

To: Forest Practices Board

Date: May 3, 2023

This letter is in regards to the petition submitted in February 2023 regarding the 40 acre clear cut rule for salt water islands (WAC 22-30-110).

Although the Board denied the petition, the Board indicated in their letter dated February 14, 2023 that the Chair of the Board “*direct staff to continue discussions with the petitioners and Island County staff to understand their issues, ensure the regulatory authority for DNR and the county are understood, and develop and report their solutions, including potential rulemaking, to the Board.*”

Additionally the letter noted that “*DNR is optimistic that the scheduled meeting with the petition writers, Island County staff and DNR staff will result in clarity of the concerns brought to the Board and will result in viable options*”. (my underline)

Petitioners did have a number of very informative meetings with the DNR staff for which we are grateful.

However, as noted in the letter from Mary McDonald dated 4-26-2023, “*Forest Regulation will not be pursuing law or rule change to alter the meaning of person or to challenge a LLC as a legal entity*”.

Therefore, there is no solution or viable option proposed by DNR staff to address circumvention of the intent of the WAC via submittal of multiple applications from separate LLC’s (even though the LLC or corporate ownership can easily be confirmed via search on the Washington Secretary of State Website for corporation registry: <https://ccfs.sos.wa.gov/#/>, not Island County databases.

I reviewed the WAC 222-30-110 historical materials provided by email from Mary McDonald dated 3-13-2023 regarding the genesis of the 40 acre rule. It is apparent the intent of the rule was to limit clear cuts to 40 acres on saltwater islands, given the special characteristics and sensitivity of saltwater island environments.

The *Final Forest Practice Rule Change* dated June 26, 1992 includes a PROPOSED RULES FOR CLEARCUT SIZE AND TIMING FACT SHEET.

Under the section regarding: *Even-Aged Harvest other than on Islands in Salt Water* it states:

“How it Would Work — Adjacent areas recently harvested or approved for harvest by even-aged harvest methods are counted in the acreage”.

Application of this methodology should be applied to protect the intent of the 40 acre limit on saltwater islands to minimize the corporate entity loophole.

As noted in the 1992 Concise Explanatory Statement there was considerable scientific analysis with lengthy and extensive public participation that resulted in the 40 acre harvest limit on saltwater islands.

As noted *“the rules develop an overall approach for addressing cumulative effects of forest practices”.*

On pages 8-9 of the Concise Explanatory Statement is stated: *“It is also generally believed that the harvest limitation and timing rules will reduce the cumulative effects of large contiguous clearcuts, provide some wildlife habitat diversity and corridors, reduce the likelihood of rapid rates of harvest, and encourage long term planning of forest land operations that will contribute to the sustainability of forest resources. The FPB was urged to adopt a smaller clearcut size limitation. A smaller size limitation was adopted for islands because island environments are relatively small and believed to be unique or more isolated and sensitive than those on the mainland”.*

If the WAC can easily be circumvented via corporate structuring, it would undermine the intent of the rule, and open the door to cumulative impacts that were meant to be avoided or minimized.

Therefore, a revised petition based on the mainland rule is proposed to address applications on salt water islands simply as follows:” *Adjacent areas recently harvested or approved for harvest by clear cur or even-aged harvest methods are counted in the acreage”.*

Your considerations and time are much appreciated.

Sincerely,

Bill Poss,

Langley WA

FINAL

June 26, 1992



**State of Washington
Forest Practices Board
and
Department of Ecology**

CUMULATIVE EFFECTS OF FOREST PRACTICES PROPOSAL FACT SHEET

"Cumulative Effects" Defined

As defined in the rule proposal "cumulative effects" means changes to the environment caused by the interaction of natural ecosystem processes with the effects of two or more forest practices.

Cumulative Effects Policy (in Watershed Analysis)

The policy statement describes an overall approach that uses new rules for watershed analysis along with existing rules to assess and regulate cumulative effects on the public resources of fish, water and capital improvements of the state or its political subdivisions. Prescriptions will be designed to allow recovery of public resources while maintaining a viable forest products industry.

What is Watershed Analysis?

Watershed analysis is the biological and physical assessment of the condition of selected public resources in a watershed. Management prescriptions will be developed, based on the assessment, which will address cumulative effects on the selected public resources.

Watershed Analysis Policy

Long-term objective — Protect and restore public resources and the productive capacity of fish habitat adversely affected by forest practices while maintaining a viable forest products industry.

Non-forest practice contributions to cumulative effects — Non-forest practice contributions to cumulative effects should be addressed by the appropriate jurisdictional authorities, such as counties or other state agencies.

Minimizing processing delays — The rules aim to minimize the delay associated with the review of individual forest practice applications and notifications by increasing the predictability of the process and the appropriate regulatory and management response.

Watershed Analysis Process:

Watershed Administrative Units — Watershed analysis will be performed on areas known as watershed administrative units (WAUs), generally between 10,000 and 50,000 acres within a water basin.

Steps in Analysis:

- **Level 1 Assessment** — An initial low intensity evaluation of a WAU to see if more detailed analysis is necessary.
- **Level 2 Assessment** — A more thorough analysis to be conducted if the Level 1 assessment results are indeterminate or the method otherwise calls for it.

- **Assessment conducted by landowner** — Any landowner or cooperating group of owners with at least 10 percent of nonfederal forest land in a WAU may choose to conduct a level 1 or 2 assessment at its own expense.

- **Prescriptions for practices in areas of resource sensitivity** — For each area of resource sensitivity identified in watershed analysis, a team of field managers would recommend prescriptions to minimize, prevent or avoid impacts on certain public resources.

Prescriptions become conditions for approval of practices in a specific area of sensitivity. Alternate plans may be proposed by the landowners, and if approved will replace conditions for the proposed forest practices application.

Prioritization — Priorities for the conduct of watershed analysis of WAUs will be set by the Department of Natural Resources (DNR) for each region in cooperation with the departments of Ecology, Wildlife, and Fisheries, affected Indian tribes, forest landowners, and the public.

Who conducts analysis — Each level of analysis will be conducted by a team representing relevant disciplines. Everyone conducting watershed analysis must meet minimum qualifications set by DNR. All will have formal education and field experience in the relevant discipline.

Approval — Watershed analysis and prescriptions are subject to approval of DNR.

Definition of Class IV-Special Forest Practices:

The definition of Class IV-Special forest practices, those practices requiring review under the State Environmental Policy Act (SEPA), would be modified as follows:

- Add to Class IV-Special forest practices in an area of resource sensitivity, as identified in watershed analysis, which deviate from the prescriptions developed in the analysis.
- Remove widespread persistent pesticide (see addition for pesticides).
- Remove from Class IV-Special certain forest practices (harvest, roads & pits) on slide prone areas or snow avalanche slopes if the area has a watershed analysis.

Add to Class IV - Special Forest Practices:

- Aerial application of pesticides with potential for substantial impact on the environment as indicated by certain conditions & chemical characteristics or ground application within Type A or B wetlands.
- Harvesting and ground disturbing forest practices (roads & pits) on sites with evidence of Native American use.
- Filling or draining more than 0.5 acres of a wetland.

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WETLANDS PROTECTION PROPOSAL FACT SHEET

Background

Forest practices - harvesting, road construction, filling and draining - are regulated in wetlands by the Forest Practices Board and the Department of Ecology for the protection of wetland functions and public resources.

A wetland is an area of land that collects water. The water must be present long enough during the year to develop wetland soils (hydric) and/or wetland plants. Protecting wetlands is a key component in protection of the environment because wetlands perform many functions: purify stream water, resupply ground water, reduce flows in streams during periods of heavy rain, keep streams flowing during the dry season, grow timber, and provide essential habitat for wildlife, salmon and other fish. Forested wetlands are also an important source of timber in Washington.

Wetland Types

All wetlands perform some functions, however, some wetlands provide a greater number of functions than others. Larger wetlands provide more habitat and greater protection of water quality. Smaller wetlands may be more important for fish and wildlife habitat. Wetlands with many types of vegetation, water and edges may attract more types of wildlife and fish.

Different types of wetland need different levels of protection. The typing system gives forest managers important information about the protection needs of different types of wetlands. The proposed rules identify three types of wetlands:

Type "A" wetlands — Non-forested wetlands that are at least 1/2 acre in size with ponded or standing open water that exists for at least seven days between April 1 and October 1.

Type "B" wetlands — All other non-forested wetlands that are at least 1/4 acre in size.

Forested wetlands — Forested wetlands are wetlands that have 30 percent of the area covered by the crowns of trees or would have 30 percent crown cover if the trees were mature.

How Can I Learn to Identify a Wetland?

The Forest Practices Board Manual will contain a method for determining what is and what is not a wetland. In addition, a variety of informational materials will be available through the departments of Natural Resources, Ecology, Wildlife, and Fisheries. Training programs will be provided throughout the state to assist landowners in learning about wetlands.

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How Will the Proposed Rules Restrict Timber Harvesting?

Type A and B wetlands These have little or no forest within their boundaries. However, the forested areas next to these wetlands are very important to the function of the wetland. A wetland management zone (WMZ) will be required around the perimeter of these wetlands. The widths and leave tree requirements are determined by the type (A or B) and the size of the wetland. Landowners can design the harvest within the zone.

Forested wetlands In forested wetlands harvest methods are limited to logging systems with low impact on the soil. Landowners are encouraged to leave 30 to 70 percent of the required wildlife reserve trees (see fact sheet on Wildlife Reserve Tree Proposal) within wetlands.

How Will This Proposal Restrict Road Building?

Before a landowner builds a road through a wetland, the location of the road and the way it is constructed will need to be considered. Use of methods to avoid or reduce the impact of road building on wetlands is the objective. If 1/2 acre or more of wetland is going to be filled or drained during a single operation, a State Environmental Policy Act (SEPA) checklist will need to be filed and replacement of the lost wetland functions and area will be required.

In the proposed rules, replacement will be required if 1/2 acre or more of wetland is filled or drained in an operation. The applicant will be required to replace the wetland area destroyed in the filling or draining by creating a new wetland somewhere nearby. The objective of replacement is to successfully create one acre of wetland of the same type for each acre of wetland destroyed.

Delineation of Wetland Boundaries

When classifying wetlands, approximate determination of acreage from aerial photographs or maps is permissible, however, accurate location of wetland boundaries would be required when determining whether replacement or substitution of wetlands is needed.

Will I be Able to Spray Chemicals in Wetlands if I Need to?

The rules regulate chemical applications in wetlands:

- Only hand application of pesticides to specific targets in Type A or B wetlands.
- Ground power application of pesticides outside a 25' buffer strip of Type A & B wetlands, and only to specific targets.
- The pesticide must be registered for wetland use.
- Chemicals will not be applied to open or flowing water or Type A or B wetlands.
- All label and other requirements are met for pesticide applications.
- Some types of operations will require a SEPA checklist.
- No fertilizers in Type A or B wetlands and WMZ's.

Proposed Rules Apply Only to Forest Practices

The current rules limit the use of construction and other heavy equipment near wetlands; they restrict road building and they require that trees be left standing near wetland areas associated with streams and other typed waters. The new rules would only apply to forest practices as defined by the Forest Practices Act. Mosquito control activities are not forest practices.

**RULE PROPOSAL FOR DEFINITION OF PRACTICES
REQUIRING SEPA REVIEW
(CLASS-IV SPECIAL)
FACT SHEET**

What are Class IV-Special Forest Practices?

Class IV-Special forest practices are those practices defined in the forest practices rules that require an environmental checklist under the State Environmental Policy Act (SEPA).

What Does the Rule Proposal Change?

The proposed rules would expand the scope of forest practices defined as Class IV-Special. The changes are summarized as follows:

Aerial application of pesticides — Three new administrative tools would be used to determine whether an aerial application of pesticides would be subject to SEPA review: A list of registered pesticides maintained by DNR, a prescribed procedural key for evaluating applications, and a list of special concerns not adequately covered by the key. The special concerns list would be developed by the Forest Practices Board.

Provisions for areas of water supply interest are replaced with a process for determining the potential for a substantial impact on the environment.

Threatened or endangered species — The current requirement is replaced with lists of specific forest practices on lands designated as critical wildlife habitat (state) or critical habitat (federal).

Critical habitat for nine wildlife species is defined and the forest practices within those habitats that would require SEPA review are specified.

A site-specific special wildlife management plan developed by the landowner can replace the critical wildlife habitats (state) when it has been approved by the Department of Wildlife.

The Forest Practices Board may determine that some critical habitats (federal) or practices in those habitats do not have the potential for a substantial environmental impact, and therefore, would not be subject to SEPA review.

Persistent insecticide — Widespread use of a persistent insecticide was deleted and is addressed by the amended pesticide rules.

Slide-prone areas

- SEPA review is required for construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on unstable or slide prone areas above any water type, wetland type or capital improvement of the state or its political subdivisions; except where addressed in a watershed analysis for the area.

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- Timber harvest on slide-prone areas would be added as a Class IV-Special practice; except where addressed in a watershed analysis for the area.

- Forest practices on slide-prone areas would be subject to SEPA review only if the watershed has not undergone watershed analysis. (See the fact sheet on Cumulative Effects.)

Snow avalanche slopes — Adds timber harvest, construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on snow avalanche slopes with a high avalanche hazard if the watershed administrative unit has not undergone watershed analysis.

Archaeological or historic sites — Adds timber harvest, construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on archaeological or historic sites, or on sites containing evidence of Native American cairns, graves or glyptic records.

Areas of resource sensitivity — Adds practices in areas of resource sensitivity which deviate from the prescriptions developed in watershed analysis. (See fact sheet on cumulative effects.)

Filling or draining wetland — Adds filling or draining of more than one half acre of a wetland.

WILDLIFE RESERVE TREE RULE PROPOSAL FACT SHEET

Purpose of Wildlife Reserve Trees

Wildlife reserve trees are left after timber harvest to provide for wildlife habitat needs.

Requirements

In order to meet the needs of cavity nesters, the largest of the trees suitable to be wildlife reserve trees are to be retained.

In Western Washington:

- For each acre harvested, leave three wildlife reserve trees, two green recruitment trees, and two down logs. To count as wildlife reserve trees, trees left must be at least 10 feet tall and at least 12 inches in diameter.

In Eastern Washington:

- For each acre harvested, leave two wildlife reserve trees, two green recruitment trees and two down logs. To count as wildlife reserve trees, trees left must be at least 10 feet tall and at least 10 inches in diameter.
- For five years after the rule is effective, only half of the green recruitment trees need to be left when trees retained to provide seed for reforestation are harvested and fewer than ten trees per acre will be harvested within the five-year period.

What is a Wildlife Reserve Tree?

Wildlife reserve trees are live trees designated by the landowner, dead trees, deformed or defective live trees.

What is a Green Recruitment Tree?

Green recruitment trees are trees left after harvest so that they may eventually become wildlife reserve trees.

A green recruitment tree must be at least 30 feet tall and ten inches in diameter with at least one-third of its height in live crown. Live defective trees with broken tops, cavities, etc. are preferred. Where the opportunity exists, larger trees with numerous cavities should be retained and count as recruitment trees.

Trees left to meet other requirements of the rules may be counted as green recruitment trees. If adequate wildlife reserve trees are not available, there is no requirement to provide additional green recruitment trees as substitutes.

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Green recruitment trees are to be representative of the sizes of the trees in the stand before harvest.

What is a down log?

Down logs must be at least 12 inches in diameter at the small end and at least 20 feet long or have equivalent volume.

Spacing

There is no requirement to distribute wildlife reserve trees and recruitment trees evenly over the landscape. Wildlife reserve trees and recruitment trees may be left in clumps. Every point in a harvest unit must be within 800 feet of a wildlife reserve tree and green recruitment tree retention area. There is an exception: The distance is increased to 1,000 feet if 30 to 70 percent of required wildlife reserve trees are left, preferably in clumps, adjacent to streams or within riparian management zones, wetland management zones and forested wetlands. Closer spacing of clumps through voluntary action of the landowner is encouraged.

Riparian management zones, riparian leave tree areas, other leave areas required by regulations or voluntary leave areas may be used as the location for wildlife reserve trees and green recruitment trees.

Safety

- Hazard trees

Landowners may remove an unstable wildlife reserve tree which threatens humans working, recreating or residing within the tree's hazard area.

- Fire safety

The distribution of wildlife reserve tree retention areas may be modified to provide for fire safety based on a wildlife reserve tree management plan approved by the Department of Natural Resources.

SHADE REQUIREMENTS RULE PROPOSAL FACT SHEET

Why a Shade Requirement?

When trees are removed near a stream the increased exposure to the sun may in some cases raise water temperature enough to degrade the value of the stream as fish habitat. A shade requirement had been in the forest practices rules already.

What is Different?

The Cooperative Monitoring, Evaluation, and Research Committee (CMER) of the Timber/Fish/Wildlife accord recently completed research on shade requirements. The results provide a scientific basis for an improved method for determining shade requirements. Emphasis shifts from determining temperature sensitivity of a stream to determining what is adequate shade.

What is the method?

The method devised by CMER includes considerations of:

- Shade retention;
- Minimum leave tree requirements;
- Regional water temperature characteristics;
- Elevation;
- Temperature criteria defined for stream classes in Department of Ecology water quality standards.

How it will work in practice

Enough trees must be left to provide adequate shade for a stream. If the condition existing before timber harvest fails to provide adequate shade cover, no trees providing shade to the stream are to be removed from the riparian management zone.

The Department of Natural Resources (DNR) may waive or modify shade requirements if the temperature method indicates that additional shade will not affect stream temperature.

PROPOSED RULES FOR CLEARCUT SIZE AND TIMING FACT SHEET

Even-Aged Harvest other than on Islands in Salt Water

The Approach — Forest practices leading to large areas harvested by even-aged harvest methods, including clearcuts, would be subject to more intensive review.

What is Even-Aged Harvest — Even-aged harvest would be defined in rules to cover several management techniques that lead to forest stands in which all trees are about the same age. This includes clearcutting, but also covers methods which leave mature trees in the harvested area to provide seed for natural reforestation.

How it Would Work — Adjacent areas recently harvested or approved for harvest by even-aged harvest methods are counted in the acreage.

Larger than 240 acres prohibited — The proposal would prohibit even-aged harvest that would result in an area larger than 240 acres harvested by even-aged methods. The condition and ownership of adjoining land is considered in determining the acreage.

Between 120 and 240 acres — Even-aged harvest by one landowner of an area larger than 120 acres and no larger than 240 acres could be reviewed by an interdisciplinary team if the Department of Natural Resources (DNR) determined that a review is necessary.

Up to 120 Acres — Even-aged harvest up to 120 acres would not receive special review because of size.

Salvage Operations — Salvage operations for timber damaged by wind, disease, insect and fire would not be subject to SEPA review or review by an interdisciplinary team because of size.

Perimeter Rules — The acreage of adjacent harvested areas would not be considered part of the harvest area applied for if:

- At least 30 percent of the perimeter of the harvest area applied for lies adjacent to:
 - Stands of trees that are 30 years of age or older, or
 - Land in riparian management zones with specified characteristics, designated upland management areas, and shorelines of statewide significance regardless of age; or
- At least 60 percent of the unit's perimeter lies adjacent to stands of trees that are 15 years of age or older; or
- At least 90 percent of the unit's perimeter lies adjacent to stands of trees that have survived on site a minimum of five years or, if less than five years, have reached an average height of four feet; or
- The adjacent land is in non-forest use.

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An adjoining timber stand must be at least 300 feet wide to meet the perimeter requirement.

“Grandfather” provisions — The size limit does not apply to applications approved before July 1, 1992 or to one renewal of such applications.

Clearcuts on Islands in Salt Water

On an island in certain counties:

- **Clearcut size limit** — A clearcut causing more than 40 contiguous acres of a landowner's forest land to be in a clearcut condition would not be permitted. The size limit does not apply to salvage timber damaged by wind, disease, fire, insects or other natural causes.
- **What is a clearcut** — Forest land harvested by clearcut would be considered clearcut until it reached canopy closure or had been reforested for at least 10 years.
- **200 foot buffers between clearcuts** — Clearcut harvest units would be considered as contiguous unless separated by a buffer at least 200 feet wide that had reached canopy closure, had been reforested for at least ten years, or was in a land use other than timber production.
- **Shorelines** — Within 200 feet of the ordinary high-water mark of any saltwater, only selective timber harvest would be allowed and no more than 30 percent of the merchantable trees could be harvested in any ten-year period, with some specified exceptions. Note: Shorelines Management Act may apply.
- **“Grandfather” provisions** — The size limit does not apply to applications approved before July 1, 1992 or to one renewal of such applications.

FOREST CHEMICAL RULE PROPOSAL FACT SHEET

Forest Chemicals Policy

Compared to the current forest practices rules, "soils" is removed from the list of elements to be protected. "Lands," "fish," and "water quality" are added.

Different Types of Chemicals Treated Separately

In current rules, the handling, storage, and application of all forest chemicals are regulated by the same rules. The proposed change recognizes three classes of chemicals that should be treated differently. Separate provisions would cover pesticides, fertilizers and a new category for "other forest chemicals."

Provisions for Pesticides

Wetlands and wetland management zones — Extends protection to wetlands. Pesticide treatment in wetland management zones would be limited to hand application unless a site specific plan for another method had been approved by the Department of Natural Resources (DNR).

Posting public notice — Allows DNR to require that a public notice be posted for a period longer than the prescribed 15 days where human use or consumption of plant materials is probable.

Areas of water supply interest — Eliminates provisions for designating "areas of water supply interest." Other parts of the rule proposal make provisions for protecting water supplies that do not rely on formally defined areas of water supply interest.

Buffers — For ground application, extends buffer strip width to 25 feet instead of 10 feet. The proposal also extends the requirement for buffers to all but minor, intermittent waters, and to non-forested wetlands larger than 1/4 acre.

Aerial application of pesticides — The proposal would require that applications be avoided if they might result in pesticides drifting into non-forested wetlands, wetland management zones and surface waters.

Provisions for Fertilizers

Riparian and wetland management zones — Requires hand application in riparian and wetland management zones unless DNR has approved a site specific plan for another method.

Aerial application — Aerial application requirements are in general:

- Avoiding application to water or wetlands and buffering all but minor waters.
- Buffers around residences and agricultural land unless owned by the forest landowner applying the fertilizer.

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- When the Department of Ecology has provided information that water quality downstream is likely to be impaired by fertilizer, waters would be protected by site specific conditions imposed by DNR.

- Prescribes flight path separation sufficient to prevent direct application within buffers or wetland management zones.

Ground application — In ground application, prevent entry into all surface waters, and non-forested wetlands. Ground application within Type A or B wetland management zones is by hand unless another method is approved.

Reporting spills — All fertilizer spills involving waters or wetlands are to be reported immediately to Department of Ecology.

Provisions for Other Forest Chemicals

Waters and wetlands — Would not allow direct entry into any surface water or non-forested wetland.

Accidental spills — Would require location of storage and landing areas so that accidental spills would not enter surface water or wetlands.

Emergency use of fire retardants — Would allow water protection requirements to be waived when emergency use of fire retardants is necessary to control escaped wildfire.

**Forest Practices Rule Changes
Adopted by the Forest Practices Board June 26, 1992**

EFFECTIVE DATE AUGUST 1, 1992

Title 222 WAC

Chapters

- 222-08 Practices and procedures.
- 222-10 State Environmental Policy Act guidelines.
- 222-12 Policy and organization.
- 222-16 Definitions.
- 222-20 Application and notification procedures.
- 222-22 Watershed Analysis
- 222-24 Road construction and maintenance.
- 222-30 Timber harvesting.
- 222-34 Reforestation.
- 222-38 Forest chemicals.
- 222-42 Supplemental directives.
- 222-46 Enforcement.
- 222-50 Relationship to other laws and regulations.

NOTE:

1. Current rules and those recently adopted are reproduced here.
2. Changes from the current rules are marked by **underline and boldface**, new sections are identified by the note "NEW SECTION" and are not underlined.
3. Rules marked by an asterisk (*) pertain to water quality and will be co-adopted by the Department of Ecology.

Reviser's note: Title 222A WAC, being the 1975 interim forest practices rules, was adopted by the department of natural resources under chapters 34.04 and 76.09 RCW and the Forest Practices Act of 1974, as amended. The rules in Title 222A WAC were filed in the office of the code reviser by Emergency Order 225, filed December 31, 1974; Permanent Order 226, filed February 28, 1975; Emergency Order 236, filed July 23, 1975; Emergency and Permanent Order 247, filed October 10, 1975; and Emergency Order 248, filed October 20, 1975. These rules were repealed by the department of natural resources by Order 273, filed February 22, 1977, and the permanent rules adopted by the forest practices board are published as Title 222 WAC.

Chapter 222-08 WAC Practices and Procedures

WAC

222-08-010 Appeals.

222-08-020 Orientation and training.

222-08-030 Reporting procedures.

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

222-08-040 Regular meetings.

WAC 222-08-010 Appeals.

All appeals from actions regarding forest practices shall be in accordance with RCW 76.09.210, 76.09.220 and 76.09.230.

[Order 263, §222-08-010, filed 6/16/76.]

WAC 222-08-020 Orientation and Training.

The department shall be responsible for a continuing program of orientation and training, relating to forest practices and regulation thereof, pursuant to RCW 76.09.250. Such program shall include:

- (1) INVESTIGATION OF CURRENT developments in and practical applications of forest resources and related technology.
- (2) CONTINUING TRAINING OF department personnel in the current status of forest resources technology and related disciplines.
- (3) DISSEMINATION OF INFORMATION on current forest practice technology to the public, in a manner determined by the department to be effective.

[Order 263, §222-08- 020, filed 6/16/76.]

WAC 222-08-030 Reporting Procedures.

The department shall:

- (1) **SURVEY AND IDENTIFY** all silviculturally related nonpoint sources of pollution and related control programs in the state,
- (2) **PREPARE AN ANALYSIS** of the above activities and programs, and
- (3) **REPORT AND RECOMMEND** to the forest practices advisory committee, the forest practices board and to the governor additional rules and regulations, procedures and/or methods necessary for the control of such sources to the extent feasible.

[Order 263, §222-08-030, filed 6/16/76.]

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, fisheries, 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. 87-23-036 (Order 535), §222- 08-035, filed 11/16/87, effective 1/1/88.]

WAC 222-08-040 Regular Meetings.

Regular meetings of the forest practices board shall be held quarterly on the second Wednesday of February, May, August and November, at a location to be designated by the forest practices board. Any person may obtain information as to said location and meeting time by contacting the Department of Natural Resources Division of Forest Regulation and Assistance, Olympia, Washington 98504. A schedule of meetings will be published in the Washington Register in January of each year.

[Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), §222- 08-040, filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18- 021 (Order 429, Resolution No. 8-8-84), §222-08-040, filed 8/29/84, effective 10/1/84.]

Chapter 222-10 WAC

State Environmental Policy Act Guidelines

WAC

222-10-010 Policies and authorities.

222-10-050 Adoption by reference.

222-10-070 Additional definitions.

222-10-090 Designation of responsible official.

222-10-110 Board's SEPA public information center.

222-10-120 Exemption for emergency actions.

222-10-130 Lead agency, agency with jurisdiction, consulted agency.

WAC 222-10-010 Policies and Authorities.

- (1) THIS CHAPTER is promulgated pursuant to the authority granted in RCW 76.09.010, 43.21C.120 and chapter 197-11 WAC.
- (2) THE FOREST PRACTICES BOARD, according to RCW 76.09.040, possesses the authority to promulgate forest practices regulations establishing minimum standards for forest practices and setting forth necessary administrative provisions.
- (3) THE FOREST PRACTICES BOARD adopts by reference the policies of SEPA as set forth in RCW 43.21C.020.
- (4) A CLASS IV-SPECIAL forest practice approval will be conditioned when necessary to mitigate specific adverse impacts which are identified in the environmental documents prepared under SEPA. An application for a Class IV-Special forest practice will be denied when the proposal would result in significant adverse impacts identified in a final or supplemental environmental impact statement prepared under SEPA, and reasonable mitigation measures are insufficient to mitigate the identified impacts and denial is consistent with all provisions of the acts cited in subsection (1) of this section.
- (5) SEPA POLICIES and procedures required for administration of Class IV-Special forest practices shall be implemented by the department of natural resources.

[Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18-021 (Order 429, Resolution No. 8-8-84), §222-10-010, filed 8/29/84, effective 10/1/84; Order 258, §222-10-010, filed 5/21/76.]

WAC 222-10-050 Adoption by Reference.

Except to those rules that may not be applicable, the forest practices board hereby adopts by reference chapter 197-11 WAC, the "SEPA rules" adopted by the state of Washington department of ecology.

[Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18-021 (Order 429, Resolution No. 8-8-84), §222-10-050, filed 8/29/84, effective 10/1/84; Order 258, §222-10-050, filed 5/21/76.]

WAC 222-10-070 Additional Definitions.

In addition to those definitions contained within WAC 197-11-700 through 197-11-799, the following terms shall have the following meanings:

- (1) "BOARD" means the forest practices board, as defined by chapter 76.09 RCW.
- (2) "SEPA RULES" means chapter 197-11 WAC adopted by the state of Washington department of ecology.

[Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18-021 (Order 429, Resolution No. 8-8-84), §222-10-070, filed 8/29/84, effective 10/1/84; Order 258, §222-10-070, filed 5/21/76.]

WAC 222-10-090 Designation of Responsible Official.

The board shall act as the responsible official for the purpose of complying with the SEPA rules, or the board may designate the chairperson of the forest practices board or his/her designee to serve as such responsible official.

[Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18-021 (Order 429, Resolution No. 8-8-84), § 222-10-090, filed 8/29/84, effective 10/1/84; Order 258, § 222-10-090, filed 5/21/76.]

WAC 222-10-110 Board's SEPA Public Information Center.

There is hereby established in the Public Lands Building, 2nd Floor, Olympia, Washington, the location of the board's SEPA public records in accordance with chapter 42.17 RCW.

[Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18-021 (Order 429, Resolution No. 8-8-84), § 222-10-110, filed 8/29/84, effective 10/1/84; Order 258, § 222-10-110, filed 5/21/76.]

WAC 222-10-120 Exemption for Emergency Actions.

The board may promulgate rules which must be promulgated immediately, or within a time too short to allow full compliance with this chapter of the SEPA rules where such action is required to avoid an imminent threat to public health or safety, to prevent imminent danger to public or private property or prevent imminent threat of serious environmental degradation without complying with the procedural requirements of this chapter of the SEPA rules.

[Statutory Authority: RCW 43.21C.120, 76.09.040 and 42.30.075. 84-18-021 (Order 429, Resolution No. 8-8-84), § 222-10-120, filed 8/29/84, effective 10/1/84; Order 258, § 222-10-120, filed 5/21/76.]

WAC 222-10-130 Lead Agency, Agency with Jurisdiction, Consulted Agency.

The board shall be considered the lead agency, consulted agency or an agency with jurisdiction only when the action considered is the action of promulgating rules under chapter 76.09 RCW.

[Order 258, §222-10-130, filed 5/21/76.]

Chapter 222-12 WAC

Policy and Organization

WAC

222-12-010 Authority.
222-12-020 Regulation sections.
222-12-030 Classes of forest practices.
222-12-040 Alternate plans.
222-12-045 Adaptive management.
222-12-050 Notices to comply--Stop work orders.
222-12-060 Supplemental directives.
222-12-070 Enforcement policy.
222-12-080 Administrative and judicial appeals.
222-12-090 Forest practices board manual.

NOTES:

Reviser's note: For an explanation of the rules marked with an asterisk (*), see WAC 222-12-010.

WAC 222-12-010 Authority.

These forest practices regulations are adopted pursuant to chapter 76.09 RCW. Where necessary to accomplish the purposes and policies stated in the act, the board is authorized to promulgate forest practices regulations establishing minimum standards for forest practices and setting forth necessary administrative provisions, pursuant to chapter 34.04 RCW and in accordance with the procedures enumerated in the act.

Promulgation of all forest practices regulations shall be accomplished so that compliance with such forest practices regulations will achieve compliance with the water quality laws.

Those regulations marked with an asterisk (*) pertain to water quality protection; pursuant to RCW 76.09.040 they will also be adopted by the department of ecology and can be amended only by agreement between the board and the department of ecology.

Forest practices regulations shall be administered and enforced by the department except as otherwise provided in the act. Such regulations shall be administered so as to give consideration to all purposes and policies set forth in RCW 76.09.010.

[Order 263, § 222-12-010, filed 6/16/76.]

WAC 222-12-020 Regulation Sections.

These regulations are organized as follows:

Section 222-08 Practices and procedures.

Section 222-10 State Environmental Policy Act guidelines.

Section 222-12 Policy and organization

Section 222-16 Definitions.

Section 222-20 Application and notification procedures;

Section 222-22 Watershed analysis.

Section 222-24 Road construction and maintenance;

Section 222-30 Timber harvesting;

Section 222-34 Reforestation;

Section 222-38 Forest chemicals;

Section 222-42 Supplemental directives;

Section 222-46 Enforcement;

Section 222-50-Relationship to other laws and regulations.

NOTE: The preceding list has been changed to be consistent with the current format.

WAC 222-12-030 Classes of Forest Practices.

Forest practices are divided into four classes as specified by RCW 76.09.050. In certain emergencies, as defined in RCW 76.09.060(7), the application or notification may be submitted within 48 hours after commencement of the practice.

- (1) CLASS I FOREST PRACTICES require no application or notification, but do require compliance with all other forest practices regulations.
- (2) CLASS II FOREST PRACTICES require a notification to the department, and may begin 5 calendar days (or such lesser time as the department may determine) after receipt by the department of the notification.
- (3) CLASS III FOREST PRACTICES require an application which must be approved or disapproved within 30 or fewer calendar days of receipt by the department. The department is directed to approve or disapprove within 14 calendar days Class III applications not requiring additional field review.
- (4) CLASS IV FOREST PRACTICES are divided into "Class IV - special," and "Class IV - general," and require an application to the department which must be approved or disapproved within 30

calendar days, except that if a detailed environmental statement is necessary, additional time for approval or disapproval as specified in RCW 76.09.050 will be required.

[Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), §222-12-030, filed 11/16/87, effective 1/1/88; Order 263, §222-12-030, filed 6/16/76.]

WAC 222-12-040 *Alternate Plans.

All forest practice operations must comply with the act and further with the rules and regulations 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 fisheries, wildlife, and ecology, other state agencies, and affected Indian tribes prior to approval of any alternate plan.

[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 222-12-045 *Adaptive Management.

In order to further the purposes of chapter 76.09 RCW the board has adopted a policy of adaptive management designed to modify these regulations and their application based on cooperative research, monitoring, and evaluation. Such adaptive management shall include the measures set out in WAC 222-08-035.

[Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), §222-12-045, filed 11/16/87, effective 1/1/88.]

New Section

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, fisheries, wildlife, natural resources, forest landowners, and federally recognized tribes on these resource issues.

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 and regulations, or
 - (b) A deviation from the approved application, or
 - (c) A wilful 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 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 and regulations: 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 departments of fisheries and game.

[Order 263, §222-12-050, filed 6/16/76.]

WAC 222-12-060 Supplemental Directives.

Supplemental directives are advisory directives and are issued to forest landowners, timber owners and operators conducting forest practices, recommending an alternate preferred course of action or a minor change in the operation, which the department believes would provide greater assurance that the purposes and policies set forth in RCW 76.09.010 will be met.

[Order 263, §222-12-060, filed 6/16/76.]

WAC 222-12-070 Enforcement Policy.

Procedures for enforcement of these regulations by the department are provided in chapter 222-46 WAC. Where the department of ecology determines that a person has failed to comply with the forest practices regulations relating to water quality protection, and that the department of natural resources has not issued a stop work order or notice to comply, the department of ecology shall inform the department thereof in writing. If the department of natural resources fails to take authorized enforcement action within 24 hours, under RCW 76.09.080, 76.09.090, 76.09.120 or 76.09.130, the department of ecology may petition to the chairman of the appeals board, who shall, within 48 hours, either deny the petition or direct the department of natural resources to immediately issue a stop work order or a notice to comply or impose a penalty. No civil

or criminal penalties shall be imposed for past actions or omissions if such actions or omissions were conducted pursuant to an approval or directive of the department of natural resources.

[Order 263, §222-12-070, filed 6/16/76.]

WAC 222-12-080 Administrative and Judicial Appeals.

Forest landowners, timber owners, operators, counties and any aggrieved parties as defined by the Forest Practices Act may appeal to the forest practices appeals board certain actions and omissions of the department, including: Approval or disapproval of an application; any conditions attached to approval of an application, notices to comply, stop work orders, civil penalties assessed or notices of violation: PROVIDED, That no notices to comply may be appealed to the appeals board unless first appealed to the department under RCW 76.09.090. The decision of the appeals board may be appealed to the superior court in accordance with the Administrative Procedure Act, chapter 34.04 RCW.

[Order 263, §222-12-080, 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 fisheries, 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 by substitution or enhancement.**
- (10) A LIST of non-native 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 the 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 would require approval by the board.**
- (12) A LIST of special concerns related to aerial application of pesticides developed under WAC 222-16-070(3).**

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.

222-16-060 Lands with a likelihood of future conversion.

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 T & E species.

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

222-16-040 Temperature sensitive waters.

[Order 263, §222-16-040 WRIA Map, filed 6/16/76.] Repealed by 87-23- 036 (Order 535), filed 11/16/87, effective 1/1/88. Statutory Authority: RCW 76.09.040.

NOTES:

Reviser's note: For an explanation of the rules marked with an asterisk (*), see WAC 222-12-010.

WAC 222-16-010 General Definitions.*

(NOTE: Only those terms which are changed, or added by this proposal are included in this list of 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.

These are areas where specified public resources may be vulnerable to a material adverse change; these areas would require the use of "prescriptions", management strategies locally developed to reflect the risk and the vulnerability of specified public resources.

"BOG" means wetlands which have the following characteristics: peat soils 16 inches or more in depth (except over bedrock); and vegetation such as sphagnum moss, labrador tea, bog laurel, bog rosemary, sundews, and sedges; bogs may have an overstory of spruce and may be associated with open water.

Defined for wetland typing purposes.

"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.**

Redefined to group 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 WAC 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.

Defined to differentiate intentional voluntary construction of wetlands from wetlands created as a result of construction projects.

"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.

"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.

Changed to match Federal ESA.

"CRITICAL WILDLIFE HABITAT (STATE)" means those habitats designated by the board in accordance with WAC 222-16-080.

Defined to indicate differences between state and federal designations.

"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.

"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.

"DEPARTMENT" means the department of natural resources.

"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:

Moved from WAC 222-30-020 (4).

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 of at least 10 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 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, hardstem bulrush and cattails; fens may have an overstory of spruce and may be associated with open water.

Defined for wetland typing purposes.

"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.

Defined to clarify the term in the application of the wetland protection provisions of the rules.

"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.

Watershed analysis will provide a biological and physical inventory of a watershed administrative unit (WAU); within the WAU, the analysis will assess how these specifically identified processes have been or could be impacted by forest management activities.

"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.

Substituted for low ground pressure equipment clause. Intended to protect the hydrology.

"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.

"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.

"OPERATOR" shall mean any person engaging in forest practices except an employee with wages as his 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), non-toxic 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.

See "Chemicals" definition.

"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.

"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.

Resource characteristics are a specified set of public resources and their characteristics will be reviewed during the watershed analysis process.

Other elements may be subject to cumulative effects analysis if the Forest Practices Board modifies the manual and appropriate rules.

"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.

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

"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.

"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 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.

A WAU is an identified drainage that is the basic planning unit for watershed analysis.

Watershed analysis has two components. The first is an assessment or inventory of certain biological or physical factors. Level 1 assessments are more generalized while Level 2 assessments are in-depth. An assessment, whether Level 1 or 2, coupled with prescriptions, completes the watershed analysis processes.

The purpose of defining four types of wildlife reserve trees is to segregate those trees which pose a hazard to workers or residents from those which do not.

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.

[Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 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 fisheries, 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 fisheries, 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

Section 222-16-020 has been eliminated, information and protection provided by this chapter has been incorporated in Sections 222-16-030 and 222-16-035.

This language was added to clarify the level of protection afforded to inundated areas of wetlands which are used as over-wintering habitat for juvenile salmonids. These areas should be treated as typed waters with the appropriate bed and bank protection and an RMZ.

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.
- (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:

This addition is aimed at providing off-channel habitat with a high level of protection based on this habitat's importance in the survival of juvenile salmonids. This protection is aimed particularly at wall-based channels.

- (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.
- (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.

New Section

WAC 222-16-035 Wetland Typing System

*The department in cooperation with the departments of fisheries, 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 the 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 fisheries, 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) "NON-FORESTED 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
 - (iii) are bogs and fens greater than 0.25 acre.
- (b) "TYPE B WETLAND" classification shall be applied to all other nonforested wetlands greater than 0.25 acre.

This Section defines the wetland typing system. Wetlands are typed to indicate those which will require wetland management zones. Forested wetlands do not require WMZ's but do receive hydrologic protection.

Requirements for delineation of wetlands have been more clearly specified. Approximate determination has been determined to be sufficient for many applications of the rules. Approximate determination is intended to utilize available information to assist in the location of wetlands. Intensive field review is not intended to be a part of approximate determination.

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

Defined to identify those wetlands which do not require a WMZ. WAC 222-30-020 (7) (a).

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 a 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,**

Listed by species and specific forest practices in 222-16-080 (1).

The completion of watershed analysis within a WAU removes such areas from this rule. Watershed analysis addresses conditions of public resources and the need for additional protection as needed.

The completion of watershed analysis within a WAU removes such areas from this rule.

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.**

For areas of resource sensitivity, any practice that does not meet provisions of an approved prescription or an alternate plan, is a Class IV Special.

This will require replacement by substitution or enhancement of the lost wetland.

New language added to protect wetlands and WMZs.

- *(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 wildlife or the Washington department of fisheries 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.

WAC 222-16-060 Lands with a Likelihood of Future Conversion.

- (1) Prior to identification of any forest lands as having a likelihood of future conversion to urban development within a ten-year period, the department shall consider all available information, including but not limited to:
- (a) Whether the land is assessed under the provisions of chapter 84.28, 84.33, or 84.34 RCW;
 - (b) Whether the land is excluded from any local improvement district;
 - (c) Whether the classification of the land in the local comprehensive plan or the local zoning ordinance permits or encourages long-term timber production;
 - (d) Whether the land lies outside the current or proposed boundary of a city or the urban growth boundary of a city or outside a water or sewer district;
 - (e) Whether the land has received previous development permit approval;
 - (f) The presence or absence of a written forest management plan for the land.
- Any identification must be consistent with any local or regional land use plans or ordinances.

- (2) A local government entity with jurisdiction or an affected Indian tribe may submit to the department a proposal for identification of forest lands that have the likelihood of future conversion to urban development within a ten-year period.
- (3) The department may develop a public participation process when identifying forest lands with a likelihood of future conversion to urban development within a ten-year period.
- (4) Forest lands that have been identified by the department prior to the effective date of this section as having a likelihood of future conversion to urban development within a ten-year period shall be reviewed under subsection (1) of this section to determine if the identification should be withdrawn or modified.
- (5) A landowner that submits an application or notification in an area that has been identified as having a likelihood of future conversion to urban development within a ten-year period may request the department to reconsider the identification of the affected parcel. The department shall remove the identification if the landowner complies with (a) of this subsection and at least one from (b) or (c) of this subsection:
 - (a) The landowner submits a statement of intent not to convert to a use other than commercial timber operation for a period of ten years after completion of the forest practice. The statement shall be on a form prepared by the department and shall indicate the landowner is aware of the provisions of RCW 76.09.060 (3)(b); and
 - (b) The land is enrolled under the provisions of chapter 84.28, 84.33, or 84.34 RCW; or
 - (c) A written forest management plan for the land covering the next ten years has been reviewed and accepted by the department.

[Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23- 052, §222-16-060, filed 11/15/91, effective 12/16/91.]

New Section

WAC 222-16-070 Pesticide Uses with the Potential for a Substantial Impact on the Environment. *

See WAC 222-16-050 (1)(a).

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.

- (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 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	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 Sp
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 Sp 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 Sp Class III
4 (a)	Is this operation occurring over ground water with a high susceptibility to contamination as specified in EPA 910/ 9-87-189 or in documentation provided by the department 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 Sp go to 5(a)
5 (a)	Is the operation adjacent (within 100 ft.) to 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"?	Yes	go to 5(c)

This list has been referred to as the "Leacher List."

1(b) was added to provide for experimentation with forest chemicals under the direction of the Department of Agriculture.

3 (b) is aimed at protecting T & E insects; such as the Oregon Silverspot Butterfly.

Toxicity should be determined from the "Pesticide List" not from the label, Toxicity may be modified on the list based on mammalian or aquatic toxicity. See 1 (b) above.

	* Is the toxicity rating "Danger"?	Yes	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 Sp go to 5(e)
5 (d)	Is there a Group A or B water surface system intake OR a fish hatchery intake within 1 mile downstream of the operation?	Yes No	Class IV Sp 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 Sp go to 5(f)
5 (f)	Is the operation applying a pesticide in a Type A or B wetland?	Yes No	Class IV Sp 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 Sp 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 Sp 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 Sp Class III

6(b) see WAC 222-16-080.

6(c) see subsection (3) below.

(3) Special concerns [see WAC 222-16-070 (2)6(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 sub-section (2) of this section.

New Section

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:

The circular areas identified in this section are to be used as a trigger to initiate SEPA. Actual protection areas will be determined through the development of a site specific special management plan. See (2) below. Regular use areas, as described in previous drafts, have been removed from the proposal.

- (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 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 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 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 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 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 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 Wildlife.
- (h) *Northern spotted owl* - Effective December 1, 1992, harvesting, road construction, or aerial application of pesticides on the 500 acres of suitable nesting, breeding, and foraging habitat surrounding the activity center of known Status 1, 2, or 3 spotted owls, documented by the Department of Wildlife. Prior to the above effective date, the department shall determine what constitutes critical wildlife habitat (state) for spotted owls in consultation with the Department of Wildlife. The department's determination shall be limited to harvesting, road construction, or aerial application of pesticides, on lands known to contain the nest or breeding grounds of Status 1, 2, or 3 spotted owls, documented by the Department of Wildlife.

This rule is intended to be interim and shall be changed as necessary upon completion of the northern spotted owl recovery plan, rule making under the Federal Endangered Species Act, or other federal action, or other state actions.

The department shall rely upon the Department of Wildlife for the determination of status based on the following definitions:

Status 1 *Pair or reproductive* - the presence or response of two birds of the opposite sex where past or current reproductive activities have been documented.

Status 2 *Two birds, pair status unknown* - the presence or response of 2 birds of the opposite sex where pair status cannot be determined and where at least 1 member must meet the resident single requirements.

Status 3 *Resident territorial single* - the presence or response of a single owl within the same general area on 3 or more occasions within a breeding season with no response by an owl of the opposite sex after a complete survey; or multiple responses over several years (i.e., 2 responses in year one and 1 response in year two, for the same general area).

(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.

(2) A site specific special wildlife management plan, including a bald eagle site management plan under WAC 232-12-292, developed by the landowner shall replace the critical wildlife habitats (state) listed in subsection (1) of this section when such a plan has been established in cooperation with, and approved by, the Department of Wildlife.

(3) 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:
None listed.

(4) 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 Wildlife Commission and/or the United States Secretary of the Interior, the department shall after consultation with the department of 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

Currently, no critical habitat (Federal) has been identified on non-federal lands in Washington State.

Process for identifying critical wildlife habitat (State) for species listed in the future.

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).

- (5) 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 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 (3) of this section. See WAC 222-16-050(1)(b)(ii).
- (6)(a) Except for bald eagles under subsection (1)(b), the critical wildlife habitats (state) of threatened and endangered species and specific forest practices designated in subsection (1) 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 de-listing of a threatened or endangered species by the Washington Wildlife Commission.
- (6)(b) The board shall examine current wildlife protection and department authority to protect wildlife and develop and recommend by May 1993 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 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.

The Forest Practices Board can review critical habitat (Federal) and specifically alter this federal designation relative to indicated practices of specific areas of the state.

Subsection 6 indicates the interim nature of the wildlife protection provided by this rule change and indicates the future intentions of the board to continue the review of wildlife protection.

- (7) Regardless of any other provision in this section, the following are not critical wildlife habitats (State) or critical habitats (Federal) for the particular species:**
- (a) forest practices on lands covered by a conservation plan and permit for a particular species approved by the U. S. Fish and Wildlife Service pursuant to 16 U.S.C. 1539(a)(2) consistent with that plan and permit; or**
 - (b) forest practices covered by 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).**

Forest practices which fall within the scope of a U.S. Fish and Wildlife Service habitat conservation plan or are determined to not impact a threatened species based on rules developed under the Federal ESA will not be critical habitat under these rules.

Chapter 222-22 WAC

Watershed Analysis

WAC

222-22-010	Policy.
222-22-020	Watershed Administrative Units.
222-22-030	Qualification of Watershed Analysis Participants.
222-22-040	Watershed Prioritization.
222-22-050	Level 1 Watershed Resource Assessment.
222-22-060	Level 2 Watershed Resource Assessment.
222-22-070	Prescription Recommendation.
222-22-080	Approval of Watershed Analysis.
222-22-090	Use and Review of Watershed Analysis.
222-22-100	Application Review Prior to Watershed Analysis.

New Section

WAC 222-22-010 Policy.

- (1) Public resources may be adversely affected by the interaction of two or more forest practices. The purpose of this rule is to address these cumulative effects of forest practices on the public resources of fish, water, and capital improvements of the state or its political subdivisions. The long-term objective of this rule is to protect and restore these public resources and the productive capacity of fish habitat adversely affected by forest practices while maintaining a viable forest products industry. The board intends that this be accomplished through prescriptions designed to protect and allow the recovery of fish, water, and capital improvements of the state or its political subdivisions, through enforcement against noncompliance of the forest practice rules in this title 222 WAC, and through voluntary mitigation measures. This system also allows for monitoring, subsequent watershed analysis, and adaptive management.
- (2) Adaptive management in a watershed analysis process requires advances in technology and cooperation among resource managers. The board finds that it is appropriate to promulgate rules to address certain cumulative effects by means of the watershed analysis system, while recognizing the pioneering nature of this system and the need to monitor its success in predicting and preventing adverse change to fish, water, and capital improvements of the state and its political subdivisions.
- (3) Many factors other than forest practices can have a significant effect on the condition of fish, water, and capital improvements of the state or its political subdivisions. Nonforest practice

Defines the policy, context and scope of watershed analysis.

Ecosystems are impacted by many types of activities, not just forest practices. If watershed analysis identifies potential problems not associated with forestry, other jurisdictions should be notified.

contributions to cumulative effects should be addressed by the appropriate jurisdictional authorities. When a watershed analysis identifies a potential adverse effect on fish, water, and capital improvements of the state or its political subdivisions from activities that are not regulated under chapter 76.09 RCW, the department should notify any governmental agency or Indian tribe having jurisdiction over those activities.

- (4) The rules in this chapter set forth a system for identifying the probability of change and the likelihood of this change adversely affecting specific characteristics of fish, water, and capital improvements of the state or its political subdivisions, and for using forest management prescriptions to avoid or minimize significant adverse effects from forest practices. The rules in this chapter are in addition to, and do not take the place of, the other forest practice rules in this title 222 WAC.
- (5) These rules are intended to be applied and should be construed in such a manner as to minimize the delay associated with the review of individual forest practice applications and notifications by increasing the predictability of the process and the appropriate management response.

New Section

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, fisheries, 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, fisheries, and wildlife, affected Indian tribes, forest land owners, local government entities, and the public.

The watershed analysis rules do not replace other applicable forest practice rules. The Department of Natural Resources has full authority to enforce all sections of the rules and FP Act.

WAUs are the basic planning units.

WAUs are generally 10,000-50,000 acres, but the size may vary.

The Department of Natural Resources may request the Forest Practices Board to change WAUs.

From time to time and as appropriate, the department shall make recommendations to the board regarding revision of watershed administrative units.

New Section

WAC 222-22-030 Qualification of Watershed Resource Analysts, Specialists, and Field Managers.

- (1) The department shall set the minimum qualifications for analysts participating in level 1 assessments conducted under WAC 222-22-050, for specialists participating in level 2 assessments conducted under WAC 222-22-060, and for field managers participating in recommendation of prescriptions under WAC 222-22-070. The minimum qualifications shall be specific for the disciplines needed to participate in level 1 and level 2 assessments and in the recommendations of prescriptions, and shall include, at a minimum, formal education in the relevant discipline and field experience. Minimum qualifications for analysts participating in level 2 assessments should typically include a graduate degree in the relevant discipline.**
- (2) The department shall coordinate with relevant state and federal agencies, affected Indian tribes, forest land owners, local government entities, and the public to seek and utilize available qualified expertise to participate in watershed analysis.**
- (3) Qualified analysts, specialists, and field managers shall, while and only for the purpose of conducting a watershed analysis or monitoring in a WAU, be duly authorized representatives of the department for the purposes of RCW 76.09.150.**
- (4) An individual may qualify in more than one science or management skill. Qualification under subsection (1) of this section shall be effective for 5 years. When a qualification expires, a person requesting re-qualification shall meet the criteria in effect at the time of re-qualification.**
- (5) The department shall provide and coordinate training for, maintain a register of, and monitor the performance of qualified analysts, specialists, and field managers by region. The department shall disqualify analysts, specialists, and field managers who fail to meet the levels of performance required by the qualification standards.**

The department shall set experience and educational requirements for Level 1 participants (analysts), Level 2 participants (specialists) and prescription participants (field managers).

If a person has the required experience and education, then the department shall provide training for participants.

New Section

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, wildlife, and fisheries, affected Indian tribes, forest land owners, and the public in setting priorities. In setting priorities or re-prioritizing 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.

The board has developed state-wide priorities based on a screening process. At the regional level, the department shall cooperate with interested parties in developing local priorities. The use of state-wide resources will be governed by the board-established state-wide priorities.

Owners of more than 10% on the non-federal land may conduct the analysis at their own expense. The analysis must use the processes in the manual/rules and all participants must meet minimum qualifications including training. The board encourages broad participation by qualified parties from affected Indian tribes, forest land owners, local government entities, and the public.

Broad participation in land owner-sponsored analysis is encouraged.

Those conducting analyses are required to give reasonable notice to affected land owners, Indian tribes and others.

New Section

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

Level 1 assessment may only be conducted by qualified analysts. The team shall have persons qualified in identified professions.

The teams will have people qualified in the identified disciplines; when the particular issues do not require the use of all the disciplines, then the team composition may change.

Certain groups may provide qualified participants.

The assessment shall be done according to the Forest Practices Manual.

The Level 1 team shall identify, map and classify certain public resources. Indices of resource condition will separate good, fair and poor resource conditions.

For certain watershed processes, the team will, where possible, evaluate the potential of an adverse change due to forest management. If a material amount of water, wood or energy were to be delivered to certain public resources, then the team would map and rate the likelihood of such adverse changes.

For areas previously rated as high, medium or indeterminate, the team shall rate and map the vulnerability of

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 subsection, 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:

selected public resources. Indices of resource conditions shall be used to separate high, medium and low vulnerabilities.

Areas of resource sensitivity are defined in Table 1 as those circumstances that do not have "standard rules". The management response is to develop & use prescriptions.

Table 1
Areas of Resource Sensitivity and Management Response

Likelihood of Adverse Change and Deliverability			
	Low	Medium	High
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

Vulnerability

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 causal 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

The management response is to use prescriptions that are reasonably designed to minimize or prevent or avoid the likelihood of operations resulting in material, adverse effects to selected public resources.

Decision criteria are defined for use in Table 1.

Areas rated as indeterminate ("can't tell for sure") will be rated as medium until Level 2 is done.

A causal mechanism report will be prepared that identifies the significance and relationships of various processes.

Areas for voluntary corrective action will be identified.

If there are disagreements among the team members and all the reports are not consensus reports, then the department shall have an additional 21 days to make a decision.

If there are indeterminate ratings or if the Level 1 procedures recommend it, then a Level 2 assessment will be done.

In WAUs that contain indeterminate ratings, Level 1 is considered interim. The department shall use the interim prescriptions until Level 2 is done.

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 fisheries, ecology, and affected Indian tribes.

New Section

WAC 222-22-060 Level 2 Watershed Resource Assessment.

- (1) The department, or forest land owner acting under WAC 222-22-040(3), may assemble a level 2 assessment team either, in the case of a forest land owner, to begin a watershed analysis or to review the level 1 assessment on a WAU. The level 2 team shall consist of specialists qualified under WAC 222-22-030(1). Each level 2 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 designate one qualified member of the team at its own expense.

- (2) The level 2 team shall perform an assessment of the WAU utilizing the methodology, indices of resource condition, and checklist set forth in the manual in accordance with the following:
 - (a) If a level 1 assessment has not been conducted under WAC 222-22-050, the assessment team shall complete the tasks required under WAC 222-22-050(2), except that the level 2 team shall not rate any likelihood of adverse change and deliverability or resource vulnerability as indeterminate.
 - (b) If the level 2 team has been assembled to review a level 1 assessment, the level 2 team shall, notwithstanding its optional review of all or part of the level 1 assessment, review each likelihood of adverse change and deliverability and adverse effect rated as indeterminate and shall revise each indeterminate rating to low, medium, or high and shall revise the map of the WAU accordingly.
- (3) Within 60 days of mailing notice under WAC 222-22-040(4) where a watershed analysis begins with a level 2 assessment or within 60 days of beginning a level 2 assessment after completion

If the WAUs have no indeterminate ratings, then Level 1 is considered final. The interim prescriptions will be reviewed by various jurisdictions prior to submitting them to the department. The department does not circulate the completed Level 1 watershed analysis for comment.

Level 2 assessments shall be done by specialists qualified in the identified professions.

The teams will generally have people qualified in the identified disciplines; if the particular issues do not require the use of all the disciplines, then the team composition may change.

Certain owners or tribes may provide team members.

Level 2 shall be done in accordance with the Forest Practices Manual.

Level 2 teams will complete the biological and physical inventory plus maps as in Level 1. Indeterminate ratings may not be used.

Level 2 teams have the option of reviewing all or part of Level 1 work and must review indeterminate adverse effects and revise as appropriate to low, medium or high.

The draft Level 2 assessment shall be completed within 60 days.

of a level 1 assessment, the level 2 team shall submit to the department its draft level 2 assessment, which shall consist of the map of the WAU and the causal mechanism report.

- (4) The level 2 team shall endeavor to produce a consensus report. If the level 2 team is unable to agree as to one or more areas of resource sensitivity or the causal mechanism report, alternative designations and an explanation therefor shall be included in the draft assessment. Where the draft level 2 assessment delivered to the department contains alternative designations or reports, the department shall within 30 days of the receipt of the draft level 2 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.

New Section

WAC 222-22-070 Prescription Recommendation.

- (1) For each WAU for which a watershed analysis is undertaken, the department, or forest land owner acting under WAC 222-22-040(3), shall assemble a team of field managers qualified under WAC 222-22-030(1). The team shall include persons qualified in the disciplines indicated as necessary in the methodology, and shall generally include persons qualified in:
- (a) Forest resource management;
 - (b) Forest harvest and road systems engineering;
 - (c) Forest hydrology; and
 - (d) Fisheries science or management.

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) Each forest land owner in a WAU shall have the right to submit to the department or the forest land owner conducting the watershed analysis prescriptions for areas of resource sensitivity on its land. If these prescriptions are received within the time period described in subsection (4) of this section, they shall be considered for inclusion in the watershed analysis.
- (3) For each identified area of resource sensitivity, the field managers' team shall, in consultation with the level 1 and level 2 teams, if any, select and recommend to the department prescriptions. These prescriptions shall be reasonably designed to minimize, or to prevent or avoid, as set forth in table 1 in WAC 222-22-050(2)(d), the likelihood of adverse change and deliverability that has the potential to cause a material, adverse effect to resource characteristics in accordance with the following:
- (a) The prescriptions shall be designed to provide forest land owners and operators with as much flexibility as is reasonably possible while addressing the area of resource

If there are disagreements within the Level 2 assessments or causal mechanism report, the department shall decide within 30 days which option is the most accurate.

Prescriptions shall be developed by a team of qualified field managers from identified professions.

The teams will generally have people qualified in the identified disciplines; if the particular issues do not require the use of all the disciplines, then the team composition may change.

At their own expense, certain owners or affected tribes may provide a team member.

Owners may submit prescriptions for areas of resource sensitivity on their land.

The team shall review the prescriptions with the Level 1 and Level 2 teams; after review, the recommended prescriptions are sent to the department.

Prescriptions apply only to areas of resource sensitivity. The intent of prescriptions is to minimize, prevent or avoid adverse effects to selected resource characteristics.

Prescriptions are designed to provide reasonable flexibility while addressing the issues within the area of resource sensitivity.

sensitivity. The prescriptions should, where appropriate, include, but not be limited to, plans for road abandonment, orphaned roads, and road maintenance and plans for applying prescriptions to recognized land features identified in the WAU as areas of resource sensitivity but not fully mapped;

- (b) Each set of prescriptions shall provide for an option for an alternate plan under WAC 222-12-040, which the applicant shows meets or exceeds the protection provided by the other prescriptions approved for a given area of resource sensitivity; and
- (c) The regulation of forest practices and cumulative effects under this chapter shall not require mitigation for activities or events not regulated under chapter 76.09 RCW. Any hazardous condition subject to forest practices identified in a watershed analysis requiring corrective action shall be referred to the department for consideration under RCW 76.09.300 et seq.

- (4) The field managers' team shall submit the recommended prescriptions to the department within 30 days of the submission to the department of the level 2 assessment under WAC 222-22-060 or within 21 days of the submission to the department of the level 1 assessment under WAC 222-22-050.

New Section

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, fisheries, 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

Alternate plans are permitted if they meet or exceed the protection levels provided by the approved prescriptions.

These rules do not apply to activities not subject to the Forest Practices Act. Corrective action is governed by a particular section of state law ("orphaned" roads).

Prescriptions must be completed within 21 days of a complete Level 1 analysis and within 30 days of a complete Level 2 analysis.

Prescriptions developed from Level 1 watershed analysis which contain indeterminate ratings are reviewed per 222-22-050(5) and are considered interim only. The completed interim Level 1 watershed analysis is not circulated. Prescriptions from Level 2 watershed analysis, and Level 1 not meeting the previous circumstances, are circulated to various jurisdictions, affected Indian tribes and the public for review and comment. The department has 30 days to approve or disapprove the watershed analysis.

The department shall approve the draft analysis unless the Level 1 or Level 2 teams failed to follow procedures or the department determines that the Level 1 or Level 2 teams could not have reasonably reached such conclusions.

The department may reject the analysis if the prescriptions do not accomplish the purposes and policies of these rules and the Forest Practices Act, but must explain such rejection in writing.

- (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.

New Section

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

The decision criteria for rejection is that the prescriptions "will not" meet the intent of the watershed analysis rules and the Forest Practices Act.

The Forest Practices Board discussed the role of SEPA in approving Watershed Analysis. The use or approval is treated as an "action" under SEPA and will be subject to a threshold analysis along with a required Environmental Checklist. The Responsible Official for the Department of Natural Resources (RP & S Assistant Regional Manager) will make a threshold determination for each Watershed Analysis. Any group performing Analysis must develop, at their sole expense, a Checklist that is acceptable to the Responsible Official.

An applicant must indicate if the proposed operation will impact an area of resource sensitivity. If so, an approved prescription for that area must be provided as part of the application.

The department cannot further condition an operation in an area of resource sensitivity if an approved prescription is used. The department cannot further condition an application outside of an area of resource sensitivity upon the completion of the analysis. Such conditioning limitations only apply to processes and public resources reviewed during the analysis; any public resource or process not reviewed but subject to the rules or Forest Practices Act may result in appropriate conditioning. Conditioning may be applied to correct errors.

After a formal notice of the start of the analysis, all operations shall be conditioned to require compliance with interim, draft and final prescriptions.

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, wildlife, and fisheries, 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.

If resource conditions are degraded, the department shall evaluate the effectiveness of prescriptions. If there has not been improvement within three years, the analysis shall be repeated.

Watershed analysis may be revised after five years, if necessary, or sooner under selected circumstances. If fair or poor conditions last more than one year or do not improve, then the analysis will be revised.

Due to the nature of some physical and biological processes, it may take longer than 12 months for improvement to be detected. After a cooperative process, more time can be considered to evaluate the effectiveness of the prescriptions.

Revisions shall be done using processes employed at the time of the original analysis.

Watershed analysis may be revised on part or all of the WAU depending on the circumstances.

New Section

WAC 222-22-100 Application Review Prior to Watershed Analysis.

The watershed analysis system established in this chapter is a principal methodology for assessing the effects on fish, water, and capital improvements of the state or its political subdivisions of two or more forest practices. Recognizing that it will not be possible to achieve statewide implementation of the analysis process for all WAUs for some time, the board hereby establishes certain interim regulatory measures pending watershed analysis on a given WAU. These measures are designed to ensure use of the best available analysis techniques and existing authorities to protect fish, water, and capital improvements of the state or its political subdivisions.

- (1) The department shall continue to use its implementation and enforcement authority to prevent damage to fish, water, and capital improvements of the state or its political subdivisions. See chapter 222-46 WAC.
 - (a) The department shall continue to concentrate and exercise its authority in implementing the use of existing road construction, maintenance, and abandonment rules where there is evidence of road-related damage to fish, water, and capital improvements of the state or its political subdivisions. The applicable road construction and maintenance rules can be found in chapter 222-24 WAC.
 - (b) The department shall report to the board each quarter the results of its road construction, maintenance, and abandonment enforcement program. No later than October 31 of each year, the board shall report on results and recommendations for regulatory change as needed to protect fish, water, and capital improvements of the state or its political subdivisions.

- (2) The department shall condition the size of clearcut harvest applications in the significant rain-on-snow zone where the department determines, using local evidence, that peak flows have resulted in material damages to public resources. The department may prepare conditioning guidelines to assess and condition applications located in a significant rain-on-snow zone.
 - (a) Each year not later than August 31, the department shall provide a summary report of actions taken under rain-on-snow conditioning or conditioning guidelines to the appropriate board committee.
 - (b) Such conditioning authority shall expire upon completion of watershed analysis in a WAU.

 - (c) Nothing in this section shall require a watershed analysis to develop harvest size recommendations.

Watershed analysis is the major tool to evaluate the impact of forest practices on fish, water and capital improvements.

Recognizing that it will take time to complete watershed analysis, the department is directed to continue to use its enforcement authority, including informal conferences, notices to comply, stop work orders, corrective action, civil penalties, criminal penalties, injunctions and may require payments to compensate for material damage to public resources.

The department shall condition the size of clearcut harvests in the significant rain-on-snow zone where peak flows have materially damaged public resources.

The general rain-on-snow conditioning guidelines will be used unless Level 1 or Level 2 assessments indicate otherwise.

No substantive or policy changes have been made to the rain-on-snow provisions. The rule has been rewritten to provide clarity and internal consistency with other rules.

Watershed analysis is not directed to develop a harvest unit size recommendation; size recommendations may be developed based on local circumstances.

Chapter 222-24 WAC

Road Construction and Maintenance

WAC

- 222-24-010 Policy.
- 222-24-020 Road location.
- 222-24-025 Road design.
- 222-24-030 Road construction.
- 222-24-035 Landing location and construction.
- 222-24-040 Water crossing structures.
- 222-24-050 Road maintenance.
- 222-24-060 Rock quarries, gravel pits, borrow pits, and spoil disposal areas.

NOTES:

Reviser's note: For an explanation of the rules marked with an asterisk (*), see WAC 222-12- 010.

*WAC 222-24-010 Policy.

- (1) A well designed, located, constructed, and maintained system of forest roads is essential to forest management and protection of the public resources. Riparian areas contain some of the more productive conditions for growing timber, are heavily used by wildlife and provide essential habitat for fish and wildlife and essential functions in the protection of water quality. Wetland areas serve several significant functions in addition to timber production: providing fish and wildlife habitat, protecting water quality, moderating and preserving water quantity. Wetlands may also contain unique or rare ecological systems.
- (2) All road and landing construction within wetlands shall be conducted so that choices are made in the following descending order of preference:
 - (a) avoid impacts by selecting the least environmentally damaging road or landing location, road location and road length; or
 - (b) minimize impacts by such things as reducing the subgrade width, fill acreage and spoil areas; or
 - (c) restore affected areas by removing temporary fills or road sections upon the completion of the project; or
 - (d) reduce or eliminate impacts over time by preserving or maintaining areas; or
 - (e) replace affected areas by creating new wetlands or enhancing existing wetlands.
- (3) An accurate delineation of wetland boundaries shall not be required under this section except where necessary to determine acreage of road or landing construction which fills or drains

It is intended that any road construction within wetlands will be conducted in a manner so as to, either avoid the wetland as much as possible; reduce subgrade widths within wetlands; abandonment of roads and fill removal where practical; or replacement by substitution or enhancement when more than .5 acres of a wetland is impacted.

Approximate determination of wetlands may be required to design and construct roads to avoid wetlands. An

more than 0.5 acres of a wetland. Landowners are encouraged to voluntarily increase wetland acreage and functions over the long-term.

- (4) Extra protection is required during road construction and maintenance to protect these resources and timber growing potential. Landowners and fisheries and wildlife managers are encouraged to cooperate to develop road management and abandonment plans. Landowners are further encouraged to cooperate in sharing roads to minimize road mileage and avoid duplicative road construction.
- (5) This section covers the location, design, construction, maintenance and abandonment of forest roads, bridges, stream crossings, quarries, borrow pits, and disposal sites used for forest road construction and is intended to assist landowners in proper road planning, construction and maintenance so as to protect public resources.

(NOTE: Other Laws and Regulations and/or Permit Requirements may Apply. See Chapter 222-50 WAC.)

WAC 222-24-020 Road Location.

- (1) FIT THE road to the topography so that a minimum of alterations to the natural features will occur.
- * (2) MINIMIZE ROADS along or within narrow canyons, riparian management zones, wetlands and wetland management zones.
 - (a) Except where crossings are necessary, roads shall not be located within natural drainage channels and riparian management zones when there would be substantial loss or damage to wildlife habitat unless the department has determined that alternatives will cause greater damage to public resources.
 - (b) Roads shall not be located in wetlands when there would be substantial loss or damage to wetland functions or acreage unless the department has determined that alternatives will cause greater damage to public resources.
 - (c) Approximate determination of wetland boundaries shall be required for the purpose of avoidance during design and construction of roads. Landowners should attempt to minimize road length concurrently with the attempt to avoid wetlands. Delineation shall be required to determine the length of road constructed within a wetland in order to determine acreage when replacement by substitution or enhancement of a wetland is required. The requirement for accurate delineation shall be limited to the area of the wetland proposed to be filled.
- * (3) MINIMIZE THE number of stream crossings.
- * (4) WHENEVER PRACTICAL, cross streams at right angles to the main channel.

accurate delineation of the wetland boundaries may be required where a road fills or drains more than 0.5 acres of a wetland. See 222-24-020 (2) (c).

- (5) AVOID DUPLICATIVE roads by keeping the total amount of construction to a minimum. Use existing roads whenever practical and avoid isolating patches of timber which, when removed, may require unnecessary road construction.
- * (6) WHERE FEASIBLE, DO NOT LOCATE roads on excessively steep or unstable slopes or known slide prone areas as determined by the department. The department shall determine whether slopes are unstable using available soils information, or from evidence of geologically recent slumps or slides, or where the natural slope exceeds the angle of repose for the particular soil types present, or where springs or seeps may indicate unstable conditions are present in or above the construction site.

Essential road construction will be accomplished by end hauling, over hauling, or other special road construction techniques unless the department determines there is potential for damage to public resources under WAC 222-16-050 (1)(e).

WAC 222-24-025 Road Design.

- (1) USE THE minimum design standard that produces a road sufficient to carry the anticipated traffic load with reasonable safety.
- * (2) SUBGRADE WIDTH should average not more than 32 feet for double lane roads and 20 feet for single lane roads, exclusive of ditches, plus any additional width necessary for safe operations on curves and turnouts. Where road location in wetlands is unavoidable (see WAC 222-24-010(2)), minimize subgrade width.
- (3) BALANCE EXCAVATION and embankments so that as much of the excavated material as is practical will be deposited in the roadway fill sections. Where full bench construction is necessary, design suitable embankments so that the excavated material may be end hauled to appropriate deposit areas.
- (4) DESIGN OR CONSTRUCT cut and fill slopes to the normal angle of repose for the materials involved, or at a lesser angle whenever practical.
- * (5) ALL ROADS should be outsloped or ditched on the uphill side and appropriate surface drainage shall be provided by the use of adequate cross drains, ditches, drivable dips, relief culverts, water bars, diversion ditches, or other such structures demonstrated to be equally effective.
- * (6) CROSS DRAINS, relief culverts, and diversion ditches shall not discharge onto erodible soils, or over fill slopes unless adequate outfall protection is provided.

The rules recognize the necessity of building some roads within the boundaries of wetlands.

- * (7) INSTALL cross drains, culverts, water bars, drivable dips, or diversion ditches on all forest roads to minimize erosion of the road bed, cut bank, and fill slope, or to reduce sedimentation of Type 1, 2, 3 or 4 Water. **Cross drains are required in wetlands to provide for continued hydrologic connectivity.** These drainage structures shall be installed at all natural drainages, all low points in the road gradient and spaced no wider than as follows:

Grade	Distance Westside	Distance Eastside
0 to 7%	1,000 ft.	1,500 ft.
8% to 15%	800 ft.	1,000 ft.
over 15%	600 ft.	800 ft.

More frequent culvert spacing or other drainage improvements are required where site specific evidence of peak flows or soil instability makes additional culverts necessary to minimize erosion of the road bed, ditches, cut bank, and fill slope to reduce sedimentation of Type 1, 2, 3 or 4 Waters, **or within wetlands** or to avoid unreasonable risk to public resources. See Part 5, Table 2 in the forest practices board manual for "Additional culvert spacing recommendations." On request of the applicant, the department may approve less frequent drainage spacing where parent material (e.g. rock, gravel) or topography justify.

- * (8) RELIEF CULVERTS installed on forest roads shall meet the following minimum specifications:
- (a) Be at least **18** inches in diameter or equivalent **in western Washington and 15 inches in diameter or the equivalent in eastern Washington.**
 - (b) Be installed sloping toward the outside edge of the road at a minimum gradient of 3 percent.
- * (9) DITCH DIVERSION. Where roadside ditches slope toward a Type 1, 2, 3 Water, **or Type A or B Wetland** for more than 300 feet and otherwise would discharge into the stream **or wetland**, divert the ditchwater onto the forest floor by relief culvert or other means at the first practical point.

- * (10) **FILLING OR DRAINING more than 0.5 acre of a wetland requires replacement by substitution or enhancement of the lost wetland functions and, for creation of new wetlands, area. See the Board Manual. Where creation of new wetlands is proposed, the objective of successful replacement or substitution of lost wetland area shall be on an acre for acre basis and of the same type and in the same general location. Where replacement by enhancement of wetlands is proposed, the objective shall be to provide for an equivalent amount of function to replace that which is lost.**

In order to "successfully" replace wetlands on an acre for acre basis, a site specific plan may require the creation of more acres of wetlands than those that have been filled or drained to provide equivalent amount of function.

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 swampy ground 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.

Non native plant species can invade wetlands to the exclusion of native species.

*** (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 outsloping 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 unavailable. No spoil area greater than 0.5 acre in size shall be allowed within wetlands.

The location of a spoil/debris waste site is discretionary. Therefore, they should be located outside of wetland boundaries. When less environmentally damaging sites are not reasonably available, spoil sites of less than 0.5 acres may be allowed within wetlands.

WAC 222-24-035 Landing Location and Construction.

- * (1) **LANDING LOCATION.** Locate landings to prevent damage to public resources. Avoid excessive excavation and filling. Minimize placement and size of landings within wetlands. Landings shall not be located in Type A or B Wetlands or their wetland management zones.
- (2) **LANDING CONSTRUCTION.**
 - (a) Landings requiring sidecast or fill shall be no larger than reasonably necessary for safe operation of the equipment expected to be used.
 - (b) Where the average general slopes exceed 65 percent, fill material used in construction of landings shall be free from loose stumps and excessive accumulations of slash and shall be mechanically compacted where necessary and practical in layers by tractor to prevent soil erosion and mass soil movement. Chemical compacting agents may be used in accordance with WAC 222-38- 020.

- * (c) Truck roads, skid trails, and fire trails shall be outsloped or cross drained uphill of landings and the water diverted onto the forest floor away from the toe of any landing fill.
- * (d) Landings shall be sloped to minimize accumulation of water on the landing.
- * (e) Excavation material shall not be sidecast where there is high potential for material to enter Type A or B wetlands or wetland management zones or below the ordinary high-water mark of any stream or the 50-year flood level of Type 1, 2, 3, or 4 Water.
- * (f) 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 unavailable. No spoil area greater than 0.5 acre in size shall be allowed within wetlands.

(c) (d) (e) have been moved to this location from WAC 222-30-020. (Repealed section).

See WAC 222-24-030 (9)(b).

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 Part 5 "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 Part 5 of 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 all other water or wetland crossings in western Washington.
 - (iii) 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.

The addition of wetlands to this clause is intended to protect access to those periodically inundated areas of wetlands adjacent to fish bearing streams. (e.g. Wall-based channels).
The elimination of 12 inch culverts is based on the problems of maintenance of flow in small pipes. It is not intended that all 12 inch culverts will be replaced.

- (f) The department, after consultation with the departments of fisheries 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.

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, fisheries 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, outsloped, 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, outsloped, 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 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 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 outsloped, 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.

The intention is to not allow the application of herbicides to Type A or B wetlands.

* (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.

This is intended as a notification to the operator of changes in the legal use of waste oil in the environment.

WAC 222-24-060 Rock Quarries, Gravel Pits, Borrow Pits, and Spoil Disposal Areas.

Not covered by the Surface Mine Reclamation Act of 1971 (chapter 78.44 RCW).

- * (1) LOCATION OF PITS. Except as approved by the department, rock quarries and gravel pits opened after January 1, 1975 shall be located above the 50- year flood level.
- * (2) LOCATION OF SPOIL DISPOSAL AREAS. Except as approved by the department, spoil disposal areas shall be located:
 - (a) Above the 50-year flood level.
 - (b) Where the final slope after disposal will be no steeper than 1 1/2:1.
 - (c) Where practical, on areas having low potential timber productivity.

- (d) Where the risk of soil erosion and mass soil movement is minimal.
- (e) All spoils shall be placed to allow drainage without additional water ponding.

See WAC 222-24-030 (9)(b).

(f) 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 unavailable. No spoil area greater than 0.5 acre in size shall be allowed within wetlands.

- ***(3) PIT DRAINAGE.** During construction and use of rock quarries, gravel pits, or borrow pits, runoff water shall be either diverted onto the forest floor or be passed through one or more settling basins as approved by the department.

- (4) REHABILITATION REQUIRED.** All rock quarries, gravel pits, spoil disposal areas and borrow pits used after January 1, 1975 shall be reclaimed within 2 years from the time the rock or gravel source is either exhausted or abandoned.

- (5) REHABILITATION STANDARDS.** Where rehabilitation is required:
 - (a) Remove all deleterious material that has potential for damaging the public resource, the soil productivity, or that would prevent reforestation of an otherwise plantable area.
 - (b) Grade slopes to less than the angle of repose unless otherwise approved.
 - (c) Reforest in accordance with chapter 222- 34 WAC to the extent practical.
 - (d) Seed unreforested exposed erodible soils with grass, clover or other ground cover.

- ***(6) MAJOR SPOIL DISPOSAL OPERATIONS.** Where a spoil disposal operation involves more than 1,000 cubic yards of spoils:
 - (a) The spoils shall be placed to provide drainage onto the forest floor without water ponding within the disposal area;
 - (b) The site shall be reforested in accordance with chapter 222-34 WAC to the extent practical; and
 - (c) If significant erosion of the spoils develops, the eroding areas shall be water barred and any unreforested areas shall be matted, mulched, or seeded with grass or ground cover.

Chapter 222-30 WAC

Timber Harvesting

WAC

- 222-30-010 Policy--Timber harvesting.
- 222-30-020 Harvest unit planning and design.
- 222-30-025 Even-aged harvest-size and timing.
- 222-30-030 Stream bank integrity.
- 222-30-040 Shade requirements to maintain stream temperature.
- 222-30-050 Felling and bucking.
- 222-30-060 Cable yarding.
- 222-30-070 Tractor and wheeled skidding systems.
- 222-30-080 Landing cleanup.
- 222-30-090 Postharvest site preparation.
- 222-30-100 Slash disposal.
- 222-30-110 Timber harvesting on islands.

NOTES:

Reviser's note: For an explanation of the rules marked with an asterisk (*), see WAC 222-12-010.

WAC 222-30-010 Policy--Timber Harvesting. *

This section covers all removal of timber from forest lands in commercial operations, commercial thinning, salvage of timber, relogging merchantable material left after prior harvests, postharvest cleanup, and clearing of merchantable timber from lands being converted to other uses. It does not cover removal of incidental vegetation or removal of firewood for personal use. To the extent practical the department shall coordinate the activities on a multiple disciplinary planning approach. The riparian management zone requirements specified in this section are designed to provide protection for water quality and fisheries and wildlife habitat through ensuring present and future supplies of large organic debris for streams, snags, canopy cover, and a multistoried diverse forest adjacent to Type 1, 2 and 3 Waters. Wetland areas serve several significant functions in addition to timber production: providing fish and wildlife habitat, protecting water quality, moderating and preserving water quantity. Wetlands may also contain unique or rare ecological systems. The Wetland Management Zone and wetland requirements specified in this section are designed to protect these wetland functions when measured over the length of a harvest rotation, although some of the functions may be reduced until the midpoint of the timber rotation cycle. Landowners are encouraged to voluntarily increase wetland acreage and functions over the long-term.

(NOTE: Other Laws or Regulations and/or Permit Requirements may Apply. See Chapter 222-50 WAC.)

The principal impact of timber harvest on wetlands, removal of the trees, is mitigated as the area is reforested and adjacent lands mature. This is aimed at protecting wetland hydrology and increasing the forest ecosystem diversity through leave tree requirements within and adjacent to wetlands.

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 to 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.

If required by the stream temperature model, RMZs may be expanded to the maximum widths described in subsection (c) in order to provide sufficient shade.

When dealing with an RMZ overlapping a WMZ, the requirement which provides the best protection shall apply, but the requirements are not additive.

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(33) 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 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(33) 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

Wildlife Reserve Trees/Green Recruitment Trees left to meet this voluntary provision may be counted toward the requirements in WAC 222-30-020 (11). Leaving these trees in clumps retains portions of the existing forest to provide wildlife habitat until the trees within the harvested area of the wetland have reached sufficient size and canopy closure to serve as habitat. These leave trees will then provide added diversity to the habitat. Concentration of trees near streams is intended to provide additional protection of potentially inundated areas of wetland which provide over-wintering habitat to juvenile salmonids.

This provision is intended to be an incentive to landowners to leave a portion of the required wildlife reserve trees and green recruitment trees within forested wetlands. Compare with WAC 222-30-020(11)(e).

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 Wildlife, the Department of Fisheries, 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, 0.5 acre in size or larger, 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 Zone Widths

<u>Wetland Type</u>	<u>Acres of Nonforested Wetland</u>	<u>Maximum WMZ Width</u>	<u>Average WMZ Width</u>	<u>Minimum WMZ Width</u>
<u>A</u>	<u>Greater than 5</u>	<u>200 feet</u>	<u>100 feet</u>	<u>50 feet</u>
<u>A</u>	<u>0.5 to 5</u>	<u>100 feet</u>	<u>50 feet</u>	<u>25 feet</u>
<u>A Bog/Fen</u>	<u>0.25 to 0.5</u>	<u>100 feet</u>	<u>50 feet</u>	<u>25 feet</u>
<u>B</u>	<u>Greater than 5</u>	<u>100 feet</u>	<u>50 feet</u>	<u>25 feet</u>
<u>B</u>	<u>0.5 to 5</u>			<u>25 feet</u>
<u>B</u>	<u>0.25 to 0.5</u>	<u>NO WMZ REQUIRED</u>		

- (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

This subsection is designed to encourage discussion on the protection of sensitive species which exist within wetlands. The department would consider the information provided in these discussions in the course of conditioning the application. No additional authority is inferred by this subsection.

The transition from forested to non-forested Type A and Type B wetland occurs when the canopy cover of trees falls below 30%.

The total number of trees left within a WMZ will be calculated by multiplying the acreage of the WMZ, based on the average WMZ width, times 75 trees. Harvest within the WMZ could vary from small clearcuts (no larger than 100') to no-cut areas. Trees counted toward the total must meet the sizes stated in (b) and should fall within the wetland or the WMZ outer boundary.

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) NONFORESTED WETLANDS (TYPE A OR B). 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.

(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 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.

This subsection is intended to be a small harvest exemption.

Within Type A and B wetlands, leave individual trees or clumps smaller than 0.5 acre. Larger clumps may be harvested only with a department-approved plan.

The plan should include access corridors marked on the ground and timing limitations to insure minimal damage to wetland soils.

(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 Eastern Washington, for 5 years from the effective date of this subsection where over-story harvest of seed trees left for purpose of reforestation are proposed and less than 10 trees per acre will be harvested within the 5 year period, 50% of the green recruitment trees otherwise required in this subsection may be left.**
- (c) 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.**
- (d) 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.**
- (e) 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**

Wildlife Reserve Tree management will best be accomplished when planned for on a large scale basis (total ownership or sections). Any harvest which takes place on applications or notifications received on or after August 1, 1992 must have the appropriate number of trees set aside. Trees may not be counted for more than one harvest area. All trees which meet the appropriate size, structural, and distribution criteria may be counted for this purpose.

When insufficient Wildlife Reserve Trees exist, (i.e. within thrifty second growth stands) landowners will not be required to increase Green Recruitment Trees as a substitute.

(b) recognizes landowners who have historically practiced seed tree management. The result was only the best trees being left as a seed source and few if any wildlife reserve trees within the harvest areas.

Allows the landowner to count any and all trees for wildlife reserve trees, which meet the size, structure and distribution requirements regardless of the other purposes they serve, (i.e. RMZ, WMZ, wetland requirement, seed tree block, UMA, Etc.).

Retention areas may contain as few as 1-2 wildlife reserve trees and/or green recruitment trees. This allows for a distribution within wetland areas. For each acre of harvest there must be 3/2/2 or 2/2/2, but they may be placed within wetlands.

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.

- (f)** 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 (e) 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.

New Section

WAC 222-30-025 Even-Aged Harvest--Size and Timing.

Except as provided in WAC 222-30-110, unit size and timing of timber harvesting by even-aged harvest methods is subject to the following requirements:

- (1)** Timber harvest which would result in an area larger than one hundred twenty acres and smaller than or equal to two hundred forty acres harvested by even-aged harvest methods on land owned or controlled by one landowner shall be reviewed by an interdisciplinary team, if the department determines that review is necessary. The area harvested by even-aged harvest methods, for the purposes of this subsection, shall be determined in accordance with subsection (3).
- (2)** Timber harvest which would result in an area larger than two hundred forty acres harvested by even-aged harvest methods on land owned or controlled by one landowner shall be prohibited. The area harvested by even-aged harvest method for the purposes of this subsection shall be determined in accordance with subsection (3) of this section.
- (3)** In calculating areas harvested by even-aged harvest methods, the area harvested by even-aged harvest methods shall include the acreage of that harvest unit and, all contiguous acreage harvested by even-aged harvest methods which is owned or controlled by the same landowner, except that acreage harvested by even-aged harvest methods sharing 10% or less of the common perimeter with the harvest unit under consideration shall not be considered contiguous for the purposes of this section.
- (4)** Harvest units shall be designed so that each harvest unit meets at least one of the following criteria:
 - (a)** At least thirty percent of the unit's perimeter is in stands of trees that are thirty years of age or older;

This subsection is intended to clarify the board's intention to provide for safety first in the course of providing wildlife habitat.

The harvest of timber by even-aged methods, often meaning clearcuts, is subject to buffer size, and age and size of adjacent trees.

The department may use an interdisciplinary team to review harvests larger than 120 acres but less than or equal to 240 acres.

The new rule creates an absolute upper limit of 240 acres for even-aged management harvests. For any one landowner, the combined acreage of adjacent even-aged harvests cannot be greater than 240 acres.

The 10% exemption is to address the problem of alternate section (checker board) ownership patterns.

Each even-aged harvest must meet the defined criteria.

- (b) At least sixty percent of the unit's perimeter is in stands of trees that are fifteen years of age or older; or
- (c) At least ninety percent of the unit's perimeter is in stands of trees that have survived on site a minimum of five growing seasons or, if not, have reached an average height of four feet.

Evaluation of unit perimeters is subject to the conditions specified in subsection (6).

- (5) The requirements of subsections (2), (3), and (4) of this section shall apply only to timber harvest by even-aged harvest methods and shall not apply to timber harvest to salvage timber damaged by wind, disease, insects, fire, or other natural causes or to forest practices involving the clearing of land of brush or understocked hardwoods to convert to managed hardwoods or conifers.
- (6) In evaluating the perimeters of harvest units pursuant to subsection (4) of this section, the following conditions shall apply:
 - (a) The following shall be treated as fully stocked, mature stands that will not be counted as contiguous acreage harvested by even-aged methods for the purposes of subsections (1) and (2) of this section and which will be counted as thirty-year-old stands for the purposes of subsection (4) of this section:
 - (i) In western Washington, a riparian management zone or wetland management zone that is twice the width with twice the tree count required by WAC 222-30-020(3) along Type 1, 2, or 3 Waters;
 - (ii) In eastern Washington, a riparian management zone or wetland management zone that is the width required by WAC 222-30-020(4);
 - (iii) Designated upland management areas;
 - (iv) Lands in a shoreline of state-wide significance where harvest is limited under RCW 90.58.150;
 - (v) The portions of a perimeter consisting of land in uses other than forest land, such as land in agricultural or residential use and natural openings, and land not owned or controlled by the landowner who has proposed the harvest unit subject to the application under consideration;
 - (b) A stand of trees other than those described in paragraph (a) of this subsection shall be treated as a certain age class only if the stand is at least three hundred feet wide;
 - (c) Timber harvest units subject to an approved application or a notification for timber harvesting shall be treated as if the timber harvesting operation proposed in the application or notification were completed and regeneration not yet established.
- (7) This section shall not apply to notifications or applications approved before July 1, 1992, or to one renewal of those applications, and shall not apply to timber that the landowner or operator demonstrated to the department is subject to a cutting right created by written

There are exemptions for timber damaged by other natural causes or for other defined circumstances.

This section creates an incentive for an applicant to increase the size of riparian management zones (RMZ's) in western Washington. Wide RMZ's and upland management areas are treated as 30-year stands for purposes of perimeter calculation.

The minimum buffer (width of stand) is 300 feet. This provides separation of harvests, defining minimum widths for the purpose of calculating perimeter and age of adjacent stands.

If an operation has been approved, then it will be considered harvested for all calculations.

contract before July 1, 1992, which cutting right would expire before all the timber subject to it could reasonably be harvested.

WAC 222-30-030 Stream Bank Integrity.

*In the riparian management zone along all Type 1, 2 and 3 Waters, the operator shall:

- (1) AVOID DISTURBING BRUSH and similar understory vegetation;
- (2) AVOID DISTURBING STUMPS and root systems and any logs embedded in the bank;
- (3) LEAVE HIGH STUMPS where necessary to prevent felled and bucked timber from entering the water;
- (4) Leave trees which display large root systems embedded in the bank.

[Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), §222-30-030, filed 11/16/87, effective 1/1/88; Order 263, §222-30-030, filed 6/16/76.]

WAC 222-30-040 Shade Requirements to Maintain Stream Temperature.

*** (1) Determination of adequate shade. The temperature prediction method in subsection (2) and (3) of this section shall be used to determine appropriate shade levels for flowing Type 1, 2, and 3 Waters to prevent excessive water temperatures which may have detrimental impact on aquatic resources.**

*** (2) Temperature prediction method. In addition to the riparian management zone requirements, leave trees shall be retained in riparian management zones on flowing Type 1, 2, and 3 Waters as provided by the method described in the board manual, which includes the following considerations:**

- (a) Minimum shade retention requirements; and
- (b) Regional water temperature characteristics; and
- (c) Elevation; and
- (d) Temperature criteria defined for stream classes in WAC 173-203-030.

*** (3) Leave tree requirements for shade. The method described in subsection (2) of this section shall be used to establish the minimum shade cover based on site specific characteristics. When site specific data indicate that pre-harvest conditions do not meet the minimums established by the method, no additional shade removal from riparian management zones will be allowed.**

The temperature prediction model is available from the department.

- (4) WAIVERS. The department may waive or modify the shade requirements where:
- (a) The applicant agrees to a staggered setting program producing equal or greater shade requirements to maintain stream temperature; or
 - (b) The applicant provides alternative means of stream temperature control satisfactory to the department; or
 - (c) The temperature method indicates that additional shade will not affect stream temperature.

Landowners have alternatives to increasing the maximum RMZ widths to meet shade requirements.

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 departments of fisheries or 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.

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 departments of fisheries or 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 departments of fisheries or 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.

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 departments of fisheries or 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 outloped 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.

WAC 222-30-080 Landing Cleanup.

Except as approved by the department, the following rules shall be met within 60 days after completion of hauling logs from any landing, or as soon thereafter as practical.

***(1) DRAINAGE.**

- (a) Clean any ditches and culverts obstructed by dirt or debris during operation(s).
- (b) Establish a slope that will prevent water from accumulating on the landing or running from the landing down any erodible fill.

***(2) OTHER EROSION CONTROL MEASURES.**

- (a) Cut slopes shall be cut back to an angle expected to remain stable.
- (b) Where exposed soil is unstable or erodible and may be reasonably expected to cause damage to a public resource, it shall be seeded with grass, clover or ground cover or compacted, riprapped, water barred, benched or mulched, or be treated by other means approved by the department.

(3) CLEANUP.

- (a) Slash accumulations which would prevent reforestation of otherwise plantable fills, sidecast or cut slopes of landings shall be disposed of or be piled on the landing floor for future disposal.
- (b) Slash shall not be buried in any filled portion of the landing in connection with landing cleanup operations.
- (c) All cables, machine parts and other inorganic debris resulting from harvest operation(s) shall be removed at the time of landing cleanup.

[Order 263, §222-30-080, filed 6/16/76.]

WAC 222-30-090 Postharvest Site Preparation.

Unless the application or notification indicates that the landowner or forest landowner specifically agrees to assume responsibility for compliance with this section, the operator shall leave the site in a condition suitable for reforestation following any clear cutting, or any partial cutting west of the summit of the Cascades where 80 percent or more of the cubic volume is removed within any 5 consecutive years unless the department determines that the live trees remaining will reasonably utilize the timber growing capacity of the soils. Lands being converted to another use or classified as urban development lands under WAC 222-34-050 are exempt.

THE FOLLOWING site preparation is required when necessary to establish a condition suitable for reforestation:

- (1) Cutting, slashing, or other treatment of all noncommercial tree species, other competing vegetation, and nonmerchantable size trees commonly known as "whips" which will not reasonably utilize the growing capacity of the soil except in wetland management zones, riparian management zones; or
- (2) Pile or windrow slash; or
- (3) Mechanically scatter slash; or
- (4) Leave the cutover area in a condition for controlled broadcast burning, and subsequently burn.

WAC 222-30-100 Slash Disposal.

- (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.

Site preparation within Type A or B wetlands and WMZs will be limited to hand methods; burning is not allowed.

Within wetlands, only scarification is specifically disallowed. Landowners will be encouraged and may be required to utilize the least damaging feasible method of site preparation.

***(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 WAC 332-24-360).
- (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 sidecast 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 trails are necessary for control of burning, trail width and excavation shall be minimized.

New Section

222-30-110 Timber Harvesting on Islands.

On an island:

- (1)** A landowner shall not harvest by clearcut so that more than forty contiguous acres of that landowner's forest land are in a clearcut condition;
- (2)** Forest land harvested by clearcut remains in the clearcut condition until it has reached canopy closure or it has been reforested for at least ten years;
- (3)** Clearcut harvest units are contiguous unless separated by a buffer at least two hundred feet

Clearcut harvests on certain saltwater islands are restricted.

The rule relates only to the land of proponent. Land owned by others does not impact any calculations. There is a 40 acre clearcut limit.

The buffer width is 200 feet. Harvests are contiguous unless there is an adequate buffer.

wide that has reached canopy closure, has been reforested for at least ten years, or is in a land use other than timber production.

- (4) Within two hundred feet of the ordinary high-water mark of saltwater timber harvest shall be by selective harvest only, so that no more than thirty percent of the merchantable trees are harvested in any ten-year period: **PROVIDED**, That other timber harvesting methods may be permitted in those limited instances where the topography, soil conditions, or silvicultural practices necessary for regeneration render selective harvest ecologically detrimental: **PROVIDED FURTHER**, That harvest by clearcut on lands being converted to another use may be approved.
- (5) The requirements of this section shall not apply to timber harvest to salvage timber damaged by wind, disease, insects, fire, or other natural causes.
- (6) This section shall not apply to notifications or applications approved before July 1, 1992, or to one renewal of those applications, and shall not apply to timber that the landowner or operator demonstrated to the department is subject to a cutting right created by written contract before July 1, 1992, which cutting right would expire before all the timber subject to it could reasonably be harvested.

Generally, only selective harvests are permitted within 200 feet of the saltwater. Within the 200 feet, no more than 30% of the merchantable trees may be removed unless specified conditions indicate otherwise.

Conversions to an active use incompatible with forestry may be approved.

Size restrictions for salvage of distressed timber do not apply.

Forest practices approved prior to July 1, 1992 are exempt from this section. The first renewal of an application approved prior to July 1, 1992 is also exempt. The rule recognizes contractual cutting rights created prior to July 1, 1992. This rule does not apply to any completed application or notification received before August 1, 1992.

Chapter 222-34 WAC Reforestation

WAC

222-34-010 Required reforestation--West of Cascades Summit.

222-34-020 Required reforestation--East of Cascades Summit.

222-34-030 Reforestation--Plans--Reports--Inspections.

222-34-040 Site preparation and rehabilitation.

222-34-050 Urban and other lands exempted from the reforestation requirements.

NOTES:

Reviser's note: For an explanation of the rules marked with an asterisk (*), see WAC 222-12- 010.

WAC 222-34-010 Required Reforestation--West of Cascades Summit.

(1) REFORESTATION - WHERE REQUIRED.

- (a) Unless the harvest application indicates that the land will be converted to another use, or the lands are identified in WAC 222-34-050 as having a likelihood of conversion to urban uses, reforestation is required for forest lands harvested after January 1, 1975 in the following instances:
 - (i) Clearcutting; or
 - (ii) Partial cutting where 50 percent or more of the timber volume is removed within any 5-year period, unless the department determines that the live trees remaining will reasonably utilize the timber growing capacity of the soils.
- (b) Reforestation is not required where:
 - (i) Individual dead, dying, down or windthrown trees are salvaged; or
 - (ii) A tree or trees not constituting a merchantable stand are removed from lands in actual use for other purposes; for example, removal of individual trees from lands used for farming or grazing; or
 - (iii) Trees are removed under a thinning program reasonably expected to maximize the long-term production of commercial timber; or
 - (iv) A minimum of 190 vigorous, undamaged, well-distributed seedlings per acre of a commercial tree species are established on the area harvested and not more than 20 percent of the harvested area has from 150 to 190 seedlings per acre; or
 - (v) A minimum of 100 vigorous, undamaged, well-distributed saplings or merchantable trees per acre of a commercial species or combinations thereof, remain on the area harvested.

- (2) **ACCEPTABLE STOCKING.** Stocking levels are acceptable if a minimum of 190 well-distributed, vigorous, undamaged seedlings per acre of commercial tree species or such lesser number as the department determines will reasonably utilize the timber growing capacity of the site, have survived on the site at least 1 growing season. "Well- distributed" means that not more than 20 percent of the harvested area contains less than a minimum of 150 seedlings per acre as determined by the department.
- (3) **COMPETING VEGETATION.** Competing vegetation shall be controlled to the extent necessary to allow establishment, survival, and growth by commercial species.
- (4) **ARTIFICIAL REGENERATION STANDARDS.**
 - (a) **SATISFACTORY REFORESTATION - CLEARCUTS.** Satisfactory reforestation of a clearcut harvest occurs if within 3 years of completion of harvest, or a period of from 1 to 10 years as determined by the department in the case of a natural regeneration plan, the site is restocked to at least the acceptable stocking levels described in subsection (2) of this section: **PROVIDED,** That regeneration failures from causes beyond the applicant's control will not result in violation of this section, but supplemental planting or reforestation may be required except in riparian management zones (see WAC 222-34-030(4)).

The department may grant an extension of time for planting or seeding if suitable seedlings or seeds are unavailable, or if weather conditions or other circumstances beyond the forest land owner's control require delay in planting or seeding.

- (i) **REFORESTATION SPECIES.** Where the species proposed for reforestation after timber harvesting differs from the removed stand, the department may approve use of the proposed species where the reforestation plan reveals that the proposed species is preferable from any of the following standpoints:
 - (A) Site data indicates better potential production for the proposed species than the existing species.
 - (B) Control of forest insects or diseases.
 - (C) Greater economic return.
 - (ii) **SEEDLING OR SEEDING STANDARDS.** Except as approved by the department to qualify as acceptable reforestation, the seedlings or seeds must be from an appropriate seed source zone. The department shall establish seed zones and guidelines for their use.
 - (b) **SATISFACTORY REFORESTATION - PARTIAL CUTS.** Where reforestation is required in connection with a partial cut, the harvest application shall include a plan for stocking improvement. The plan shall be approved unless the department determines that it will not reasonably utilize the timber growing capacity of the site.
- (5) **NATURAL REGENERATION STANDARDS.** A natural regeneration plan may be approved as acceptable reforestation if:

- (a) A seed source of well formed trees of commercial tree species, capable of seed production is available.
 - (b) The owner of the seed source agrees in writing not to harvest the seed source for the time period specified in the plan, or until issuance of a satisfactory reforestation inspection report.
 - (c) The seed source must consist of:
 - (i) Seed blocks of sizes and locations shown on the plan and satisfactory to the department; or
 - (ii) An average of at least 8 individually marked, well-distributed, undamaged, vigorous, windfirm seed trees per acre of plantable area and no inadequately stocked area is more than 400 feet from the nearest seed tree; and
 - (iii) Competing vegetation shall be controlled to the extent necessary to allow establishment, survival, and growth by commercial species.
- (6) ANY ALTERNATE PLAN for natural reforestation may be approved if it provides a practical method of achieving acceptable stocking levels as described in subsection (2) of this section within a period of 1 to 10 years.

[Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), §222-34-010, filed 11/16/87, effective 1/1/88; 86-21-040 (Resolution No. 86-2), §222-34-010, filed 10/10/86, effective 12/1/86. Statutory Authority: RCW 76.09.040 and 76.09.050, 82-16-077 (Resolution No. 82-1), §222-34-010, filed 8/3/82, effective 10/1/82; Order 263, § 222-34-010, filed 6/16/76.]

WAC 222-34-020 Required Reforestation--East of Cascades Summit.

- (1) REFORESTATION - WHERE REQUIRED.
 - (a) Unless the harvest application indicates that the land will be converted to another use, or the lands are identified in WAC 222-34-050 as having a likelihood of conversion to urban use, reforestation is required for forest lands harvested after January 1, 1975 in the following instances:
 - (i) Clearcutting; or
 - (ii) Partial cutting where 50 percent or more of the timber volume is removed within any 5-year period, unless the department determines that the live trees remaining will reasonably utilize the timber growing capacity of the soils.
 - (b) Reforestation is not required where:
 - (i) Individual dead, dying, down or windthrown trees are salvaged; or
 - (ii) A tree or trees not constituting a merchantable stand are removed from lands in actual use for other purposes, for example, removal of individual trees from lands used exclusively for farming or cultivated pasture; or
 - (iii) Trees are removed under a thinning program reasonably expected to maximize the long-term production of commercial timber; or

- (iv) A minimum of 150 vigorous, undamaged, well-distributed seedlings per acre of a commercial tree species are established on the area harvested and not more than 20 percent of the harvested area has from 120 to 150 seedlings per acre; or
 - (v) A minimum of 100 vigorous, undamaged, well-distributed advanced regeneration, saplings or merchantable trees per acre of a commercial tree species or combinations thereof, remain on the area harvested.
- (2) **ACCEPTABLE STOCKING.** Stocking levels are acceptable if a minimum of 150 well-distributed, vigorous, undamaged seedlings per acre of commercial tree species or such lesser number as the department determines will reasonably utilize the timber growing capacity of the site have survived on the site at least 1 growing season. "Well- distributed" means that not more than 20 percent of the harvested area contains less than a minimum of 120 trees per acre as determined by the department.
- (3) **COMPETING VEGETATION.** Competing vegetation shall be controlled to the extent necessary to allow establishment survival and growth by commercial species.
- (4) **ARTIFICIAL REGENERATION STANDARDS.**
- (a) **SATISFACTORY REFORESTATION - CLEARCUTS.** Satisfactory reforestation of a clearcut harvest occurs if within 3 years of completion of harvest or a period of from 1 to 10 years as determined by the department in the case of a natural regeneration plan, the site is restocked to at least the acceptable stocking levels described in subsection (2) of this section: **PROVIDED,** That regeneration failures from causes beyond the applicant's control will not result in a violation of this section, but supplemental planting may be required except in riparian management zones (see WAC 222-34-030(4)).

The department may grant an extension of time for planting or seeding if suitable seedlings or seeds are unavailable, or if weather conditions or other circumstances beyond the forest landowner's control require delay in planting or seeding.

- (i) **REFORESTATION SPECIES.** Where the species proposed for reforestation after timber harvesting differs from the removed stand, the department may approve use of the proposed species where the reforestation plan reveals that the proposed species is preferable from any of the following standpoints:
 - (A) Site data indicates better potential production for the proposed species than the existing species.
 - (B) Control of forest insects or diseases.
 - (C) Greater economic return.
- (ii) **SEEDLING AND SEED STANDARDS.** Except as approved by the department to qualify as acceptable reforestation, the seedlings and seed must be from an appropriate seed source zone. The department shall establish seed zones and guidelines for their use.

- (b) **SATISFACTORY REFORESTATION - PARTIAL CUTS.** Partial cuts not meeting the specifications of subsection (1)(b)(iv) or (v) of this section shall have a seed source as required in subsection (5)(c)(ii) of this section.

- (5) **NATURAL REGENERATION STANDARDS.** A natural regeneration plan may be approved by the department as acceptable reforestation if:
 - (a) A seed source of well- formed, vigorous trees of commercial tree species capable of seed production is available.
 - (b) The owner of the seed source agrees in writing not to harvest the seed source for the time period specified in the plan or until issuance of a satisfactory reforestation inspection report.
 - (c) The seed source consists of one of the following, or combinations thereof:
 - (i) Seed blocks which total a minimum of 5 percent of the area of each 40 acre subdivision or portion thereof harvested: **PROVIDED**, That the seed block should be reasonably windfirm, at least 1/2 acre in size, and reserved in locations shown on the plan and approved by the department; or
 - (ii) A minimum of 4 undamaged seed trees per acre, well distributed over each 40 acre subdivision or portion thereof harvested: **PROVIDED**, That the distance from seed trees of harvested areas that are not adequately stocked should not be more than 200 feet. Seed trees shall be of commercial tree species, vigorous and of seed-bearing age and size.

- (6) **ANY ALTERNATE PLAN** for natural reforestation may be approved if it provides a practical method of achieving acceptable stocking levels as described in subsection (2) of this section within a period of 1 to 10 years.

[Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), §222-34-020, filed 11/16/87, effective 1/1/88; 86-21-040 (Resolution No. 86-2), §222-34-020, filed 10/10/86, effective 12/1/86. Statutory Authority: RCW 76.09.040 and 76.09.050, 82-16-077 (Resolution No. 82-1), §222-34-020, filed 8/3/82, effective 10/1/82; Order 263, §222-34- 020, filed 6/16/76.]

WAC 222-34-030 Reforestation--Plans--Reports--Inspections.

- (1) **REFORESTATION PLANS.** Reforestation plans must be submitted with the application or notification except where no reforestation is required. The department shall designate difficult regeneration areas utilizing silvicultural information. When a forest practice is proposed for such an area, the department may require additional information regarding harvest systems and post harvest site preparation, as well as regeneration. The department shall approve the reforestation plan for difficult regeneration areas if it determines that such a plan will achieve acceptable stocking according to WAC 222-34-010 and 222-34-020.

- (2) **REFORESTATION REPORTS.** The landowner, forest landowner, or his designee shall file a report with the department either at the time of completion of planting or reforestation or at the end

of the normal planting season. When artificial seeding is used the report shall be filed 2 growing seasons after seeding.

(3) THE REPORTS IN SUBSECTION (2) OF THIS SECTION MUST CONTAIN AT LEAST THE FOLLOWING:

- (a) The original forest practice application or notification number.
- (b) Species reforested, planted, or seeded.
- (c) Age of stock planted or seed source zone.
- (d) Description of actual area reforested, planted, or seeded.

(4) INSPECTION; SUPPLEMENTAL PLANTING OR REFORESTATION DIRECTIVES.

- (a) Within 12 months after a reforestation report is received, the department shall inspect the reforested lands. The department shall issue written notice to the landowner, forest landowner, or his designee stating whether supplemental planting or reforestation or further inspection is required within 30 days after the deadline for inspection or the reforestation shall be deemed satisfactory.
- (b) If the inspection shows that acceptable stocking levels have not been achieved, the department shall direct the forest landowner to perform supplemental planting in accordance with the planting standards of WAC 222-34-010 (3) and (4)(a)(ii), 222-34-020 (3) and (4)(a)(ii):
PROVIDED, That:
 - (i) In lieu of such supplemental planting, the department and the forest landowner may agree on a supplemental reforestation plan.
 - (ii) Supplemental planting or reforestation shall not be required where in the opinion of the department planting or reforestation is not feasible due to rocky ground, dry conditions, excessively high water table or other adverse site factors and the department determines that there is little probability of significantly increasing the stocking level.
 - (iii) Where supplemental planting or reforestation has been required by the department, the landowner, forest landowner, or his designee shall file a report of supplemental planting or reforestation upon completion.
 - (iv) Except where stocking improvement is necessary to protect public resources and is feasible, further supplementary planting shall not be required where acceptable stocking levels have not been achieved after two properly performed supplemental plantings.
- (c) Within 12 months after a supplemental planting or reforestation report is received, the department shall inspect the reforested lands.
- (d) **EVIDENCE OF COMPLIANCE.** The department shall within 30 days after the deadline for inspection or reinspection and when requested by the forest landowner confirm in writing whether acceptable stocking levels have been achieved, provided field conditions do not prevent the department from properly evaluating the reforestation.
- (e) Where a natural regeneration plan has been approved by the department, the department may allow up to 10 years to achieve acceptable stocking levels.

[Statutory Authority: RCW 76.09.040, 87-23-036 (Order 535), §222-34-030, filed 11/16/87, effective 1/1/88; 86-21-040 (Resolution No. 86-2), §222-34-030, filed 10/10/86, effective 12/1/86. Statutory Authority: RCW 76.09.040 and 76.09.050, 82-16-077 (Resolution No. 82-1), §222-34-030, filed 8/3/82, effective 10/1/82; Order 263, § 222-34-030, filed 6/16/76.]

WAC 222-34-040 Site Preparation and Rehabilitation.

- ***(1) HEAVY EQUIPMENT.** Heavy equipment shall not be used in connection with site preparation or rehabilitation work:
 - (a) When, because of soil moisture conditions or the type of soils, undue compaction or unnecessary damage to soil productivity would occur or erosion would result in damage to water quality; or
 - (b) Within riparian management zones or within 10 feet of the ordinary high-water mark of Type 4 and 5 Waters on slopes of 30 percent or less. On slopes greater than 30 percent heavy equipment shall not operate within 50 feet of Type 1 through 5 Waters unless a site specific plan has been approved by the department.

- ***(2) SURFACE WATER DRAINAGE.** Where site preparation or rehabilitation involves contouring or terracing of slopes, drainage ditches, or similar work:
 - (a) The gradient of ditches or other artificial water courses in erodible soils shall not cause significant stream, lake or pond siltation.
 - (b) Ditches and other artificial water courses shall not discharge onto any road, landing or fill.
 - (c) Ditches and other artificial water courses shall not be constructed to discharge onto the property of other parties without their consent.

- ***(3) STREAM CHANNEL ALIGNMENT.** Where work involves deepening, widening, straightening or relocating the channel; or bulkheading, riprapping or otherwise stabilizing the banks of a Type 1, 2 or 3 Water, the work shall be done only:
 - (a) After consultation with any party having an appropriation permit or registered right to appropriate waters from the affected stream segment in cases of streams used for domestic water supplies.
 - (b) Where no significant adverse affects on either the peak or minimum water levels or flows downstream can be expected.
 - (c) In a manner not expected to result in long-term damage to public resources or to adjacent or downstream property.

(NOTE: OTHER LAWS AND REGULATIONS AND/OR PERMIT REQUIREMENTS MAY APPLY. SEE CHAPTER 222-50 WAC.)

[Statutory Authority: RCW 76.09.040. 87-23-036 (Order 535), §222-34-040, 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), §222-34-040, filed 8/3/82, effective 10/1/82; Order 263, §222-34-040, filed 6/16/76.]

WAC 222-34-050 Urban and Other Lands Exempted from the Reforestation Requirements.

- (1) THOSE LANDS WHICH an applicant has declared are to be converted to a nonforest use and are in fact converted within 3 years of completion of harvest.
- (2) THOSE LANDS THE department determines should be exempted in whole or in part where the forest land has the likelihood of future conversion as defined in WAC 222-16-060. The applicant is encouraged to propose an alternate plan for reforestation on these lands.
- (3) UTILITY RIGHTS OF WAY. Reforestation is not required for initial clearing or reclearing of utility rights of way in actual use for utility purposes or scheduled for construction of utility facilities within 10 years from the date of completion of harvest, provided that if the scheduled facility is not completed, the area shall be reforested within 1 year.
- (4) PUBLIC LANDS. Reforestation is not required on the following lands, unless required by regulation of the agency owning or acquiring the lands:
 - (a) Lands owned in fee by a public agency which has budgeted for construction within 10 years a specific project inconsistent with commercial timber production.
 - (b) Lands being acquired by public agency for construction within 10 years of a project inconsistent with timber production, if at the time of completion of harvest the public agency has entered into a binding contract for the purchase of the lands or initiated legal proceedings for the condemnation of the lands.

[Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23-052, §222-34-050 filed 11/15/91, effective 12/16/91. Statutory Authority: RCW 76.09.040. 88-19-112 (Order 551, Resolution No. 88-1), §222-34-050, filed 9/21/88, effective 11/1/88; 86-21-040 (Resolution No. 86-2), §222-34-050, filed 10/10/86, effective 12/1/86; Order 263, §222-34-050, filed 6/16/76.]

Chapter 222-38 WAC

Forest Chemicals

WAC

222-38-010 Policy--Forest chemicals.

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

222-38-030 Handling, storage and application of fertilizers.

222-38-040 Handling, storage and application of other forest chemicals.

NOTES:

Reviser's note: For an explanation of the rules marked with an asterisk (*), see WAC 222-12-010.

WAC 222-38-010 Policy--Forest Chemicals.

Chemicals perform important functions in forest management. The purpose of these regulations is to regulate the handling, storage and application of chemicals in such a way that the public health, lands, fish, wildlife, aquatic habitat, and water quality will not be endangered by contamination. This section in no way modifies the state department of agriculture regulations governing chemicals.

(NOTE: OTHER LAWS AND REGULATIONS AND/OR PERMIT REQUIREMENTS MAY APPLY. SEE CHAPTER 222- 50 WAC.)

This chapter has been restructured to address chemicals in three separate groupings; pesticides, fertilizers, and other forest chemicals. The chapter has been simplified. The application of chemicals must be conducted in compliance with the instructions found on the EPA label and in compliance with the rules established by the Washington Department of Agriculture. The "area of water supply interest" has been replaced with a more comprehensive determination method described in the new WAC 222-16-050(1) (a) and WAC 222-16-070.

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 aerially 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 Wetland 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.

Check pesticide E.P.A. labels to determine whether the chemical is approved for wetland use. The change regarding streams with "no evidence of surface water" is intended to protect these streams that may run below the gravel with emergent pools for some portion of the year, the pooled water must be protected.

This subsection is intended to comply with F.A.A. flight regulations regarding passengers in spray ready aircraft.

This posting requirement is intended to provide information to individuals who may inadvertently enter a recently sprayed unit.

- * (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 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.

The department's regional offices must make the appropriate emergency telephone numbers available to the staff and the public. For spill information contact the Department of Ecology. For Pesticide applications violations contact the Washington Department of Agriculture.

New Section

WAC 222-38-030 Handling, Storage, and Application of Fertilizers.

- * (1) **Storage and Loading Areas.** Storage and loading areas should be located where accidental spillage of fertilizers will not enter surface water or wetlands. If any fertilizer is spilled, immediate appropriate procedures shall be taken to contain it.
- * (2) **Riparian Management Zone.** Fertilizer treatments within a riparian management zone shall be by hand unless the department has approved a site specific plan with another method of treatment.
- * (3) **Wetland management zone.** Fertilizer treatments within a wetland management zone shall be by hand unless the department has approved a site specific plan with another method of treatment.

The TFW Cooperative Monitoring Evaluation and Research Committee sponsored a research and monitoring effort on the application of urea fertilizer and its impacts on water quality. These rules are based on the results of that study.

- * (4) Aerial Application of Fertilizer.**
 - (a) Proposed fertilization units shall be planned to avoid and to minimize the direct or indirect introduction of fertilizer into waters and wetlands.**
 - (b) Leave a 25 foot buffer on all Type 1, 2, and 3 Waters, except as noted in (f) of this subsection.**
 - (c) When the helicopter flight path during fertilizer application is parallel to a water course or the WMZ edge, the centerline of the initial swath should be adjusted to prevent direct application within the buffers or WMZs.**
 - (d) Leave at least a 200 foot buffer strip around residences and a 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.**
 - (e) The landowner shall identify for the operator the units to be fertilized and the untreated areas within the units with appropriately marked aerial photos or detailed planimetric maps. Before application of the fertilizer, an over-flight of the area shall be made by the pilot and with the marked photos or maps.**
 - (f) Where the department has been provided information by the department of ecology indicating that water quality in downstream waters is likely to be impaired by entry of fertilizer into waters, such waters shall be protected by site specific conditioning.**

- * (5) Ground and Hand Application of Fertilizers. Prevent fertilizer from entering Type A and B Wetlands and all Typed Waters, except segments of Type 4 and 5 Waters with no surface water.**

- * (6) Reporting of Fertilizer Spills. All fertilizer spills involving streams, lakes, wetlands, or other waters of the state shall be immediately reported to the department of ecology. Emergency telephone numbers for reporting spills shall be available at the department of natural resource's regional offices.**

New Section

WAC 222-38-040 Handling, Storage, and Application of Other Forest Chemicals.

- * (1) Waters and Wetlands. Do not allow direct entry of other forest chemicals into any Type Waters, except segments of Type 4 and 5 Waters with no surface water, or Type A or B Wetlands.**

- * (2) Storage, Mixing, and Loading Areas.**
 - (a) Mix other forest chemicals 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 other forest chemicals will not enter surface water or wetlands. If any chemical 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.**
- (d) Water protection requirements in subsections (1) of this section may be waived when emergency use of fire retardants is necessary to control wildfire.**

Chapter 222-42 WAC Supplemental Directives

WAC

222-42-010 Supplemental directives.

WAC 222-42-010 Supplemental Directives.

- (1) **PURPOSE OF SUPPLEMENTAL DIRECTIVES.** The department may issue supplemental directives to the forest landowner, timber owner and operator, advising them to take or not take as part of any forest practice operations specified actions the department determines to be preferred courses of action or minor changes in the operation to provide greater assurance that the purposes and policies set forth in RCW 76.09.010 of the act will be met.
- (2) **CONTENT OF SUPPLEMENTAL DIRECTIVES.** Supplemental directives shall indicate the reason for their issuance.
- (3) **FORM, SERVICE.** All supplemental directives shall either be in writing, or be confirmed in writing. The supplemental directive shall be given to the operator and a copy mailed promptly to the forest landowner and to the timber owner if different than the forest landowner.
- (4) **DIRECTIVE CONSTITUTES APPROVAL.** No other approval of the department shall be necessary to conduct forest practice operations in compliance with the terms of a supplemental directive.
- (5) **INFORMAL DISCUSSIONS.** The department shall provide an opportunity for an informal discussion before issuing, withdrawing or modifying a supplemental directive.

[Order 263, §222-42-010, filed 6/16/76.]

Chapter 222-46 WAC Enforcement

WAC

222-46-010 Policy--Enforcement.

222-46-020 Informal conferences.

222-46-030 Notice to comply.

222-46-040 Stop work orders.

222-46-050 Corrective action.

222-46-060 Civil penalties.

222-46-070 Injunctions, civil suits.

222-46-080 Criminal penalty.

WAC 222-46-010 POLICY--Enforcement.

It is the policy of the act and the board to encourage informal, practical, result-oriented resolution of alleged violations and actions needed to prevent damage to public resources. It is also the policy of the act and the board to provide, consistent with the principles of due process, effective procedures for enforcement. This part of these regulations provides the following enforcement procedures: Informal conferences; notices to comply; stop work orders; corrective actions by the department; civil penalties; injunctions and other civil judicial relief; and criminal penalties. The enforcement procedure used in any particular case shall be appropriate in view of the nature and extent of the violation or the damage or risk to public resources and the degree of bad faith or good faith of the persons charged.

[Order 263, §222-46-010, filed 6/16/76.]

WAC 222-46-020 Informal Conferences.

- (1) **OPPORTUNITY MANDATORY.** The department shall afford the operator or his representative reasonable opportunities to discuss proposed enforcement actions at an informal conference prior to taking further enforcement action, unless the department determines that there may be imminent damages to the public resource. Informal conferences may be used at any stage in enforcement proceedings, except that the department may refuse to conduct informal conferences with respect to any matter then pending before the appeals board or a court.
- (2) **REPORTS REQUIRED.** Department personnel in attendance at informal conferences shall keep written notes of the date and place of the conference, the persons in attendance, the subject matter discussed, and any decisions reached with respect to further enforcement action.

- (3) **RECORDS AVAILABLE.** Copies of written notes shall be sent to each participant in the conference, be kept in the department files until one year after final action on the application involved, and be open to public inspection.
- (4) **LOCAL GOVERNMENT ENTITY CONDITIONS.** If the proposed enforcement actions involve conditions imposed pursuant to WAC 222-20-040(3), then the local government entity shall be involved in the informal conference.

[Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23-052, §222-46-020, filed 11/15/91, effective 12/16/91; Order 263, §222-46-020, filed 6/16/76.]

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 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 or landowner 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.

The department shall mail a copy thereof 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 and regulations: 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, 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.]

WAC 222-46-040 Stop Work Orders.

- (1) THE DEPARTMENT shall have the authority to serve upon an operator a stop work order which shall be a final order of the department if:
 - (a) There is any violation of the provisions of the Forest Practices Act or these regulations or
 - (b) There is a deviation from the approved application; or
 - (c) Immediate action is necessary to prevent continuation of or to avoid material damage to a public resource.

- (2) THE STOP work order shall set forth:
 - (a) The specific nature, extent, and time of the violation, deviation, damage, or potential damage;
 - (b) An order to stop all work connected with the violation, deviation, damage, or potential damage;
 - (c) The specific course of action needed to correct such violation or deviation or to prevent damage and to correct and/or compensate for damage to public resources which has resulted from any violation, unauthorized deviation, or willful or negligent disregard for potential damage to a public resource; and 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. If the stop work order 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.

- (d) The right of the operator to a hearing before the appeals board.

The department shall immediately file a copy of such order with the appeals board and mail a copy thereof to the timber owner and forest landowner at the addresses shown on the application. 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.

The operator, timber owner, or forest landowner may commence an appeal to the appeals board within fifteen days after service upon the operator. If such appeal is commenced, a hearing shall be held not more than twenty days after copies of the notice of appeal were filed with the appeals board. Such proceeding shall be a contested case within the meaning of chapter 34.05 RCW.

The operator shall comply with the order of the department immediately upon being served, but the appeals board if requested shall have authority to continue or discontinue in whole or in part the order of the department under such conditions as it may impose pending the outcome of the proceeding.

[Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23-052, §222-46-040, filed 11/15/91, effective 12/16/91; Order 263, §222-46-040, filed 6/16/76.]

WAC 222-46-050 Corrective Action.

- (1) **NORMAL TIME SCHEDULE.**
- (a) **WRITTEN NOTICE.** If an operator fails to undertake and complete any course of action with respect to a forest practice, as required by a final order of the department or a final decision of the appeals board or any court pursuant to RCW 76.09.080 and 76.09.090 of the Forest Practices Act, the department may determine the cost thereof and give written notice of such cost to the operator, the timber owner and the owner of the forest land upon or in connection with which such forest practice was being conducted.
- (b) **FAILURE TO ACT.** If such operator, timber owner, or forest landowner fails within 30 days after such notice is given to undertake such course of action, or having undertaken such course of action fails to complete it within a reasonable time as set forth by the department, the department may expend any funds available to undertake and complete such course of action and such operator, timber owner, and forest landowner shall be jointly and severally liable for the actual, direct cost thereof, but in no case more than the amount set forth in the notice from the department.
- (c) **FAILURE TO PAY.** If not paid within 60 days after the department completes such course of action and notifies such forest landowner in writing of the amount due, such amount shall become a lien on such forest land and the department may collect such amount in the same manner provided in chapter 60.04 RCW for mechanics' liens.

- (2) **IMMEDIATE CORRECTIVE ACTION.** When the operator has failed to obey a stop work order issued under the provisions of RCW 76.09.080, the department may take immediate action to prevent continuation of or avoid material damage to public resources. If a final order or decision fixes liability with the operator, timber owner, or forest landowner, they shall be jointly and severally liable for such emergency costs which may be collected in the manner provided for in RCW 76.09.120.

[Order 263, §222-46-050, filed 6/16/76.]

WAC 222-46-060 Civil Penalties.

- (1) **AMOUNT OF PENALTY.** Every person who fails to comply with any provisions of RCW 76.09.010 through 76.09.280 as now or hereafter amended or the Forest Practices Act or of the forest practices regulations shall be subject to a penalty in an amount of not more than five hundred dollars (\$500.00) for each such violation. Each and every such violation shall be a separate and distinct violation. In case of a failure to comply with a notice pursuant to RCW 76.09.090 as now or hereafter amended or a stop work order, every day's continuance thereafter shall be a separate and distinct violation.
- (2) **OTHER PARTICIPANTS.** Every person who through an act of commission or omission procures, aids or abets in the violation shall be considered to have violated the provisions of this section and shall be subject to the penalty herein provided for.
- (3) **GOVERNMENT EMPLOYEES.** PROVIDED, That no penalty shall be imposed under this section upon any governmental official, an employee of any governmental department, agency, or entity, or a member of any board or advisory committee created by the act for any act or omission in his duties in the administration of the act or of these regulations.
- (4) **WRITTEN NOTICE.** The penalty herein provided for shall be imposed by a notice in writing, either by certified mail with return receipt requested or by personal service, to the person incurring the same from the department of natural resources describing the violation with reasonable particularity. Within 15 days after the notice is received, the person incurring the penalty may apply in writing to the department for the remission or mitigation of such penalty. Upon receipt of the application, the department may remit or mitigate the penalty upon whatever terms the department in its discretion deems proper: PROVIDED, That the department deems such remission or mitigation to be in the best interests of carrying out the purposes of the act. The department of natural resources shall have authority to ascertain the facts regarding all such applications in such reasonable manner and under such regulations as they may deem proper.
- (5) **RIGHT OF APPEAL.** Any person incurring any penalty hereunder may appeal the same to the forest practices appeals board.

Such appeals shall be filed within 30 days of receipt of notice imposing any penalty unless an application for remission or mitigation is made to the department. When such an application for remission or mitigation is made, such appeals shall be filed within 30 days of receipt of notice from the department setting forth the disposition of the application.

- (6) **PENALTIES DUE.** Any penalty imposed hereunder shall become due and payable 30 days after receipt of a notice imposing the same unless application for remission or mitigation is made or an appeal is filed. When such an application for remission or mitigation is made, any penalty incurred hereunder shall become due and payable 30 days after receipt of notice setting forth the disposition of such application unless an appeal is filed from such disposition. Whenever an appeal of any penalty incurred hereunder is filed, the penalty shall become due and payable only upon completion of all review proceedings and the issuance of a final decision confirming the penalty in whole or in part.
- (7) **FORECLOSURE.** If the amount of any penalty is not paid to the department within 30 days after it becomes due and payable, the attorney general, upon the request of the department, shall bring an action in the name of the state of Washington in the superior court of Thurston county or of any county in which such violator may do business, to recover such penalty. In all such actions the procedure and rules of evidence shall be the same as an ordinary civil action except as otherwise provided in the Forest Practices Act.

[Order 263, §222-46-060, filed 6/16/76.]

WAC 222-46-070 Injunctions, Civil Suits.

- (1) **THE DEPARTMENT** of natural resources, through the attorney general, may take any necessary action to enforce any final order or final decision, or to enjoin any forest practices by any person for a 1 year period after such person has failed to comply with a final order or a final decision.
- (2) **A COUNTY** may bring injunctive, declaratory, or other actions for enforcement for forest practice activities within its jurisdiction in the superior court as provided by law against the department, the forest landowner, timber owner or operator to enforce the forest practices regulations or any final order of the department or the appeals board: **PROVIDED**, That no civil or criminal penalties shall be imposed for past actions or omissions if such actions or omissions were conducted pursuant to an approval or directive of the department of natural resources: **AND PROVIDED FURTHER**, That such actions shall not be commenced unless the department fails to take appropriate actions after 10 days' written notice to the department by the county of a violation of the forest practices regulations or final orders of the department or the appeals board.

[Order 263, §222-46-070, filed 6/16/76.]

WAC 222-46-080 Criminal Penalty.

In addition to the penalties imposed pursuant to RCW 76.09.170 of the act, any person who conducts any forest practice or knowingly aids or abets another in conducting any forest practice in violation of any provisions of RCW 76.09.010 through 76.09.280 or 90.48.420, or these regulations, shall be guilty of a gross misdemeanor and upon conviction thereof shall be punished by a fine of not less than \$100.00 nor more than \$1,000.00, or by imprisonment for a term of not more than 1 year or by both fine and imprisonment for each separate violation. Each day upon which violation occurs shall constitute a separate violation.

[Order 263, §222-46-080, filed 6/16/76.]

Chapter 222-50 WAC

Relationship to Other Laws and Regulations

WAC

222-50-010 Policy.

222-50-020 Other agency requirements.

222-50-030 Interagency agreements.

222-50-040 Safety and health.

222-50-050 Forest fire prevention and suppression.

222-50-060 Other regulatory programs administered by the department.

WAC 222-50-010 Policy.

A major policy of the Forest Practices Act and the board is to work toward a comprehensive, statewide system of laws and regulations for forest practices which avoids unnecessary duplication and provides for interagency input and cooperation to the extent that can be accomplished without interfering with the authority of the affected federal, state, regional and local agencies.

[Order 263, §222-50-010, filed 6/16/76.]

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 fisheries and the department of 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 wildlife to protect wildlife under any other statutes or regulations, or under any agreements with landowners.

[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.]

WAC 222-50-030 Interagency Agreements.

The board recommends that the department negotiate interagency agreements with other governmental agencies. The board further recommends that such agreements include, to the extent acceptable to the other agency, provisions specifying:

- (1) THE LAW and regulations covered;
- (2) ANY GEOGRAPHICAL or other limits on the authority and responsibility under the agreement;
- (3) PRIORITIES and standards for resolution of any conflicts between such laws and regulations and the act and these regulations;
- (4) PROCEDURES for administrative appeals of actions taken;
- (5) PROVISIONS FOR continuing cooperation between the department and the other agency or agencies regarding interpretation of the laws and regulations involved;
- (6) PROCEDURES FOR termination of the interagency agreement; and
- (7) Procedures for processing applications and notifications.

The department is directed to provide copies of all such agreements to the board, and to make known to the public that such interagency agreements exist.

[Statutory Authority: RCW 76.09.040, 76.09.050 and 34.05.350. 91-23- 052, §222-50-030, filed 11/15/91, effective 12/16/91; Order 263, §222-50-030, filed 6/16/76.]

WAC 222-50-040 Safety and Health.

The forest practices regulations contained in chapters 222-24 through 222-38 WAC are automatically superseded to the extent inconsistent with any applicable safety regulations, or with any orders or directives having the force of law and based on any applicable safety regulations, including:

- (1) CHAPTER 296-54 WAC (safety standards for logging operations, department of labor and industry's division of safety).
- (2) CHAPTER 296-24 WAC (general safety and health standards, department of labor and industry's division of safety).
- (3) ALL APPLICABLE Federal Occupational Safety and Health Administration regulations.
- (4) REGARDING AIRCRAFT, chapters 12-24, 12-28, and 12-32 WAC (Washington aeronautics commission).
- (5) REGARDING EXPLOSIVES, chapter 296-52 WAC (department of labor and industry) and all applicable federal regulations.
- (6) REGARDING CHEMICALS, chapter 16-228 WAC (department of agriculture) and all applicable federal regulations.
- (7) ALL APPLICABLE state and local sanitation regulations relating to municipal watersheds and sources of domestic water supply.

In such cases of conflict, the department is authorized to seek from other agencies such waivers or modifications in the applicable safety and health regulations as may be necessary for the department to be able to fully enforce the forest practices regulations contained in chapters 222-24 through 222-38 WAC.

Applicants are cautioned that there may be additional safety and health laws and regulations that may be applicable in addition to those specifically listed above.

[Order 263, §222-50-040, filed 6/16/76.]

WAC 222-50-050 Forest Fire Prevention and Suppression.

All laws and regulations relating to forest fire prevention and suppression apply in addition to these forest practices regulations and, in cases of conflict, supersede the forest practices regulations contained in chapters 222- 24 through 222-38 WAC.

WAC 222-50-060 Other Regulatory Programs Administered by the Department.

The board recommends that, to the extent permitted by law and when necessary the department adopt regulations and policies under which approved applications and notifications can serve to eliminate or reduce the need for separate permits and approvals under regulatory programs administered by the department (such as the power driven machinery permits, RCW 76.04.275, dumping mill waste and forest debris permit, RCW 76.04.242, and surface mining permits, chapter 78.44 RCW) as applied to forest practices. The department is directed to notify the public of the existence of such regulations and policies.

[Statutory Authority: RCW 76.09.040 and 76.09.050. 82-16-077 (Resolution No. 82-1), §222-50-060, filed 8/3/82, effective 10/1/82; Order 263, §222-50-060, filed 6/16/76.]

**This replaces the 1992 concise explanatory statement
that is attached to the staff report.**

CONCISE EXPLANATORY STATEMENT

A. General Reasons for Adopting Rule Changes.

The Forest Practices Board ("FPB") is required to develop forest practices rules that accomplish the purposes and policies in the Forest Practices Act ("FPA"), including protecting the public resources of water, fish, wildlife, and public capital improvements coincident with the maintenance of a viable forest products industry. Forest practice rules relating to water quality protection must be adopted by the Department of Ecology ("DOE") and the FPB after they have reached agreement. The Department of Natural Resources ("DNR") administers the forest practices rules.

1. Adaptive Management.

The last major forest practice rule changes occurred in 1987 and 1988 in response to the Timber/Fish/Wildlife (TFW) agreement of 1987. One central theme developed at that time was the concept of adaptive management; this concept involves regular review and modification of the forest practice regulations and their application based on cooperative monitoring, evaluation, and research. The TFW (CMER) committee handles these issues. See WAC 222-12-045, 222-08-035. Through adaptive management, it became apparent that the modification in the forest practices rules would better meet the purposes and policies of the FPA. These rule changes are designed to reduce the potentially adverse environmental impacts associated with forest practices while recognizing the importance of a viable forest products industry to the State.

2. Litigation.

Certain issues raised in forest practices litigation suggested the need for the forest practice rules to further address the environmental impacts of forest practices, including the impacts of forest practices on wetlands and wildlife and the cumulative effects of forest practices.

Former WAC 222-16-050(1), the rule that classifies forest practices that have the "potential for substantial impact on the environment," and therefore need to be reviewed under chapter 43.21C RCW, needed to be revised because it was declared invalid in Snohomish County, et al. v. State, et al., Snohomish County Cause No. 89-2-06923-5 (on appeal on other grounds to Division I of the Court of Appeals, No. 29611-6-I).

3. Budget Consideration.

The Legislature in the Operating Budget for Fiscal Biennium, Laws of 1991, 1st Sp. Sess., ch. 16, § 314 (13), appropriated \$1,700,000 to the DNR for fiscal year 1993 for forest practices program activities related to critical wildlife habitat, cumulative effects assessment, clear-cut size and timing, wetlands and rate of harvest monitoring that are required as a result of rules adopted by the FPB. The appropriation was designed to lapse if the FPB did not adopt rules on these items by June 30, 1992.

4. General Rule Criteria.

The FPB developed some general criteria for rule proposals that influenced the scope and direction of the rule package.

- Meet the purposes and policies of the FPA in RCW 76.09.010.
- Achieve compliance with water pollution control laws as required by RCW 90.48.420.
- Satisfy the planning and program requirements of sections 208, 209, and 305 of the federal Clean Water Act as required by RCW 90.48.425.
- Be capable of being administered by the DNR and DOE, given reasonably foreseeable staff and other resources.
- Provide a well-defined scientific and technological method, technique and process to underlie the policy decision of the Board.
- Improve current decision-making processes.
- Provide for adaptive management, including regular review and feedback for necessary changes.
- Be explainable, in relatively clear terms, to the public and to landowners, the tribal community and state and local agencies.
- Provide for local conditions and circumstances, while retaining consistency with overall forest management goals and objectives.
- Make use of resource parameters and thresholds that are meaningful, of sufficient quality and availability, capable of being mapped or clearly identified, and

reflect prioritization for protection of critical resources values.

- Make use of current rules to the maximum extent possible.
- Provide better certainty to landowners and to the public about conditioning requirements which may be imposed.
- Provide for a systematic and staged implementation strategy, if staff resources/science is not yet available.
- Be within the authority of the FPB and the DOE to adopt.
- Assist with maintaining the basin level biological productivity, water quality and other resource conditions.

5. The Rule Adoption Process. The process for developing this rule package has been lengthy with extensive public participation.

- The TFW Agreement of 1987 identified several areas that needed additional examination. In 1988, TFW began addressing temperature, forest chemicals, and wetland protection.
- Detailed discussions began over 2 years ago with an attempt at a negotiated solution between agencies, industry, environmental groups, and local governments known as SFR or Sustainable Forestry Roundtable.
- In the absence of consensus or specific legislative direction, FPB was forced to develop an approach that carried out the balancing required by the Forest Practices Act.
- Extensive public meetings were held around the state in the fall of 1991 to solicit ideas on the direction of the proposed package and to discuss a variety of options being considered.
- Numerous changes were made to the draft proposal based on public comment.
- A proposal was formalized and ten public hearings were held around the state in spring of 1992.
- At its May 13, 1992 meeting, the FPB modified its proposal in response to public comments; particular

emphasis was placed on fine tuning protection to minimize the impact to landowners.

- An additional public hearing was held on June 25.
- The rules were again modified in response to public comment prior to adoption on June 26. Some exceptions were created for small parcel owners.

The rule package is detailed and complex. It is impossible to concisely summarize all of the reasons for adoption of these rules and for rejecting other proposals. The Environmental Impact Statement, FPB Minutes and meeting tapes for meetings from October 1990 through June 1992 and FPB committee files for the same time provide more details on these reasons. A summary of major components follows.

B. Summary of the Major Rule Components.

The FPB has adopted a comprehensive regulatory package that amends the prior rules governing forest practices on forest land in the state. The rule package includes:

- A system for gathering information about a watershed so that cumulative effects of forest practices can be addressed.
- Restrictions on forest practices conducted in or near wetlands,
- A requirement based on CMER research for leaving shade trees along streams to prevent water temperature increase.
- A new system of preventing potential water pollution and potential public health problems caused by the use of forest chemicals on forest land.
- A measure to retain some trees after timber harvest for wildlife habitat needs of cavity nesters and other species.
- A way to restrict even aged harvest size and regulate the timing between adjacent harvests.
- An expansion of the list of forest practices that require review under SEPA.

1. Cumulative Effects.

These rules develop an overall approach for addressing cumulative effects of forest practices. This approach uses a combination of minimum standards for all forest practices, SEPA review, and rules that focus on specific aspects of certain types of cumulative effects of forest practices, and a continuing review of the issues. (See WAC 222-16-046 discussion in Section C below.) This approach is designed to eliminate the potential that cumulative effects of permitted forest practices will have a substantial impact on the environment. Some impact will remain, but the provisions of the rule reduce that potential for impact to acceptable levels given the need to also maintain a viable forest industry.

The new watershed analysis rules are an integral component of the overall cumulative effects approach. These rules develop a process for the biological and physical assessment of the condition of selected resources in a watershed. This process is designed to develop watershed specific management prescriptions that will address the cumulative effects of forest practices on selected public resources. These prescriptions will be applied to areas of resource sensitivity where the standard rules may not provide adequate protection.

A different watershed analysis approach based on thresholds was considered and rejected by the FPB. This approach establishes thresholds based on the condition of specific resources; once the thresholds are crossed, increased regulation of forest practices would be required. Although both approaches address cumulative effects, use watershed based planning units, and use cooperative, interdisciplinary evaluation, the process that focuses on areas of resource sensitivity was selected because it fits the FPB's goals for rule adoption better than the threshold approach. The approach based on thresholds was inadequate due to the biological and physical diversity within watersheds and the lack of generally accepted threshold levels.

The area of resource sensitivity approach is more flexible because it allows consideration of landowners' objectives and local conditions, it is more equitable because it attempts to distribute responses more evenly among landowners, it has more stability and predictability because once a set of prescriptions have been developed, no further conditioning for the areas of resource sensitivity in that watershed will be required. Although the threshold approach was rejected, the proposal acted as a catalyst and many of its concepts were integrated into the FPB rule in modified form.

Several groups urged the consideration of the cumulative effects of forest practices on wildlife in the watershed analysis

process. Because approval of a watershed analysis is under SEPA, wildlife issues will be considered in the watershed analysis process. However, the FPB felt including wildlife as a selected resource in a watershed analysis was premature. The FPB is currently involved in a comprehensive review of wildlife protection and intends to recommend by May of 1993 a regulatory system for wildlife (see WAC 222-16-080(6)(b)). The new rules add significant requirements that provide additional wildlife protection. The FPB felt these changes were adequate to address the cumulative effects of forest practices on wildlife until a more comprehensive regulatory system could be developed.

The FPB was also urged to consider nonforest practice contributions to cumulative effects. This raises questions of the overlapping jurisdiction and the authority of the FPB. Instead of attempting to regulate nonforest practice contributions, the FPB chose to adopt a notification approach. See WAC 222-16-010(3).

2. Wetlands.

The rule provides substantial new protection to forested and nonforested wetlands, consistent with operational needs of forest owners. Protecting wetlands is a key component in protection of the environment because wetlands perform many functions: purify stream water, resupply groundwater, reduce flows in streams during periods of heavy rain, keep streams flowing during dry season, grow timber, and provide essential habitat for wildlife, salmon and other fish. Forested wetlands are also an important source of timber in Washington.

The new rules identify three types of wetlands and propose different levels of protection for each. The FPB considered and rejected numerous other options for wetland protection ranging from no protection at all to an elaborate typing system with greater buffers and leave tree requirements. The FPB selected the option that was most consistent with its overall objectives to protect the essential hydrologic functions of wetlands while minimizing the costs to forest landowners and operators associated with this protection.

A substantial number of nonindustrial private landowners and the Washington Farm Forestry Association urged the FPB to exempt small landowners and/or small business from the wetland and wildlife requirements of the new rules. Although the suggested alternatives varied somewhat, the main message was that small landowners believed the burden placed on them by the new rules was too great.

The FPB recognizes the new rules will have an economic impact and that this impact may be disproportionate on

nonindustrial private landowners. See Small Business Economic Impact Statement. However, a majority of the FPB felt it must respond to the legislative charge in the FPA to protect public resources coincident with the maintenance of a viable forest products industry. In addition, SEPA requires consideration of the impact of this rule adoption on the environment.

The rules adopted, along with some of the existing rules, reduce the economic impact to the extent possible while still meeting the state objectives of the FPA and SEPA. WAC 222-12-040 allows the use of alternate plans that equal or exceed the protection of public resources provided in the FPA and the rules. WAC 222-30-020(3)(e), (4)(d), and (7)(f) provide lesser leave tree requirements for small harvest units in riparian and wetland management zones. Many of the changes to the proposal made after public comment were designed to reduce the economic impact to landowners while still providing adequate protection to public resources. The FPB also adopted an emergency rule that allows small landowners to substitute an approved stewardship management as described in RCW 76.12.020(2) for the wetland management zone and wildlife reserve tree requirements. See WAC 222-30-020(12) file.

3. Shade Requirements.

A shade requirement for forest practices is important because when trees near a stream are removed, the decrease in canopy cover over the stream may in some cases raise water temperature enough to degrade the value of the stream as fish habitat and/or reduce water quality. The prior rules on shade requirement were modified based on the results of recently completed cooperative research from CMER. The emphasis has been shifted from determining temperature sensitivity of a stream to determining the amount of shade needed to prevent temperatures which exceed the state water quality standards.

4. Handling, Storage and Application of Chemicals.

The rules clarify the prior chemical regulations by distinguishing between pesticides, fertilizers, and other forest chemicals and develops appropriate usage for each type. The rules modify buffers for wetlands and streams associated with chemical application. A key for evaluating whether aerial application of a pesticide should be Class IV was designed to focus on the actual potential impacts of the pesticide.

5. Wildlife.

The FPB is currently involved in a comprehensive review of wildlife protection and intends to recommend by May of 1993 a regulatory system for wildlife. In the interim, the new rules

add significant requirements designed to provide additional wildlife protection -- either directly or indirectly. There are synergistic effects due to the interactions of wildlife associated rules.

The rules enhance wildlife habitat through retention of wildlife reserve trees. These trees help supply the need of cavity nesters and other species. The rules define critical habitat of threatened and endangered species and specific forest practices that are designated as Class IV-Special and therefore receive further review under SEPA. The wetland rules provide increased protection to wildlife habitat in wetland management zones. The shade requirements protect habitat and food for many wildlife species. The chemical rules provide protection to wildlife within the increased buffer. The harvest size and timing requirements would provide a mosaic of habitats and corridors that would provide additional wildlife benefit by increasing habitat diversity.

Many people urged more restrictions designed to protect wildlife and many desired less. Many people urged less requirements. Numerous small landowners claimed the economic impact of the wildlife rules was extensive and requested exemption. (See discussion in Wetlands section, supra.)

The FPB responded to these comments by reducing the number of trees required to be left. See WAC 222-30-020(11) discussed in section C. A majority of the FPB felt the rules as modified represented the best interim balance between the need to protect wildlife resources and respect for private property rights and maintenance of a viable forest products industry. The FPB has recognized the need for a comprehensive examination of wildlife issues and has committed itself to develop such rules. However, current scientific and management knowledge has not yet provided a basis for additional or different permanent forest practice rules regarding protection of wildlife and wildlife habitat.

6. Harvest Size and Timing.

The harvest size and timing rules were designed to address issues surrounding large contiguous clearcuts. The general public perception is that large clearcuts are unsightly and harmful to the environment. Although there is not extensive data on the impacts of large contiguous clearcuts, the FPB determined that this public perception required a response. It is also generally believed that the harvest limitation and timing rules will reduce the cumulative effects of large contiguous clearcuts, provide some wildlife habitat diversity and corridors, reduce the likelihood of rapid rates of harvest, and encourage long term planning of forest land operations that will contribute to the sustainability of forest resources.

The FPB was urged to adopt a smaller clearcut size limitation. A smaller size limitation was adopted for islands because island environments are relatively small and believed to be unique or more isolated and sensitive than those on the mainland. However, a smaller mainland size limitation would greatly increase the cost associated with this rule without a demonstrated increase in protection to the environment.

The FPB was also urged not to adopt size and timing limitations because there was a concern that the size and timing limitations would become the only approach for addressing cumulative effects of forest practices or wildlife needs. This concern is not justified. The FPB adopted the watershed analysis rules as an extensive approach designed to address certain cumulative effects of forest practices. And the FPB is committed to developing a comprehensive regulatory approach to wildlife issues.

The FPB was also urged not to adopt size and timing limitations because of the interference with private property rights. However, the public concern over the environmental impacts of large contiguous clearcuts mandated some action by the FPB. The FPB attempted to design a system that minimized costs and gave the maximum flexibility to landowners. It does not prohibit harvest; rather, it regulates the size and timing of the harvest to reduce the impacts.

7. Class IV - Special Forest Practices Definition.

Class IV - Special rules include those forest practices which have a potential for substantial impact on the environment and therefore receive SEPA review. The requirements in title 222 WAC are designed to prevent forest practices from having the potential for a substantial impact on the environment; only the forest practices classified as Class IV require an additional examination under SEPA by the DNR to determine if an EIS is necessary. The Class IV category is broken down into Class IV - General and Class IV - Special. The Class IV - General list was not modified. This expansion was necessary because the prior Class IV - Special rule was declared invalid and because through adaptive management it became apparent modification would better meet the purposes of the FPA.

The FPB received suggestions to create an "open list" or a Class IV - Special category that included ". . . any other forest practice that has the potential for substantial impact on the environment." This concept was rejected by the FPB because it is inconsistent with the legislative intent of the FPA. The Legislature specifically directed the FPB to establish by rule which forest practices go into each class. RCW 76.05.050(1). Discussion on the senate floor at the time of adoption indicates

the Legislature intended the forest practices rules to suffice in most cases and that SEPA review would be for certain identified forest practices. 1975 Senate Journal, 1st Ex. Sess., Vol. 2, at 2220.

An open list would not be consistent with the FPB rulemaking goals or authority. It would be very difficult to administer, it provides for no decision-making process, it is not based on science, it promotes inconsistency and uncertainty, it ignores the rest of the forest practice rules, and it would be costly for DNR to administer and for landowners and operators to comply with.

The FPB received objections to the additions to the Class IV list as being too costly, unnecessary, and not based on science. The FPB attempted to create a list that identified the forest practices that, even considering the rest of the requirements in title 222 WAC, still have the potential for substantial impact on the environment. Although adding additional items to the Class IV-Special list can be costly to landowners, every attempt was made to use the best available science to focus only on necessary additions.

The FPB was requested to include more items on the list. Specifically, the addition of the following was requested: addition of certain listed wildlife species; state or federal threatened, endangered or candidate plant species; activities within federal Wild and Scenic Rivers and the Columbia Gorge National Scenic Area; and a clearcut size limitation.

The FPB has chosen to focus on state and federal wildlife species actually listed as threatened or endangered in an attempt to recognize the specific public process the state and federal governments have created to identify wildlife species in danger. The Washington Wildlife Commission and the Department of Wildlife have several different lists of wildlife and wildlife habitat maintained for various purposes. All of this information will be considered by the FPB as it develops a comprehensive regulatory system for wildlife, but the FPB felt that neither the lists nor the process used to develop them justified a conclusion that forest practices have the potential for a substantial impact on the environment simply because a particular species or habitat was listed. Likewise, nomination as a federal candidate species is not by itself enough to demonstrate that forest practices have the potential for a substantial impact on the environment. It is the responsibility of the federal government to follow the proper public process to determine if a candidate species should actually be listed.

There are no federal threatened or endangered plants listed in Washington State and the FPB felt it was premature to add

those to the Class IV-Special list. Although there are some candidate species that are found in forest environments in Washington, the FPB chose not to include those for the same reason candidate wildlife species were rejected. The State Natural Heritage Program is a successful voluntary landowner cooperative program and the FPB did not want to interfere with this program by making it the basis for regulatory action.

Although the FPB recognizes that there are aesthetic impacts caused by forest practices within the boundaries of or near federal Wild and Scenic Rivers and the Columbia Gorge National Scenic Area, the FPB felt these impacts are not substantial except when a permanent removal from the forest land base is planned. Such forest practices are classified as Class IV-General and do receive SEPA review.

A clearcut size limitation was not added to the Class IV - Special list because the FPB addressed this issue through the harvest size and timing rule. See WAC 222-30-025 and WAC 222-30-110 discussed in section B(6) and section C.

C. Section by Section Reasons.

WAC 222-12-046 Cumulative Effects

(a) **Reasons for Adopting:** Adopts an overall approach for addressing the cumulative effects of forest practices. See discussion in section B(1).

(b) **Differences From Original Proposal:** None.

(c) **Reasons for Rejecting Changes Requested by the Public:** See discussion in section B(1), supra.

WAC 222-12-090 Forest Practices Board Manual

(a) **Reasons for Adopting:** The manual provides technical/field support to the rules. Amendments to this section add or delete items in the board manual corresponding to changes made to the rules.

(b) **Differences From Original Proposal:** The rule varies from the original proposal in several respects. In subsection (9), "wetland replacement by substitution or enhancement" was substituted for the prior "wetland mitigation." See discussion in WAC 222-24-010.

The inclusion of WAU boundaries in the manual was eliminated because of the expense and administrative burden. Through a cooperative process, the DNR defines WAU's on a map. See

WAC 222-22-020. These maps are available at DNR offices, which was determined adequate.

A list of non-native plant species were added to assist in implementation of WAC 222-24-030.

The DNR was given the ability to make minor modifications in consultation with CMER to the watershed analysis methodology. This will allow more efficient administration based on the most current science.

Substantive changes to the manual require Board approval.

(c) Reasons for Rejecting Changes Requested by the Public: Most of the public comments were on the manual itself, not the rule language. The manual itself is not the rule, rather it contains guidelines on the methods to accomplish the requirements in the rules or provides more information about a requirement in the rules. Portions of the manual have been filed tested and have met general approval. The Board manual will be periodically reviewed by the FPB to see if the methods and information need updating.

WAC 222-16-010 General Definitions

(a) Reasons for Adopting: Definitions were added or modified to reflect changes and new areas covered by the rules.

(b) Differences From Original Proposal: The following definitions were changed from the original proposal: area of resource sensitivity (editorial), clearcut (clarification), even aged harvest methods (clarification and cross references), fill (added a definition to specifically avoid interpretations of fill under other statutes), forest practices (added an exclusion for seed orchard and nursery operation because these operations are primarily agricultural), low impact harvest (added DOE and DNR consultation to determine appropriate equipment, methods, or systems and deleted specific examples to allow greater flexibility), mitigation (definition deleted to avoid federal case law associated with term), pesticide ("forest" added to use same term used elsewhere in rules), resource characteristics ("or" added to "physical structural integrity" to clarify "physical or structural integrity"), watershed analysis (clarification added to include assessment where there are no areas of resource sensitivity), wetlands (fens inadvertently had been left out).

(c) Reasons for Rejecting Changes Requested by the Public: Cumulative effects: a definition that included future activities was rejected. The definition chosen is more consistent with a regulatory program where the state does not directly control

future activities. The impact of future forest practices are addressed through watershed analysis.

Wildlife: the definition adopted matches that used by the Department of Wildlife. The FPB rejected suggestions to exclude invertebrates because invertebrates include a significant number of animals that could be impacted by forest practices. Even though some invertebrates are considered pests, their integral role in the ecosystem needs to be recognized.

WAC 222-16-030 Water Typing System

(a) Reasons for Adopting: This rule incorporates the information found in the rescinded WAC 222-16-020 regarding Water Typing. It clarifies the previous rules, further delineates water types and the protection afforded to each in determination of forest practice classes, and assures proper conditioning of applications in protection of public resources.

(b) Differences From Original Proposal: The original proposal maintained WAC 222-16-020 as a separate section. The two sections were combined to avoid confusion. Type 2 waters are classified as those with high fish, wildlife or human use. Language was added to clarify the level of protection afforded to wetlands used for over-wintering salmonids. In addition, language was added to include off-channel salmonid habitat as a Type 2 water to provide a higher level of protection.

(c) Reasons for Rejecting Changes Requested by the Public: Type 3 waters are classified as those with moderate to slight fish, wildlife or human use. The choice of "moderate to slight" over the term "significant" was made over comments to the contrary because it more accurately portrays the range of use between waters classified as Type 2 and Type 4. The term "significant" implies higher use than "moderate."

WAC 222-16-035 Wetland Typing System

(a) Reasons for Adopting: This rule defines the wetland typing system required for wetland management zones.

(b) Differences From Original Proposal: Changes were made to the typing system in response to public comment. A distinction was made between forested and nonforested wetlands. The Type B definition was slightly expanded. In recognition of the importance of the timber production function of forested wetlands, the FPB did not require WMZ's around or limit harvest in forest wetlands. It did require that hydrologic characteristics of forested wetlands be protected. The requirements for delineation were more clearly specified and the

concept of approximate determination of wetland location was adopted because it was sufficient in most cases.

(c) Reasons for Rejecting Changes Requested by the Public: Some people urged accurate delineation of all wetlands using intensive field review. This is extremely expensive and it was not clear this was necessary to protect public resources. Accurate delineation is only required where necessary to implement WAC 222-24-025(1).

Some people urged that forested wetlands should not be classified or regulated. A majority of the Board felt hydrologic protection was necessary to maintain wetland integrity.

WAC 222-16-050(1) Class IV - Special

(a) Reasons for Adopting: Identify those forest practices that have the potential for a substantial impact on the environment and therefore receive further review by DNR under SEPA.

(b) Differences From Original Proposal: Changes were made to subsections (d) and (e) to clarify the water types and wetland types covered. The listing of harvests greater than 240 acres was deleted because WAC 222-30-025(2) prohibits these harvests.

(c) Reasons for Rejecting Changes Requested by the Public: See discussion in section (B)(7), supra.

WAC 222-16-050(3) Class I

(a) Reasons for Adopting: Make changes to the list of forest practices that have no direct potential for damaging a public resource to conform with other rule changes, add references to wetlands and add removal of certain beaver structures.

(b) Differences From Original Proposal: Minor editorial changes made. Reference to Indian tribe was removed because only the Departments of Wildlife and Fisheries issue hydraulic project approvals.

(c) Reasons for Rejecting Changes Requested by the Public: No significant comments that were not addressed.

WAC 222-16-050(4) Class II

(a) Reasons for Adopting: Make changes to the list of forest practices that have less than ordinary potential to damage a public resource to conform with other rule changes and add references to wetlands.

(b) Differences From Original Proposal: Minor editorial changes.

(c) Reasons for Rejecting Changes Requested by the Public: No significant comments that were not addressed.

WAC 222-16-050(5) Class III

(a) Reasons for Adopting: Make changes to the list of forest practices not listed as Class I, II, III, or IV to conform with other rule changes, adds references to wetlands and includes filling of wetlands that are not Class IV.

(b) Differences From Original Proposal: Minor editorial changes.

(c) Reasons for Rejecting Changes Requested by the Public: No significant comments that were not addressed.

WAC 222-16-070

(a) Reasons for Adopting: Establish a key for determining which forest practices associated with pesticides have the potential for a substantial impact on the environment. The new rule considers a wider range of potential impacts that pesticide may have on the environment.

(b) Differences From Original Proposal: Subsection (1)(b) was added to the key to allow for research conducted on/with forest pesticides. Downstream distances in (5)(c) and (d) were changed based on comments that the original distances were excessive and that the original model used to establish the distance was inadequate. Wetlands protection was modified to provide greater flexibility when applying chemicals in and around wetlands.

(c) Reasons for Rejecting Changes Requested by the Public: Comments related to the 240 acre referred to in (6)(a) suggested both increasing and decreasing this acreage. The majority of the Board felt this was a reasonable area. The Board rejected comments that all aerial application of pesticides should be Class IV - Special because the key is designed to focus on problem areas and can be modified through adaptive management.

WAC 222-16-080 Critical Wildlife Habitats (State) and Critical Habitat (Federal of Threatened and Endangered Species)

(a) Reasons for Adopting: The rule addresses species currently listed as threatened or endangered by the Washington Wildlife Commission or U.S. Secretary of Interior and their

critical wildlife habitats (state). The section states that the designated habitats and special forest practices are interim. The designations will expire for a given species upon the adoption of: a regulatory system for wildlife protection; or delisting of the species. A regulatory system will be recommended for adoption by May 1993.

(b) Differences From Original Proposal: Changes were made to subsection (1)(h), the critical wildlife habitat (state) for the Northern Spotted Owl. These changes were based on information presented to the FPB by wildlife biologists. A majority of the FPB believe the 500 acre figure captures those forest practices that have a potential for a substantial impact on the Northern Spotted Owl recognizing protection provided through the ESA on federal lands. The delayed reduction of critical wildlife habitat to 500 acres was to allow consideration of any new information that might be included in the expected completion of the Spotted Owl Recovery Plan. The rule indicates the Department should determine critical wildlife habitat for the Northern Spotted Owl prior to December 1, 1992.

The rule was modified further to indicate the interim nature of this type of wildlife protection and to set a schedule for consideration of a regulatory system of wildlife protection.

(c) Reasons for Rejecting Changes Requested by the Public: Requests not to include threatened and endangered species for which no sightings are recorded in the state were rejected by the majority of the FPB based on the possibility of future discovery of occupied sites. Comments related to the arbitrary nature of circle management of the sites were addressed by the creation of site specific management plans (see WAC 222-16-080(2)). Comments related to current DNR management of Northern Spotted Owl sites were considered, but the FPB elected to delay significant changes until December 1, 1992. The FPB attempted to design a flexible approach in light of constantly changing information.

The FPB was requested to include fewer as well as more species. The FPB chose to focus on actually listed species and developed a process for adding additional critical wildlife habitat (state) for newly listed species. See also discussion in section (B)(7), supra.

WAC 222-22-010 Watershed Analysis - Policy

(a) Reasons for Adopting: Define the policy context and scope of watershed analysis. See section (B)(1), supra.

(b) Differences From Original Proposal: A statement was added to subsection (4) to make clear the watershed analysis rules do not replace other applicable rules.

(c) **Reasons for Rejecting Changes Requested by the Public:**
See section (B)(1), supra.

WAC 222-22-020 Watershed Administrative Units

(a) **Reasons for Adopting:** Defines the process and procedure the DNR must follow in setting up the WAUs, with whom it must consult, and how large the WAUs should be. WAUs will be periodically reviewed for revisions which would address any previously unrecognized cumulative effects.

(b) **Differences From Original Proposal:** Deleted a requirement in subsection (1) that WAUs be included in the manual to reduce costs of administration and allow DNR flexibility in maintaining accurate maps. Maps are available in DNR offices.

Added a requirement in subsection (2) that WAUs should be discrete hydrologic units to direct DNR in delineation.

(c) **Reasons for Rejecting Changes Requested by the Public:**
Some commentors wanted the WAUs to be in rule form. FPB felt this was unworkable from an administrative standpoint at this time.

WAC 222-22-030 Qualification of Watershed Resource Analysts, Specialists & Field Managers

(a) **Reasons for Adopting:** Establish guidelines for DNR process of qualifying watershed analysis participants.

(b) **Differences From Original Proposal:** N/A.

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-22-040 Watershed Prioritization

(a) **Reasons for Adopting:** Establishes a process for prioritization of WAUs. This recognizes the limited state resources and the role of landowners.

(b) **Differences From Original Proposal:** Minor editorial changes.

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-22-050 Level 1 Watershed Resource Assessment

(a) **Reasons for Adopting:** Establishes a process for the level 1 watershed resources assessment.

(b) Differences From Original Proposal: Changes were made to subsection (1) to recognize that team composition may change depending on the particular issues.

"Likelihood of material adverse effects" was substituted for "probability of damage" for consistency in subsection (2)(f).

A process for dealing with watershed analysis team member disagreements was added to (3).

(c) Reasons for Rejecting Changes Requested by the Public: See discussion on WAC 222-12-090, supra, section (c).

WAC 222-22-060 Level 2 Watershed Resource Assessment

(a) Reasons for Adopting: Establishes a process for the level 2 watershed resource assessment.

(b) Differences From Original Proposal: Changes were made to subsection (1) to recognize that team composition may change depending on the particular issues.

A time line was added for submission of a draft assessment to subsection (3)

Changes were made to subsection (4) that recognize there may be disputes on the causal mechanism report.

(c) Reasons for Rejecting Changes Requested by the Public:
N/A.

WAC 222-22-070 Prescription Recommendation

(a) Reasons for Adopting: Establish a process for prescription recommendation.

(b) Differences From Original Proposal: A cross reference was added in subsection (3)(b).

(c) Reasons for Rejecting Changes Requested by the Public: Some commentors suggested that landowner participation in prescription selection was not proper. Subsection (4) makes clear that the prescription team submits recommendations to DNR and WAC 222-22-080(1) explains it is DNR that selects the prescriptions. However, the FPB believed landowner participation in the prescription process is essential for developing practical flexible prescriptions.

WAC 222-22-080 Approval of Watershed Analysis

(a) Reasons for Adopting: Establishes a process for approval of watershed analysis.

(b) Differences From Original Proposal: Clarification change in subsection (3)(b) to make clear DNR may disapprove a draft watershed analysis when DNR believes the prescriptions will not accomplish the purposes of watershed analysis and the FPA.

(c) Reasons for Rejecting Changes Requested by the Public: Some commentors wanted a detailing of the requirements of SEPA. The FPB believes approval of a watershed analysis is an action subject to SEPA and that SEPA and its implementing rules adequately outline the necessary process.

WAC 222-22-090 Use and Review of Watershed Analysis

(a) Reasons for Adopting: Explains how a watershed analysis will be used, encourages cooperative and voluntary monitoring, and establishes an evaluation and review process.

(b) Differences From Original Proposal: Substituted "fair or poor" for degraded in subsection (4) for clarification and consistency with forest practice manual watershed analysis methodology.

Language added to (4)(c) to allow a longer period for evaluation of effectiveness of a prescription if cooperators agree necessary.

(c) Reasons for Rejecting Changes Requested by the Public:
N/A.

WAC 222-22-100 Application Review Prior to Watershed Analysis

(a) Reasons for Adopting: Establishes interim regulatory measures pending watershed analysis on a given WAU. Recognizes that it will take time to complete watershed analysis, but that the DNR has continuing authority to act.

(b) Differences From Original Proposal: Changes were made to stress the interim nature of the measures in this section.

A clarification was added to subsection (2) to ensure that this section was not read as mandatory harvest size recommendations in all circumstances; size recommendation may be developed based on local circumstances.

(c) Reasons for Rejecting Changes Requested by the Public: The FPB was requested to remove the rain-on-snow zone requirement in subsection (2). The FPB felt this was an interim tool that could be useful in preventing material damage to public resources. Reporting requirement encourages review and monitoring of this interim process for its effectiveness.

WAC 222-24-010 Road Construction and Maintenance - Policy

(a) Reasons for Adopting: This section was amended to address wetland areas and their place in habitat and water quality preservation and their special needs for protection during road construction. The section outlines, in descending order, choices to be made in construction of roads within wetlands. The FPB established policy in this section to provide for long term protection of wetland acreage and functions.

(b) Differences From Original Proposal: References to the word "mitigation" were eliminated to avoid application of case law related to federal mitigation efforts. An approach to limiting road impacts on wetlands was added which includes language specific to forest practices. Specific language was added to clarify when wetland delineation is required.

(c) Reasons for Rejecting Changes Requested by the Public: A majority of the FPB has found that protection of wetland acreage is an important component in the protection of public resources. Requests to remove forested wetlands from the protection provided by this policy were rejected based on the long term (permanent) nature of the impacts of road construction on the functions of wetlands.

WAC 222-24-020 Road Location

(a) Reasons for Adopting: Adds specific language regarding road building within wetlands. Delineation of wetland boundaries limited to area of wetland proposed to be filled.

(b) Differences From Original Proposal: Added concept of approximate determination of wetland boundaries.

(c) Reasons for Rejecting Changes Requested by the Public: Comments related to wetland location were addressed by the FPB through this addition.

WAC 222-24-025 Road Design

(a) Reasons for Adopting: To set appropriate parameters for width, excavation, construction, and drainage within wetlands. Recognizes the necessity, in some instances, of building roads

within boundaries of wetlands. Establishes standards for wetland replacement by substitution or enhancement.

(b) Differences From Original Proposal: Changes included addition of cross reference to add clarity. In recognition of the wide climatic variation in the state, the FPB established different culvert minimums for Eastern Washington. Removed references to mitigation and set goals for replacement of wetlands.

(c) Reasons for Rejecting Changes Requested by the Public: The majority of the FPB rejected requests to delete forested wetlands from the standards established for replacement of lost wetlands based on their goal to prevent a net loss of wetland areas and functions.

WAC 222-24-030 Road Construction

(a) Reasons for Adopting: Provides direction regarding right-of-way timber, debris burial, fill, stabilization of soil, channel clearance, drainage, end haul/sidecasts, and waste disposal in road construction within wetlands. Reflects changes made overall regarding wetland definition and treatment.

(b) Differences From Original Proposal: N/A.

(c) Reasons for Rejecting Changes Requested by the Public: Requests made to eliminate forested wetlands. (See WAC 222-24-025.)

WAC 222-24-035 Landing Location and Construction

(a) Reasons for Adopting: Provides direction regarding landing location and construction. Adds information from repealed section 222-30-020 regarding truck roads, skid trails, fire trails and landing slopes; sidecasting of excavation material prohibited where high probability of entry into wetlands or wetland management zones.

(b) Differences From Original Proposal: Changes reflect changes in the wetland typing system.

(c) Reasons for Rejecting Changes Requested by the Public: Requests made to eliminate forested wetlands. (See WAC 222-24-025.)

WAC 222-24-040 Water Crossing Structures

(a) Reasons for Adopting: Provides direction regarding culvert installation in wetlands, culverts in anadromous fish streams, and construction of temporary water crossings. Language

regarding wetlands conforms to previous changes to the rules. The elimination of language regarding 12 inch culverts does not indicate replacement of 12 inch culverts but reflects problems in maintaining small pipes.

(b) **Differences From Original Proposal:** Recognition of need for different standards for Eastern Washington. (See WAC 222-24-025.)

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-24-050 Road Maintenance

(a) **Reasons for Adopting:** Provides for maintenance of water flow within wetlands. Based on the majority of the FPB's concern for maintaining plant communities within non-forested wetlands, adds prohibition of herbicide use in Type A or B wetlands.

(b) **Differences From Original Proposal:** Cross reference to changes in legal use of waste oil in the environment.

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-24-060 Rock Quarries, Gravel Pits, Borrow Pits, and Spoil Disposal Areas

(a) **Reasons for Adopting:** Provides standards regarding location of spoil disposal areas. Refers back to WAC 222-24-030(9)(b) regarding location of spoil disposal.

(b) **Differences From Original Proposal:** N/A.

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-30-010 Policy -- Timber Harvesting

(a) **Reasons for Adopting:** The majority of the FPB supported the position reflected in the adopted policy statement. A recognition of the importance of timber production is supported by according some functions of wetlands to be reduced for up to 1/2 of the timber harvest rotation cycle.

(b) **Differences From Original Proposal:** N/A.

(c) **Reasons for Rejecting Changes Requested by the Public:** Requests for leaving significantly more residual timber within forested wetlands were rejected by a majority of the FPB in an

attempt to balance the viability of the forest products industry with public resource protection.

WAC 222-30-020 Harvest Unit Planning and Design

Subsections (3) Western Washington RMZ and (4) Eastern Washington RMZ

(a) Reasons for Adopting: Deletes language related to description of East-West division of state which was moved to the definition section. Deletes language related to landing construction which were moved to more appropriate locations within the rules. RMZ's are expanded to meet the shade requirements. The small harvest exception rule is expanded to include any combination of RMZ and WMZ.

(b) Differences From Original Proposal: Shade requirements were added to clarify and cross reference. Appropriate changes were made to reflect changes in the wetland typing system. The small harvest exception was added to address the FPB's concern for excessive economic impact on small harvesters.

(c) Reasons for Rejecting Changes Requested by the Public:
N/A.

Subsection (6) Forested Wetlands

(a) Reasons for Adopting: Within forested wetlands the majority of the FPB determined that harvest methods should be limited to low impact or cable systems so that wetland hydrology can be maintained. In order to provide additional protection to forested wetlands, an incentive was established related to placement of wildlife reserve trees. To assist in selection or harvest methods, landowners are required to determine the approximate boundaries of forested wetlands greater than 5 acres in size.

Requirement for DNR to consult with Departments of Wildlife, Fisheries, and affected Indian tribes re: site specific impact on wetland sensitive species are intended to encourage discussion and information transfer which will be considered by DNR in conditioning the permits.

(b) Differences From Original Proposal: This subsection was added to reflect the change in the wetland typing system. Type C wetlands were dropped in favor of protection of forested wetlands to recognize the timber production function of these wetlands while maintaining hydrologic protection. The majority of the FPB supported an incentive to encourage forest landowners to protect additional areas of forested wetlands. Landowners are required to indicate forested wetlands on their applications to assist in

selecting appropriate harvest methods. Consultation among the resource agencies is required to insure adequate review of impacts on sensitive species.

(c) Reasons for Rejecting Changes Requested by the Public: The FPB attempted to consider all comments related to this section and provide a balance between the protection of public resources and the continued viability of the forest products industry. Comments to both increase protection for the environment and to reduce economic impacts on landowners were received. In consideration of all comments, a majority of the FPB felt the adopted rules reached the proper balance between protection of public resources and maintaining a viable forest products industry. See discussion in section (B)(2), supra.

Subsection (7) WMZ's

(a) Reasons for Adopting: A majority of the FPB determined that vegetative buffers were necessary to protect the functions of nonforested wetlands. Harvest adjacent to nonforested wetlands is regulated to provide habitat for wetland dependent species while allowing some forest management activities. Different widths of WMZ's were established based on wetland size and type. A majority of the FPB determined that some habitat protection for nonforested wetlands was needed to meet the requirements of the FPA.

(b) Differences From Original Proposal: A majority of the FPB supported the following changes: In the sentence relating to RMZ/WMZ overlap, the FPB substituted "best protection" for "most restrictive" to increase clarity by focusing on the resource protection rather than unnecessary limitations on operations. The lower size limit for nonforested wetland areas was lowered but no WMZ was required in order to preserve these small wetland areas with the lowest impact on landowners. The small harvest exception language was added to increase clarity and to mesh with changes in the RMZ section.

(c) Reasons for Rejecting Changes Requested by the Public: See subsection (6).

Subsection (8)

(a) Reasons for Adopting: A majority of the FPB determined that rules were necessary to protect the integrity of vegetation within nonforested wetlands. Harvest in these areas could significantly damage their function.

(b) Differences From Original Proposal: Changes were made to reflect the change in the wetland typing system.

(c) Reasons for Rejecting Changes Requested by the Public:
See subsection (6).

Subsection (11) Wildlife Reserve Tree Management

(a) Reasons for Adopting: A majority of the FPB determined that habitat for wildlife related to standing trees and down logs is necessary to the maintenance of certain species. This habitat must be preserved during the harvest process due to the length of time necessary to grow trees of sufficient size to meet this need. Variations in the environment required differential rules for Eastern and Western Washington.

(b) Differences From Original Proposal: Public comments concerning human safety resulted in increased emphasis on this issue in the adopted rule. Concern for financial impact on landowners caused the FPB to lower the requirement for green recruitment trees in Western Washington. Partial cutting in Eastern Washington reduces this impact. Additional review of information resulted in changes in specified size limits for wildlife reserve trees and green recruitment trees. The distribution of wildlife reserve trees and green recruitment trees retention areas was modified to allow increased operational flexibility.

(c) Reasons for Rejecting Changes Requested by the Public: Requests by small landowners to be exempted from this section were rejected by a majority of the FPB. The FPB adopted an emergency rule providing some flexibility to small landowners and formed a committee to review these issues further. See discussion on section (B)(2), supra.

WAC 222-30-025 Even-Aged Harvest - Size and Timing

(a) Reasons for Adopting: Establishes buffering requirements and size limitations for even aged harvest methods.

(b) Differences From Original Proposal: Significant changes were made from the original proposal responding to comments that the original proposal was unworkable and confusing.

Clarification changes were added to subsection (1).

Subsection (2) was added to prohibit even aged harvests greater than 240 acres. The FPB felt this was a more direct approach than classifying such harvests Class IV → Special. Landowners tend not to pursue applications classified as Class IV - Special, so this modified approach was not viewed as an additional burden.

Subsections (3) and (4) were modified for clarification.

Salvage for other natural causes or forest practices designed to convert to managed hardwoods or conifers were added as exemptions in subsection (5). In recognition of the need for salvage operations for different natural disasters and for the importance of managed forests to the long-term viability of the timber industry.

Clarification language was added to subsection (6). Wetland management zones were added in places that previously only recognized riparian management zones. Language was added to deal with land in uses other than forest land and land outside the control of the applicant landowner. Cross references were corrected.

A new subsection (7) was added addressing the effective date designed to consider vested rights, the economic impact of these rules on landowners, and the time to adjust management plans.

(c) Reasons for Rejecting Changes Requested by the Public: See discussion in section (B)(6), supra. A proposal to regulate harvest size and timing without regard to ownership was rejected because of the recognition of private property rights and the importance of an individual's ability to plan for actions only on one's own property.

WAC 222-30-040 Shade Requirements to Maintain Stream Temperature

(a) Reasons for Adopting: The section requires the retention of shade trees along Type 1, 2 and 3 waters to maintain stream temperature according to the DNR's temperature prediction method. The rules call for management practices that are consistent with requirements in the state water quality standards. The section provides exceptions and alternatives to the shade requirements upon application.

(b) Differences From Original Proposal: This rule differs from the proposed rule in that amendments were made which eliminated the minimum leave tree requirements.

(c) Reasons for Rejecting Changes Requested by the Public: Some public comments indicated that the use of leave trees is an ineffective method of protecting stream temperature because of the potential for windthrow. The rules allow for use of an alternate plan instead of the provisions requiring leave trees to maintain stream temperature. See WAC 222-12-040. If windthrow does occur, salvage of downed logs is possible if approved by DNR.

WAC 222-30-050 Felling and Bucking

(a) **Reasons for Adopting:** Changes to this subsection add language regarding wetlands and wetland management zones consistent with changes made throughout the rule package.

(b) **Differences From Original Proposal:** N/A.

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-30-060 Cable Yarding

(a) **Reasons for Adopting:** Changes to this subsection add language for the protection of wetlands and wetland management zones, thereby providing protection during yarding timber.

(b) **Differences From Original Proposal:** N/A.

(c) **Reasons for Rejecting Changes Requested by the Public:**
N/A.

WAC 222-30-070 Tractor and Wheeled Skidding Systems

(a) **Reasons for Adopting:** Amendments to this subsection provide direction in the utilization of tractor and wheeled skidding systems within wetlands. Specific amendments were made to provide protection measures to be taken in wetlands and wetland management zones to minimize soil compaction, soil disturbance and damage leave trees and vegetation. The primary focus is to maintain hydrologic integrity and to protect wildlife habitat.

(b) **Differences From Original Proposal:** The term "hydric soils" in subsection (5) was replaced by "saturated soils" to provide protection to soils and water quality in non-wetland areas during heavy rainfall periods.

(c) **Reasons for Rejecting Changes Requested by the Public:** Requests to eliminate forested wetlands from this protection were rejected by a majority of the FPB in order to provide protection to the functions of these wetland areas.

WAC 222-30-090 Post-Harvest Site Preparation

(a) **Reasons for Adopting:** The purpose of the amendment to this section was to add language concerning wetland management zones .

(b) **Differences From Original Proposal:** N/A.

(c) Reasons for Rejecting Changes Requested by the Public:
N/A.

WAC 222-30-100 Slash Disposal

(a) Reasons for Adopting: Adds protective language for Type A and B wetlands and wetland management zones to existing language regarding prohibition of slash disposal. Prohibits scarification within wetlands and discourages machine piling in order to protect wetland soils and vegetation. Landowners are encouraged to use least destructive methods.

(b) Differences From Original Proposal: In recognition that preventing damage to adjacent wetlands when depositing of slash may not be possible, a majority of the FPB determined that the language should be changed to provide for reasonable care to protect wetlands. Changes to the fire trail section were necessary to allow for slash burn control.

(c) Reasons for Rejecting Changes Requested by the Public: A majority of the FPB rejected allowing scarification within forested wetlands based on the resulting damage that can occur to wetland soils.

WAC 222-30-110 Timber Harvesting on Islands

(a) Reasons for Adopting: A new section restricting timber harvest on saltwater islands that recognizes that island systems are smaller and believed to be unique or more isolated and sensitive than those on the mainland.

(b) Differences From Original Proposal: A section was added for salvage operation that recognizes the important of these operations to maintaining a viable forest products industry.

A section was added addressing the effective date. See discussion on WAC 222-30-025(7), supra.

(c) Reasons for Rejecting Changes Requested by the Public: See discussion in section (B)(6), supra.

WAC 222-38-010 Policy - Forest Chemicals

(a) Reasons for Adopting: Changes to this policy section reflect the FPB's policy to protect all public resources.

(b) Differences From Original Proposal: N/A.

(c) Reasons for Rejecting Changes Requested by the Public:
N/A.

WAC 222-38-020 Handling Storage and Application of Pesticides

(a) **Reasons for Adopting:** Changes to this section and the creation of WAC 222-38-030 and 040 reflect the need to provide differential protection when applying pesticides, fertilizer and other forest chemicals.

Language is added to protect wetlands and require site specific application or application by hand in WMZs. The changes set out specific limitations which must be met for application.

(b) **Differences From Original Proposal:** Changes from the original proposal reflect a reorganization of the subsection for clarity and elimination of duplication of Department of Agriculture rules. Subsection (4) was added to require hand treatment within WMZ's. Language clarifying the presence or absence of surface water was added to subsections (5)(a) and (b). Subsection (5)(f) was changed to insure compliance with FAA regulations. Subsections (6) and (7) were changed for clarification. Subsection (8)(e) was added to provide for suspension of use of faulty equipment. Subsection (11) was changed to reflect current procedures for reporting spills.

(c) **Reasons for Rejecting Changes Requested by the Public:** Request to prohibit use of pesticides in wetlands was rejected by the FPB in order to allow flexibility to the industry. The FPB did adopt limitations on types of chemicals allowed for wetland use.

WAC 222-38-030 Handling Storage and Application of Fertilizers

(a) **Reasons for Adopting:** The addition of this subsection is based on suggested management practices proposed by a TFW CMER Committee. A multi-year research project related to the application of fertilizers and their impact on water quality was the basis of these changes.

(b) **Differences From Original Proposal:** Changes were made to the original proposal for purposes of clarity and to more accurately reflect the results of the research project by CMER.

(c) **Reasons for Rejecting Changes Requested by the Public:** Requests to provide a higher level of protection to Type 4 and 5 waters were not supported by the CMER findings and were rejected by a majority of the FPB.