

## WILDLIFE, BIODIVERSITY, AND CULTURAL RESOURCES

As of February 3, 2012, the following forest practices rules apply to wildlife and cultural resources. Throughout the document, the terms “cultural resources” and “cultural” are highlighted in yellow for easier identification of the rules that involve these resources.

There are no forest practices rules specific to “biodiversity”. The “diversity of riparian forests across the landscapes” is noted in the timber harvesting policies in WAC 222-30-010 (3), and “vertical diversity” is noted in Northern spotted owl habitats in WAC 222-16-(1)(b).

All rules that require leave areas and/or leave trees contribute to biodiversity, regardless of the location on the forest landscape. These rules include but are not limited to critical habitats (state) of threatened and endangered species, unstable slopes, riparian, wetland, unstable slopes, and the Rivers and Habitat Open Space Program.

Unless otherwise noted, only the pertinent portions of the rules are listed for easier readability. For the reader’s convenience, all of the WAC chapters are hyperlinked so they can be seen in their entirety if desired.

### [Chapter 222-08 WAC, Practices and Procedures](#)

#### **WAC 222-08-160 Continuing review of forest practices rules.**

\*(1) Annual evaluations. The department, after consulting with affected state agencies, Indian tribes, forest landowners, fish and wildlife, natural resources, and environmental interest groups, shall report annually to the forest practices board. This reporting will be an assessment of how the rules and voluntary processes, including the Cultural Resources Protection and Management Plan, as committed in the 1999 *Forests and Fish Report*, Appendix O (O.3), are working.

### [Chapter 222-10 WAC, State Environmental Policy Act Guidelines](#)

#### **WAC 222-10-040, Class IV-Special threatened and endangered species SEPA policies.**

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

- (1) The department shall consult with the department of fish and wildlife, other agencies with expertise, affected landowners, affected Indian tribes, and others with expertise when evaluating the impacts of forest practices. If the department does not follow the recommendations of the department of fish and wildlife, the department shall set forth in writing a concise explanation of the reasons for its action.
- (2) In order to determine whether forest practices are likely to have a probable significant adverse impact, and therefore require an environmental impact statement, the department shall evaluate whether the forest practices reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of the survival or recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.
- (3) Specific mitigation measures or conditions shall be designed to reduce any probable significant adverse impacts identified in subsection (2) of this section.
- (4) The department shall consider the species-specific policies in WAC [222-10-041](#) and [222-10-042](#) when reviewing and evaluating SEPA documents and the impacts of forest practices.
- (5) The SEPA policies in this section and the species specific SEPA policies for threatened and endangered species do not apply to forest practices that are consistent with a wildlife conservation

agreement listed in WAC [222-16-080](#)(6) for species covered by these agreements, that has received environmental review with an opportunity for public comment under the National Environmental Policy Act, 42 U.S.C. section 4321 et seq., or the State Environmental Policy Act, chapter [43.21C](#) RCW.

**WAC 222-10-041 Northern spotted owls.**

The following policies shall apply to forest practices subject to SEPA if the forest practices may cause adverse impacts to northern spotted owls.

(1) **In SOSEAs or areas of SOSEAs where the goal is demographic support**, suitable spotted owl habitat should be maintained either to protect the viability of the owl(s) associated with each northern spotted owl site center or to provide demographic support for that particular SOSEA as described in the SOSEA goals.

(2) **In SOSEAs or areas of SOSEAs where the goal is dispersal support**, either suitable spotted owl habitat should be maintained to protect the viability of the owl(s) associated with each northern spotted owl site center or dispersal habitat should be managed, over time, to provide the dispersal support for that particular SOSEA as described in the SOSEA goals. Dispersal support is provided by a landscape which includes dispersal habitat at the stand level interspersed with areas of higher quality habitat. Stands of dispersal habitat should be managed to reduce gaps between stands and to maintain a sufficient level of dispersal habitat to meet the SOSEA goals over time.

(3) **In SOSEAs or areas of SOSEAs where the goal is a combination of dispersal support and demographic support**, either suitable spotted owl habitat should be maintained to protect the viability of the owl(s) associated with each northern spotted owl site center or a variety of habitat conditions should be provided which in total are more than dispersal support and less than demographic support. This can be accomplished by providing:

(a) Dispersal support as described in subsection (2) of this section;

(b) Areas of suitable spotted owl habitat that contain some opportunities for nesting as well as roosting and foraging habitat; and

(c) Connectivity between areas of SOSEAs designated for demographic support or adjacent federal lands which are designated as late successional reserves, congressionally reserved areas, or administratively withdrawn areas.

(4) **Within SOSEAs**, the following amounts of suitable habitat are generally assumed to be necessary to maintain the viability of the owl(s) associated with each northern spotted owl site center, in the absence of more specific data or a mitigation plan, as provided for in subsections (6) and (7) of this section respectively:

(a) All suitable spotted owl habitat within 0.7 mile of each northern spotted owl site center;

(b) Including the suitable spotted owl habitat identified in (a) of this subsection:

(i) For the Hoh-Clearwater/Coastal Link SOSEA - A total of 5,863 acres of suitable spotted owl habitat within the median home range circle (2.7 mile radius).

(ii) For all other SOSEAs - A total of 2,605 acres of suitable spotted owl habitat within the median home range circle (1.8 mile radius).

The department shall first identify the highest quality suitable spotted owl habitat for this purpose. Consideration shall be given to habitat quality, proximity to the activity center and contiguity in selecting the most suitable habitat. Suitable spotted owl habitat identified outside 0.7 mile of a northern spotted owl site center may support more than one median home range circle.

(5) **Outside SOSEAs**, during the nesting season (between March 1 and August 31), seventy acres of the highest quality suitable spotted owl habitat surrounding a northern spotted owl site center should be maintained. The seventy acres for one site center shall not be utilized for meeting suitable habitat needs of any other site center.

(6) **The assumptions set forth** in subsection (4) of this section are based on regional data. Applicants or others may submit information that is more current, accurate, or specific to a northern spotted owl site center, proposal, or SOSEA circumstances or goals. The department shall use such information in making its determinations under this section where the department finds, in consultation with the department of

fish and wildlife, that the information is more likely to be valid for the particular circumstances than the assumptions established under subsection (4) of this section. If the department does not use the information, it shall explain its reasons in writing to the applicant.

(7) **The department shall consider** measures to mitigate identified adverse impacts of an applicant's proposal. Mitigation measures must contribute to the achievement of SOSEA goals or to supporting the viability of impacted northern spotted owl site centers.

#### **WAC 222-10-042 Marbled murrelets.**

The following policies shall apply to forest practices subject to SEPA where the forest practices may cause adverse impacts to marbled murrelets.

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

(2) Within marbled murrelet detection areas:

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

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

A landowner may request the department of fish and wildlife to survey. The department of fish and wildlife should survey to the maximum extent practicable based on an appropriation to survey marbled murrelet suitable habitat within detection areas where the landowner provides access for surveys to the department of fish and wildlife, and sufficient time is allowed to complete the protocol surveys. The department shall provide a notice to the landowner within 60 days from the date of application of the department of fish and wildlife's intent to survey. If the department of fish and wildlife cannot conduct marbled murrelet surveys the responsibility for surveys remains with the landowner.

(3) Outside a marbled murrelet detection area:

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

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

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

(5) The platform assumptions set forth above are based on regional data. Applicants or others may submit information to the department which was gathered in conjunction with a marbled murrelet survey agreement with the department of fish and wildlife, and other reliable information that is more current, or specific to the platform numbers in the marbled murrelet suitable habitat definition. The department shall

use such information in making its determinations under this section where the department finds, in consultation with the department of fish and wildlife, that the information is more likely to be valid for a particular WRIA or physiographic province. If the department does not use the information, it shall explain its reasons in writing to the applicant.

#### Chapter 222-12 WAC, Policy and Organization

#### **WAC 222-12-045 \*Adaptive management program.**

**\*Adaptive management program.** In order to further the purposes of chapter [76.09 RCW](#), the board has adopted and will manage a formal science-based program, as set forth in WAC [222-08-160\(2\)](#). Refer to board manual section 22 for program guidance and further information.

**(1) Purpose:** The purpose of the program is to provide science-based recommendations and technical information to assist the board in determining if and when it is necessary or advisable to adjust rules and guidance for aquatic resources to achieve resource goals and objectives. The board may also use this program to adjust other rules and guidance. The goal of the program is to affect change when it is necessary or advisable to adjust rules and guidance to achieve the goals of the forests and fish report or other goals identified by the board. There are three desired outcomes: Certainty of change as needed to protect targeted resources; predictability and stability of the process of change so that landowners, regulators and interested members of the public can anticipate and prepare for change; and application of quality controls to study design and execution and to the interpreted results.

...

#### **(b) Participants: ...**

**(i) CMER.** By this rule, the board establishes a cooperative monitoring evaluation and research (CMER) committee to impose accountability and formality of process, and to conduct research and validation and effectiveness monitoring to facilitate achieving the resource objectives. The purpose of CMER is to advance the science needed to support adaptive management. CMER also has ongoing responsibility to continue research and education in terrestrial resource issues. CMER will be made up of members that have expertise in a scientific discipline that will enable them to be most effective in addressing forestry, fish, wildlife, and landscape process issues. Members will represent timber landowners, environmental interests, state agencies, county governments, federal agencies and tribal governments from a scientific standpoint, not a policy view. CMER members will be approved by the board. This will not preclude others from participating in and contributing to the CMER process or its subcommittees.

#### **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:

...

**(4)** The board shall continue consultation with the departments of ecology, fish and wildlife, natural resources, and archaeology and historic preservation, forest landowners, and affected tribes to further protect **cultural resources** and wildlife resource issues.

#### **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 rules. The department, in cooperation with the departments of fish and wildlife, agriculture, ecology, and such other agencies, affected Indian tribes, or interested parties as may have appropriate expertise, is directed to prepare, and submit to the board for approval, revisions to the forest practices board manual. The manual shall include:

...

(11) The standard methodology for conducting watershed analysis shall specify the quantitative methods, indices of resource conditions, and definitions, for conducting watershed analysis under chapter [222-22 WAC](#). The methodology shall also include a **cultural resource** module that shall specify the quantitative and qualitative methods, indices of resource conditions, and guidelines for developing voluntary management strategies for **cultural resources**. Except for **cultural resources**, the department, in consultation with Timber/Fish/Wildlife's Cooperative Monitoring, Evaluation and Research Committee (CMER), may make minor modifications to the version of the standard methodology approved by the board. Substantial amendments to the standard methodology requires approval by the board.

**Chapter 222-16 WAC, Definitions**

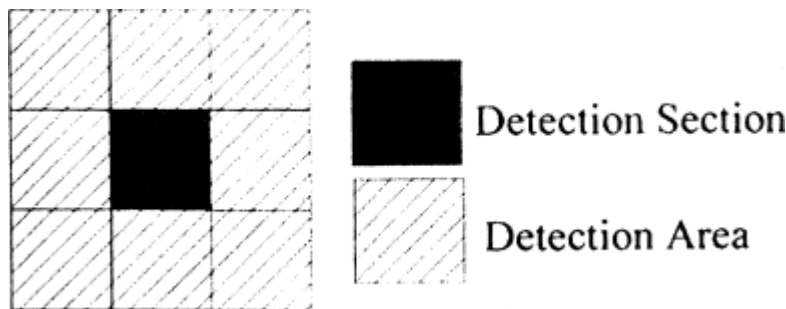
**WAC 222-16-010 General definitions.**

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

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

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

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



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

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

"**Northern spotted owl site center**" means the location of status 1, 2 or 3 northern spotted owls based on the following definitions:

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

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

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

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

**"Occupied marbled murrelet site"** means:

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

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

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

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

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

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

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

- (a) 1.5 miles from the point where the observed behaviors or conditions listed in (1) above occurred; or
- (b) The beginning of any gap greater than 300 feet wide lacking one or more of the vegetative characteristics listed under "suitable marbled murrelet habitat"; or
- (c) The beginning of any narrow area of "suitable marbled murrelet habitat" less than 300 feet in width and more than 300 feet in length.

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

- (a) 1.5 miles from the point where the observed behaviors or conditions listed in (1) above occurred; or
- (b) The beginning of any gap greater than 300 feet wide lacking one or more of the distinguishing vegetative characteristics important to murrelets; or



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

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

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

**"Spotted owl conservation advisory group"** means a three-person advisory group designated by the board as follows: One person shall be a representative of Washington's forest products industry, one person shall be a representative of a Washington-based conservation organization actively involved with spotted owl conservation, and one person shall be a representative of the department's forest practices program. Members of the group shall have a detailed working knowledge of spotted owl habitat relationships and factors affecting northern spotted owl conservation. On an annual basis, beginning November 2010, the board will determine whether this group's function continues to be needed for spotted owl conservation.

**"Spotted owl dispersal habitat"** see WAC [222-16-085\(2\)](#).

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

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

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

(a) Within 50 miles of marine waters;

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

(c) Two or more nesting platforms per acre;

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

**"Suitable spotted owl habitat"** see WAC [222-16-085\(1\)](#).

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

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

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

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

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

Type 3 wildlife reserve trees are live or dead trees with unstable tops or upper portions. Unless

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

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

#### **WAC 222-16-031 Interim water typing system.**

...

**(2) "Type 2 Water"** means 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: ...

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

#### **WAC 222-16-050 Classes of forest practices.**

**(1) Class IV-special.** Except as provided in WAC [222-16-051](#), 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.

...

**(b)** Specific forest practices listed in WAC [222-16-080](#) on lands designated as critical habitat (state) of threatened or endangered species.

...

**(f)** Timber harvest or construction of roads, landings, rock quarries, gravel pits, borrow pits, and spoil disposal areas on the following except in (f)(iv) of this subsection:

(i) Archaeological sites or historic archaeological resources as defined in RCW [27.53.030](#); or

(ii) Historic sites eligible for listing on the National Register of Historic Places or the Washington Heritage Register as determined by the Washington state department of archaeology and historic preservation; or

(iii) Sites containing evidence of Native American cairns, graves, or glyptic records as provided for in chapters [27.44](#) and [27.53](#) RCW. The department of archaeology and historic preservation shall consult with affected Indian tribes in identifying such sites.

(iv) A forest practice would not be classified as Class IV-special under this subsection if:

(A) **Cultural resources** management strategies from an approved watershed analysis conducted under chapter [222-22](#) WAC are part of the proposed forest practices, and the landowner states this in the application; or

(B) A management plan agreed to by the landowner, the affected Indian tribe, and the department of archaeology and historic preservation is part of the proposed application, and the landowner states this in the application

#### **WAC 222-16-080 Critical habitat (state) of threatened or endangered species.**

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

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



garbage dumping sites.

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

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

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

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

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

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

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

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

(ii) **Within the Entiat SOSEA**, harvesting, road construction, or aerial application of pesticides within the areas indicated for demographic support (see WAC [222-16-086\(2\)](#)) on suitable spotted owl habitat located within a median home range circle that is centered within the demographic support area.

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

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

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

(j) Marbled murrelet (*Brachyramphus marmoratus*).

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

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

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

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

(v) Harvesting within a 300 foot managed buffer zone adjacent to an occupied marbled murrelet site

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

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

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

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

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

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

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

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

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

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

(b) The board shall examine current wildlife protection and department authority to protect wildlife and develop and recommend a regulatory system, including baseline rules for wildlife protection. To the extent possible, this system shall:

(i) Use the best science and management advice available;

(ii) Use a landscape approach to wildlife protection;

(iii) Be designed to avoid the potential for substantial impact to the environment;

(iv) Protect known populations of threatened and endangered species of wildlife from negative effects of forest practices consistent with RCW [76.09.010](#); and

(v) Consider and be consistent with recovery plans adopted by the department of fish and wildlife pursuant to RCW [77.12.020\(6\)](#) or habitat conservation plans or 16 U.S.C. 1533(d) rule changes of the

Endangered Species Act.

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

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

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

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

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

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

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

**(i)** A landscape management plan; or

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

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

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

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

**(f)** A cooperative habitat enhancement agreement (CHEA) developed pursuant to WAC [222-16-105](#);

or

**(g)** A take avoidance plan issued by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service prior to March 20, 2000;

**(h)** Surveys demonstrating the absence of northern spotted owls at a northern spotted owl site center have been reviewed and approved by the department of fish and wildlife and all three of the following criteria have been met:

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

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

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

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

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

initiative.

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

**WAC 222-16-085 Northern spotted owl habitats.**

(1) **Suitable spotted owl habitat** means forest stands which meet the description of old forest habitat, sub-mature habitat or young forest marginal habitat found in (a) and (b) of this subsection. Old forest habitat is the highest quality, followed in descending order by sub-mature habitat and young forest marginal habitat.

(a) **Old forest habitat** means habitat that provides for all the characteristics needed by northern spotted owls for nesting, roosting, foraging, and dispersal, described as stands with:

(i) A canopy closure of 60% or more and a layered, multispecies canopy where 50% or more of the canopy closure is provided by large overstory trees (typically, there should be at least 75 trees greater than 20 inches dbh per acre, or at least 35 trees 30 inches dbh or larger per acre); and

(ii) Three or more snags or trees 20 inches dbh or larger and 16 feet or more in height per acre with various deformities such as large cavities, broken tops, dwarf mistletoe infections, and other indications of decadence; and

(iii) More than two fallen trees 20 inches dbh or greater per acre and other woody debris on the ground.

(b) **Sub-mature habitat and young forest marginal habitat.** Sub-mature habitat provides all of the characteristics needed by northern spotted owls for roosting, foraging, and dispersal. Young forest marginal habitat provides some of the characteristics needed by northern spotted owls for roosting, foraging, and dispersal. Sub-mature habitat and young forest marginal habitat stands can be characterized based on the forest community, canopy closure, tree density and height, vertical diversity, snags and cavity trees, dead and down wood, and shrubs or mistletoe infection. They are described in the following tables:

(i) Western Washington spotted owl sub-mature and young forest marginal habitat characteristics.

Characteristic	Habitat Type	
	Sub-Mature	Young Forest Marginal
Forest Community	conifer-dominated <i>or</i> conifer-hardwood (greater than or equal to 30% conifer)	conifer-dominated <i>or</i> conifer-hardwood (greater than or equal to 30% conifer)
Canopy Closure	greater than or equal to 70% canopy closure	greater than or equal to 70% canopy closure
Tree Density and Height	115-280 trees/acre (greater than or equal to 4 inches dbh) with	115-280 trees/acre (greater than or equal to 4 inches dbh) with
	dominants/codominants greater than or equal to 85 feet high	dominants/codominants greater than or equal to 85 feet high
Vertical Diversity	OR	OR
	dominants/codominants greater than or equal to 85 feet high with	dominants/codominants greater than or equal to 85 feet high with
	2 or more layers and	2 or more layers and
	25 - 50% intermediate trees	25 - 50% intermediate trees

Snags/Cavity Trees	greater than or equal to 3/acre (greater than or equal to 20 inches dbh and 16 feet in height)	greater than or equal to 2/acre (greater than or equal to 20 inches dbh and 16 feet in height) OR greater than or equal to 10% of the ground covered with 4 inch diameter or larger wood, with 25-60% shrub cover
Dead, Down Wood	N/A	
Shrubs	N/A	

The values indicated for canopy closure and tree density may be replaced with a quadratic mean diameter of greater than 13 inches and a basal area of greater than 100.

(ii) Eastern Washington spotted owl sub-mature and young forest marginal habitat characteristics.

Characteristic	Habitat Type		
	Sub-Mature	Young Forest Marginal (closed canopy)	Young Forest Marginal (open canopy)
Forest Community	greater than or equal to 40% fir	greater than or equal to 40% fir	greater than or equal to 40% fir
Tree Density and Height	110-260 trees/acre (greater than or equal to 4 inches dbh) with	100 - 300 trees/acre (greater than or equal to 4 inches dbh)	100 - 300 trees/acre (greater than or equal to 4 inches dbh)
	dominants/codominants greater than or equal to 90 feet high OR	dominants/codominants equal to or greater than 70 feet high	dominants/codominants equal to or greater than 70 feet high
Vertical Diversity	dominants/codominants greater than or equal to 90 feet high with 2 or more layers and	2 or more layers	2 or more layers
	25 - 50% intermediate trees	25 - 50% intermediate trees	25 - 50% intermediate trees
Canopy Closure	greater than or equal to 70% canopy closure	greater than or equal to 70% canopy closure	greater than or equal to 50% canopy closure
Snags/Cavity Trees	greater than or equal to 3/acre (greater than or equal to 20 inches dbh 16 feet in height) OR	N/A	2/acre or more (greater than or equal to 20 inches dbh 16 feet in height)
Mistletoe	high or moderate infection	N/A	high or moderate infection

Dead, Down Wood	greater than or equal to 5% of the ground covered with 4 inch diameter or larger wood	N/A	N/A
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The values indicated for canopy closure and tree density may be replaced with the following:

(A) For sub-mature a quadratic mean diameter of greater than 13 inches and a relative density of greater than 44;

(B) For young forest marginal a quadratic mean diameter of greater than 13 inches and a relative density of greater than 28.

**(2) Spotted owl dispersal habitat** means habitat stands that provide the characteristics needed by northern spotted owls for dispersal. Such habitat provides protection from the weather and predation, roosting opportunities, and clear space below the forest canopy for flying. Timber stands that provide for spotted owl dispersal have the following characteristics:

**(a) For western Washington,** timber stands 5 acres in size or larger with:

- (i) 70% or more canopy cover; and
- (ii) 70% or more of the stand in conifer species greater than 6 inches dbh; and
- (iii) A minimum of 130 trees per acre with a dbh of at least 10 inches or a basal area of 100 square feet of 10 inch dbh or larger trees; and
- (iv) A total tree density of 300 trees per acre or less; and
- (v) A minimum of 20 feet between the top of the understory vegetation and the bottom of the live canopy, with the lower boles relatively clear of dead limbs.

**(b) For eastern Washington,** timber stands 5 acres in size or larger with:

- (i) 50% or more canopy closure; and
- (ii) A minimum of 50 conifer trees per acre, with a dbh of 6 inches or more in even-aged stands or 4 inches or more in uneven-aged stands, and an average tree height of 65 feet or more; and
- (iii) Total tree density of 200 trees per acre or less; and
- (iv) A minimum of 20 feet between the top of the understory vegetation and the bottom of the live canopy, with the lower boles relatively clear of dead limbs; or
- (v) Conifer stands with a quadratic mean diameter of 9 inches or more and a relative density of 33 or more or a canopy closure of 55% or more.

**(c)** Suitable spotted owl habitat provides all of the required characteristics needed by spotted owls for dispersal.

**(d)** Landowners may submit information to support an alternate definition of dispersal habitat for review and approval by the department in consultation with the department of fish and wildlife.

**WAC 222-16-086 Northern spotted owl special emphasis areas and goals.**

"Spotted owl special emphasis areas (SOSEA)" means the following geographic areas and the associated goals as mapped. Detailed maps of the SOSEAs indicating the boundaries and goals are available from the department at its regional offices. *(Note: The SOSEA maps are in this WAC.)*

**WAC 222-16-100 Planning options for the northern spotted owl.**

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



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

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

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

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

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

(ii) **Other required elements:**

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

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

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

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

(E) Management proposals and relevant operations plans.

(F) Projected suitable habitat development.

(G) A plan for training.

(H) A monitoring program.

(I) Reporting standards.

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

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

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

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

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

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

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

In making its determination under this subsection, the department shall consider the direct, indirect, and cumulative effects of the plan; both the short-term and long-term effects of the plan; and whether local, state, or federal land management, regulatory, or nonregulatory requirements will mitigate identified

significant adverse impacts. If the department does not approve the plan, or approves it over the objections of the department of fish and wildlife, the department shall set forth in writing a concise explanation of the reasons for its action.

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

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

### **WAC 222-16-105, Cooperative habitat enhancement agreements.**

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

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

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

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

### (3) **Baseline.**

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

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

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

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

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

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

(iii) The term of the agreement.

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

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

(b) For northern spotted owls, in addition to the elements required by the department, each agreement shall include a plan to avoid harvesting, road construction, or the aerial application of pesticides, between

March 1 and August 31, on the seventy acres of highest quality suitable spotted owl habitat surrounding any known northern spotted owl site centers on lands covered by the agreement.

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

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

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

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

### Chapter 222-20 WAC, Application and Notification Procedures

#### **WAC 222-20-040 Approval conditions.**

...

#### **(6) CRGNSA special management area.**

(a) **Policy.** The states of Oregon and Washington have entered into a Compact preauthorized by Congress to implement the CRGNSA Act, 16 U.S.C. §§ 544, et seq. chapter [43.97](#) RCW, 16 U.S.C. § 544c. The purposes of the CRGNSA Act are:

(i) To establish a national scenic area to protect and provide for the enhancement of the scenic, cultural, recreational, and natural resources of the Columbia River Gorge; and ...

#### **WAC 222-20-120 Notice of forest practices to affected Indian tribes.**

(1) The department shall notify affected Indian tribes of all applications of concern to such tribes, including those involving cultural resources, identified by the tribes.

(2) Where an application involves cultural resources the landowner shall meet with the affected tribe(s) with the objective of agreeing on a plan for protecting the archaeological or cultural value. The department may condition the application in accordance with the plan.

(3) Affected Indian tribes shall determine whether plans for protection of cultural resources will be forwarded to the department of archaeological and historic preservation (DAHP).

### Chapter 222-22 WAC, Watershed Analysis

#### **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.

(2) Cultural resources may also be adversely affected by the interaction of two or more forest practices. The purpose of this rule is also to achieve management and protection of these cultural resources by fostering cooperative relationships and agreements between landowners and tribes.

\*(3) The long-term objective of this rule is to protect and restore these public and cultural resources and the productive capacity of fish habitat adversely affected by forest practices while maintaining a viable forest products industry. For public resources, 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 practices rules in this Title 222 WAC, and through voluntary mitigation measures. For **cultural resources**, with the exception of sites registered on the department of archaeology and historic preservation's archaeological and historic sites data base and all resources that require mandatory protection under chapters 27.44 and 27.53 RCW, the board intends that this be accomplished through voluntary management strategies. This system also allows for monitoring, subsequent watershed analysis, and adaptive management.

\*(4) 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. The board supports the use of voluntary, cooperative approaches to address impacts to **cultural resources**. If voluntary approaches are shown to be ineffective, the board may find it appropriate to seek additional protection to prevent adverse impacts to **cultural resources**.

\*(5) Many factors other than forest practices can have a significant effect on the condition of fish, water, capital improvements of the state or its political subdivisions, and **cultural resources**. Nonforest practice contributions to cumulative effects should be addressed by the appropriate jurisdictional authorities. When a watershed analysis identifies a potential adverse effect on fish, water, capital improvements of the state or its political subdivisions, or **cultural resources** 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.

\*(6) 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. In addition, the rules in this chapter set forth a system for identifying the likelihood of adverse change affecting **cultural resources** and for developing voluntary management strategies to avoid or minimize significant adverse impacts to **cultural resources**. The rules in this chapter are in addition to, and do not take the place of, the other forest practices rules in this Title 222 WAC or laws for the protection of **cultural resources** including chapters 27.44 and 27.53 RCW.

\*(7) 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 practices applications and notifications by increasing the predictability of the process and the appropriate management response.

#### **WAC 222-22-045 Cultural resources.**

(1) Any watershed analysis initiated after July 1, 2005, is not complete unless the analysis includes a completed cultural resource module. Cultural resources module completeness is detailed in Appendix II of the module and includes affected tribe(s) participation, appropriate team qualification, required maps and forms, assessment of tribal and nontribal cultural resources, peer review of assessment, management strategies based on causal mechanism reports from synthesis, and agreement on the management strategies by affected tribes, landowners and land managers on the field managers team and, where applicable, the department of archaeology and historic preservation.

(2) When conducting a reanalysis of a watershed analysis pursuant to WAC 222-22-090, the cultural resources module is not required if the watershed analysis was approved by the department prior to the date in subsection (1) of this section. However, the board encourages use of the cultural resources module upon such review.

(3) The department does not review or approve cultural resources management strategies because their implementation is voluntary. The department of archaeology and historic preservation must be consulted and agree on all management strategies involving sites registered on the department of archaeology and historic preservation's archaeological and historic sites data base and all resources that require mandatory

protection under chapters [27.44](#) and [27.53](#) RCW.

(4) The cultural resources module may be conducted as a stand-alone method separate from a watershed analysis to identify, protect, and manage cultural resources. When used as a stand-alone methodology:

(a) Selected components of the methodology may be used as the participants deem necessary or the module may be used in its entirety.

(b) The methodology may be used at a variety of geographic scales and may be initiated by tribes, land managers or landowners. Landowner or land manager initiation is not limited by the minimum ownership threshold requirements in this chapter. Nothing in this rule grants any person or organization initiating the cultural resources module as a stand-alone method any right of entry onto private property.

(c) Watershed analysis notice requirements to the department do not apply.

(d) Participants are encouraged to engage people that meet the minimum qualifications to conduct the module as set by this chapter.

(e) In order for a stand-alone module to be incorporated into a watershed analysis, the module must have been conducted in accordance with the requirements of this chapter.

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

**\*(1)** To begin a watershed resource assessment on a WAU, the department acting under WAC [222-22-040](#)(2) or a forest landowner or owners acting under WAC [222-22-040](#)(3) may assemble a level 1 resource assessment team consisting of analysts qualified under WAC [222-22-030](#)(1) or, at its option, may begin the watershed analysis as a level 2 resource assessment 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 a person or persons qualified in the following:

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

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. The cultural resources module must include the participation of the affected Indian tribe(s). See board manual section 11, J. Cultural Resources Module, Introduction, 1) *Using this methodology in formal watershed analysis*.

**\*(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 conduct an assessment for cultural resources.

(b) The team shall display the location of these resources on a map of the WAU, except mapping of tribal cultural resources sites must be approved by the affected tribe. The location of archaeological sites shall be on a separate map that will be exempt from public disclosure per RCW [42.56.300](#).

...

(d) For cultural resources, the team shall follow the methodology outlined in the cultural resources module to determine the risk call for cultural resources based upon resource vulnerability and resource importance.

...

**\*(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). 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, capital improvements of

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

**WAC 222-22-060 Level 2 watershed resource assessment.**

\*(1) The department acting under WAC [222-22-040\(2\)](#) or forest landowner acting under WAC [222-22-040\(3\)](#) may assemble a level 2 resource assessment team either to begin a watershed analysis at a level 2 resource assessment or to review the level 1 resource 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 a person or persons qualified in the following: (e) Geomorphology;

...

(f) **Cultural anthropology**; and

(g) Archaeology.

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. The **cultural resources** module must include the participation of the affected Indian tribe(s). See board manual section 11, J. **Cultural Resources** Module, Introduction, 1) *Using this methodology in formal watershed analysis*.

**WAC 222-22-070 Prescriptions and management strategies.**

\*(1) For each WAU for which a watershed analysis is undertaken, the department acting under WAC [222-22-040\(2\)](#) or forest landowner 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 watershed analysis methods, and shall generally include a person or persons qualified in the following:

...

(e) **Cultural anthropology** and/or archaeology, depending on the cultural resources identified in the assessment.

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. The **cultural resources** module must include the participation of the affected Indian tribe(s). See board manual section 11, J. **Cultural Resources** Module, Introduction, 1) *Using this methodology in formal watershed analysis*.

...

\*(4) For each identified **cultural resource** area of resource sensitivity, the field managers team shall develop **cultural resources** management strategies in consultation with the assessment team and affected tribe(s).

...

(c) Management strategies resulting from conducting a **cultural resources** module are voluntary, not mandatory prescriptions, whether the module is conducted as part of a watershed analysis or as a stand-alone method separate from watershed analysis. However, the mandatory protections of resources under chapters [27.44](#) and [27.53](#) RCW still apply.

(5) The field managers team shall submit the recommended prescriptions, monitoring recommendations and **cultural resources** management strategies to the department within thirty days of the submission to the department of the level 2 assessment under WAC [222-22-060](#) or within twenty-one days of the submission to the department of the level 1 assessment under WAC [222-22-050](#).

**WAC 222-22-080 \*Approval of watershed analysis.**

\*(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, capital improvements of the state or its political subdivisions, or **cultural resources**.

...

(7) The department will not review or approve **cultural resource** management strategies because their implementation is voluntary.

### Chapter 222-23 WAC, Rivers and Habitat Open Space Program

#### **WAC 222-23-010 Policy and definitions.**

(1) Policy. The legislature determined that it is in the public interest to acquire (by purchase or donation) conservation easements on forest lands within unconfined channel migration zones and forest lands containing a critical habitat for threatened or endangered species as designated by the board. The rivers and habitat open space program (formerly known as the riparian open space program), established in RCW **76.09.040**, is for these forest lands voluntarily enrolled by the landowner. The department may acquire a permanent conservation easement over such lands. The purpose of this program, which will be administered by the department, is to provide for ecological protection and fisheries and wildlife enhancement. ...

(2) Definitions. The following definitions apply to this chapter:

...

(c) "Unacceptable liabilities" means exposure to undesirable responsibilities or problems as determined by the department. This includes, but is not limited to, the presence of hazardous substances on the lands or by other conditions that may create a liability to the department, or that may jeopardize the department's ability to maintain ecological protection, and fisheries and wildlife enhancement of the qualifying lands. Unacceptable liabilities may exist when the applicant is unwilling or unable to provide reasonable indemnification to the department.

#### **WAC 222-23-025 Priorities for conveyances and funding — Use of lands conveyed.**

...

(2) Use and management of lands and easement interests acquired under rivers and habitat open space program. Subject to the exceptions set forth in this subsection (or as otherwise provided in the easement documents), the lands subject to the conservation easements under this chapter shall be managed by the department only in a manner necessary for ecological protection, and fisheries and wildlife enhancement. The easements under the program shall not create a right of public access to or across adjoining or other lands owned by the landowner granting an easement.

### Chapter 222-24 WAC, Road Construction and Maintenance

#### **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.

#### **WAC 222-24-020 Road location and design.**

...

\*(2) Except for crossings, new stream-adjacent parallel roads shall not be located within natural drainage channels, channel migration zones, sensitive sites, equipment limitation zones, and riparian management zones when there would be substantial loss or damage to fish or wildlife habitat unless the department has

determined that other alternatives will cause greater damage to public resources. Proposals with new stream-adjacent parallel roads will require an on-site review by an interdisciplinary team. The appropriate federal representative(s) will be invited to attend the interdisciplinary team to determine if the proposal is in compliance with the Endangered Species Act.

#### **WAC 222-24-030 Road construction.**

...

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

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

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

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

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

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

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

#### **Chapter 222-30 WAC, Timber Harvesting**

##### **WAC 222-30-010 Policy – Timber harvesting.**

**\*(1)** This chapter 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 practicable, the department shall coordinate activities using a multiple disciplinary planning approach.

**\*(2)** The goal of riparian rules is to protect aquatic resources and related habitat to achieve restoration of riparian function; and the maintenance of these resources once they are restored.

**\*(3)** The rules provide for the conversion and/or treatment of riparian forests which may be understocked, overstocked or uncharacteristically hardwood dominated while maintaining minimum acceptable levels of function on a landscape scale. The diversity of riparian forests across the landscapes is addressed by tailoring riparian prescriptions to the site productivity and tree community at any site.

**\*(4)** 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 chapter 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. Other laws or rules and/or permit requirements may apply. See chapter [222-50](#) WAC.

##### **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 that yarding or skidding can be economically accomplished and achieve the ecological goals of WAC [222-30-010](#) (2), (3) and (4) in compliance with these rules.

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

excavation and filling.

**\*(3) Western Washington riparian management zones.** (See WAC [222-30-021](#) and [222-30-023](#).)

**\*(4) Eastern Washington riparian management zones.** (See WAC [222-30-022](#) and [222-30-023](#).)

**\*(5) Riparian leave tree areas.** (See WAC [222-30-021](#), [222-30-022](#), and [222-30-023](#).)

**\*(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.

...

(d) 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.

...

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

**\*(7) Wetland management zones (WMZ).**

...

(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.

...

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

(a) The applicant should make every reasonable effort to cooperate with the department of fish and wildlife to identify critical 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 ensure adequate access routes and escape cover where practical.

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

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

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

(a) For the purposes of this subsection the following defines eastern and western Washington boundaries for wildlife reserve tree management. 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 the 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 the 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 the 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 the SE corner of Section 33, T. 7N, R. 11E.,  
Thence west along township line between T. 6N, and T. 7N to the SE corner of T. 7N, R. 9E.,  
Thence south along Skamania-Klickitat County line to Oregon-Washington.

**(b)** 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.

**(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 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.

**WAC 222-30-022 \*Eastern Washington riparian management zones.**

For eastside forests, riparian management is intended to provide stand conditions that vary over time. It is designed to mimic eastside disturbance regimes within a range that meets functional conditions and maintains general forest health. These desired future conditions are a reference point on the pathway to restoration of riparian functions, not an end point of riparian stand development. These rules apply to all typed waters on forest land in Eastern Washington, except as provided in WAC 222-30-023. RMZs are measured horizontally from the outer edge of the bankfull width or channel migration zone, whichever is greater, and extend to the limits as described in the following section.

**\*(1) Eastern Washington RMZs on Type S and F Waters** have three zones: The core zone is nearest to the edge of the bankfull width or outer edge of the CMZ, whichever is greater. The inner zone is the middle zone, and the outer zone is furthest from the water. Permitted forest practices vary by timber habitat type and site class.

None of the limitations on harvest in each of the three zones listed below will preclude or limit the construction and maintenance of roads for the purpose of crossing streams in accordance with WAC 222-24-030 and 222-24-050, or the creation and use of yarding corridors in accordance with WAC 222-30-060(1).

The shade requirements in WAC 222-30-040 must be met regardless of harvest opportunities provided in the inner zone RMZ rules. See the board manual, section 1.

(a) **Core zones.** The core zone extends 30 feet measured horizontally from the edge of the bankfull width or outer edge of the CMZ, whichever is greater, for all timber habitat types. No harvest or construction is allowed in the core zone except as detailed in subsection (1) of this section. Any trees cut for or damaged by yarding corridors must be left on site. Any trees cut as a result of road construction to cross a stream may be removed from the site unless used as part of a large woody debris replacement strategy.

(b) **Inner zones.** Width and leave tree requirements of the inner zone vary by timber habitat type as outlined below.

...

(iv) **Stream-adjacent parallel roads for all timber habitat types in the inner zone.** The shade rule, WAC 222-30-040, must be met whether or not the inner zone includes a stream-adjacent parallel road. Where a stream-adjacent parallel road exists in the inner zone and the minimum required basal area cannot be met due to the presence of the road, then the location of the road determines the allowable operations as follows:

...

(C) **Wildlife reserve trees.** Leave all wildlife reserve trees within the inner zone of the riparian management zone where operations in the vicinity do not violate the safety regulations (chapter 296-54 WAC and chapter 49-17 RCW administered by the department of labor and industries, safety division). Live wildlife reserve trees will contribute to the basal area requirements for inner zone leave trees and to leave tree counts if they are among the 21 largest trees per acre; or meet the requirement of an additional 29 leave trees per acre as per (E) above.

**WAC 222-30-023 Riparian management zones for exempt 20-acre parcels.**

Note: Compliance with this section does not ensure compliance with the federal Endangered Species Act or the Clean Water Act.

On parcels of 20 contiguous acres or less, landowners with total parcel ownership of less than 80 forested acres shall not be required to leave the riparian buffers described in WAC [222-30-021](#) and [222-30-022](#). These landowners are required to follow applicable watershed analysis riparian prescriptions in effect as of January 1, 1999, or if there are no watershed analysis riparian prescriptions in effect these landowners are required to follow the riparian management zone rules below.

**\*(1) Western Washington RMZs for exempt 20-acre parcels.** Riparian management zones are measured horizontally from the outer edge of bankfull width of a Type S or F Water and extend to the line where vegetation changes from wetland to upland plant community, or the line required to leave sufficient shade as required by WAC [222-30-040](#), whichever is greater, but must not be less than 29 feet in width nor more than the maximum widths described in (f) 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.

...

(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.

...

(f) Within the riparian management zone, trees shall be 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 (c) of this subsection may be included in the number of required leave trees in this subsection.

### Western Washington Riparian Leave Tree Requirements

#### For exempt 20-acre parcels

Water Type/Average Bankfull Width	RMZ Maximum Width	Ratio of Conifer to Deciduous/ Minimum Size Leave Trees	# Trees/1000 ft. each side	
			Gravel/Cobble <10" Diameter	Boulder/Bedrock
S or F Water greater than or equal to 75'	115'	representative of stand	58 trees	29 trees
S Water less than 75' and F Water less than 75' and greater than or equal to 10'	86'	representative of stand	115 trees	60 trees
F Water less than 10' and greater	58'	2 to 1	86 trees	29 trees



than or equal to 5'		12" or next largest available <sup>1</sup>		
F Water less than 5'	29'	1 to 1 6" or next largest available <sup>1</sup>	29 trees	29 trees

<sup>1</sup> "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 size specified.

Ponds or lakes which are Type S or F Waters shall have the same leave tree requirements as boulder/bedrock streams.

**\*(2) Eastern Washington riparian management zones for exempt 20-acre parcels.** These zones shall be measured horizontally from the outer edge of bankfull width of Type S or F 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.

...

(c) Within the riparian management zone, trees shall be 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.

...

(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

...

(D) Leave 4 live conifer trees per acre 20 inches dbh or larger and the 2 largest live deciduous trees per acre 16 inches dbh or larger. Where these deciduous trees do not exist, and where 2 wildlife reserve trees per acre 20 inches or larger do not exist, substitute 2 live conifer trees per 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 per acre; and ...

**WAC 222-24-030 Road construction.**

...

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

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

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

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

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

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

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

#### **WAC 222-30-050 Felling and bucking.**

...

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

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

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

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

#### **WAC 222-30-060 Cable yarding.**

...

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

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

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

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

#### **WAC 222-30-065 Helicopter yarding.**

**(1) Helicopter operations** within a SOSEA boundary shall not be allowed within 0.25 mile of a northern spotted owl site center between March 1 and August 31, provided that, this restriction shall not apply if:

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

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

**(2) Helicopter operations** shall not be allowed:

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

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

(c) Provided that, these restrictions shall not apply if the forest practice is operating in compliance with

a plan or agreement developed for the protection of the marbled murrelet under WAC [222-16-080](#) (6)(a) or (c).

#### **WAC 222-30-070 Ground-based logging systems.**

...

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

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

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

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

#### **WAC 222-30-100 Slash disposal or prescribed burning.**

...

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

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

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

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

### **Chapter 222-38 WAC, Forest Chemicals**

#### **WAC 222-38-010 Policy — Forest chemicals.**

**\*(1)** 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, wetland and riparian management zone vegetation will not be significantly damaged, and water quality will not be endangered by contamination. This section in no way modifies the state department of agriculture regulations governing chemicals.

### **Chapter 222-50, Relationship to Other Laws and Regulations**

#### **WAC 222-50-020 Other agency requirements.**

...

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

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

the Endangered Species Act or other federal laws.

**BOARD MANUAL SECTION 11, STANDARD METHODOLOGY FOR CONDUCTING WATERSHED ANALYSIS**

Assessment of and management strategies for **cultural resources** are in **Appendix J. Cultural Resources Module**.