Type A or B Wetland or a wetland management zone, the requirement which best protects public resources shall apply.

(a) Harvest units shall be designed so that felling, bucking, yarding or skidding, and reforestation can be accomplished in accordance with these regulations, including those regulations relating to stream bank integrity and shade requirements to maintain stream temperature. Where the need for additional actions or restrictions adjacent to waters not covered by the following become evident, WAC 222-12-050 and 222-12-060 may apply.

(b) When requested in writing by the applicant, the department shall assist in preparation of an alternate plan for the riparian management zone.

(c) Within the riparian management zone, there shall be trees left for wildlife and fisheries habitat as provided for in the chart below. Fifty percent or more of the trees shall be live and undamaged on completion of the harvest. The leave trees shall be randomly distributed where feasible; some clumping is allowed to accommodate operational considerations. The number, size, species and ratio of leave trees, deciduous to conifer, is specified by the bed material and average width of the water type within the harvest unit. Trees left according to (d) of this subsection may be included in the number of required leave trees in this subsection.

Western Washington Riparian Leave Tree Requirements

Water Type/ Average Width	RMZ Maximum Width	Ratio of Conifer to Deciduous/ Minimum Size Leave Trees	# Trees/1000 ft. each side	
			Gravel/ Cobble <10" Diameter	Boulder/Bedrock
1 & 2 Water 75' & over	100'	representative of stand	50 trees	25 trees
1 & 2 Water under 75'	75'	representative of stand	100 trees	50 trees
3 Water 5' & over	50'	2 to 1/ 12" or next largest available	75 trees	25 trees
3 Water less than 5'	25'	1 to 1/ 6" or next largest available	25 trees	25 trees

"Or next largest available" requires that the next largest trees to those specified in the rule be left standing when those available are smaller than the sizes specified. Ponds or lakes which are Type 1, 2 or 3 Waters shall have the same leave tree requirements as boulder/bedrock streams.

(d) For wildlife habitat within the riparian management zone, leave an average of 5 undisturbed and uncut wildlife

trees per acre at the ratio of 1 deciduous tree to 1 conifer tree equal in size to the largest existing trees of those species within the zone. Where the 1 to 1 ratio is not possible, then substitute either species present. Forty percent or more of the leave trees shall be live and undamaged on completion of harvest. Wildlife trees shall be left in clumps whenever possible.

(e) When 10 percent or more of the harvest unit lies within any combination of a riparian management zone of Type 1, 2 or 3 Waters or a wetland management zone and the harvest unit is a clearcutting of 30 acres or less, leave not less than 50 percent of the trees required in (c) of this subsection.

*** (4) Eastern Washington riparian management zones.** These zones shall be measured horizontally from the ordinary high-water mark of Type 1, 2 or 3 Waters and extend to the line where vegetation changes from wetland to upland plant community, or to the line required to leave sufficient shade as required by WAC 222-30-040, whichever is greater, but shall not be less than the minimum width nor more than the maximum widths described in (c) of this subsection, provided that the riparian management zone width shall be expanded as necessary to include wetlands or ponds adjacent to the stream. When the riparian management zone overlaps a Type A or B Wetland or a wetland management zone, the requirement which best protects public resources shall apply.

(a) Harvest units shall be designed so that felling, bucking, yarding or skidding, and reforestation can be accomplished in accordance with these regulations, including those regulations relating to stream bank integrity and shade requirements to maintain stream temperature. Where the need for additional actions or restrictions adjacent to waters not covered by the following become evident, WAC 222-12-050 and 222-12-060 may apply.

(b) When requested in writing by the applicant, the department shall assist in preparation of an alternate plan for the riparian management zone.

(c) Within the riparian management zone, there shall be trees left for wildlife and fisheries habitat as provided for below. Fifty percent or more of the trees shall be live and undamaged on completion of the harvest. The leave trees shall be randomly distributed where feasible; some clumping is allowed to accommodate operational considerations.

(i) The width of the riparian management zone shall be based on the adjacent harvest type as defined in WAC 222-16-010 "Partial cutting." When the adjacent unit harvest type is:

Partial cutting - The riparian management zone width shall be a minimum of 30 feet to a maximum of 50 feet on each side of the stream.

Other harvest types - The riparian management zone shall average 50 feet in width on each side of the stream with a minimum width of 30 feet and a maximum of 300 feet on each side of the stream.

(ii) Leave tree requirements within the riparian management zones of Type 1, 2 or 3 Waters:

(A) Leave all trees 12 inches or less in diameter breast height (dbh); and

(B) Leave all wildlife reserve trees within the riparian management zone where operations in the vicinity do not violate the state safety regulations (chapter 296-54 WAC and chapter 49.17 RCW administered by department of labor and industries, safety division); and

(C) Leave 16 live conifer trees/acre between 12 inches dbh and 20 inches dbh distributed by size, as representative of the stand; and

(D) Leave 3 live conifer trees/acre 20 inches dbh or larger and the 2 largest live deciduous trees/acre 16 inches dbh or larger. Where these deciduous trees do not exist, and where 2 wildlife reserve trees/acre 20 inches or larger do not exist, substitute 2 live conifer trees/acre 20 inches dbh or larger. If live conifer trees of 20 inches dbh or larger do not exist within the riparian management zone, then substitute the 5 largest live conifer trees/acre; and

(E) Leave 3 live deciduous trees/acre between 12 inches and 16 inches dbh where they exist.

(iii) Minimum leave tree requirements per acre for Type 1, 2 and 3 Waters. Trees left for (c)(ii) of this subsection shall be included in the minimum counts.

(A) On streams with a boulder/bedrock bed, the minimum leave tree requirements shall be 75 trees/acre 4 inches dbh or larger.

(B) On streams with a gravel/cobble (less than 10 inches diameter) bed, the minimum leave tree requirement shall be 135 trees/acre 4 inches dbh or larger.

(C) On lakes or ponds the minimum leave tree requirement shall be 75 trees/acre 4 inches dbh or larger.

Note: (See the Forest Practices Board Manual for assistance in calculating trees/acre and average RMZ widths.)

(d) When 10 percent or more of the harvest unit lies within any combination of a riparian management zone of Type 1, 2 or 3 Waters or a wetland management zone and either the harvest unit is a clearcutting of 30 acres or less or the harvest unit is a partial cutting of 80 acres or less, leave not less than 50 percent of the trees required in (c) of this subsection. (See WAC 222-16-010 "Partial cutting.")

*** (5) Riparian leave tree areas.** The department will require trees to be left along Type 4 Water where such practices are necessary to protect public resources. Where such practices are necessary leave at least 25 conifer or deciduous trees, 6 inches in diameter or larger, on each side of every 1000 feet of stream length within 25 feet of the stream. The leave trees may be arranged to accommodate the operation.

*** (6) Forested wetlands.** Within the wetland, unless otherwise approved in writing by the department, harvest methods shall be limited to low impact harvest or cable systems. Where feasible, at least one end of the log shall be suspended during yarding.

(a) When forested wetlands are included within the harvest area, landowners are encouraged to leave a portion (30 to 70%) of the wildlife reserve tree requirement for the harvest area within a wetland. In order to retain undisturbed habitat within forested wetlands, these trees should be left in clumps. Leave tree areas should be clumped adjacent to streams, riparian management zones, or wetland management zones where possible and they exist within forested wetlands. Green recruitment trees should be representative of the size and species found within the wetland. Leave nonmerchantable trees standing where feasible.

(b) If a RMZ or WMZ lies within a forested wetland, the leave tree requirement associated with those areas may be counted toward the percentages in (a) of this subsection.

(c) If the conditions described in (a) and (b) of this subsection are met, the distribution requirements for wildlife reserve trees and green recruitment trees (subsection (11)(e) of this section) are modified as follows: For purposes of

distribution, no point within the harvest unit shall be more than 1000 feet from a wildlife reserve tree and green recruitment tree retention area.

(d) Approximate determination of the boundaries of forested wetlands greater than 5 acres shall be required. Approximate boundaries and areas shall be deemed to be sufficient for harvest operations.

(e) The department shall consult with the department of fish and wildlife and affected Indian tribes about site specific impacts of forest practices on wetland-sensitive species in forested wetlands.

*(7) **Wetland management zones (WMZ).** These zones shall apply to Type A and B Wetlands, as indicated in

(a) of this subsection, and shall be measured horizontally from the wetland edge or the point where the nonforested wetland becomes a forested wetland, as determined by the method described in the board manual, and shall be of an average width as described in (a) of this subsection. These zones shall not be less than the minimum nor more than the maximum widths described in (a) of this subsection. When these zones overlap a riparian management zone the requirement which best protects public resources shall apply.

*(a) Wetland management zones (WMZ) shall have variable widths based on the size of the wetland and the wetland type, described as follows:

Wetland Management Zones

Wetland Type	Acres of Nonforested Wetland*	Maximum WMZ Width	Average WMZ Width	Minimum WMZ Width
A (including bogs)	Greater than 5	200 feet	100 feet	50 feet
A (including bogs)	0.5 to 5	100 feet	50 feet	25 feet
A (bogs only)	0.25 to 0.5	100 feet	50 feet	25 feet
B	Greater than 5	100 feet	50 feet	25 feet
B	0.5 to 5			25 feet
B	0.25 to 0.5	No WMZ required	No WMZ required	

*For bogs, both forested and non-forested acres are included.

(b) Within the WMZ, leave a total of 75 trees per acre of WMZ greater than 6 inches dbh in Western Washington and greater than 4 inches dbh in Eastern Washington, 25 of which shall be greater than 12 inches dbh including 5 trees greater than 20 inches dbh, where they exist. Leave trees shall be representative of the species found within the WMZ.

(c) Retain wildlife reserve trees where feasible. Type 1 and 3 wildlife reserve trees may be counted among, and need not exceed, the trees required in (b) of this subsection. Leave all cull logs on site.

(d) Partial-cutting or removal of groups of trees is acceptable within the WMZ. The maximum width of openings created by harvesting within the WMZ shall not exceed 100 feet as measured parallel to the wetland edge. Openings within WMZs shall be no closer than 200 feet. Landowners are encouraged to concentrate leave trees within the WMZ to the wetland edge.

*(e) Tractors, wheeled skidders, or other ground based harvesting systems shall not be used within the minimum WMZ width without written approval of the department.

*(f) When 10% or more of a harvest unit lies within any combination of a wetland management zone or a riparian management zone of Type 1, 2, or 3 Waters and either the harvest unit is a clearcut of 30 acres or less or the harvest unit is a partial cut of 80 acres or less, leave not less than 50% of the trees required in (b) of this subsection.

*(8) **Type A or B Wetlands.** Within the boundaries of Type A or B Wetlands the following shall apply:

(a) Individual trees or forested wetland areas less than 0.5 acre in size may occur. These trees have a high habitat value to the nonforested wetland. Leave individual trees or forested wetlands less than 0.5 acre. These trees may be counted toward the WMZ requirements.

(b) Harvest of upland areas or forested wetlands which are surrounded by Type A or B Wetlands must be conducted

in accordance with a plan, approved in writing by the department.

(c) No timber shall be felled into or cable yarded across Type A or B Wetlands without written approval of the department.

(d) Harvest shall not be allowed within a Type A Wetland which meets the definition of a bog.

(9) **Future productivity.** Harvesting shall leave the land in a condition conducive to future timber production except:

(a) To the degree required for riparian management zones; or

(b) Where the lands are being converted to another use or classified urban lands as specified in WAC 222-34-050.

(10) **Wildlife habitat.** This subsection is designed to encourage timber harvest practices that would protect wildlife habitats, provided, that such action shall not unreasonably restrict landowners action without compensation.

(a) The applicant should make every reasonable effort to cooperate with the department of fish and wildlife to identify critical wildlife habitats (state) as defined by the board. Where these habitats are known to the applicant, they shall be identified in the application or notification.

(b) Harvesting methods and patterns in established big game winter ranges should be designed to insure adequate access routes and escape cover where practical.

(i) Where practical, cutting units should be designed to conform with topographical features.

(ii) Where practical on established big game winter ranges, cutting units should be dispersed over the area to provide cover, access for wildlife, and to increase edge effect.

(11) **Wildlife reserve tree management.** In areas where leaving wildlife reserve trees under this section will not create a significant fire hazard, or significant hazard to overhead power lines and operations that are proposed in the vicinity of wildlife reserve trees will not create a significant safety or residential hazard nor conflict with achieving conformance with the limitation of or performance with the provisions of chapter 76.04 RCW (snag falling law) and chapter 49.17 RCW (safety), wildlife reserve trees will be left to protect habitat for cavity nesting wildlife in accordance with the following:

(a) In Western Washington, for each acre harvested 3 wildlife reserve trees, 2 green recruitment trees, and 2 down logs shall be left. In Eastern Washington for each acre harvested 2 wildlife reserve trees, 2 green recruitment trees, and 2 down logs shall be left. Type 1 wildlife reserve trees may be counted, at the landowner's option, either as a wildlife reserve tree or as a green recruitment tree. If adequate wildlife reserve trees are not available, no additional green recruitment trees will be required as substitutes. Landowners shall not under any circumstances be required to leave more than 2 green recruitment trees per acre for the purpose of wildlife reserve tree recruitment, or be required to leave Type 3 or 4 wildlife reserve trees.

(b) In Western Washington, only those wildlife reserve trees 10 or more feet in height and 12 or more inches dbh shall be counted toward wildlife reserve tree retention requirements. In Eastern Washington, only those wildlife reserve trees 10 or more feet in height and 10 or more

inches dbh shall be counted toward wildlife reserve tree retention requirements. Green recruitment trees, 10 or more inches dbh and 30 or more feet in height and with at least 1/3 of their height in live crown, left standing after harvest may be counted toward green recruitment tree requirements. Green recruitment trees and/or wildlife reserve trees left to meet other requirements of the rules or those left voluntarily by the landowner shall be counted toward satisfying the requirements of this section. Large, live defective trees with broken tops, cavities, and other severe defects are preferred as green recruitment trees. Only down logs with a small end diameter greater than or equal to 12 inches and a length greater than or equal to 20 feet or equivalent volume shall be counted under (a) of this subsection. Large cull logs are preferred as down logs.

(c) In the areas where wildlife reserve trees are left, the largest diameter wildlife reserve trees shall be retained to meet the specific needs of cavity nesters. Where the opportunity exists, larger trees with numerous cavities should be retained and count as recruitment trees.

(d) In order to facilitate safe and efficient harvesting operations, wildlife reserve trees and recruitment trees may be left in clumps. For purposes of distribution, no point within the harvest unit shall be more than 800 feet from a wildlife reserve tree or green recruitment tree retention area. Subject to this distribution requirement, the location of these retention areas and the selection of recruitment trees shall be at the landowner's discretion. Closer spacing of retention areas through voluntary action of the landowner is encouraged. Wildlife reserve tree and green recruitment tree retention areas may include, but are not limited to, riparian management zones, riparian leave tree areas, other regulatory leave areas, or voluntary leave areas that contain wildlife reserve trees and/or green recruitment trees.

(e) In order to provide for safety, landowners may remove any Type 3 or 4 wildlife reserve tree which poses a threat to humans working, recreating, or residing within the hazard area of that tree. In order to provide for fire safety, the distribution of wildlife reserve tree retention areas, described in (d) of this subsection, may be modified as necessary based on a wildlife reserve tree management plan proposed by the landowner and approved by the department.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-30-020, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-30-020, filed 7/21/97, effective 8/21/97; 94-17-033, § 222-30-020, filed 8/10/94, effective 8/13/94; 93-12-001, § 222-30-020, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.060, 76.09.040 and chapter 34.05 RCW. 92-23-056, § 222-30-020, filed 11/17/92, effective 12/18/92. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-30-020, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 88-19-112 (Order 551, Resolution No. 88-1), § 222-30-020, filed 9/21/88, effective 11/1/88; 87-23-036 (Order 535), § 222-30-020, filed 11/16/87, effective 1/1/88; Order 263, § 222-30-020, filed 6/16/76.]

WAC 222-30-050 Felling and bucking. *(1) Falling along water.

(a) No trees will be felled into Type 1, 2 and 3 Waters, or Type A or B Wetlands except trees which cannot practically and safely be felled outside the stream, lake or pond using techniques in general use and these trees must then be removed promptly.

Such felling and removing in Type 1, 2 or 3 Waters shall comply with the hydraulic project approval of the department of fish and wildlife.

(b) Within riparian management zones, and wetland management zones fall trees favorable to the lead consistent with safety standards to yard or skid away from the waters. The use of directional falling, lining, jacking and staged falling techniques are encouraged.

(c) Trees may be felled into Type 4 Water if logs are removed as soon thereafter as practical. See forest practices board manual guidelines for clearing slash and debris from Type 4 and 5 Water.

***(2) Bucking in water.**

(a) No bucking or limbing shall be done on trees or portions thereof lying between the banks of Type 1, 2 or 3 Waters or in open water areas of Type A Wetlands, except as necessary to remove the timber from the water.

(b) Where bucking or limbing is done between the banks of a Type 4 Water, care shall be taken to minimize accumulation of slash in the water.

***(3) Falling near riparian management zones, wetland management zones and setting boundaries.** Reasonable care shall be taken to avoid felling trees into riparian management zones, wetland management zones and areas outside the harvest unit.

(4) **Falling in selective and partial cuts.** Reasonable care shall be taken to fall trees in directions that minimize damage to residual trees.

(5) **Disturbance avoidance for northern spotted owls.** Felling and bucking within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center between March 1 and August 31 provided that, this restriction shall not apply if:

(a) The landowner demonstrates that the owls are not actively nesting during the current nesting season; or

(b) The forest practice is operating in compliance with a plan or agreement developed for the protection of the northern spotted owl under WAC 222-16-080 (6)(a), (e), or (f).

(6) **Disturbance avoidance for marbled murrelets.** Felling and bucking shall not be allowed within 0.25 mile of an occupied marbled murrelet site during the daily peak activity periods within the critical nesting season, provided that, this restriction shall not apply if the forest practice is operating in compliance with a plan or agreement developed for the protection of the marbled murrelet under WAC 222-16-080 (6)(a) or (c).

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-30-050, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-30-050, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-30-050, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-30-050, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), § 222-30-050, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-30-050, filed 8/3/82, effective 10/1/82; Order 263, § 222-30-050, filed 6/16/76.]

WAC 222-30-060 Cable yarding. ***(1) Type 1, 2 and 3 Waters.** No timber shall be cable yarded in or across a Type 1, 2 or 3 Waters except where the logs will not materially damage the bed of waters, banks or riparian management zones and removals from Type 1, 2 or 3 Water

have hydraulic project approval of the department of fish and wildlife.

***(2) Type A or B Wetlands.** No timber shall be cable yarded in or across Type A or B Wetlands without written approval from the department.

***(3) Deadfalls.** Any logs which are firmly embedded in the bed of a Type 1, 2, 3 and 4 Waters shall not be removed or unnecessarily disturbed without approval of the department of fish and wildlife.

***(4) Yarding in riparian management zones and wetland management zones.** Where timber is yarded from or across a riparian management zone, or wetland management zone reasonable care shall be taken to minimize damage to the vegetation providing shade to the stream or open water areas and to minimize disturbance to understory vegetation, stumps and root systems. Where practical and consistent with good safety practices, logs shall be yarded in the direction in which they lie and away from Type A or B Wetlands or Type 1, 2 and 3 Waters until clear of the wetland management zone or riparian management zone.

(5) Direction of yarding.

(a) Uphill yarding is preferred.

(b) Where downhill yarding is used, reasonable care shall be taken to lift the leading end of the log to minimize downhill movement of slash and soils.

***(c)** When yarding parallel to a Type 1, 2 or 3 Water channel below the 50-year flood level or within the riparian management zone, reasonable care shall be taken to minimize soil disturbance and to prevent logs from rolling into the stream, lake, pond, or riparian management zone.

(6) Disturbance avoidance for northern spotted owls. The operation of heavy equipment within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center between March 1 and August 31 provided that, this restriction shall not apply if:

(a) The landowner demonstrates that the owls are not actively nesting during the current nesting season; or

(b) The forest practice is operating in compliance with a plan or agreement developed for the protection of the northern spotted owl under WAC 222-16-080 (6)(a), (e), or (f).

(7) Disturbance avoidance for marbled murrelets. Yarding or operation of heavy equipment shall not be allowed within 0.25 mile of an occupied marbled murrelet site during the daily peak activity periods within the critical nesting season, provided that, this restriction shall not apply if the forest practice is operating in compliance with a plan or agreement developed for the protection of the marbled murrelet under WAC 222-16-080 (6)(a) or (c).

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-30-060, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-30-060, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-30-060, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-30-060, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), § 222-30-060, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-30-060, filed 8/3/82, effective 10/1/82; Order 263, § 222-30-060, filed 6/16/76.]

WAC 222-30-065 Helicopter yarding. (1) Helicopter operations within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center

between March 1 and August 31, provided that, this restriction shall not apply if:

(a) The landowner demonstrates that the owls are not actively nesting during the current nesting season; or

(b) The forest practice is operating in compliance with a plan or agreement developed for the protection of the northern spotted owl under WAC 222-16-080 (6)(a), (e), or (f).

(2) Helicopter operations shall not be allowed:

(a) Over an occupied marbled murrelet site or the required managed buffer zone adjacent to that site during the critical nesting season; or

(b) Within 0.25 mile of an occupied marbled murrelet site during the daily peak activity periods within the critical nesting season.

(c) Provided that, these restrictions shall not apply if the forest practice is operating in compliance with a plan or agreement developed for the protection of the marbled murrelet under WAC 222-16-080 (6)(a) or (c).

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-15-105, § 222-30-065, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-30-065, filed 5/31/96, effective 7/1/96.]

WAC 222-30-070 Tractor and wheeled skidding systems. *(1) Typed waters and wetlands.

(a) Tractor and wheeled skidders shall not be used in Type 1, 2 or 3 Water, except with approval by the department and with a hydraulic project approval of the department of fish and wildlife.

(b) In order to maintain wetland water movement and water quality, and to prevent soil compaction, tractor or wheeled skidders shall not be used in Type A or B Wetlands without prior written approval of the department.

(c) Within all wetlands, tractors and wheeled skidder systems shall be limited to low impact harvest systems. Ground based logging systems operating in wetlands shall only be allowed within wetlands during periods of low soil moisture or frozen soil conditions.

(d) Skidding across any flowing Type 4 Water shall be minimized and when done, temporary stream crossings shall be used, if necessary, to maintain stream bed integrity.

(e) Whenever skidding in or across any type water, the direction of log movement between stream banks shall be as close to right angles to the stream channel as is practical.

***(2) Riparian management zone.**

(a) Logging will be permitted within the zone. However, any use of tractors, wheeled skidders, or other yarding machines within the zone must be as described in an approved forest practices application or otherwise approved in writing by the department.

(b) Where skidding in or through the riparian management zone is necessary, the number of skidding routes through the zone shall be minimized.

(c) Logs shall be skidded so as to minimize damage to leave trees and vegetation in the riparian management zone, to the extent practical and consistent with good safety practices.

***(3) Wetlands management zones.**

(a) Logging will be permitted within wetland management zones.

(b) Where feasible logs shall be skidded at least with one end suspended from the ground so as to minimize soil disturbance and damage to leave trees and vegetation in the wetland management zone.

(c) Tractors, wheeled skidders, or other ground based harvesting systems shall not be used within the minimum WMZ width without written approval of the department.

***(4) Deadfalls.** Logs firmly embedded in the bed or bank of Type 1, 2, 3 or 4 Waters shall not be removed or unnecessarily disturbed without hydraulic project approval of the departments of fisheries or wildlife.

***(5) Moisture conditions.** Tractor and wheeled skidders shall not be used on exposed erodible soils or saturated soils when soil moisture content is so high that unreasonable soil compaction, soil disturbance, or wetland, stream, lake or pond siltation would result.

(6) Protection of residual timber. Reasonable care shall be taken to minimize damage from skidding to the stems and root systems of residual timber and to young reproduction.

***(7) Skid trail construction.**

(a) Skid trails shall be kept to the minimum feasible width.

(b) Reasonable care shall be taken to minimize the amount of sidecast required and shall only be permitted above the 50-year flood level.

(c) Skid trails shall be outsloped where practical, but be insloped where necessary to prevent logs from sliding or rolling downhill off the skid trail.

***(8) Skid trail maintenance.** Upon completion of use and termination of seasonal use, skid trails on slopes in exposed soils shall be water barred where necessary to prevent soil erosion.

***(9) Slope restrictions.** Tractor and wheeled skidders shall not be used on slopes where in the opinion of the department this method of operation would cause unnecessary or material damage to a public resource.

(10) Disturbance avoidance for northern spotted owls. The operation of heavy equipment within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center between March 1 and August 31, provided that, this restriction shall not apply if:

(a) The landowner demonstrates that the owls are not actively nesting during the current nesting season; or

(b) The forest practice is operating in compliance with a plan or agreement developed for the protection of the northern spotted owl under WAC 222-16-080 (6)(a), (e), or (f).

(11) Disturbance avoidance for marbled murrelets. Operation of heavy equipment shall not be allowed within 0.25 mile of an occupied marbled murrelet site during the daily peak activity periods within the critical nesting season, provided that, this restriction shall not apply if the forest practice is operating in compliance with a plan or agreement developed for the protection of the marbled murrelet under WAC 222-16-080 (6)(a) or (c).

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-30-070, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-30-070, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-30-070, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-30-070, filed 7/2/92, effective 8/2/92. Statutory Authority:

RCW 76.09.040, 87-23-036 (Order 535), § 222-30-070, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050, 82-16-077 (Resolution No. 82-1), § 222-30-070, filed 8/3/82, effective 10/1/82; Order 263, § 222-30-070, filed 6/16/76.]

WAC 222-30-100 Slash disposal or prescribed burning. (1) **Slash disposal techniques:**

*(a) Any conventional method of slash disposal may be used, except in Type A or B Wetlands, wetland management zones, and riparian management zones and on sites where the department determines that a particular method would cause unreasonable risk to public resources or unreasonably damage site productivity. Conventional methods of slash disposal include the following: Controlled broadcast burning; pile or windrow and burn; pile or windrow without burning; mechanical scatter and compaction; scarification; chip, mulch or lop and scatter; burying; and physical removal from the forest lands: *Provided*, That on land shown to have low productivity potential the landowner or operator shall obtain the department's approval of its regeneration plan prior to utilizing controlled broadcast burning as a slash disposal technique. In riparian management zones, slash disposal shall be by hand, unless approved by the department. Scarification shall not be allowed within wetlands. Machine piling is discouraged in wetlands.

(b) All slash burning requires a burning permit from the department which provides for compliance with the smoke management plan and reasonable care to protect Type A and B Wetlands, wetland management zones, riparian management zones, soil, residual timber, public resources, and other property.

*(c) Location of slash piles. Except where burning will be completed before the next ordinary high-water season, slash shall not be piled or windrowed below the 50-year flood level of any Type 1, 2, 3 or 4 Water or in locations from which it could be expected to enter any stream, lake or pond.

(2) **Slash isolation, reduction, or abatement** is required when the department determines there is an extreme fire hazard according to law (see chapter 332-24 WAC).

(3) **Slash disposal** is required where the forest landowner has applied for and been granted an extension of time for reforestation on the grounds that slash disposal is necessary or desirable before reforestation.

*(4) **Removing slash and debris** from streams.

"Slash" or "debris" which can reasonably be expected to cause significant damage to the public resource shall be removed from Type 1, 2, 3 or 4 Waters, to above the 50-year flood level and left in a location or manner minimizing risk of re-entry into the stream, lake or pond and if substantial accumulations of slash exist below the 50-year flood level of Type 1, 2, 3 or 4 Waters, slash disposal is required. See the forest practices board manual for "Guidelines for clearing slash and debris from Type 4 and 5 Waters."

*(5) **Fire trails.**

(a) Construct dips, water bars, cross drainage and ditches as needed to control erosion.

(b) Reasonable care shall be taken to minimize excavation during fire trail construction and sidescast shall only be permitted above the 50-year flood level.

(c) Fire trails shall not be located within Type A or B Wetlands, wetland management zones, or riparian zones

without prior written approval of the department. Hand constructed fire trails are preferred within forested wetlands. When machine built fire trails are necessary for control of burning, trail width and excavation shall be minimized.

(6) **Disturbance avoidance for northern spotted owls.** Burning within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center between March 1 and August 31, provided that, this restriction shall not apply if:

(a) The landowner demonstrates that the owls are not actively nesting during the current nesting season; or

(b) The forest practice is operating in compliance with a plan or agreement developed for the protection of the northern spotted owl under WAC 222-16-080 (6)(a), (e), or (f).

(7) **Disturbance avoidance for marbled murrelets.** Slash disposal or prescribed burning shall not be allowed within 0.25 mile of an occupied marbled murrelet site during the critical nesting season, provided that, this restriction shall not apply if the forest practice is operating in compliance with a plan or agreement developed for the protection of the marbled murrelet under WAC 222-16-080 (6)(a) or (c).

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-30-100, filed 12/3/97, effective 1/3/98; 97-15-105, § 222-30-100, filed 7/21/97, effective 8/21/97. Statutory Authority: Chapters 76.09 and 34.05 RCW. 96-12-038, § 222-30-100, filed 5/31/96, effective 7/1/96. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-30-100, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), § 222-30-100, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050, 82-16-077 (Resolution No. 82-1), § 222-30-100, filed 8/3/82, effective 10/1/82; Order 263, § 222-30-100, filed 6/16/76.]

**Chapter 222-38 WAC
FOREST CHEMICALS**

WAC

222-38-020 Handling, storage, and application of pesticides.

WAC 222-38-020 Handling, storage, and application of pesticides. *(1) **No pesticide leakage, contamination, pollution.**

Transportation, handling, storage, loading, application, and disposal of pesticides shall be consistent with applicable label requirements and other state and federal requirements.

*(2) **Mixing and loading areas.**

(a) Mix pesticides and clean tanks and equipment only where any accidental spills would not enter surface water or wetlands.

(b) Storage and loading areas should be located where accidental spillage of pesticides will not enter surface water or wetlands. If any pesticide is spilled, immediate appropriate procedures should be taken to contain it.

(c) Use devices or procedures to prevent "back siphoning" such as providing an air gap or reservoir between the water source and the mixing tank.

*(3) **Riparian management zone.** Pesticide treatments within the riparian management zone shall be by hand unless the department has approved a site specific plan with another method of treatment.

*(4) **Wetland management zone.** Pesticide treatment within the wetland management zone shall be by hand unless

the department has approved a site specific plan with another method of treatment.

***(5) Aerial application of pesticides.**

(a) To keep pesticides out of the water, leave a 50 foot buffer strip on all typed waters, except segments of Type 4 and 5 Waters with no surface water and other areas of open water, such as ponds or sloughs.

(b) Apply the initial swath parallel to the buffer strip in (a) of this subsection unless a deviation is approved in advance by the department. Drift control agents shall be required adjacent to buffer strips. Avoid applications that might result in drift causing direct entry of pesticides into riparian management zones, Type A and B Wetlands, wetland management zones, and all typed waters, except segments of Type 4 and 5 Waters with no surface water.

(c) Use a bucket or spray device capable of immediate shutoff.

(d) Shut off spray equipment during turns and over open water.

(e) Leave at least a 200 foot buffer strip around residences and 100 foot buffer strip adjacent to lands used for agriculture unless such residence or farmland is owned by the forest landowner or the aerial application is acceptable to the resident or landowner.

(f) The landowner shall identify for the operator the units to be sprayed and the untreated areas within the units with appropriately marked aerial photos or detailed planimetric maps. Before application of the pesticide an over-flight of the area shall be made by the pilot with the marked photos or maps.

(g) Aerial chemical application areas shall be posted by the landowner by signing at significant points of regular access at least 5 days prior to treatment. Posting shall remain at least 15 days after the spraying is complete. The department may require an extended posting period in areas where human use or consumption of plant materials is probable. Posting at formal, signed trailheads that are adjacent to aeri ally treated units is required. The signs will contain the name of the product used, date of treatment, a contact telephone number, and any applicable restrictions.

***(6) Ground application of pesticides with power equipment.**

Leave a 25-foot buffer strip on each side of Type A or B Wetlands and all typed waters, except segments of Type 4 and 5 Waters with no surface water.

***(7) Hand application of pesticides.**

Apply only to specific targets, such as vegetation, trees, stumps, and burrows, or as bait or in traps.

***(8) Limitations on application.** Pesticides shall be applied only in accordance with all limitations:

(a) Printed on the United States Environmental Protection Agency container registration label, and/or

(b) Established by regulation of the state department of agriculture.

(c) Established by state and local health departments (in municipal watersheds).

(d) Established by the Federal Occupational Safety and Health Administration, or the state department of labor and industries, as they relate to safety and health of operating personnel and the public.

(e) The department or the department of agriculture may suspend further use of any equipment responsible for chemical leakage until the deficiency has been corrected to the satisfaction of the department suspending its usage.

***(9) Container disposal.** Pesticide containers shall be either:

(a) Removed from the forest and disposed of in the manner consistent with label directions; or

(b) Removed and cleaned for reuse in a manner consistent with any applicable regulations of the state department of agriculture or the state or local health departments.

***(10) Daily records - aerial application of pesticides.**

On all aerial applications of pesticides, the operator shall maintain for 7 years daily records of spray operations as required by the state department of agriculture WAC 16-228-190.

***(11) Reporting of spills.** All potentially damaging chemical spills shall be immediately reported to the department of ecology. Emergency telephone numbers for reporting spills shall be available at the department's regional offices.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-38-020, filed 12/3/97, effective 1/3/98; 93-12-001, § 222-38-020, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040, 76.09.050 and chapter 34.05 RCW. 92-15-011, § 222-38-020, filed 7/2/92, effective 8/2/92. Statutory Authority: RCW 76.09.040. 88-19-112 (Order 551, Resolution No. 88-1), § 222-38-020, filed 9/21/88, effective 11/1/88; 87-23-036 (Order 535), § 222-38-020, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-38-020, filed 8/3/82, effective 10/1/82; Order 263, § 222-38-020, filed 6/16/76.]

Chapter 222-46 WAC

CONSULTATION AND ENFORCEMENT

WAC

222-46-030

Notice to comply.

WAC 222-46-030 Notice to comply. If a violation, a deviation, material damage or potential for material damage to a public resource has occurred and the department determines that a stop work order is unnecessary, then the department shall issue and serve upon the operator and/or landowner a notice which will clearly set forth:

(1)(a) **The specific** nature, extent, and time of failure to comply with the approved application; or identifying the damage or potential damage; and/or

(b) The relevant provisions of the Forest Practices Act or of the forest practices regulations relating thereto;

(2) **The right** of the operator, landowner, or timber owner to a hearing before the department; and

(3) **The specific** course of action ordered by the department to be followed by the operator to correct such failure to comply and to prevent, correct and/or compensate for material damage to public resources which resulted from any violation, unauthorized deviation, or willful or negligent disregard for potential damage to a public resource; and/or those courses of action necessary to prevent continuing damage to public resources where the damage is resulting from the forest practice activities but has not resulted from any violation, unauthorized deviation, or negligence.

(4) **Local government entity conditions.** If the notice to comply involves a condition imposed pursuant to WAC 222-20-040(3), then the specific course of action ordered by the department shall include a requirement that the operator obtain approval of the local government entity of the action to be taken.

(5) **The department** shall mail a copy of the notice to comply to the forest landowner and the timber owner at the addresses shown on the application, showing the date of service upon the operator. The department shall also mail a copy to the local government entity if a condition imposed pursuant to WAC 222-20-040(3) is involved.

Such notice to comply shall become a final order of the department: *Provided*, That no direct appeal to the appeals board will be allowed from such final order. Such operator shall undertake the course of action so ordered by the department unless, within fifteen days after the date of service of such notice to comply, the operator, forest landowner, or timber owner, shall request the department in writing to schedule a hearing. If so requested, the department shall schedule a hearing on a date not more than twenty days after receiving such request. The local government entity shall participate in the hearing if a condition imposed pursuant to WAC 222-20-040(3) is involved. Within ten days after such hearing, the department shall issue a final order either withdrawing its notice to comply or clearly setting forth the specific course of action to be followed by such operator. Such operator shall undertake the course of action so ordered by the department unless within thirty days after the date of such final order, the operator, forest landowner, or timber owner appeals such final order to the appeals board. No person shall be under any obligation under this section to prevent, correct, or compensate for any damage to public resources which occurs more than one year after the date of completion of the forest practices operations involved exclusive of reforestation, unless such forest practices were not conducted in accordance with forest practices rules: *Provided*, That this provision shall not relieve the forest landowner from any obligation to comply with forest practices rules and regulations pertaining to providing continuing road maintenance. No action to recover damages shall be taken under this section more than two years after the date the damage involved occurs.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-46-030, filed 12/3/97, effective 1/3/98. Statutory Authority: RCW 76.09.040, 76.09.170 and chapter 34.05 RCW. 94-01-134, § 222-46-030, filed 12/20/93, effective 1/1/94. Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23-052, § 222-46-030, filed 11/15/91, effective 12/16/91; Order 263, § 222-46-030, filed 6/16/76.]

Chapter 222-50 WAC

RELATIONSHIP TO OTHER LAWS AND REGULATIONS

WAC

222-50-020 Other agency requirements.

WAC 222-50-020 Other agency requirements. (1) Many other laws and regulations apply to the conduct of forest practices. Other agencies administer some of these

other regulatory programs. Permits may be required by such agencies prior to the conduct of certain forest practices. The department will maintain a list for distribution of state, regional and local regulatory programs that apply to forest practice operations. Affected parties are urged to consult with the specified agencies and independent experts with respect to the regulatory requirements shown on the list.

(2) **Hydraulics project approval law, RCW 75.20.100.** A hydraulics project approval must be obtained from the department of fish and wildlife prior to constructing any form of hydraulic project or other work that will use, divert, obstruct, or change the natural flow or bed of any river or stream or that will utilize any of the waters of the state or materials from the stream beds. See RCW 75.20.100 and WAC 232-14-010.

(3) **Compliance with the Shoreline Management Act, chapter 90.58 RCW, is required.** The Shoreline Management Act is implemented by the department of ecology and the applicable local governmental entity. A substantial development permit must be obtained prior to conducting forest practices which are "substantial developments" within the "shoreline" area as those terms are defined by the Shoreline Management Act.

(4) Nothing in these regulations is intended to interfere with any authority of the department of fish and wildlife to protect wildlife under any other statutes or regulations, or under any agreements with landowners.

(5) **Federal Endangered Species Act, 16 U.S.C. 1531 et seq., and other federal laws.** The federal Endangered Species Act and other federal laws may impose certain obligations on persons conducting forest practices. Compliance with the Forest Practices Act or these rules does not ensure compliance with the Endangered Species Act or other federal laws.

[Statutory Authority: RCW 76.09.040 and chapter 34.05 RCW. 97-24-091, § 222-50-020, filed 12/3/97, effective 1/3/98; 93-12-001, § 222-50-020, filed 5/19/93, effective 6/19/93. Statutory Authority: RCW 76.09.040. 88-19-112 (Order 551, Resolution No. 88-1), § 222-50-020, filed 9/21/88, effective 11/1/88. Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), § 222-50-020, filed 8/3/82, effective 10/1/82; Order 263, § 222-50-020, filed 6/16/76.]

Title 230 WAC

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