RULE-MAKING ORDER
PERMANENT RULE ONLY

CR-103P (December 2017)
(Implements RCW 34.05.360)

CODE REVISER USE ONLY

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STATE OF WASHINGTON
FILED

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WSR 25-19-057

Agency: Forest Practices Board

Effective date of rule:

Permanent Rules

☐ 31 days after filing.

☒ Other (specify) March 1, 2026 **(If less than 31 days after filing, a specific finding under RCW 34.05.380(3) is required and should be stated below)**

Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?

☐ Yes ☒ No If Yes, explain:

Purpose: The purpose is to codify the permanent water typing system rule to accurately determine the extent of fish habitat and to inform the appropriate application of riparian protections needed while undertaking forest practice activities. The rule replaces the interim water typing system and includes a fish habitat assessment methodology for establishing the break between fish and nonfish bearing waters; a description of off-channel habitat for fish use; and direction on when to use default physical criteria for fish use.

Citation of rules affected by this order:

New: 222-16-0301
Repealed: 222-16-031
Amended: 222-12-090, 222-16-030, 222-24-040
Suspended:

Statutory authority for adoption: RCW 76.09.040, 76.09.370

Other authority:

PERMANENT RULE (Including Expedited Rule Making)

Adopted under notice filed as WSR 25-15-116 on July 21, 2025 (date).

Describe any changes other than editing from proposed to adopted version: Added “of biological significance to anadromous fish” to how AFF is delineated on waters connected to saltwater in new WAC 222-16-0301. Also in WAC 222-16-0301, the table was clarified describing how to conduct FHAM.

If a preliminary cost-benefit analysis was prepared under RCW 34.05.328, a final cost-benefit analysis is available by contacting:

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Note: If any category is left blank, it will be calculated as zero. No descriptive text.

Count by whole WAC sections only, from the WAC number through the history note. A section may be counted in more than one category.

The number of sections adopted in order to comply with:

Federal statute:	New		Amended		Repealed	
Federal rules or standards:	New		Amended		Repealed	
Recently enacted state statutes:	New		Amended		Repealed	

The number of sections adopted at the request of a nongovernmental entity:

	New		Amended		Repealed	

The number of sections adopted on the agency's own initiative:

	New	1	Amended	3	Repealed	1

The number of sections adopted in order to clarify, streamline, or reform agency procedures:

	New	1	Amended	3	Repealed	1

The number of sections adopted using:

Negotiated rule making:	New		Amended		Repealed	
Pilot rule making:	New		Amended		Repealed	
Other alternative rule making:	New		Amended		Repealed	

Date Adopted: September 11, 2025	**Signature:** Lenny Young
Name: Leonard S. Young	
Title: Chair	

AMENDATORY SECTION (Amending WSR 06-23-096, filed 11/15/06, effective 12/16/06)

WAC 222-16-030 Water typing system. ((~~Until the fish habitat water type maps described below are adopted by the board, the Interim Water Typing System established in WAC 222-16-031 will continue to be used.~~)) The objective of the water typing system is to correctly classify waters to inform the appropriate application of riparian protections and to accurately determine the extent of fish habitat at the landscape scale. This section identifies the criteria to classify waters. The requirements for determining fish use are described in WAC 222-16-0301.

The department classifies streams, lakes, and ponds on state and private forest lands of Washington state in cooperation with the departments of fish and wildlife, and ecology, and in consultation with affected Indian tribes ((~~will classify streams, lakes and ponds. The department will~~)). To assist applicants in determining water type classifications, the department shall prepare and update water type maps showing the location of Type S, F, and N (Np and Ns) Waters within the forested areas of the state. ((~~The maps will be based on a multiparameter, field-verified geographic information system (GIS) logistic regression model. The multiparameter model will be designed to identify fish habitat by using geomorphic parameters such as basin size, gradient, elevation and other indicators. The modeling process shall be designed to achieve a level of statistical accuracy of 95% in separating fish habitat streams and nonfish habitat streams. Furthermore, the demarcation of fish and nonfish habitat waters shall be equally likely to over and under estimate the presence of fish habitat. These maps shall be referred to as "fish habitat water typing maps" and shall, when completed, be available for public inspection at region offices of the department.~~

~~Fish habitat water type maps will be updated every five years where necessary to better reflect observed, in-field conditions. Except for these periodic revisions of the maps, on-the-ground observations of fish or habitat characteristics will generally not be used to adjust mapped water types. However, if an on-site interdisciplinary team using nonlethal methods identifies fish, or finds that habitat is not accessible due to naturally occurring conditions and no fish reside above the blockage, then the water type will be immediately changed to reflect the findings of the interdisciplinary team. The finding will be documented on a water type update form provided by the department and the fish habitat water type map will be updated as soon as practicable. If a dispute arises concerning a water type the department shall make available informal conferences, as established in WAC 222-46-020 which shall include the departments of fish and wildlife, and ecology, and affected Indian tribes and those contesting the adopted water types.~~

~~The waters will be~~)) All Type S Waters, and department concurred Type F and N Water breaks and Type Np and Ns Water breaks shown on the water type map are official and may be relied upon by landowners.

The water type maps and instructions for use are available for public review from the department. All water breaks concurred by the department are regulatory water type classifications; all other mapped, and unknown Type F and N Water breaks or Type Np and Ns Water breaks must be determined, in the field, by forest landowners or their representative. The water type break can be determined per this sec-

tion or, for fish use, WAC 222-16-0301. Small forest landowners can contact the department for technical assistance and/or interdisciplinary teams to determine water typing breaks.

The department may convene an interdisciplinary team, as defined in WAC 222-16-010, to consider proposed modifications to the department's water type map; to address observed in-field conditions, including observations of fish; to address naturally occurring stream conditions or blockages making habitat inaccessible to fish; or, if a dispute arises concerning a water type classification in accordance with WAC 222-46-020.

Waters are classified using the following criteria:

*(1) **"Type S Water"** means all waters, within their bankfull width, as inventoried as "shorelines of the state" under chapter 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW including periodically inundated areas of ((~~their~~)) associated wetlands.

*(2) **"Type F Water"** means segments of natural waters ((~~other than Type S Waters, which are within the bankfull widths of defined channels and~~)) including periodically inundated areas of their associated wetlands, ((~~or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water and~~)) not classified as Type S Waters, which have a fish, wildlife, or human use; which in any case contain fish habitat or are described by one of the following ((~~four~~)) seven categories:

(a) Waters((~~, which are~~)) within lakes, ponds, or impoundments having a surface of 0.5 acre or greater at seasonal low water;

(b) Stream segments having a defined channel 20 feet or greater within the bankfull width and having a gradient of less than four percent;

(c) Waters which are off-channel habitat. These are areas important for rearing and survival of fish and include riverine ponds, wall-based channels, and stream associated wetlands. The area must be connected to Type F or Type S Water and accessible to fish during some portion of the year.

(i) For channelized streams, the edge of off-channel habitat is determined based on the outer edge of inundation of the stream at the bankfull elevation flow.

(ii) For nonchannelized streams, including stream associated wetlands, off-channel habitat is the outer edge of the area periodically inundated at the ordinary high water line.

(d) Waters used by fish. The department has prepared water type maps showing the location of Type F Waters. All department concurred Type F and N Water breaks shown on the water type map are official. Where fish use has not been determined:

(i) Waters having any of the following characteristics are presumed to have fish use:

(A) Stream segments having a defined channel of two feet or greater within the bankfull width in western Washington; or three feet or greater in width in eastern Washington; and having a gradient of 16 percent or less;

(B) Stream segments having a defined channel of two feet or greater within the bankfull width in western Washington; or three feet or greater within the bankfull width in eastern Washington, and having a gradient greater than 16 percent and less than or equal to 20 percent, and having greater than 50 acres in contributing basin size in western Washington or greater than 175 acres contributing basin size in eastern Washington, based on hydrographic boundaries;

(C) Ponds or impoundments having a surface area of less than one acre at seasonal low water and having an outlet to a fish stream;

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

(E) Waters within the anadromous fish floor, see WAC 222-16-0301.

(ii) The department shall waive or modify the characteristics in (d)(i) of this subsection where:

(A) Waters have confirmed, long term, naturally occurring water quality parameters incapable of supporting fish;

(B) Snowmelt streams with short flow cycles that do not support successful life history phases of fish. These streams typically have no flow in the winter months and discontinue flow by June 1st; or

(C) Sufficient information about a geomorphic region is available to support a departure from the characteristics in (d)(i) of this subsection, as determined in consultation with the department of fish and wildlife, department of ecology, affected tribes, and interested parties.

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

((~~(b)~~)) (f) Waters((~~, which are~~)) diverted for use by a federal, state, tribal or private fish ((~~hatcheries. Such~~)) hatchery. These waters shall be considered Type F Water upstream from the point of diversion for 1,500 feet, including tributaries if highly significant for protection of downstream water quality. The department may allow additional harvest beyond the requirements of Type F Water ((~~designation provided~~)) classification if the department determines after a landowner-requested ((~~on-site assessment by the department of fish and wildlife, department of ecology, the affected tribes and interested parties~~)) interdisciplinary team assessment that:

(i) The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and

(ii) ((~~Such~~)) The additional harvest within the riparian management zone meets the requirements of the water type ((~~designation~~)) classification that would apply in the absence of the hatchery;

((~~(c)~~)) (g) Waters((~~, which are~~)) within a federal, state, local governmental entity, or private campground having more than 10 camping units((~~: Provided, That the water shall not be considered to enter a campground until it reaches~~)). These are waters that enter a campground at the boundary of the park lands available for public use and come((~~s~~)) within 100 feet of a camping unit, trail or other park improvement;

((~~(d) Riverine ponds, wall-based channels, and other channel features that are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria:~~

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

~~(ii) The off-channel water must be accessible to fish.~~))

(3) **"Type Np Water"** means all segments of natural waters within the bankfull width of ((~~defined channels that are~~)) perennial nonfish

habitat streams. Perennial streams are flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.

(4) **"Type Ns Water"** means all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np Waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from ((~~any stream reach that is~~)) a Type Np Water. Type Ns Waters must be physically connected by an above-ground channel system to Type S, F, or Np Waters.

*(5) For purposes of this section:

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

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

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

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

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

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

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

(f) ((~~"Channel width and gradient"~~)) "Bankfull width" for defined channels means a measurement over a representative section of at least 500 linear feet with at least 10 evenly spaced measurement points along the normal stream channel but excluding unusually wide areas of negligible gradient such as marshy or swampy areas, beaver ponds and impoundments. ((~~Channel gradient may be determined utilizing stream profiles plotted from United States geological survey topographic maps (~~)) See board manual section 23((~~)~~)).

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

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

NEW SECTION

WAC 222-16-0301 Verification of fish habitat and the break between Type F and Type N Water. To assist applicants in determining the water type classification, the department prepares water type maps showing the location of Type S, F, and N (Np and Ns) Waters within the forested areas of the state. The mapping tool and instructions for viewing water type maps is available on the department's website.

For the purposes of forest practices, landowners are required to verify the water type break between Type F and N Waters where fish use has not previously been determined. Department concurred breaks between Type F and N Waters are shown on the water type map. These breaks are official and can be used by the landowner. All other mapped stream breaks, and the establishment of the Type F and N Water break on streams not shown on the map, need to have the Type F and N Water break established through the application of the default physical characteristics, per WAC 222-16-030 (2)(d)(i); or, through the application of the fish habitat assessment method (FHAM) described in subsection (1) of this section.

The application of FHAM is intended to establish the line of demarcation between fish and nonfish habitat waters. No application of default physical characteristics or FHAM to determine the Type F and N Water break is allowed within the anadromous fish floor (AFF), unless a landowner requests an interdisciplinary team, as defined in WAC 222-16-010. The AFF is delineated on waters connected to saltwater by measurable physical stream characteristics of biological significance to anadromous fish, within which anadromous fish habitat is presumed, and upstream of which the default physical characteristics or a protocol fish survey under FHAM may be applied to establish the Type F and N Water type break. Board manual section 23 provides guidance on how to delineate the AFF.

*(1) **Fish habitat assessment methodology (FHAM).** The FHAM is a series of steps used to delineate the upper extent of fish habitat coincident with the regulatory water type break between Type F and Type N Waters. Proposals to change the department water type map must include documentation of the use of the FHAM on a form designated by the department. FHAM shall be applied in waters situated upstream from the anadromous fish floor or known fish use. Board manual section 23 provides additional technical guidance for conducting the FHAM.

The FHAM requires the identification of geomorphic features meeting the definition of a potential habitat break (PHB) as described in subsection (2) of this section.

(2) **"Potential habitat break"** means a permanent, distinct, and measurable change to in-stream physical characteristics. PHBs are typically associated with underlying geomorphic conditions and may consist of natural obstacles that physically limit fish access to upstream reaches or a distinct measurable change in channel gradient, bankfull width, or a combination of the two. Natural, nondeformable obstacle PHB includes vertical drops, steep cascades, bedrock sheets and bedrock chutes. Guidance on how to identify PHB is contained in board manual section 23.

(3) The steps to conduct FHAM are:

Step 1	Locate the upstream extent of the AFF or other most upstream point of known fish use, whichever is furthest upstream. This is the survey initiation point. The process and sources used to determine known presence or fish habitat must be documented. Proponents are encouraged to contact the department of fish and wildlife and/or affected Indian tribes to assist in determining areas of known fish use.
Step 2	If the survey initiation point is the upstream extent of the AFF, begin FHAM. If the survey initiation point is based on the most upstream point of known fish use, locate the first PHB situated upstream. See the PHB criteria in subsection (2) of this section and associated guidance in board manual section 23. Begin FHAM directly upstream of the PHB.
Step 3	If a fish is observed in the stream segment upstream from the first PHB, stop the electrofishing survey and proceed upstream to the next PHB. Repeat this process until no fish are observed upstream of a PHB.

Step 4	When fish are not observed in the stream segment directly above a PHB, continue protocol surveying of all available habitats for 0.25 mile upstream of the PHB. If no fish are observed, this PHB becomes the end of fish habitat for the stream segment and the proposed water type break between Type F and Type N Waters. Document this location as the proposed habitat break.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 222-16-031 Interim water typing system.

AMENDATORY SECTION (Amending WSR 13-21-032, filed 10/8/13, effective 12/30/13)

WAC 222-24-040 *Water crossing structures for all typed waters.

(1) When a department approved water type change causes the location of the break between Type F and Type N Water to be upstream beyond an existing water crossing structure, it must be replaced with a fish passable structure. Replacement is not required if the existing structure is fish passable per WAC 222-24-041, or the structure is functioning with little risk to public resources and has been installed under a forest practices hydraulic project in an approved forest practices application or a hydraulic project approval by the department of fish and wildlife.

(2) Bridges are required for new crossings and reconstructed crossings of any typed waters regularly used for recreational boating.

((~~(2)~~)) (3) Structures containing concrete must be sufficiently cured prior to contact with water.

((~~(3)~~)) (4) One end of each new or reconstructed permanent log or wood bridge shall be tied or firmly anchored if any of the bridge structure is within ((~~ten~~)) 10 vertical feet of the 100-year flood level.

((~~(4)~~)) (5) Alterations or disturbance of the stream bed, bank or bank vegetation must be limited to that necessary to construct the project. All disturbed areas must be stabilized and restored according to the recommended schedule and procedures found in board manual section 5. This requirement may be modified or waived by the department, in consultation with the department of fish and wildlife, if precluded by engineering or safety factors.

((~~(5)~~)) (6) When earthen materials are used for bridge surfacing, only clean sorted gravel may be used, a geotextile lining must be installed and curbs of sufficient size shall be installed to a height above the surface material to prevent surface material from falling into the stream bed.

((~~(6)~~)) (7) Wood removed from the upstream end of culverts and bridges will be placed at the downstream end of such culverts and bridges in such a way as to minimize obstruction of fish passage and to the extent practical, while avoiding significant disturbance of sediment in connection with maintenance activities.

((~~(7)~~)) (8) Fords.

(a) New ford construction requires a forest practices application.

(b) The entry and exit points of a new ford must not be within ((~~one hundred~~)) 100 feet upstream or downstream of another ford.

(c) The following activities associated with established fords require a forest practices application:

(i) Ford repair with equipment or construction work waterward of the ordinary high water line;

(ii) Driving a vehicle or operating equipment on or across wetted stream beds at areas other than established fords.

(d) Driving a vehicle or operating equipment on or across an established ford does not require a forest practices application. "Established ford" means a crossing place in a watercourse that was in existence and annually used prior to 1986 or subsequently permitted by the department of fish and wildlife or the department, and has identifiable approaches on the banks.

AMENDATORY SECTION (Amending WSR 23-17-127, filed 8/21/23, effective 1/1/24)

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:

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

(2) Standards for identifying channel migration zones and bankfull channel features.

(3) **Guidelines** for forest roads.

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

(5) **Guidelines** for forest practices hydraulic projects.

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

(7) **Guidelines** for riparian management zones.

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

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

(10) A list of nonnative wetland plant species.

(11) The standard methodology 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.

(12) **Guidelines** for forest chemicals.

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

(b) Guidelines for aerial applications of pesticides and other forest chemicals under chapter 222-38 WAC.

(13) ((**Guidelines** ~~for determining fish use for the purpose of typing waters under WAC 222-16-031.~~)) Reserved.

(14) **Survey protocol for marbled murrelets.** The most current Pacific Seabird Group terrestrial survey protocol shall be used when surveying for marbled murrelets in a stand. Surveys are valid if they were conducted in compliance with the board-recognized Pacific Seabird Group survey protocols in effect at the beginning of the season in which the surveys were conducted.

(15) The department shall, in consultation with the department of fish and wildlife, develop:

(a) **Platform protocols** for use by applicants in estimating the number of platforms, and by the department in reviewing and classifying forest practices under WAC 222-16-050. These protocols shall include:

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

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

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

(b) Guidance for applications classified by the department under WAC 222-16-080 (1)(h)(v) to be Class IV-Special forest practices for lands designated as critical habitat (state) for marbled murrelet (*Brachyramphus marmoratus*) for the following two forest practices activities:

(i) Harvesting within a 150-foot no-cut inner zone buffer of a 300-foot managed buffer zone adjacent to an occupied marbled murrelet site.

(ii) Harvesting within a 150-foot outer zone managed buffer of a 300-foot managed buffer zone adjacent to an occupied marbled murrelet site that results in less than a residual stand relative density of 35 for Douglas-fir or red alder dominant species group or a residual stand relative density of 50 for Western hemlock dominant species group.

(16) **Guidelines** for evaluating potentially unstable slopes and landforms.

(17) **Guidelines** for the small forest landowner forestry riparian easement program.

(18) **Guidelines** for rivers and habitat open space program.

(19) **Guidelines** for hardwood conversion.

(20) **Guidelines** for financial assurances.

(21) **Guidelines** for alternate plans.

(22) **Guidelines** for adaptive management program.

(23) **Guidelines** for field protocol to locate mapped divisions between stream types and perennial stream identification.

(24) **Guidelines** for interim modification of bull trout habitat overlay.

(25) **Guidelines** for bull trout presence survey protocol.

(26) **Guidelines** for placement strategy for woody debris in streams.