



**DEPARTMENT OF
NATURAL RESOURCES**

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MEMORANDUM

May 28, 2025

TO: Forest Practices Board

FROM: Maggie Franquemont, Forest Regulation Policy Program Manager *MF*

SUBJECT: Water Typing System Rule: Updated CES

At your June 6, 2025, special meeting, I will request the Board consider the results of the public review process and adopt a permanent water typing system rule by directing staff to file a CR 103 Rule-Making Order with a delayed effectiveness date of January 1, 2026.

At the Board's May 14, 2025 meeting, DNR staff presented the proposed rule language, Cost Benefit Analysis, and the draft Concise Explanatory Statement (CES). Additionally at the May 14, 2025 meeting, the Board heard additional comments on the water typing system rulemaking. Although it is not required to include comments received outside the public comment period (RCW 34.05.325), staff have updated the draft CES to include both the written and verbal comments you received at the May meeting. Additionally, one of the commentors let us know that portions of their comment that were delivered during the public comment period were missing. We have rescanned their comment (comment 12) and addressed the missing pieces in the draft CES. The differences between the draft CES the Board received prior to the May meeting and the CES attached to this memo are highlighted in yellow.

In November 2024, the Board approved the proposed rule language for the public review process. Several non-substantial changes were presented as part of the CES in May following the public review process. In response to comment 12 and the new comments, staff have changed two additional areas of the rule language for improved clarity. The proposed rule language is attached with all differences from the language approved in November highlighted in yellow. The draft CES addresses the reasons for the differences.

I look forward to discussing the draft CES and proposed rule language with you at your June 6th meeting. Please reach out to me if you have any questions at Maggie.franquemont@dnr.wa.gov.

MF/

c: Katie R. Allen, Acting Deputy Supervisor Forest Resilience, Regulation and Aquatics
Saboor Jawad, Forest Regulation Division Manger
Tami Miketa, Acting Forest Regulation Assistant Division Manager, Policy and Landowner Services
Donelle Mahan, Forest Regulation Senior Policy Planner
Terry Pruitt, Assistant Attorney General, Forest Practices Board Attorney

Attachments:

1. Draft Concise Explanatory Statement and Written Comments
2. Proposed Water Typing System Rule Language

As required by
the Administrative Procedure Act
Chapter 34.05 RCW

CONCISE EXPLANATORY STATEMENT
AND
RESPONSIVENESS SUMMARY
FOR THE ADOPTION OF
CHAPTER 222-12 WAC, Policy and Organization
CHAPTER 222-16 WAC, Definitions
CHAPTER 222-24 WAC, Road Construction and Maintenance
CHAPTER 222-30, Timber Harvesting

Prepared by:
Maggie Franquemont

5/25/2025

CONCISE EXPLANATORY STATEMENT

1. INTRODUCTION

Reason for adopting the rule:

The purpose of this rule is to codify the permanent water typing system rule to determine the extent of fish habitat and to inform the appropriate application of riparian protections needed while undertaking forest practice activities. The rule will replace the interim water typing system rule (WAC 222-16-031), and includes the Fish Habitat Assessment Methodology (FHAM) for establishing the break between fish and non-fish bearing waters, a description of off-channel habitat for fish use, and directions on when to use default physical criteria (DPC) for fish use. The rule clarifies the water typing system to create additional ease for landowner compliance and for the Department of Natural Resources' (DNR) implementation and enforcement.

- WAC 222-12-090 – repeals Board Manual Section 13
- WAC 222-16-030 – codifies the permanent water typing system rule
- WAC 222-16-0301 – codifies the fish habitat assessment methodology
- WAC 222-16-031 – repeals the interim water typing system rule
- WAC 222-24-040 – codifies requirements for fish passage structures if a fish/nonfish break is moved upstream of a current water crossing structure
- WAC 222-30-021 – amends language to match the updated language in WAC 222-16-030

Background:

In the 1999 Forests and Fish Report, the Forest Practice Board (Board) was directed to adopt a rule that included a statewide map delineating the waters of the state into categories for the purpose of riparian management. The map was to be the standard used for water typing determinations. The Forests and Fish Report directed that if the Board adopted rules before such a map could be developed that an interim rule should also be developed until the map could be finished. In 2001, the Board adopted the permanent rule as well as the interim rule, as the map was not yet finished.

In 2005, the model base for the statewide map was presented to the Board. The model did not reach the target accuracy and the Board chose not to adopt the maps that resulted from the model. The Board chose to retain the process laid out in the interim rule. The Board also proposed several other solutions for moving toward the goal of a statewide map including updating the Board Manual and additional training.

In 2011 the Timber, Fish, & Wildlife Policy Committee (Policy) brought the issue of the Type N strategy needed for Clean Water Act assurance milestones to the Board which included discussions about water typing and determining the F/N Break. Policy had concerns about water typing and the implantation of a permanent watering typing rule. At their November 2011 meeting, the Board directed Policy to prioritize recommendations for a permanent water typing rule. The Board's direction began the process that ultimately results in this rulemaking.

In January 2013 dispute resolution was invoked in Policy to address an impasse within the water typing subcommittee. There were four core concerns on which the subcommittee could not reach consensus: (1) how to deal with off-channel habitat, (2) the use electrofishing protocol surveys and DPC for water typing, (3) the use of a model to produce fish habitat water type maps, and (4) rule and guidance implementation.

In February 2014, Policy brought majority and minority reports, and recommendations regarding the impasse to the Board. The Board agreed to initiate actions to remedy the Type F water concerns outline in the

majority and minority recommendation reports by obtaining additional information and directing additional work from Policy. The Board then directed Policy to bring forth recommendations for options on a permanent water typing rule. Policy was directed to develop best practices recommendations for electrofishing and to evaluate the process for off-channel habitat identification. At the same time, the Board directed the Adaptive Management Program Administrator (AMPA) to re-run the existing hydrologic model using LiDAR and reevaluate the accuracy of the maps produced by the model. The Board's goal with these directions were to obtain the essential information necessary to make a final determination regarding the appropriate approach in the development of a permanent water typing rule.

In November 2016, Policy brought their recommendations on water typing to the Board. The Board directed staff to file a CR 101, announcing that the Board was considering rule making related to a permanent water typing system. The Board directed staff to prepare draft rule language and prepare Board Manual Section 23 to provide guidance on the new rule. The Board directed Policy to develop the FHAM for use in the new rule.

In May 2017, staff brought recommended draft rule language for FHAM and off-channel habitat to the Board. The Board accepted the recommendations. FHAM requires identification of potential habitat breaks (PHB). The Board directed the AMPA to assemble a group of experts to recommend PHB criteria to the Board in August in a science report. In August the Board delayed making a decision on PHB criteria until February 2018 to allow for additional data, analysis, and quality control.

In February 2018, staff presented all of the Board approved rule elements and Board Manual 23 as they stood, without PHB criteria to the Board. The Board also received a second science report evaluating the PHB criteria options. The westside tribes, eastside tribes, and landowners, all presented their recommendations for PHB criteria based on the report. The Board directs staff to move forward with rule making and to do the required rulemaking analysis on all three PHB options. The Board also directed staff to move forward with the concept of an anadromous fish floor (AFF).

In May 2019, staff presented the draft rule language, Board Manual 23, and a preliminary cost benefit analysis (CBA). The Board did not take any action.

In June 2019, a Board subcommittee was formed to facilitate discussions and to make recommendations on the remaining outstanding issues: (1) understanding the spatial analysis of the rule, (2) how the rule should be applied in eastern Washington, (3) determine if and when a PHB validation study should be done, (4) determine how to move forward with the LiDAR model map, and (5) how the AFF should be implemented. In August the committee reported that the issues had not been resolved but they were continuing to work forward. In November the committee recommended, among other things, that the Board clarify the goals and targets for the water typing rule, request DNR redo the PHB spatial analysis and also conduct a spatial analysis on the AFF and delay the adoption of the rule in eastern WA.

The Board subcommittee continued to work during 2020 and 2021. In November 2021 the subcommittee presented the state of development of the AFF including a timeline to have recommendations developed early in 2022. The subcommittee suggested that the Board hold a workshop where the subcommittee could present the AFF recommendations, and the Board would have adequate time for questions and discussion. Following the February 2022 Board meeting, a workshop was scheduled for April before being cancelled and rescheduled for June.

At the June 2022 special meeting, each TFW caucus presented their preferred alternative for AFF criteria. The Board committed to making a decision at their August meeting. In August DNR staff presented the Board's previous decisions regarding the water typing system rule as well as the outstanding rule elements that the Board still needed to decide. The remaining elements included selection of an AFF alternative,

confirmation that the rule would be statewide, and determining if the AFF would be applied statewide. The Board decided to move AFF alternatives A4 (7%) and D forward for analysis. The Board directed staff to begin the process of creating a CR102 packet but to hold off on conducting analysis of the two AFF alternatives until after their November 2022 meeting. The Board also directed staff to prepare a proposal initiative to develop and AFF validation study through the Adaptive Management Program.

In November 2022, the Board acknowledged the rule elements that it had previously approved. The Board accepted a definition of the AFF. The Board directed staff to complete the draft permanent water typing system rule language and complete the CR102 packet. The Board also acknowledged that the water typing rule was the number one priority.

In 2023 and 2024 staff continued to develop the CR102 packet. Staff worked with stakeholders to finalize the draft rule language and ensure that the language accurately reflected the work done during the rule development process. The draft rule language included optional language for two AFF options and three PHB options. Staff worked with contractors to perform a spatial analysis of the rule as well as a cost-benefit analysis. Both of these analysis included analysis for two AFF options and three PHB options. In 2024 the development of the rule had gone as far as it could without the Board making a decision to select one AFF and one PHB criteria. Subsequently, a field trip was held and the Board’s August 14th meeting included a workshop to assist the Board in their decision to refine the options. At their August 28th special meeting the Board approved the concept of AFF and PHB in the rule language but elected to provide criteria for establishing the AFF and PHB in guidance rather than rule. The Board directed staff to redraft the rule language and to begin work to incorporate the AFF implementation procedures and to describe all PHBs in Board Manual 23.

Rule Dates:

- The adoption day of the rule will be June 6, 2025.
- The effective date of the rule will be January 1, 2026.

2. DIFFERENCES BETWEEN PROPOSED AND FINAL RULE

- WAC 222-16-0301 paragraph three (beginning “The application of FHAM”): change “saltwater by measurable physical stream characteristics, within... to “saltwater by measurable physical stream characteristics of biological significance to anadromous fish, within...”
 - This change clarifies the intent of the rule.
- WAC 222-16-0301(b) Table Step 1: change “upstream most” to “most upstream”
 - This change is for grammatical clarity
- WAC 222-16-0301(b) Table Step 4: change “...this point...” to “...this PHB”
 - This change provides clarity that the last PHB is the regulatory habitat break. As the rule reads currently “this point” could refer to the last PHB or a point 0.25 miles upstream of the last PHB.
- WAC 222-16-0301(b) Table: in Step 1 add “This is the survey initiation point.” following the first sentence; in step 2 add “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 know fish use,” to the beginning of the step, change upper case L in locate to lower case, remove from “of the stream...” to “Step 1.” and add “Begin FHAM directly upstream of the PHB.” to the end of the step; in step 3 remove the first sentence beginning with “Begin the fish...” and ending with “Step 2.”
 - Table showing revised language:

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
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	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 of the stream segment with known fish use point, determined in Step 1. 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	Begin the fish habitat assessment directly upstream of the PHB identified in Step 2. 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.

- o This change provides clarity regarding the difference procedures for beginning a protocol survey at a location determined by the AFF as opposed to a location determined by the uppermost stream.

3. SUMMARY OF COMMENTS

This section contains a summary of comments the Board received via the comment period pursuant to RCW 34.05.320. The Board held 5 public hearings to receive verbal comments and accepted written comments. The Board received 5 written comments and 19 verbal comments. Several of the verbal commentors delivered a written version of their comments following their testimony.

This section divides the comments into three categories: support, oppose, and other. Responses are given where it is appropriate to respond (*in italic font*). The comments have been numbered and listed in the appropriate category.

Comments Supporting the Rule:

The Board received 18 comments that supported the rule. Comments 1-9, 12-15, 17-19, and 21 supported the rule in its current form. Most of them contained additional thoughts or guidance beyond just support.

- AFF Implementation: Comments 1, 2, 6, 7, 8, 11, 14, 19, and 21 all express concerns with the implementation of AFF. Generally, these comments are supportive of the AFF as a concept. However, there is concern that the process of delineating the AFF will supersede or interfere with the water typing process, specifically with surveys conducted under FHAM. There is also concern that the AFF may limit landowners' ability to conduct surveys in areas with limited or inaccurate fish data if it is not implemented with care. There is opposition to implementing the AFF as a standalone criteria for designating the Type F/N break.
 - *Response: The process for delineating the AFF is covered in Board Manual 23, these concerns are being addressed as part of the Board Manual development process.*
- Water Typing Map: Comments 1, 3, 8, 9, 12, 14, 15, 18, and 21 all reiterate that the Board has made a commitment to produce a highly accurate GIS-based water typing map. They point out that the map will reduce the regulatory burden on small forest landowners.
 - *Response: At their meeting on November 28, 2022, the Board confirmed that a lidar-based map, as part of the water typing system, is one of the primary goals. They recognized that it is not currently available and in order to create an implementable rule*

at this time the map was left out of the rule language. However, the Board and DNR have committed to continue to work on the map.

- Other:

- Recommended revision: Comment 12 offered the following recommended revision to the preamble on page 1 of draft WAC 222-16-030: Remove the paragraph that begins with “The objective” and ends with “WAC 222-16-0301” and replace with the following:

“The objective of the water typing system is to correctly classify waters to inform the appropriate application of riparian protections. Methods to determine the water type break between Type F and N waters are intended to be highly accurate at determining habitat likely to be used by fish and be equally over and under inconclusive at the landscape scale. The Forest Practices Board will validate default physical characteristics defining fish use, methods to determine the Type F/N water break, and complete a water typing map as rule meeting the functional objective and performance target specified in Schedule L-1 as soon as practicable. In the meantime, this section identifies the criteria to classify waters, and the requirements for determining fish use in the field are described in WAC 222-16-0301.”

- *Response: This revision has not been included in the draft rule language. The language of the proposed rule adequately captures the Board’s objective for the water typing system.*

- Recommended revision: Comment 12 offered the following recommended revision to the WAC 222-16-0301 paragraph 3: Remove the paragraph that begins with “The application of FHAM” and ends with “delineate the AFF” and replace with the following:

“The anadromous fish floor (AFF) is delineated on waters directly connected to saltwater and within which anadromous fish habitat is documented or presumed and therefore acknowledged as Type F. Upstream of the AFF, 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 the application of a mapped AFF in the water typing system rule, including how to address map uncertainty.”

- *Response: This revision has not been included in the final rule. The proposed rule language adequately captures the Board’s interpretation of the AFF and the intended purpose of both the AFF and FHAM.*

- Recommended Revision: Comment 12 offered the following recommended revision to the Table describing FHAM in WAC 222-16-0301: remove Step 2 and Step 3 and replace with the following:

Step 2	If the upstream extent of the mapped AFF is in proximity to where a proponent would like to conduct a survey and fish use is uncertain, look for the closest PHB and begin the survey immediately upstream of that point. If there is no mapped AFF, look for the PHB closest to the uppermost known fish use and begin the survey immediately upstream of that point. See the PHB description in subsection (2) of this section and associated guidance in Board Manual Section 23.
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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.
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- *Response: The exact language of revision has not been included in the final rule. However, the language in the table has been revised for clarity based on this comment. Specifically, the proposed rule language has been changed to acknowledge the difference in procedure when starting using the end of AFF as opposed to using the uppermost know fish as the starting point for a survey. See above for the revised language.*

- Process concerns: Comments 6 and 12 both address a potential error in process occurred when the Board included the concept of an AFF into the goals for the water typing system in 2022. These comments state the AFF did not fully go through the AMP process and urge the Board to stick to the AMP process moving forward.
 - *Response: The comments are noted.*
- WAC 222-24-040 implementation: Comments 2 and 18 addressed implementation concerns for the changes made to WAC 222-24-040, they requested additional clarification about how this rule change will be implemented and to ensure that major implementation changes would not occur without additional AMP engagement.
 - *Response: The implementation of the rule change will include training and guidance that will address concerns with implementation.*

Comments Opposing the Rule

The Board received 5 comments that oppose the rule. Comments 16, 20, 22, 23, and 24 all oppose the rule. These comments all oppose the rule for the same reasons.

- These comments urge the Board to reevaluate their decision from August 28, 2024. They present information that the Board is not upholding its duty to protect fish habitat and Tribal Treaty obligations. Specifically, these comments urge the Board to put measurable criteria for both AFF and PHB in the rule language to ensure that the rule is consistently applied across the state.
 - *Response: These comments cannot be addressed in the current draft rule language without direction from the Board rescinding their decision from August 28, 2024, and an additional Board decision on specific AFF and PHB criteria.*
- Several of these comments note that since Board Manual 23 is critical to implementing the new rule it is vital that the Board Manual 23 language be available to the public as part of the CR102 process.
 - *Response: The Board Manual 23 language is currently under development with affected partners represented at workgroup meetings. The board manual section will be available for Board approval with the CR103.*

Other Comments

- Comment 10: This comment had no input on the proposed rule. The comment was adamant that a water typing map should be produced as the current system does not work for small forest landowners due to a lack of certainty. The proposed rule does not address the burden on small forest landowners.
 - *Response: comment is noted*
- Comment 11: The comment was related to concerns about how the restriction on surveying in the AFF was being interpreted in the Board Manual development group for Board Manual 23. This comment pointed out that based on current development it is likely that Board Manual 23 will rely on the statewide integrated fish database (SWIFD) as the core starting point for determining the end of

AFF and the starting point for FHAM. Surveyors are asked to confirm that the SWIFD point is accurately based on a feature that will limit upstream fish movement. If the data point isn't correct, surveyors can only look upstream for such a feature to mark the end of AFF. This is how the Board Manual 23 development group is interpreting the rule language that surveys are not allowed in the AFF without ID team approval. This comment is concerned that since surveyors aren't allowed to look downstream from an inaccurate SWIFD point that the AFF is being artificially inflated and that the end of AFF may become the default F/N break in these cases. The commenter hopes that it can be resolved in the Board Manual development but also notes that slight changes within the rule language would help eliminate this issue entirely.

- *Response: This issue is being addressed by the Board Manual development group. They hope to come to a solution to present the Board.*

Late Comments

These comments were received after the public comment period ended. The Board received 8 comments after the public comment period, 5 written comments and 3 verbal comments. Several of the verbal commentors delivered a written version of their comments following their testimony. Additionally, several of the comments were repeats of comments made during the public comment period and addressed above. This section divides the late comments into three categories: support, oppose, and other. Responses are given where it is appropriate to respond (*in italic font*). The comments have been numbered and listed in the appropriate category.

- **Support**

- Comments 25 and 32 support the rule.
 - In addition to supporting the rule, Comment 25 raised concerns about AFF Implementation and the same concern as Comment 12 about the rule introduction language.
 - *Response: The concerns are noted and addressed above.*

- **Oppose**

- Comments 27 – 30 oppose the rule as currently written. These comments urge the Board to reevaluate their decision from August 28, 2024. These comments want the Board to put measurable criteria for both AFF and PHB in the rule language instead of in Board Manual 23.
 - *Response: The concerns are noted and addressed above.*

- **Other**

- Comments 26 and 31 did not explicitly support or oppose the rule but did offer rule language amendments.
 - Similar to comment 12, both comment 26 and 31 recommended changing the language in WAC 222-16-0301 Table Step 2. These comments point out that Step 2 directs proponents to locate the first PHB upstream of the point identified in step 1. However, these comments note that if your starting point is the end of the AFF, it is generally understood that you begin your survey at the end of the AFF and do not need to go upstream to the next PHB. Comment 31 offers the following language as a replacement:
 - “Step 2: If the AFF extends above the most upstream point of known fish use, FHAM may be applied directly above the end of the AFF. If known fish use extends above the AFF, proceed upstream to the first PHB situated upstream of the stream segment with known fish use. See the PHB criteria in subsection (2) of this section and associated guidance in board manual section 23.”

- *Response: The exact language of revision has not been included in the final rule. However, the language in the table has been revised for clarity. See revised language above.*
- Also similar to comment 12, comment 31 also recommends changing the language in WAC 222-16-0301 Table Step 3. Comment 31 offers the following language to better align Step 3 with the language offered above for Step 2:
 “Step 3: Begin the fish habitat assessment directly upstream of the point identified in Step 2. If a fish is observed in the stream segment upstream from the first PHB or AFF termination point, stop the electrofishing survey and proceed upstream to the next PHB. Repeat this process until no fish are observed upstream of a PHB.”
- *Response: The exact language of revision has not been included in the final rule. However, the language in the table has been revised for clarity. See revised language above.*
- Comment 26 also recommends changing the language in WAC 222-16-0301. The recommendation is to include language that clarifies that the measurable physical stream characteristics used to delineate the AFF must be biologically significant to anadromous fish.
- *Response: This change has been incorporated into the rule language.*

4. SUMMARY OF PUBLIC INVOLVEMENT OPPORTUNITIES

- December 6, 2016 – CR 101 filed
 - Information supplied to interested parties on how to participate in rule development.
- Stakeholder workgroups:
 - Draft rule language workgroup 1 (prior to 2019)
 - TFW Caucus representatives
 - Draft rule language workgroup 2 (after 2023)
 - TFW Caucus representatives
 - Economic workgroup
 - TFW Caucus representatives
- Five public hearings in 2025:
 - Burlington, WA – 1/14/25 at 4pm
 - 15 people attended, 4 commented
 - Kelso, WA – 1/23/25 at 4pm
 - 5 people attended, 2 commented
 - Spokane, WA – 1/28/25 at 4pm
 - 3 people attended, 3 commented
 - Ellensburg, WA – 1/29/25 at 4pm
 - 1 person attended, 1 commented
 - Olympia, WA – 2/11/25 at 4pm
 - 10 people attended, 8 commented

Forest Practice Board Meeting

Burlington – January 14, 2025

Thank you for the opportunity to comment on the proposed updates to the water typing rule and its subsequent chapters. I support these modifications with minor clarification and generally support changes to the water crossing structures depending on considerations related to implementation.

- This is a realistic approach toward meeting the goals of the FPB and Policy's recommendations to have consistent water typing. The incorporation of FHAM (fish habitat assessment method) minimizes electro-shocking, while providing clarity in finding the F/N break. The current interim rule and practices have reliably extended fish habitats to areas where physical conditions preclude further fish movement. Codifying these practices will reduce subjectivity and improve transparency.
- The AFF (anadromous fish floor) in concept can be useful as a guide, but the FHAM (fish habitat assessment method) is necessary to establish the F/N break. In short, we must allow fish to determine fish habitat, not biological opinions, or cookie cutter processes.
- The undefined concept of "recoverable habitat" is addressed with the understanding that thousands of miles of fish habitat has been made accessible by removing fish passage barriers under RMAP and the recovery of habitat function over time is occurring with the implementation of buffers. Beyond this process potential or recoverable habitat is a site specific rather than a landscape scale consideration.
- Finally, I urge the FPB to expedite the effort to generate a statewide water typing map using field-based methods. An accurate water type map is critical to reduce regulatory burdens, especially for small landowners.

Dave Chamberlain

1/21/2025

TO: Forest Practices Board

From: Wade Boyd, Phd, Forester, 43 years of experience with WA Forest Practices

Re: Support for the Fish Habitat Assessment Method

Opposition to a fixed gradient standard for the F/N boundary

Thank you for the opportunity to comment on the proposals.

I support use of the Fish Habitat Assessment Method and its incorporation in the regulatory process. Stream environments are complex, and multifaceted procedures are required. FHAM minimizes e-fishing, incorporates concepts of the Anadromous Fish Floor and has reliably extended fish habitats where appropriate.

Applying simple fixed criteria in complex natural environments will certainly lead to errors in designating the F/N boundary and thus I oppose applying AFF as a standalone criteria for designating the F/N boundary.

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I understand this issue. My comments are not lightly given.

As President of WFPA I was deeply involved in the Forest and Fish negotiations , supportive of the process, and the final report. Changes in Forest Practices have been consequential, positive in so many aspects but also, in too many cases, disproportionately negative to small landowners. The Forest and Fish Report acknowledged this imbalance and the need for meaningful mitigation, which has yet to be realized. A simple fixed criteria will produce unnecessary negative consequences for many small forest landowners

All too often policies are made without addressing the true impact on rural forest communities and small forest landowners. Regulations with disproportionately negative impacts to small forest landowners increase political support of those who are working to reduce the power of environmental regulations.



Hello, thank you for the opportunity to comment. My name is Stephan Dillon. I represent Manulife Forest Management's Western Washington Region.

The company owns and manages close to 500,000 acres of timberland in Washington State. I am a registered professional Forest Engineer and I've worked in the timber industry for over 31 years. I have been an active and engaged participant with Washington Forest and Fish rules since its inception. Water typing has a long and complicated history in Forest Practices, well going on 25 years! Having said this, We are overall supportive of the FPB's proposal but...if the FPB wants to consider substantive changes to Rules affecting aquatic resources, full due diligence and validation is required.

I would like to highlight some of our support:

one support *water typing WAC 222-14-070 & 0301 as proposed in RC CR-102 Dec 3 2024*
We cautiously support changes to water crossing structures WAC 222-24-040. We recommend additional Adaptive Management Program (AMP) work if these revisions substantively impact field implementation.

We feel that the current proposal aligns with previous proposals. This is a reasonable step toward stable, consistent water type classifications without significant changes to current field practices.

- FPB expectations (August 2015)
- CR-101 preproposal statement of inquiry (2016)
- TFW Policy recommendations (2017)

Incorporating a Fish Habitat Assessment Method (FHAM) minimizes electro-fishing and integrates the concepts of an Anadromous Fish Floor (AFF) and potential habitat breaks (PHBs) for clarity in determining fish habitat from non-fish habitat (F/N break).

While the Anadromous Fish Floor (AFF) may be a helpful starting point, we stress its role as a guide rather than a determining method. Fish Habitat Assessment Method (FHAM) should establish the F/N break, and the process should not increase the need for ID Teams nor require more field visits to determine water type.

We support revisiting the undefined concept of "recoverable habitat".

Potential or recoverable habitat is site-specific rather than a landscape scale consideration. Practically speaking - thousands of miles of recoverable fish habitat have been made accessible by removing fish passage barriers under RMAP and by applying fish buffers to streams likely to be used by fish.

The current interim rule and practices have reliably extended fish habitats to areas where physical conditions preclude further fish movement. This process has yielded field practice consistencies. Codifying these practices will reduce subjectivity and improve transparency.

Substantive rule changes require Adaptive Management Program (AMP) evaluations...validation. Past GIS analyses of Anadromous Fish Floor (AFF) and potential habitat breaks (PHB) criteria yielded inconsistent results, highlighting the need for evidence-based, field evaluation of all water typing components. This is particularly relevant for the default physical criteria (DPC) which have been in the rule for more than 25 years.

Unfulfilled Water Typing Map Commitment: The FPB must complete the GIS-based water typing map as promised, reducing regulatory burdens on small landowners and ensuring an equitable, consistent system.

Thank you for your time and consideration,

Stephan Dillon, P.E.
sdillon@manulife.com
253-208-4342

January 28, 2025

Skagit County Comments on CR-102 Water-Typing Rule

Chairman Lenny Young and Forest Practice Board Members,

I'm Kendra Smith, here on behalf of Skagit County. Thank you for the opportunity to make comments on the proposed revisions outlined in the CR-102 on the water-typing rule the Forest Practice Board (FPB) approved last August, specifically, WAC 222-16-030 and 031 (as well as WAC 222-12-090 and WAC 222-30-021). Skagit County has been actively involved in this process since 2005 within the Policy framework, when the water-typing maps were first introduced to implement the Forest Fish Report. Fast forward through a lengthy progression, Skagit County today supports these updates toward a permanent Rule, noting that some minor clarifications are needed. We want to thank the FPB for taking the time to try and understand the complexity and nuances around developing a workable consistent stable process, that delineates a breakpoint for the water-typing classifications... the Fish Habitat Assessment Method (FHAM). The codification will solidify current practices that have systematically extended fish habitats to areas beyond actual fish. This action should be seen as a win for all...stability for the industry, fish habitat protected beyond last fish, less electro-fishing and fewer ID teams. This is a rare moment providing a balance between the concerns of the various caucuses and meeting the intent of TFW. These proposed revisions are consistent and in concert with the FPB discussions and direction to Policy in 2015 and the TFW Policy recommendations in 2017.

We understand the concept of having a fish floor as **a guide for a starting point** to identify the fish/no fish breakpoint more quickly and though we are not opposed to the idea, with the current inconsistent data and lack of field verification, adopting such a floor at this time would lead to more electroshocking and ID teams. And as it stands, the FHAM **will establish this breakpoint and water classification made**. This is also true in the case of PHBs. So again, we applaud the established FHAM that will delineate the water classifications. And of course, we are hopeful that the FPB will expedite a field-based evaluation for AFF, PHB under the AMP provisions, along with the default physical criteria (DPC).

Skagit County believes the concern over 'recoverable habitat', an undefined concept, should be squelched just by using a practical common sense understanding that it **has and is** occurring, thanks to private landowners (and lesser extent counties) with the removal of fish barriers under RMAP creating 1,000s of miles of **stream buffered habitat**.

What has not occurred is the delivery of a water-typing map to fulfill the commitment made to the Small Landowners (SLO) and Counties in 1999! This map is critical to reduce regulatory burdens, especially for the small landowners in our counties. We need to ensure that the SLOs remain as an integral part of our county forested landscape.

Finally, as this proceeds, we would like to better understand the revisions to the water crossing structures (WAC 222-24-040_ as they are implemented in the field, but at this time are fundamentally supportive. We also support the non-substantive changes to the Forest Practices Board manual (WAC 222-12-090) and western Washington RMZs (WAC 222-30-021).

Thank you.



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12

February 11, 2025

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Re: Proposed Water Typing System Rule

Washington Forest Protection Association (WFPA) is a forestry trade association representing large and small forest landowners and managers of more than four million acres of productive working forests, including timberland located in the coastal and inland regions of the state. Our members support rural and urban communities through the sustainable growth and harvest of timber and other forest products for U. S. and international markets. For more information about WFPA, please visit our website at www.wfpa.org.

WFPA submits the following comments on the proposed Water Typing System Rule published under CR-102 WSR 24-24-107 on December 3, 2024. We thank the Forest Practices Board (FPB) for proposing a reasonable step forward in revising the rule and look forward to working with the FPB and other interested parties to finalize the proposed rule later this year.

Proposed Rule Language

- We support the revisions to the water typing WAC 222-16-030 and 0301 with the following recommended minor revisions:

- WAC 222-16-030 page 1, preamble

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.

Recommended Revision

The objective of the water typing system is to correctly classify waters to inform the appropriate application of riparian protections. Methods to determine the water type break between Type F and N waters are intended to be highly accurate at determining habitat likely to be used by fish and be equally over and under inconclusive at the landscape scale. The Forest Practices Board will validate default physical characteristics defining fish use, methods to determine the Type F/N water break, and complete a water typing map as rule meeting the functional objective and performance target specified in Schedule L-1 as soon as practicable. In the meantime, this section identifies the criteria to classify waters, and the requirements for determining fish use in the field are described in WAC 222-16-0301.

Rationale - The above recommended revision affirmatively demonstrates the FPB's commitments regarding validation of criteria and developing a map as rule and provides a clear/complete description of the expected performance for the water typing system.

○ New Section WAC 222-16-0301, page 5, 3rd paragraph

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, 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.

Recommended Revision

The anadromous fish floor (AFF) is delineated on waters directly connected to saltwater and within which anadromous fish habitat is documented or presumed and therefore acknowledged as Type F. Upstream of the AFF, 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 the application of a mapped AFF in the water typing system rule, including how to address map uncertainty.

Rationale - The above recommended revision more objectively addresses uncertainty associated with a mapped AFF, aligns rule language with the fact that AFF criteria are not in rule, does not inadvertently rely on the AFF to determine the F/N break, and eliminates redundancy regarding ID Teams (addressed in WAC 222-16-030).

○ New Section WAC 222-16-0301, page 5, step 2 and 3 in the table describing the FHAM
Step 2: Locate the first PHB situated upstream of the stream segment with known fish use point, determined in Step 1. See the PHB criteria in subsection (2) of this section and associated guidance in board manual section 23.

Step 3: Begin the fish habitat assessment directly upstream of the PHB identified in Step 2. 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.

Recommended Revision

Step 2: If the upstream extent of the mapped AFF is in proximity to where a proponent would like to conduct a survey and fish use is uncertain, look for the closest PHB and begin the survey immediately upstream of that point. If there is no mapped AFF, look for the PHB closest to uppermost known fish use and begin the survey immediately upstream of that point. See the PHB description in subsection (2) of this section and associated guidance in board manual section 23.

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.

Rationale - The above recommended revision reconciles recommended changes to paragraph 3, page 5 with the FHAM steps table, removes redundancy and aligns language with the fact that PHB criteria are not in rule.

- We support the proposed revisions to forest practices board manual WAC 222-12-090 and western Washington RMZs WAC 222-30-021 as they are non-substantive.
- We cautiously support the proposed revision to water crossing structures for typed waters WAC 222-24-040 although the implication of the proposed revision is uncertain. The topic was briefly considered by TFW Policy in 2019 at the request of the FPB, but no detailed technical or policy analysis of the issue occurred at that time. We are assuming the proposed revisions to water typing WAC 222-16-030 and 0301 will result in the proposed revision to water crossing structures for typed waters WAC 222-24-040 generally not being a factor in field implementation of the Forest Practices Rules. If that assumption turns out to be false however, additional Adaptive Management Program (AMP) work will be necessary.

Policy Basis for Support

- Our support is based on the proposal for water typing WAC 222-16-030 and 0301 being generally consistent with the FPB's water typing system expectations as established in August 2015¹, the December 2016 CR-101 Preproposal Statement of Inquiry, and the TFW Policy water typing rule recommendations provided to the FPB in May 2017.
- The proposed revisions are an incremental step forward in establishing a consistent, stable system for determining water type classifications by incorporating the fish habitat assessment method (FHAM) which minimizes the use of e-fishing, includes the concept of an AFF and PHBs and should not represent a significant change from the current practice of determining water type on forestland subject to the Forest Practices Rules. This anticipated outcome is documented in the preliminary cost/benefit analysis and SEPA analysis provided to the FPB in November 2024.
- While landowners are cautiously accepting of the inclusion of the concept of an AFF in the water typing system per the FPB's stated objective² in November 2022, the notable lack of any AMP evaluation supporting the AFF concept is a significant procedural and technical concern. Landowners' ongoing support for including the AFF in the FPB's proposal is contingent upon our interpretation of the practical effect:
 - The upstream extent of the AFF will be a reasonable location from which FHAM may begin (i.e., a place to start looking for fish use and PHBs) while recognizing a mapped AFF may occasionally contain uncertainty
 - Landowners will have reasonable opportunity to conduct FHAM in streams with unknown fish use,

¹ Pg. 6-7

² Pg. 5

- FHAM (or the DPC), not the AFF, is the method to distinguish fish habitat streams from non-fish habitat streams and establish the F/N break,
 - The proposal will generally not increase the use of ID Teams in the water typing review/approval process or require more than one field visit to conduct FHAM.
- Some stakeholders have suggested the AFF is necessary to protect recoverable habitat; recoverable habitat is not defined in the Forest Practices Act or rules although the concept of "...potential habitat likely to be used by fish, which could be recovered by restoration or management..." is contained with the general definition of "fish habitat" in WAC 222-16-010. Since there is no specific regulatory definition of recoverable habitat, a commonsense description is prudent - thousands of miles of fish habitat made accessible by removing fish passage barriers under Road Maintenance and Abandonment Plans (RMAP), and recovery of habitat function over time by applying fish buffers to streams likely to be used by fish. Maintaining fish buffer protection on streams affected by disturbance events such as debris flows is also an important component. Beyond these broader scale, tangible descriptions, potential or recoverable fish habitat is a site-specific rather than a landscape scale consideration.
 - The use of an e-fishing protocol survey (e.g., FHAM) to determine stream type is a mature system with a low frequency of disputes between proponents and regulators; the proposed rule revisions will increase transparency and consistency, therefore the need for ID Teams and additional field review should decrease. We request the FPB make this expectation clear as part of the rule making deliberation.
 - The Forests & Fish Report (FFR) committed to providing a water typing map as rule which met the accuracy and error balance performance targets in Schedule L-1. At that point, the default physical characteristics (DPC) established under the 1996 emergency rule, which typically have high error/upstream bias, would be jettisoned, and operational e-fishing would generally not be used to determine water type. Since a map as rule has yet to be adopted by the FPB and the DPC are proposed to remain in the rule while AMP evaluation occurs, landowners must maintain the option to conduct a protocol survey through e-fishing (FHAM) to ensure accuracy and minimize water typing error. This is consistent with repeated FPB decisions over the last 25+ years.
 - Field implementation of the water typing system has evolved over the last 20+ years to include habitat likely to be used by fish. Even though the current Interim water typing rule is arguably fish use based and has not substantively changed since 1996, landowners voluntarily include extensions of fish habitat beyond the surveyed uppermost fish as appropriate to a location where physical stream conditions likely preclude further upstream fish movement. The proposed rule revisions will essentially codify this existing practice which will decrease subjectivity and increase consistency in implementation.
 - Substantive changes to the water typing rule and current field practice are not warranted at this time due to lack of field-based AMP work demonstrating a need for such changes. RCW 76.09.370 and WAC 222-12-045 requires AMP review and recommendations before rules affecting aquatic resources can be substantively changed. Even though the current rule is titled the "interim rule," it did go through the formal rule making process; it, and the field practice, have been on the books for 20+ years.

- As recommended in the rule language revisions above, we support the FPB reaffirming their commitment to completing a map as rule³ as soon as possible. This unfulfilled FFR and FPB commitment is a significant source of disproportional regulatory impact to landowners, particularly small forest landowners, who do not have the capacity to conduct FHAM.

Technical Basis for Support

- Even though the current rule and field practice have not been specifically evaluated by the AMP for effectiveness in meeting the water typing performance targets in Schedule L-1, AMP work related to GIS logistic regression model development/testing conducted in the early 2000s evaluating seasonal/annual variability of uppermost fish location indicates seasonal/annual movement of upper most fish location in eastern Washington was not significant and typically varied within +/- ~50 meters with no landscape scale pattern of movement; also, efficacy of the survey protocol in detecting uppermost fish with single pass e-fishing was found to be reliable with 0 error distance at 27 of 28 sites and ~14 meters error distance at one site (Cole, et al. 2003).
- Similarly, the 2016 Electrofishing Report delivered to the FPB by the Adaptive Management Program Administrator⁴ evaluated several questions related to the efficacy of backpack protocol survey electrofishing. Topic areas considered include 1) probability of detection, 2) adequacy of single site visits, 3) seasonality of fish occupancy, and 4) harm to individual fish or their populations. The authors concluded 1) in the majority of cases electrofishing is the preferred method of detecting fish presence in headwater streams and is the technique most likely to provide accurate information, 2) Single site visits are believed to be sufficient to establish fish presence, particularly when surveys extend at least 1/4 mile above the location of the last sampled fish, 3) electrofishing survey guidelines provide a sufficient time window for electrofishing when flows are typically low or declining, but not at the lowest point in the hydrologic year. Therefore, surveys carried out according to the existing timelines have a high likelihood of detecting fish if they are present at a site, and 4) In most situations, protocol electrofishing surveys are unlikely to result in harmful demographic effects on headwater fish populations as long as appropriate precautions are taken to avoid damage to active redds, instream and riparian habitats, or to cause extensive downstream movement of population members.
- Consistent with the above referenced work, independent research conducted in western Washington entailing repeated field surveys across multiple seasons and years to assess variability in fish distribution indicates uppermost fish use (which is cutthroat trout in 95%+ of cases) is identified at or below the proposed fish habitat/non-fish habitat (F/N) regulatory break in 90% of cases. The mean distance between uppermost fish and the proposed F/N break was ~+90', the max range was -2,500' to +430' (Walters et al. in press. 2025), well within the buffered extent of streams on forestland subject to the Forest Practices Rules.
- Other independent research indicates the distribution of headwater fish (primarily cutthroat trout) is not significantly different at the landscape scale between managed and unmanaged forested watersheds in Western Washington (Latterell et al. 2003).

³ Pg. 3-4

⁴ [fjb mtg packet 20160810.pdf](#)

- We are supportive of expeditious AMP evaluation of specific AFF, PHB, and DPC criteria. No specific, field-based AMP work to validate existing (or propose new) criteria for any of the proposed water typing rule components has been conducted. The FPB sponsored GIS based analyses of various AFF and PHB criteria conducted as part of the rule making process produced inconsistent results, which were not helpful for decision-making about specific criteria. We are hopeful this experience has provided a valuable lesson to all interests that proposing substantive rule changes absent field-based AMP evaluation is ill advised.

Thank you for the opportunity to comment on the proposed Water Typing System Rule, should you have any questions I can be reached at dcramer@wfpa.org or (360) 280-5425.

Sincerely,

Darin D. Cramer

Sr. Director of Forest & Environmental Policy

References

Cole, Michael B., Lemke, Jena L., ABR, Inc. Environmental Research & Services, 2003. Eastern Washington Last Fish Variability Characterization Resurvey. Prepared for Washington Dept. of Natural Resources, Washington Dept. of Fish & Wildlife and the Cooperative Monitoring, Evaluation and Research Committee 02-211 [PSC 02-197 EWA Last Fish Resurvey](#).

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Walter, Jason K., Fix, Miranda J., Tarosky, Renata, Schill, Travis, and Jones, Jay E. 2025 (in press). Variability in upstream extent of fish distribution in headwater streams in southwest Washington, USA. *Transactions of the American Fisheries Society*.

February 11, 2025

Dear Chair Young and Members of the Forest Practices Board,

I am Claudine Reynolds, a fish and wildlife biologist with over 20 years of experience working for family-owned timber companies in western Washington. I am the Director of Wildlife and Environmental Policy for Port Blakely, a sixth-generation forest products company. Over the course of my career, I have surveyed 100s of miles of stream, with one main purpose, to accurately classify aquatic habitats and identify fish distribution, thus conduct water typing surveys.

I appreciate the efforts of the board to adopt a permanent water typing solution. I'm here to express my support to implement the current proposal. These rules are important for the following reasons:

Accurate Evaluation of Fish Habitat: Field practitioners bring significant education and experience to their work. I began conducting fish distribution surveys in 2004. For years, I applied my training to make informed decisions in the field before I learned there was a policy debate about how I should do my job. Developing effective policy to classify dynamic systems like streams is challenging because each stream is unique. I want to assure you that consistent with the Fish Habitat Assessment Methodology (FHAM) in the proposed rule, making a water type determination involves a thorough office and field evaluation. After reviewing internal and external databases, the field survey starts downstream where fish are likely present in the stream. Electrofishers are used minimally in known or presumed fish habitat, just to confirm fish presence. They are only used intensively where habitat conditions make the stream unlikely to support fish. The break between fish and non-fish streams is always placed at the upstream extent of the habitat where fish were detected, even if fish were not detected in some segments of that habitat. Practitioners need to be able to use their expertise and experience to assess habitats and conduct comprehensive evaluations so that water typing is as accurate and site-specific as possible.

Scientific Rigor: The proposed water typing rules are grounded in the latest scientific research and methodologies, while additional validation studies are underway through the CMER process. Any modifications to the methods and protocols must be informed by scientific findings. This rigor ensures that our practices are based on the best available science, allowing us to make objective, justifiable decisions that affect both the environment and the communities that depend on these resources. Changes in methodology or protocol should stay true to our commitment and be guided by the scientific process and implemented through the adaptive management process.

I urge the Forest Practices Board to approve these rules and ensure their effective implementation. Thank you for considering my testimony.

Good Evening, my name is Alan Kycek. I am a forester with Hampton and oversee the company's timberlands in Pierce County. I appreciate the opportunity to give testimony on the proposed revisions to water typing.

As much as I appreciate confidence in knowing stream types, I am very leery of the Anadromous Fish Floor concept, and in general trying to make anything based on a model the end-all be-all. Models are never perfect, and while they are often a great guide or starting point, we must maintain the ability to deviate from any model's results if on-the-ground reality differs. It appears that the ability to still call an ID team is included here, should a landowner believe true end of fish lies within the modeled AFF. This largely alleviates any concerns that I have, but I hope that the AFF model isn't so off-base that ID teams are regularly required for correction. As much as anything I just want to reiterate the need for FHAM to always be able to over-ride any model's output.

On the topic of modelled mapping, I have to say that the current iteration of the DNR's water type map is atrocious. I don't doubt that it was okay, maybe even good when it was originally built, however with the tools available today we should not have a stream map that has streams located running parallel to a draw mid-slope on the hillside. Lidar is publicly available for much of the state, and relatively cheaply obtained elsewhere in today's day and age. It is not difficult to accurately map streams in draws utilizing lidar. Heck, there are probably some awesome tools out there I don't even know about that would do it automatically and not rely on manual drawing.

X Along with accurately locating streams, the cartographers updating stream locations could do a better job of mapping typing accurately when updating the layer. On the approximately 41,000 acres that I manage for Hampton, I can think of three instances where the water type modifications were mapped incorrectly, but somehow made it through the review process (*if there was one*) and is now "official". I have concerns that when the time comes to operate around these errors we might again have to revisit it and waste a bunch of time re-confirming the actual end of fish due to a cartography error. If I have these known errors in the "official" F/N break points just on the property I manage, I suspect there are potentially hundreds across the state.

Still on the topic of mapping, I must say that it's disappointing that the layer isn't updated, even if just as better answer than the modeled layer, when an FPA is turned in, reviewed, and approved. By default, I see FPA approval as at least a soft concurrence by the reviewers. As a landowner, we have an internal stream layer that I keep updated as the "latest and greatest" information. I know where there are additional segments on the landscape, and where DNR modelled segments do not exist, but for anyone on the outside looking at the DNR's water type map they don't see these without looking at my FPA maps in FPARS. For F/N breaks, of course I don't mind completing a water type modification form if it deviates from the water type map in a significant way, but I'm sorry as the landowner I am not going to take the time to complete a two page form for every type N stream segment, or stream deletion for each harvest unit. That could in many cases be 30-40 pages of work that doesn't provide me with any benefit since I already have the information.

X I am also not advocating for mapping Np/Ns breaks, as those may change post-harvest or depending on the timing of typing. Without the standing timber there is less water up-take and the PIP could shift a bit, and the field verification for typing may have been done outside of the driest point of the year as well in the interest of getting a permit going.

I apologize for the bit of a rant on mapping. Everyone I know in the industry, including DNR staff, already knows the current iteration of the water type map needs a lot of work and I'm confident that the DNR can put out a much better product for everyone's use.

Regarding the water typing rules themselves, I don't have major heartburn and am generally supportive. I just encourage those in charge to make an accurate, modern water type map a priority.

Thank you for your time.



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February 11, 2025

Re: Water Typing Rule Making

Washington State Forest Practice Board

Chairman Young and members of the Forest Practices Board:

For the record I'm Ken Miller, co-representing Washington Farm Forestry Association with Dave Roberts on behalf of the small forest land owners (SFLOs) on the TFW Policy Committee. The draft Water Typing Rule Making language is: relatively minor; necessarily technical; and beyond the comprehension of most of my peers, with the exception of Board Member Barnowe-Meyer who has years of experience with water typing and who I know to be a straight arrow when it comes stream typing protocol.

Below are some common language points I'd like to make that are related to your specific and general water typing efforts:

- Family forest owners want to do what is right for the forests and fish in our care!
- We do support the water typing rule-making language proposed by the Board despite few of our folks utilizing these technical and expensive processes – we need non-discriminatory default physical criteria and the long-promised maps as a rule.
- These rule changes appear to only affect the upper reaches of fish presence or fish habitat where the values to fish are minimal. However, the associated forest set-asides are grossly oversized relative to the potential fish risk or benefit – in my opinion these upper reach rules are more about a “no-touch” political paradigm than the functional effectiveness that is supposed to guide our rules.
- Family forest owners appreciate that the SFL Office can now provide stream typing help (in lieu of the required maps!), but we also understand the complexity of current and future rules require substantial access to upper stream reaches – full access not often available on our smaller ownerships. Technical assistance without being able to do protocol surveys perpetuates the discriminatory effects on SFLOs.
- Without full stream reach access, family forest owners are effectively precluded from using the full protocol survey methods in these rules, necessitating our use of the “default physicals” which are known to on average overprotect stream reaches that don't have fish, nor potential fish habitat.
- Studies have shown that on average the default physicals method of stream typing result in stream type breaks well over 1,000' upstream of actual fish

presence or fish habitat (Western WA) – a significant Disproportionate Impact on family forest owners that must be mitigated (SBEIS) in all future rules.

- Ultimately default physical rules should recognize the laws of diminishing functional effectiveness vs the economic costs of overprotection as required by balanced goals and shared risk commitments embodied in Forests and Fish. . . . not the overly precautionary paradigm for minimal fish benefits despite huge economic costs especially in our current default physicals. While awaiting the required stream typing maps the Board (at a minimum) needs to make a stronger AMP validation commitment to fixing default physical protocols.
- Many folks would like to eliminate electro-fishing. **Solution**: make the default physicals more shared risk and more balanced proportionate to the risks of fish vs economic risks; better yet, provide the long-promised map-based rules.

In summary: These draft rules, while technically appropriate seem to disregard the initial and remaining **Forests and Fish commitment to provide stream typing maps as our permanent rule!** Instead, our processes favor what seems a perpetual, ever complex, full employment stream typing process irrationally determined to define undefinable natural/changing conditions – processes that breed mistrust and debates about minutia that detract from the consensus spirit of Forests and Fish. **Get the maps done** using 20+ years of available information/better technology. Utilize these very technical rules only when there is reasonable doubt by the landowner or DNR. Stop the bickering in upper reaches of smaller streams providing minimal if any functional effectiveness seemingly used as a perpetual surrogate for the real issue of whether or not to manage our forests for multiple use. Well over 50% of our state's 22 million acres of forestland is already in some sort of no-touch classifications, losing sight and benefit of multiple use principles intended within Forests and Fish.

Ken

11 February 2025

To: The honorable Commissioner of Public Lands, Dave Upthegrove, Washington Department of Natural Resources.

From: Chris Mendoza, Mendoza Environmental LLC, representing the Washington Conservation Caucus.

Subject: Public testimony regarding DNR's Public Hearings on proposed water-typing rule and board manual 23 guidance.

Dear honorable Commissioner of Public Lands,

Thank you for the opportunity to provide public comments on an important issue critical to the conservation of aquatic species covered under DNR's federally approved, Forest Practices Habitat Conservation Plan. For the record, my name is Chris Mendoza and I represent Washington Conservation Action and other Environmental NGOs also known as the Washington Conservation Caucus who have actively participated in DNR's Forest Practices Adaptive Management Program for twenty plus years (2003-2025).

I have decades of experience stream typing under DNR's water typing rules and board manual guidance and am co-author of the Fish Habitat Assessment Method (FHAM) the Forest Practices Board is poised to adopt into rule. I have served on many of DNR's board manual technical committees over the past 20 years providing input based on my experience implementing DNR's rules and board manual guidance in the field so that they are repeatable, enforceable, and implementable as directed by prior DNR staff.

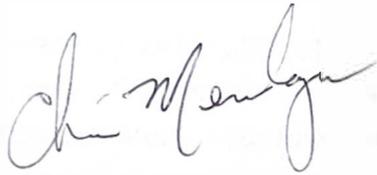
The WA FP Board is tasked with protecting fish habitat as defined in rule (WAC 222-16-010) and the Board has requested via motion (2015) to "reduce electrofishing" consistent with the FP HCP. TFW Policy went through two formal AMP dispute resolution processes spanning 5 years in a failed attempt to agree on how much fish habitat to protect, and how much to reduce electrofishing. In failing to agree, and consistent with DNR's AMP process, TFW Policy submitted majority / minority reports to the FP Board on water typing rule making.

At the August 28, 2024 special FP Board meeting, the Board shirked their responsibility of deciding how much fish habitat to project and how much electrofishing should be reduced by directing staff to move all of the PHBs from 3 different fish habitat protection Options (A, B, C) into board manual guidance. Their decision was irresponsible and nonsensical because those 3 Options represent distinctly different levels of fish habitat protection (e.g. $\leq 5\%$ with $\leq 10\%$ stream gradients) and reductions in electrofishing. Technical experts like myself cannot and should not be put in the position of resolving what are clearly natural resource protection Policy not technical issues, issues that TFW could not resolve after five years of formal disputes. As a result, Board staff have been unrealistically attempting to force technical experts during board manual 23 meetings into doing the Board's job for them.

Adopting the FHAM into rule while punting measurable Potential Habitat Breaks (PHBs) goes against 20 prior years of DNR's practices for rule adoption under the DNR's AMP. Recently retired DNR staff (Mark Engel) repeated told the public that "if you can measure it, it belongs in rule, not board manual guidance". All the PHB's the Board moved into board manual guidance are based on measurable criteria defining fish habitat like stream gradient, width, and length. By listing all the PHBs from three distinctly different protection Options together in a board manual "menu" for surveyors to choose from will only serve to create public confusion while ensuring that surveyors can choose the least protective PHBs (Option C).

This approach to rule making and board manual guidance is not repeatable, enforceable, or implementable. The standard for rulemaking DNR has repeatedly told the public it must follow whenever new rules and BM guidance are adopted by the Board.

Finally, I have vetted all of these concerns with Board staff at board manual 23 meetings and they have fallen on deaf ears. Board staff have also failed to restore the non-vertical option / step PHB in the Conservation Caucus supported Tribal Option (A) which caused much confusion during the FP Board's field trip on water typing rule making last fall. The CC has repeatedly requested DNR staff restore this particular PHB critical to the foundation of Option A and staff have refused to do so, unlike Board staff quickly correcting WFPA's Option (C) at their request when they got their proposal wrong.



Good afternoon, I am Court Stanley, and I am representing County government.

We support the revisions to the water typing WAC 222-16-030 and 0301 as proposed in CR-102 dated December 3, 2024.

We also support the proposed revisions to forest practices board manual WAC 222-12-090 and western Washington RMZs WAC 222-30-021 as they are non-substantive

The use of an e-fishing protocol survey (e.g., FHAM) to determine stream type is a mature system with few disputes between landowners and regulators; the proposed rule revisions will increase transparency and consistency and reduce the need for ID teams. We request the FPB make this expectation clear as part of the rule making deliberation.

landowners voluntarily go beyond the last fish to the point where the habitat changes where fish cannot access. The proposed rule revisions will essentially codify this existing practice which will decrease subjectivity and increase consistency in implementation.

We are supportive of continuing the field work being done by CMER to study AFF, PHB, and DPC criteria. No field-based AMP work to validate criteria for any of the proposed water typing rule components has been conducted. We need to follow the adaptive management protocol and only change rules when studies determine that current rules are not protecting the resource as intended.

Thank you.

- I am here to ask the Board to Fulfill the GIS-based water typing map obligation thereby reducing the regulatory burdens on small landowners as well as ensure equity and consistency.
- The interim rule and practices have reliably extended fish habitat to areas where physical conditions precluded further fish movement in a non-subjective and transparency manner.
- As such I would like to voice my support for the Proposed Revisions/Updates to
 - o WAC 222-16-030 and 0301,
 - o WAC 222-12-090,
 - o and WAC 222-30-021,
 - o I also support changes to water crossing structures WAC 222-24-040 provided that the field implementation cannot be is significantly impacted unless the Adaptive Management Program (AMP) is engaged.
- These changes and updates represent reasonable step towards a stable and consistent water type classification system without significant changes to current field practices. Further it aligns with Previous efforts:
 - o FPB expectations (August 2015),
 - o the CR-101 preproposal statement of inquiry (2016),
 - o TFW Policy recommendations (2017).
- Incorporating the Fish Habitat Assessment Method (FHAM) minimizes e-fishing, integrates the concepts of an Anadromous Fish Floor (AFF) and potential habitat breaks (PHBs) in determining F/N fish habitat. Though the AFF may be a helpful starting point, its role is better as a guide than a conclusive determinant. FHAM should establish the F/N break, without increased need for ID Teams or field visits.
- Thank you for your time and consideration.

Good afternoon, members of the Forest Practices Board. My name is Jason Walter. I am the Aquatic Resources Manager for Weyerhaeuser, where one of my responsibilities is to manage the company's water typing program. This program is responsible for thousands of water typing surveys over the past two decades. I have been told on a number of occasions and by numerous regulators that our work sets the standard for how water typing surveys should be conducted. In addition, I am the Chair of the ISAG, the Instream Science Advisory Group, which has been tasked within the Adaptive Management Program with developing the PHB, DPC and AFF Validation Study Designs as part of the AMP Water Typing Strategy. I am here to share my position on the proposed revisions to the water typing rules.

I support the updates to WAC 222-16-030 and 0301, as outlined in the CR-102 dated December 3, 2024, with minor clarifications. These revisions represent an important step toward a more consistent and stable system for water type classifications.

The proposed rules align with previous FPB expectations and TFW Policy recommendations, incorporating the Fish Habitat Assessment Method (FHAM). This method minimizes reliance on e-fishing, integrates key concepts like the anadromous fish floor (AFF) and potential habitat breaks (PHBs), and codifies long-standing practices, reducing subjectivity and enhancing consistency.

However, my support for the AFF is contingent on its practical use. It should serve as a starting point for FHAM, without increasing fieldwork burdens. FHAM—not AFF—must remain the method to establish the fish/non-fish break. I urge the FPB to expedite field-based Adaptive Management Program evaluation for AFF, PHB, and the default physical criteria (DPC).

In August 2024 I had the opportunity to work collaboratively with representatives from DNR, WDFW, and the Conservation Caucus, some of whom are here in the room today (Chris Briggs, ECY and Chris Mendoza, CC) to plan and implement a field tour focused on water typing for the WFPB on the Weyerhaeuser Vail Tree Farm. As you may remember... during that field tour you heard a unified message from all of the technical experts, regardless of caucus, that the water typing system in Washington State was 'not broken'. During the tour you did hear discussions that focused on the fact that the current water typing system could be adjusted or tweaked and would benefit from 'clarification' in some areas in order to reduce subjectivity and enhance consistency.

This reduced subjectivity and enhanced consistency can be achieved through the implementation of FHAM and the use of specific DPC, PHB, and AFF metrics validated by the multiple water typing studies that are currently being planned and/or implemented with the AMP.

In closing, I support these incremental revisions as a balanced approach to improving water typing rules, while emphasizing the need for field-based validation and long-term commitments.

Thank you for your time.

2/3/25

Washington State Forest Practices Board

I am writing in support of the updates to WAC 222-16-030 and 0301, as outlined in the CR-102 dated December 3, 2024, with minor clarifications. These revisions represent an important step toward a more consistent and stable system for water type classifications. I also support the non-substantive changes to the Forest Practices Board manual (WAC 222-12-090) and western Washington RMZs (WAC 222-30-021).

I cautiously support the revisions to water crossing structures (WAC 222-24-040), the implications remain uncertain. If these changes unexpectedly affect field implementation, additional Adaptive Management Program (AMP) work will be necessary.

The proposed rules align with previous FPB expectations and TFW Policy recommendations, incorporating the Fish Habitat Assessment Method (FHAM). This method minimizes reliance on e-fishing, integrates key concepts like the anadromous fish floor (AFF) and potential habitat breaks (PHBs), and codifies long-standing practices, reducing subjectivity and enhancing consistency.

However, my support for the AFF is contingent on its practical use. It should serve as a starting point for FHAM, without increasing fieldwork burdens. FHAM—not AFF—must remain the method to establish the fish/non-fish break.

Finally, I urge the FPB to expedite field-based Adaptive Management Program evaluation for AFF, PHB, and the default physical criteria (DPC) and fulfill the commitment to a statewide water typing map. This map is critical to reduce regulatory burdens, especially for small landowners.

Finally, I support these incremental revisions as a balanced approach to improving water typing rules, while emphasizing the need for field-based validation and long-term commitments.

Thank you for your consideration.

Sincerely,



JAMIE HILLERY



February 11, 2025

Patricia Anderson
FPB Rules Coordinator
Forest Practices Board
PO Box 47012
Olympia, WA 98504-7012

Via E-mail to: forest.practicesboard@dnr.wa.gov

Re: CR-102 Proposal to Codify Water Typing System Rule

Dear Forest Practices Board Members,

On behalf of the Snoqualmie Tribe, please accept the following comments regarding the current proposal to codify Washington State's Water Typing System Rule. The Snoqualmie Tribe [Tribe] is a federally recognized sovereign Indian Tribe. We were signatory to the Treaty of Point Elliott of 1855; we reserved certain rights and privileges and ceded certain lands to the United States. As a signatory to the Treaty of Point Elliot, the Tribe specifically reserved among other things, the right to fish at usual and accustomed areas and the "privilege of hunting and gathering roots and berries on open and unclaimed lands" off-reservation throughout the modern-day state of Washington. The State's water typing rule is fundamentally and foundationally important to protecting watersheds and fish habitat, and so the Tribe has concerns about several key aspects of the current proposal, which we explain further below. Snoqualmie Tribe suggests that **the Board should not approve the water typing rule as currently proposed** and instead should clarify several components of the rule and the processes entailed within the rule before finalizing the rule, because the primary goal of this rulemaking effort should be the adoption of clear, repeatable, enforceable criteria.

As currently proposed, key criteria in identifying fish habitat are relegated to the Forest Practices Board Manual. As a guidance document that is not formally adopted into rule, the Board Manual lacks the legal authority that this regulatory situation calls for, the inconsistent results of which have been demonstrated in practice repeatedly over the years. The upshot is that as guidance, not formally adopted by rule, the Board Manual cannot be reliably enforced, which in practice shifts the substantial burden of evaluation and attempted enforcement, on to Tribal governments, state agencies other than WA DNR, and privately funded conservation groups, while simultaneously stripping WA DNR's ability to hold surveyors accountable and ensure minimum baseline protections. And, problematically, the new draft Board Manual is not currently available for public review. **We urge the Board to clarify its intent with any water typing rule making process by specifically including water typing related Board Manual language in the CR 102, and to make that language available for review and comment during the rulemaking process.**

The Board's decision to allow surveyors to choose from three methodological options for determining Potential Habitat Breaks and/or the Anadromous Fish Floor is also problematic, in that the proposed "menu" approach is



counter to adoption of a repeatable, clear and enforceable system. This critical missed opportunity has had no opportunity for public review and input. Another of the Tribe's concerns with this approach is that it allows surveyors who may have an interest in maximizing harvestable timber yields to default to whichever method best serves that limited interest by choosing the method that results in the least habitat protection.

While it is not frequently discussed, the water typing system being proposed has implications far beyond "Forestry" areas. Local governments across the state have adopted these criteria by reference into their GMA-required Critical Areas and Shoreline codes. This system is far, far too important to adopt without adequate public review and comment process, and without actually meeting Board's obligation to adopt measurable, repeatable, enforceable criteria by rule. This would seem to be the minimum requirement, especially given that Best Available Science, including Washington State-adopted scientific principles and management recommendations (<https://wdfw.wa.gov/publications/01987>; <https://wdfw.wa.gov/publications/01988>) have demonstrated that to protect the integrity of habitat and water quality, that RMZs should be determined based on Site Potential Tree Height **regardless of the current presence of "fish habitat,"** which is just a snapshot in time in any case and is subject to change over time. This is the current scientific understanding and consensus, but we understand that what the Board has proposed for adoption is the result of negotiations and includes an effort to support industry and other economic interests. Therefore, this puts an even finer point on the need for the Board to **adopt measurable, repeatable, enforceable water typing criteria by rule.**

Thank you for your consideration.

Sincerely,

DocuSigned by:

Michael Ross

E0D26BDD350B44F...

Michael Ross

Deputy Executive Director, Government Affairs & Special Projects



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23

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February 12, 2025

Patricia Anderson, FPB Rules Coordinator
Forest Practices Board
PO Box 47012
Olympia, WA 98504-7012

Via email: forest.practicesboard@dnr.wa.gov

RE: Public Comments on Permanent Water Typing System Rulemaking

Dear Ms. Anderson:

Thank you for the opportunity to comment on the Permanent Water Typing Rulemaking. Cascade Forest Conservancy's (CFC) mission is to protect and sustain forests, streams, wildlife, and communities in the southern Washington Cascades through conservation, education, and advocacy. We represent over 12,000 members and supporters. We recognize the great value in working together with a variety of partners and stakeholders, including the Washington Department of Natural Resources (DNR) and private landowners, in building a more resilient ecosystem for current and future generations. The Adaptive Management Program under the state's Habitat Conservation Plan (HCP) acknowledges the value of different groups working together and was built so different interests could work through a designated process using the best available science to ensure healthy forest and aquatic habitats while supporting harvest on private lands. However, the goals and objectives of the Adaptive Management Program have not been met in the case of this rulemaking.

Currently, the Washington Forest Practices Board and DNR are on the verge of failing their duty to protect fish habitat, uphold Tribal Treaty obligations, and safeguard forested watersheds. After more than a decade of delays, millions of dollars spent, and extensive stakeholder input, the Forest Practices Board failed in a recent decision to adopt a clear and enforceable water typing rule. Instead of choosing between three developed options and adopting a clear, binding rule, the Board has relegated these critical criteria to the unenforceable Board Manual, ensuring inconsistency in field application and leaving fish habitat protections dangerously ambiguous and subjective. A final water typing rule that accurately identifies fish habitat is fundamental to riparian buffer protections. Enforceable Anadromous Fish Floor (AFF) and Potential Habitat Break (PHB) criteria are critical to the rule's effectiveness. The decision to remove enforceable

criteria for PHBs and the AFF from the rule undermines the science based protections promised in the state's Habitat Conservation Plan (HCP).

Both DNR and the Forest Practices Board have failed to meet their obligations. DNR staff are responsible for informing and assisting the Forest Practices Board in its decision-making. However, DNR failed in its duty to adequately inform the Board of the implications of this decision, further jeopardizing the effectiveness of fish habitat protections. DNR and the Board must course correct during this rulemaking to uphold the promises of the state's HCP.

I. Current Approach Undermines Conservation Responsibilities

The Forest Practices Board's current approach undermines conservation efforts in two critically important ways: 1) by failing to include clear criteria for habitat protections in rule, and 2) by utilizing an approach that is not enforceable or consistent. These points are discussed in more detail below:

A. No Clear Criteria to Protect Habitat

The Forest Practices Board was tasked with selecting from three distinct options for PHBs and AFF, each providing different levels of fish habitat protection. For years Adaptive Management Plan stakeholders proceeded with the understanding the Board would select a single water typing alternative to codify as rule. Despite years of scientific review, technical work, and public investment, the Board failed to select a single, science-based set of measurable criteria. Instead, it opted for an unprecedented and unvetted approach: placing all possible criteria into the Board Manual as menu-style guidance rather than codifying enforceable standards in rule. This decision was never publicly contemplated, studied, or discussed.

By failing to choose a preferred option, the Board has effectively discarded a decade of effort enabling timber industry surveyors to default to the least protective measures without consequence. This outcome disproportionately benefits the timber industry, which is the very entity being regulated, at the expense of all other participants. The Board is responsible for balancing the interests of all stakeholders. However, this decision grants the regulated industry excessive influence over its own standards, undermining the integrity of science-based forest management contemplated by the Adaptive Management Program and HCP.

B. Lack of Enforceability and Consistency

Rather than establishing enforceable protections, the Forest Practices Board has relegated key PHB and AFF criteria to the Board Manual, which lacks legal weight and cannot be reliably enforced. This shift will make it nearly impossible for state agencies, Tribal governments, and

conservation groups to challenge inadequate survey results or hold surveyors accountable. Instead of setting a uniform standard, the Board has created a buffet of unenforceable options, allowing surveyors to rely solely on a subjective standard of best professional judgment that virtually ensures inconsistent application by surveyors and reviewers, and no accountability for misapplications of rule.

II. Corrective Steps Needed by Forest Practices Board

The Forest Practices Board must act decisively to restore public trust and uphold its responsibility to protect Washington’s watersheds by 1) adopting measurable and enforceable water typing standards, 2) be more transparent about the decision making process, and 3) committing to minimizing electroshocking of fish. These points are discussed in more detail below:

A. Adopt Measurable & Enforceable Criteria in Rule for both PHBs and AFF

Rules with specific and measurable criteria, not unenforceable, vague Board Manual guidance are necessary to ensure adequate riparian protections. Without enforceable criteria, the water typing system adopted by this rulemaking will be ineffective and lead to less habitat protection than contemplated by the HCP. CFC requests the Board reconsider its decision and fulfill their responsibilities by selecting a set of PHB and AFF criteria.

B. Clarification of Intent Needed for Meaningful Public Involvement

CFC requests the Forest Practices Board be transparent about its decision-making process and allow for meaningful public input. If impacts of the rulemaking language substantively rely upon Board Manual guidance, then that language should be publicly available for review and comment during the CR102 process. Without more information to review – including the proposed Board Manual language – the public can not adequately participate in the rulemaking process.

C. Recommit to Minimizing Electroshocking of Fish

The Forest Practices Board’s removal of all measurable stream gradient thresholds for AFF increases reliance on electrofishing, an invasive method that shocks fish to determine their presence. This contradicts previous commitments to minimize electrofishing and disproportionately harms juvenile salmon and trout. CFC requests that the Board recommit to minimizing electrofishing by adopting clear and enforceable criteria – a specific AFF and PHB.

III. Conclusion

The Forest Practices Board is at a crossroads. The current approach will lead to weaker habitat protections, increased electrofishing harm, and a degradation of public trust.

To fulfill its duty, the Board must adopt measurable, enforceable rules and not fall back to vague guidance that allows timberland owners to dictate environmental protections. We urge the Board to reconsider its approach and uphold its responsibility to protect Washington's watersheds and fish habitat by adopting a specific, enforceable AFF and PHB criteria in rule that minimizes the need for electrofishing, ensuring consistent and science-based protections.

We appreciate the opportunity to participate in this rulemaking process. Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'AS', with a long horizontal stroke extending to the right.

Ashley Short
Policy Manager
Cascade Forest Conservancy
Ashley@cascadeforest.org



c/o Washington Conservation Action
(Coordinating Organization)
1417 4th Ave, Suite 800
Seattle, WA 98101
Tel: (206) 631-2600

To: Members of the Washington Forest Practices Board

From: Rico Vinh, Policy Representative for the Forests and Fish Conservation Caucus

Re: CR-102 Water Typing System Rule

Date: 2/12/2025

Dear Forest Practices Board Members

The mission of the Forests and Fish Conservation Caucus (CC) is to improve aquatic ecosystems in Washington by advancing science-based policy and technical information through the Adaptive Management Program of the Forest Practices Habitat Conservation Plan (AMP) and to assist the Forest Practices Board in determining when it is necessary or advisable to adjust rules and guidance for aquatic resources to achieve resource goals and objectives

On behalf of the Conservation Caucus, please accept the following comments on the Water Typing Rule.

Summary

The Washington Forest Practices Board and the Department of Natural Resources (DNR) are on the verge of failing their duty to protect fish habitat, uphold Tribal Treaty obligations, and safeguard forested watersheds. A final water typing rule that accurately identifies fish habitat is fundamental to riparian buffer protections. Enforceable Anadromous Fish Floor (AFF) and Potential Habitat Break (PHB) criteria are critical to the rule's effectiveness. After more than a decade of delays, millions of dollars spent, and extensive stakeholder input, the Board's recent decision to remove enforceable criteria for PHBs and the AFF from rule undermines the science-based protections promised in the state's Habitat Conservation Plan (HCP). Instead of choosing between three developed options and adopting a clear, binding rule, the Board has relegated these critical criteria to the unenforceable Board Manual, ensuring inconsistency in field application and leaving fish habitat protections dangerously ambiguous and subjective. DNR staff are responsible for informing and assisting the Forest Practices Board in their decision-making. However, DNR failed in their duty to adequately inform the Board of the implications of this decision, further jeopardizing the effectiveness of fish habitat protections. The Board should not approve the currently proposed Water Typing Rule.

The Board's Current Approach Undermines Conservation:

Rico Vinh, Policy Representative

Conservation Northwest ▪ Washington Conservation Action
Washington Forest Law Center ▪ Wild Fish Conservancy

1. No Clear Criteria for Habitat Protections

The Board was tasked with selecting from three distinct options for PHBs and AFF, each providing different levels of fish habitat protection. For years Adaptive Management Plan (AMP) stakeholders proceeded with the understanding the Board would select a single water typing alternative to codify as rule. Despite years of scientific review, technical work, and public investment, the Board failed to select a single, science-based set of measurable criteria. Instead, it opted for an unprecedented and unvetted approach: placing all possible PHB criteria into the Board Manual as menu-style guidance rather than codifying enforceable standards in rule and removing all AFF stream gradient thresholds from the rule. This decision was never publicly contemplated, studied, or discussed. By failing to choose a preferred option, the Board has effectively discarded a decade of effort, instead enabling timber industry surveyors to default to the least protective measures without consequence.

This outcome disproportionately benefits the timber industry, which is the very entity being regulated, at the expense of all other participants. The Board is responsible for balancing the interests of all stakeholders. However, this decision grants the regulated industry excessive influence over its own standards, undermining the integrity of science-based forest management.

2. Erosion of Enforceability and Consistency

Rather than establishing enforceable protections, the Board has relegated key PHB and AFF criteria to the Board Manual, which lacks legal weight and cannot be reliably enforced. This shift will make it nearly impossible for state agencies, Tribal governments, and conservation groups to challenge inadequate survey results or hold surveyors accountable. Instead of setting a uniform standard, the Board has created a buffet of unenforceable options, allowing surveyors to rely solely on a subjective standard of best professional judgment that virtually ensures inconsistent application by surveyors and reviewers, and no accountability for misapplications of rule.

The Forest Practices Board must act decisively to restore public trust and uphold its responsibility to protect Washington’s watersheds:

1. Adopt Measurable, Enforceable Criteria for AFF and PHBs in Rule

Rules with specific and measurable criteria—not unenforceable, vague Board Manual guidance—are necessary to ensure adequate riparian protections as required under WAC 222-16-010. The Board should reconsider their decision and fulfill their responsibility by selecting a single set of PHB and AFF criteria.

1. Clarify Intent During the CR-102 Process

The Board must be transparent about its decision-making process and allow meaningful public input. Since the impacts of the rulemaking language substantively rely upon Board Manual guidance, then that language should be publicly available for review and comment during the CR-102 process. If the Board wants the public to have fully informed engagement, the Board Manual language must be available for review along with the proposed rule language.

2. Commit to Minimizing Electroshocking of Fish

The Board’s removal of all measurable stream gradient thresholds for AFF increases reliance on electrofishing, an invasive method that shocks fish to determine their presence. This contradicts previous commitments to minimizing electrofishing and disproportionately harms juvenile salmon and trout. The federally approved, DNR Washington Forest Practices Habitat Conservation Plan (FPHCP Biological Opinion 2006) does not provide “coverage” for the extensive use of electrofishing as a method

for delineating fish-bearing streams (Type F) from non-fish streams (Type N). The Board must recommit to minimizing electrofishing through clear, enforceable criteria.

In conclusion, the Forest Practices Board is at a crossroads. The current approach will lead to weaker habitat protection, increased electrofishing harm, and a degradation of public trust.

To fulfill its duty, the Board must adopt measurable, enforceable rules and not fall back to vague guidance that allows timberland owners to dictate environmental protections. We urge the Board to reconsider its approach and uphold its responsibility to protect Washington's watersheds and fish habitat by adopting a specific, enforceable AFF and PHB criteria in rule that minimizes the need for electrofishing, ensuring consistent and science-based protections.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rico Vinh', with a stylized flourish at the end.

Rico Vinh

Policy Representative for the Forests and Fish Conservation Caucus
Washington Conservation Action

From: [Rob Purser](#)
To: [DNR RE FP BOARD](#)
Cc: [Debbie Kay](#); [Ash Roorbach](#)
Date: Tuesday, May 13, 2025 8:40:56 PM

External Email

Dear Members of the Forest Practices Board,

Thank you for this opportunity to share with you 2 recommendations on clarifying the proposed Water Typing rule language in forest practices. My name is Rob Purser and I am the Fisheries Director for the Suquamish Tribe. I am also the Western Washington Tribal representative on the TFW Policy Committee.

First, I think it is important the final adopted Water Typing rule language clearly communicates that any measurable physical stream characteristic used to identify the Anadromous Fish Floor is biologically significant to anadromous fish. Including this kind of language will help clarify the intent of the rule while mirroring language that has been developed for the new Board Manual Section 23. The proposed Board Manual language has been agreed to by all the participants in the board manual writing process.

Second, Step 2 in the table that describes the steps to conduct FHAM (line 281, page 7) needs to clarify that the protocol survey may begin above the AFF or upper most point of known fish use, whichever is higher.

Thank you for considering these requests.

Rob Purser

Suquamish Tribe

From: scbernath@comcast.net
To: [DNR RE FP BOARD](#)
Cc: [Jawad, Saboor \(DNR\)](#); [Allen, Katie \(DNR\)](#); [DNR RE CPL](#)
Subject: Public Comment regarding the adoption of the CR103 for delineating fish habitat
Date: Thursday, May 8, 2025 9:05:51 PM

External Email

Dear Board Members,

Congratulations on the proposed water type rule and board manual for delineating between the fish-habitat and non-fish-habitat. As you know, the Board has been working towards this rule making since the Forests and Fish Report was codified in 1999 and began implementation in 2000 with the interim rules and the permanent rules in 2001 (along with the subsequent HCP and Clean water assurances).

The Board got here because the Point-No-Point tribes and the Quinault Nation expended a lot of resources surveying streams in their Usual-and-accustomed areas, delivering to DNR in August of 1996, 10,000 points of water type change that indicated that the Board was not protecting the upper extent of fish. In some cases (e.g. such as step-pool regimes), steelhead or bull trout could reach stream gradients as high as 20%, hence the interim water typing rule characteristics that were agreed to in November of 1996.

The intent of the negotiated stream typing rule was to have a modelled map that would identify fish-habitat, but there was always going to have to be a procedure (board manual) to put the point on-the-ground. The map was meant to represent where fish habitat would be, even on streams that are in recovery from either geomorphic events or that had been impacted by poor forest practices pre-TFW.

Unfortunately, the initial modelled maps (based on 10-meter DEM technology) were not accurate enough in places (e.g. low gradient streams). With the advent of LiDAR, forest practices and its stakeholders had another chance of getting this more accurate, but again the Board was always going to have to develop a procedure to F/N break on-the-ground. (NOTE: there are several rules that recognize that the natural environment varies and provides for exceptions).

The latest effort to model fish-habitat was still not perfect. FHAM methodology was developed as a compromise using existing data (e.g. a selection of the many water type change points that had been surveyed over the last 25 years under the interim rule) and the need to protect and recover fish-habitat while recognizing upper extent of fish-habitat and the anadromous fish floor (AFF).

The Board has been criticized in the past about the amount of electro-fishing that has occurred since 2000. FHAM is meant to greatly reduce the need to do electro-fishing and, with the addition of the AFF, less electro-fishing will be necessary on the lower end of streams. (NOTE: Some landowners have completed electro-surveys for all of their lands.)

My concern for the Board, the Department, WDFW and the tribes is that the Board is proposing more than one AFF approach and several approaches for PHBs in the manual. The concern is that different approaches are likely to result in different points on-the-ground. Specifically, different results are likely to occur in the more gentle and/or highly dendritic landscapes (e.g. lower gradient or where there are many tributaries).

DNR, as the designated agency to implement and enforce the rules, needs to have rules that are understandable, repeatable and enforceable. If you propose different methodologies, the result may not be repeatable. The outcome, if not repeatable, is that landowners do not have certainty regarding implementation of the rule and DNR does not know which methodology will best meet delineating the upper extent of either anadromous fish or fish-habitat. This will result in mixed results in protecting fish-habitat and create the possibility for arguments in the field between experts with the end result being more potential appeals.

Remember that a rule is a requirement, and the board manual is guidance on how to comply with the rule.

If the Board has determined that each option for both AFF and PHBs will result in the same point on-the-ground, then I may not have a concern. I suspect this is unlikely given the difference between the methodologies (such as using a change in gradient of 5% vs 10%) would result in different points on-the-ground. But if the Board is depending on the regulatory forester to determine whether the standard in the rule has been met (i.e., last fish-habitat identified or upper extent of AFF), you are putting the burden of decision-making on the forest practice forester who depends on recommendations from experts on-the-ground, usually either WDFW or tribal fish biologists. This can work well where biologists have good relationships with landowners and a common goal, but in this case having more than one methodology for either the AFF or PHBs the Board is clouding how to be consistent to meet the goal of protecting/recovering fish-habitat. The different methodologies may lead to the same results in steep streams, but in the gentler gradients or highly dendritic streams the forest practice forester becomes the arbiter of what is the best method for any particular stream. This does not make for

consistent application of the rule on the ground and has the potential to put more risk on the public resource.

I hope DNR has asked the regions to review both the rule and the board manual thoroughly and that the regions have provided the Board/DNR with their recommendations along with a determination of whether it is implementable.

I also want to recognize that the indication of not being able to come to some consensus on the methodologies of AFF or PHBs means that TFW has failed in this case. I believe all parties are in consensus that FHAM along with AFF and PHBs is the right approach but you need clear consistent methods for implementation. When TFW cannot bring a consensus recommendation, it really is the Board's job to sort through the data and its potential implications to make decisions.

I wish you best in your deliberations.

Respectfully submitted,

Stephen Bernath
Forest Hydrologist
Former Deputy for Forest Practices
Former Designated Board Chair

P.S. Reminder, fish are still listed in this state and many tribes are not fishing, one of the goals of FFR. Adaptive management system within forest practices is designed to help us understand when we are not meeting the goals of FFR and when we are successful so we can celebrate.



Skagit River System Cooperative

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Phone: 360-466-7228 · Fax: 360-466-4047 · www.skagitcoop.org

5/12/2025

Washington State Forest Practices Board
 c/o Chair Lenny Young
sent electronically to forest.practicesboard@dnr.wa.gov

Dear Chair Young and members of the Forest Practices Board,

My name is Gus Seixas. I am the Senior Forests and Fish Scientist for the Skagit River System Cooperative, a natural resources management consortium of the Sauk-Suiattle Indian Tribe and the Swinomish Indian Tribal Community. I have been involved in the water typing rulemaking process since 2018 when I joined the original Anadromous Fish Floor (AFF) technical work group, and I have been an active member of the Board Manual 23 writing group.

I have a technical comment about the draft water typing rule language. In the proposed new section WAC 222-16-0301(3), there is a table delineating the steps to conduct the Fish Habitat Assessment Methodology. Step 1 requires proponents to 'Locate the upstream extent of the AFF or other most upstream point of known fish use, whichever is furthest upstream.' This is faithful to my understanding of how Fish Habitat Assessment Methodology (FHAM) should be conducted. However, Step 2 then states that proponents should 'Locate the first PHB [Potential Habitat Break] situated upstream of the stream segment with known fish use point, determined in Step 1.' There are multiple problems with the wording of this step:

1. It focuses only on 'known fish use', excluding mention of the AFF,
2. It would require proponents to delay application of FHAM until the first PHB above the point 'determined in Step 1' is encountered. It is common understanding within water typing rulemaking circles that FHAM may begin directly above the termination point of the AFF. The language of Step 2 does make sense, however, in the case of known fish use extending above the AFF, and

3. It is grammatically strange and difficult to understand (for example, it refers to a 'stream segment with known fish use point'; is it referring to a segment or a point?).

Therefore, I respectfully recommend the language of Step 2 be amended as follows:

'Step 2: If the AFF extends above the most upstream point of known fish use, FHAM may be applied directly above the end of the AFF. If known fish use extends above the AFF, proceed upstream to the first PHB situated upstream of the stream segment with known fish use. See the PHB criteria in subsection (2) of this section and associated guidance in board manual section 23.'

For consistency, step 3 should be amended as follows:

'Step 3: Begin the fish habitat assessment directly upstream of the *point* identified in Step 2. If a fish is observed in the stream segment upstream from the first PHB *or AFF termination point*, stop the electrofishing survey and proceed upstream to the next PHB. Repeat this process until no fish are observed upstream of a PHB.'

The suggested language mirrors the language developed by the Board Manual 23 writing group. Making these changes will add clarity and bring the rule and Board Manual into agreement.

Thank you for your consideration,



*Gus Seixas, Senior Forests and Fish Scientist
Skagit River System Cooperative*



WASHINGTON FOREST PROTECTION ASSOCIATION
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360-352-1500 Fax: 360-352-4621

32

May 9, 2025

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Forest.practicesboard@dnr.wa.gov

Re: Water Typing Rulemaking

Washington Forest Protection Association (WFPA) is a forestry trade association representing large and small forest landowners and managers of more than four million acres of productive working forests, including timberland located in the coastal and inland regions of the state. Our members support rural and urban communities through the sustainable growth and harvest of timber and other forest products for U. S. and international markets. WFPA submits the following comments for the Forest Practices Board's (FPB) May and June 2025 meetings.

WFPA cautiously supports the proposed revisions to WAC 222-16-030 and 0301 and adoption of the CR-103. The proposed revisions generally align with prior FPB expectations for water typing (August 2015), the CR-101 preproposal statement of inquiry (2016), and TFW Policy recommendations (2017). They represent a reasonable step toward stable, consistent water type classifications without significant changes to current field practices. Incorporating the fish habitat assessment method (FHAM) into rule minimizes e-fishing and integrates potential habitat breaks (PHBs) for improved consistency in determining fish habitat from non-fish habitat (F/N break).

We are disappointed about the lack of a clear and concise statement of the performance expectation for water typing in the proposed rule. This must be addressed eventually and will again become a point of debate when Adaptive Management Program (AMP) validation studies are complete. Similarly, we remain concerned about field implementation of the anadromous fish floor (AFF) concept. While the AFF may be a helpful starting point, given uncertain reliability we stress its role as a guide rather than a determining method. FHAM should establish the F/N break, and the overall process should not increase the need for Interdisciplinary Teams nor require an increase in field visits to determine water type.

The Forest Practices Act, and rules require substantive rule changes to be a result of AMP evaluation and recommendations. Therefore, there is priority need for field validation of all water typing components. This is particularly relevant for the default physical characteristics (DPC) which have been in the rule for nearly 30 years. We request the FPB maintain validation of water typing components as a priority in the AMP. Finally, the FPB must complete the GIS-based water typing map as promised, reducing regulatory burdens on small forestland owners and ensuring an equitable, consistent system for determining fish habitat from non-fish habitat (F/N break).

Thank you for the opportunity to comment, should you have any questions I can be reached at dcramer@wfpa.org or (360) 280-5425.

Sincerely,

Darin D. Cramer

Sr. Director of Forest & Environmental Policy

1 **Forest Practices Board**
2 **Water Typing System Rule Making**
3 **June 6, 2025**
4

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

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

34 ~~Fish habitat water type maps will be updated every five years~~
35 ~~where necessary to better reflect observed, in-field conditions.~~
36 ~~Except for these periodic revisions of the maps, on-the-ground~~
37 ~~observations of fish or habitat characteristics will generally not~~
38 ~~be used to adjust mapped water types. However, if an on-site~~
39 ~~interdisciplinary team using nonlethal methods identifies fish, or~~
40 ~~finds that habitat is not accessible due to naturally occurring~~
41 ~~conditions and no fish reside above the blockage, then the water~~
42 ~~type will be immediately changed to reflect the findings of the~~

43 ~~interdisciplinary team. The finding will be documented on a water~~
44 ~~type update form provided by the department and the fish habitat~~
45 ~~water type map will be updated as soon as practicable. If a dispute~~
46 ~~arises concerning a water type the department shall make available~~
47 ~~informal conferences, as established in WAC 222-46-020 which shall~~
48 ~~include the departments of fish and wildlife, and ecology, and~~
49 ~~affected Indian tribes and those contesting the adopted water~~
50 ~~types.~~

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

55 The water type maps and instructions for use are available for
56 public review from the department. All water breaks concurred by
57 the department are regulatory water type classifications; all other
58 mapped, and unknown Type F and N Water breaks or Type Np and Ns
59 Water breaks must be determined, in the field, by forest landowners
60 or their representative. The water type break can be determined per
61 this section or, for fish use, WAC 222-16-0301. Small forest
62 landowners can contact the department for technical assistance
63 and/or interdisciplinary teams to determine water typing breaks.

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

71 Waters are classified using the following criteria:

72 * (1) **"Type S Water"** means all waters, within their bankfull
73 width, as inventoried as "shorelines of the state" under chapter
74 90.58 RCW and the rules promulgated pursuant to chapter 90.58 RCW
75 including periodically inundated areas of (~~their~~) associated
76 wetlands.

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

85 (a) Waters (~~(, which are)~~) within lakes, ponds, or impoundments
86 having a surface of 0.5 acre or greater at seasonal low water;
87 (b) Stream segments having a defined channel 20 feet or
88 greater within the bankfull width and having a gradient of less
89 than four percent;
90 (c) Waters which are off-channel habitat. These are areas
91 important for rearing and survival of fish and include riverine
92 ponds, wall-based channels, and stream associated wetlands. The
93 area must be connected to Type F or Type S Water and accessible to
94 fish during some portion of the year.
95 (i) For channelized streams, the edge of off-channel habitat
96 is determined based on the outer edge of inundation of the stream
97 at the bankfull elevation flow.
98 (ii) For nonchannelized streams, including stream associated
99 wetlands, off-channel habitat is the outer edge of the area
100 periodically inundated at the ordinary high water line.
101 (d) Waters used by fish. The department has prepared water
102 type maps showing the location of Type F Waters. All department
103 concurrent Type F and N Water breaks shown on the water type map are
104 official. Where fish use has not been determined:
105 (i) Waters having any of the following characteristics are
106 presumed to have fish use:
107 (A) Stream segments having a defined channel of two feet or
108 greater within the bankfull width in western Washington; or three
109 feet or greater in width in eastern Washington; and having a
110 gradient of 16 percent or less;
111 (B) Stream segments having a defined channel of two feet or
112 greater within the bankfull width in western Washington; or three
113 feet or greater within the bankfull width in eastern Washington,
114 and having a gradient greater than 16 percent and less than or
115 equal to 20 percent, and having greater than 50 acres in
116 contributing basin size in western Washington or greater than 175
117 acres contributing basin size in eastern Washington, based on
118 hydrographic boundaries;
119 (C) Ponds or impoundments having a surface area of less than
120 one acre at seasonal low water and having an outlet to a fish
121 stream;
122 (D) Ponds of impoundments having a surface area of 0.5 acre or
123 greater at seasonal low water;
124 (E) Waters within the anadromous fish floor, see WAC 222-16-
125 0301.
126 (ii) The department shall waive or modify the characteristics
127 in (d) (i) of this subsection where:

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

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

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

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

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

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

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

166 (~~(e)~~) (g) Waters (~~, which are~~) within a federal, state,
167 local governmental entity, or private campground having more than
168 10 camping units (~~(: Provided, That the water shall not be~~
169 ~~considered to enter a campground until it reaches)~~. These are
170 waters that enter a campground at the boundary of the park lands

171 available for public use and come(~~s~~) within 100 feet of a camping
172 unit, trail or other park improvement;

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

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

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

180 (3) **"Type Np Water"** means all segments of natural waters
181 within the bankfull width of ~~((defined channels that are))~~
182 perennial nonfish habitat streams. Perennial streams are flowing
183 waters that do not go dry any time of a year of normal rainfall and
184 include the intermittent dry portions of the perennial channel
185 below the uppermost point of perennial flow.

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

194 *(5) For purposes of this section:

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

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

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

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

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

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

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

214 (f) (~~"Channel width and gradient"~~) "Bankfull width" for
215 defined channels means a measurement over a representative section
216 of at least 500 linear feet with at least 10 evenly spaced
217 measurement points along the normal stream channel but excluding
218 unusually wide areas of negligible gradient such as marshy or
219 swampy areas, beaver ponds and impoundments. (~~Channel gradient may~~
220 ~~be determined utilizing stream profiles plotted from United States~~
221 ~~geological survey topographic maps~~) See board manual section
222 23(+).

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

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

229 NEW SECTION

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

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

248 The application of FHAM is intended to establish the line of
249 demarcation between fish and nonfish habitat waters. No application
250 of default physical characteristics or FHAM to determine the Type F
251 and N Water break is allowed within the anadromous fish floor
252 (AFF), unless a landowner requests an interdisciplinary team, as
253 defined in WAC 222-16-010. The AFF is delineated on waters
254 connected to saltwater by measurable physical stream

255 characteristics of biological significance to anadromous fish,
 256 within which anadromous fish habitat is presumed, and upstream of
 257 which the default physical characteristics or a protocol fish
 258 survey under FHAM may be applied to establish the Type F and N
 259 Water type break. Board manual section 23 provides guidance on how
 260 to delineate the AFF.

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

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

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

282 (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 of the stream segment with known fish use point, determined in Step 1. 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	Begin the fish habitat assessment directly upstream of the PHB identified in Step 2. 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.

283 REPEALER

284 The following section of the Washington Administrative Code is
285 repealed:

 WAC 222-16-031 Interim water typing system.

286