DEPARTMENT OF
NATURAL RESOURCES

OFFICE OF THE COMMISSIONER
OF PUBLIC LANDS
1111 WASHINGTON ST SE
MS 47001
OLYMPIA, WA 98504-7001

360-902-1000
WWW.DNR.WA.GOV

December 15, 2023

Kim Kratz, Assistant Regional Administrator
NOAA Fisheries Service
c/o Forrest Carpenter
510 Desmond Drive SE, Suite 103
Lacey, WA 98503

Brad Thompson, State Supervisor
Washington Fish and Wildlife Office
U.S. Fish & Wildlife Service
510 Desmond Drive SE, Suite 102
Lacey, WA 98503

Subject: 2023 Forest Practices HCP Annual Report, Incidental Take Permits 1573 (NOAA) and TE 121202-0 (USFWS)

Dear Assistant Regional Administrator Kratz and State Supervisor Thompson:

Enclosed, please find the 2023 Annual Report for the *Forest Practices Habitat Conservation Plan* (Forest Practices HCP). The annual report covers the period from July 2022 through June 2023. This report fulfills the State's obligation to "submit periodic reports to the federal Services describing actions taken by the State to implement the Forest Practices HCP" per Section 9.1 of the Implementing Agreement.

Report highlights:

Forest Practices Board (Board)
The Board approved Anadromous Fish Floor (AFF) options as elements of a permanent water typing system rule – the last piece needed for the rulemaking process to move forward. The rule analysis work is now well underway, and the Board will initiate formal rule making once the associated analysis are complete. The Board also approved one recommendation for a separate rulemaking on buffers on non-fish bearing perennial streams (Type Np). Work has begun to draft the new Type Np rule language and complete the associated analyses.

Adaptive Management Program (AMP)

- AMP made significant progress implementing the State Auditor's Office recommendations. Progress includes the development of a project dashboard, the establishment of on-call contracts for dispute resolution, and the advancement of a package of program reforms called 'net-gains' options.
- The program also developed three new study designs and one final project report. All four were submitted for independent scientific peer review. The program has 18 ongoing projects and has, since inception, completed 57 projects.

There are many other accomplishments described in the 2023 Forest Practices HCP Annual Report. In addition to the enclosed, the report can be accessed through the Washington State Department of Natural Resources website at http://www.dnr.wa.gov/programs-and-services/forest-practices/forest-practices-habitat-conservation-plan. If you have questions, please feel free to contact Wyatt Leighton, FPHCP Administrator at Wyatt.Leighton@dnr.wa.gov.

The State looks forward to a continued strong partnership with NOAA National Marine Fisheries Service and the U.S. Fish and Wildlife Service to conserve federally listed aquatic species and their habitats on Washington's private and state-owned forestlands.

I certify that, to the best of my knowledge, after appropriate inquiries, the information submitted is true, accurate and complete.

Sincerely,

Hilary S. Franz
Commissioner of Public Lands

c: The Honorable Jay Inslee, Washington State Governor
Washington State Forest Practices Board
Kelly Susewind, Director, Washington State Department of Fish and Wildlife
Laura Watson, Director, Washington State Department of Ecology
Alex Smith, Deputy for Forest Resilience, Regulation and Aquatics
Saboor Jawad, Forest Regulation Division Manager

Forest Practices Habitat Conservation Plan

July 1, 2022-June 30, 2023

Washington State Department of Natural Resources
Forest Practices Program, Forest Regulation Division

Acknowledgements

On behalf of the State of Washington, this report was prepared by the Washington State Department of Natural Resources – Forest Practices Program.

Executive Sponsorship
Hilary Franz, Commissioner of Public Lands
Katy Taylor, Chief Operating Officer
Alex Smith, Deputy Supervisor – Forest Resilience, Regulation and Aquatics

Forest Regulation Division
Saboor Jawad, Division Manager

Forest Practices Program Staff
Wyatt Leighton, Karen Zirkle, Marc Engel, Lori Clark, Teresa Ann Ciapusci, Tracy Hawkins

DNR Review and Assistance
Lauren Padget, Communications and Outreach Program

Other Contributors
Darrin Masters and Daniel Barrett, Washington Department of Fish and Wildlife

Successful implementation of the Forest Practices Habitat Conservation Plan involves the efforts of all of our partners in resource protection.
Washington Department of Fish and Wildlife
Washington Department of Ecology
Governor's Salmon Recovery Office
Washington State Recreation and Conservation Office
Washington Forest Protection Association
Washington Farm Forestry Association
Conservation Caucus
Tribal Governments
Northwest Indian Fisheries Commission
Upper Columbia United Tribes
U.S. Fish and Wildlife Service
National Marine Fisheries Service
U.S. Environmental Protection Agency
Washington State Association of Counties

Contact Information
Wyatt Leighton, Forest Practices Habitat Conservation Plan Administrator
Washington State Department of Natural Resources
Forest Regulation Division
P.O. Box 47012, Olympia, WA 98504-7012
Phone: 360-742-1714 or Email: wyatt.leighton@dnr.wa.gov

Table of Contents

Section **Title**

1. Introduction to Forest Practices HCP 2023 Annual Report

Appendix: Background on FP Habitat Conservation Plan

In 2005, Washington State submitted the Forest Practices Habitat Conservation Plan (Forest Practices HCP) with the goal of obtaining Incidental Take Permits (ITPs) from the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (collectively, the Services). In 2006, the Services accepted Washington's Forest Practices HCP and, under the authority of the Endangered Species Act, issued Incidental Take Permits to Washington State. The implementation of the Forest Practices HCP is a partnership between the Services and Washington State that protects public resources, including aquatic and riparian-dependent species. This multi-stakeholder effort addresses the habitat needs of all covered aquatic species, including certain fish species that are federally designated as "threatened" or "endangered." The Forest Practices HCP covers more than 9 million acres of non-federal and non-tribal forestlands in Washington State.

As a part of the Forest Practices HCP Implementation Agreement (IA), the State submits to the Services an annual report describing implementation activities.

2023 Report Highlights

Highlights of the Forest Practices HCP implementation from July 1, 2022, through June 30, 2023, include:

Forest Practices Board

During this reporting period, the Forest Practices Board (Board)'s primary focus was consideration of a permanent water typing system rule. The final rule element needing Board approval was an Anadromous Fish Floor (AFF).

In November 2022, the Board confirmed the objectives for the development of the water typing system rule, including two AFF alternatives. The Board chair subsequently directed staff to initiate the completion of the draft water typing system rule and associated analysis in preparation for Board action to initiate rule making through the filing of a Proposed Rule Making (CR102).

In another rulemaking focus, in August 2023, the Board confirmed the decision to proceed with the Majority Report from the TFW Policy Committee on Type Np Rule-Making alternatives.

Other Board work included:

- Received the results and findings of the *Type N Experimental Buffer Treatment Project on Hard Rock Lithologies – Phase 2*, and *Type N Experimental Buffer Treatment Project on Soft Rock Lithologies ("Soft Rock")* studies, along with the Timber Fish and Wildlife (TFW) Policy Committee Type Np Water buffer recommendations through majority and minority reports.

- Approved the majority report recommendations for Type Np Water buffer rules, in preparation for Board action to initiate rule making. The Board also directed the TFW Policy Committee and CMER to prioritize and begin scoping both an effectiveness (prescription scale) Type Np Water buffer study and an extensive (landscape) scale Type Np and Type F Water buffer monitoring study.

Adaptive Management Program

The Adaptive Management Program (AMP) continued implementing the Board-approved workplan for the implementation of State Auditor's Office (SAO) recommendations.

Key highlights include:

- Advanced the five Board-approved net gain's options to consider packages of projects, proposals, and/or decisions to benefit more than one caucus.
- Drafted a process recommendation for use of non-CMER science in program decision making for CMER/TFW Policy Committee review.
- Held discussions on potential AMP program reform, including revising CMER membership, increasing CMER and TWF Policy interaction, and increasing accountability.
- TFW Policy Committee drafted a manual to establish ground rules, co-chair roles/responsibilities, and operating procedures.
- Workgroup developed a process for Schedule L-1 revisions to serve as the basis for the quantitative measures for the decision criteria in a structured decision-making model (SAO #5 & #6) that is currently in CMER/TFW Policy Committee review,
- Created a public-facing dashboard that will be launched in October 2023.
- Study design completed Independent Scientific Peer Review (ISPR) process: Potential Habitat Breaks Study Design.
    - Three study designs were submitted to ISPR, including:
        - Eastside Timber Habitat Evaluation Types (ETHEP) Study Design.
        - Westside Type F Riparian Prescription Effectiveness Exploratory Field Study.
        - Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform and Runout.

Since the program's inception, 57 projects have been completed, with 18 still ongoing. One dispute resolution was initiated and resolved at CMER during this reporting period over the study designs of the following two projects:

- Empirical Evaluation of Shallow Landslide Susceptibility
- Frequency by Landform and Runout Study Design.

Forest Practices Operations

Forest Practices Operations staff processed 3,280 Forest Practices applications or notifications (FPA/Ns), which includes approved, withdrawn, renewed, closed, disapproved, and in-review FPA/Ns, as well as 501 water type modification forms (WTMFs).

Additionally:

- The Forest Practices science team reviewed 647 FPA/Ns for potentially unstable landforms.
- Forest Practices engineers reviewed 35 harvest and/or road construction FPAs involving hydraulic projects.
- During the reporting period, Washington Department of Fish and Wildlife (WDFW) biologists reviewed 730 Forest Practices hydraulic projects (FPHPs), which included 217 concurrence-required project reviews and 429 standard FPHPs. WDFW also participated with DNR in 84 pre-application reviews.
- Three program guidance documents were issued for Forest Practices staff and the public:
    - Guidance Memoranda
        - *2023 Fish Survey Season-Water Level and Streamflow Forecast*
    - Guidance Memoranda
        - *Direction for review of "20-acre exempt" FPAs in Bull Trout Population of Concern areas under the Forest Practices Habitat Conservation Plan*
    - External Website Information Posting
        - *Current Bald Eagle Protection on Forest Land in Washington State*

Region and Division Operations staff were involved in planning and conducting statewide training for program staff and partners. The following trainings were delivered in FY 2022:

- Forest Practices Training to the Western Contract Loggers Association (WCLA)
- Unstable Slopes
- Enforcement and Compliance
- Shade Tool
- SEPA
- Recommendations for Resources Protection in Road Construction

Please see Section 10 for details and description of additional training conducted by program staff.

Small Forest Landowner Office

The outreach specialist position, created during this reporting period, has been instrumental in reaching small forest landowners and coordinating an integrated program for landowners to access information. This position is dedicated to outreach and providing educational information to current and prospective small forest landowners regarding Small Forest Landowner (SFLO) programs.

SFLO by the numbers:

- Regulation assistance foresters received and addressed 313 requests for assistance.
- The Forest Riparian Easement Program (FREP) purchased 34 easements for 344 acres and received 13 new eligible applications. Since 2001, the State has purchased 401 conservation easements. As of June 30, 2019, there were 136 easement applications on the FREP waiting list.
- Twelve fish passage barriers were corrected this year under the Family Forest Fish Passage Program (FFFPP), making 24 miles of upstream habitat accessible to fish. Since the program's inception in 2003, 397 barriers to fish passage have been eliminated, making approximately 934 miles of fish habitat accessible. As of June 30, 2019, there were 1,194 eligible projects on the waiting list for FFFPP.

20-Acre Exempt Riparian Forestland

In all, there were 74 FPAs that used the small forest landowner 20-acre exempt rule for non-conversion FPAs along fish-bearing waters. These made up approximately 2.8 percent (74 out of 2659) of all approved non-conversion applications during the 2023 reporting period.
Of the 846 watershed administrative units (WAUs) in the state:

- 238 have a possible reduction in potential recruitment of large woody debris (LWD) resulting from non-conversion FPAs with fish-bearing waters using the 20-acre exempt rule.
- 231 currently have the potential of less than 1 percent cumulative reduction in function.
- All seven WAUs with more than 1 percent potential reduction in function show less than 3 percent cumulative potential reduction of riparian function in the WAU and are, therefore, not yet near or past the permit threshold of 10 percent.
- No FPAs associated with 20-acre exempt parcels were located within the bull trout areas of concern.

Alternate Plans

There were 140 alternate plan proposals (95 large forest landowner and 45 small forest landowner) processed during the reporting period. Two were small forest landowner long-term forest practices applications.

Rivers and Habitat Open Space Program (R&HOSP)

DNR purchased two easements totaling 68 acres during the 2021-2023 biennium to support Northern Spotted Owl and Marbled Murrelet Critical Habitat-State.

Since the R&HOSP easement program inception in 2001:

- 25 easement areas have been purchased, encompassing about 1,146 acres of conservation easements in channel migration zones.
- 212 acres of conservation easements were purchased on critical habitats of state-listed threatened and endangered species.

DNR received four applications for the FY 23-25 biennial Rivers and Habitat Open Space Program funding cycle, which had $5 million allocated to process and purchase three critical habitat easements and one channel migration zone conservation easement.

Enforcement

There were 10,775 active (non-expired) FPAs at the end of the reporting period, during which DNR issued 44 *Notices to Comply* and 13 *Stop Work Orders*. Of these enforcement actions, 50 were for violations of the Forest Practices Rules. No civil penalties and no *Notices of Intent to Disapprove* (NOID) were issued during this reporting period. One *Notice of Intent to Disapprove* was cancelled.

Compliance Monitoring Program (CMP)

The Compliance Monitoring Program collected data for the second year (2022-23) of a two-year (2022-23) biennial data collection process. Riparian prescription compliance percentage rates ranged from 93.8-99.5. The roads compliance rate was 99.5 percent, and the haul route compliance rate was 99 percent. Riparian data was collected for the standard sample. The Compliance Monitoring annual report should be published in October 2023.

Training, Information, Education

The multi-year effort to reestablish core classes and routinely provide them on a regular and predictable schedule has been completed. The program participated in developing and delivering new trainings, including *Shade Tool Training,* and *Recommendations for Resources Protection in Road Construction*. The Forest Practices Training Program continued to record class training sessions for future use in several new presentation styles (for example, audio, visual, and Visme©).Training sessions provided and number of students in each included:

- *Unstable Slopes* – 10 students
- *Enforcement and Compliance Training* – 24 students
- *Eugene Loggers Conference* – 50 students
- *Washington Contract Logger Association* – 105 students.

Road Maintenance and Support

With the completion of RMAPS on October 31, 2021, the focus of this chapter will be changing to ongoing road maintenance and support, based on Forest Practices Rules. A total of 238 miles of forest roads were improved during the 2022 calendar year. Since 2001, 31,333 miles of forest roads have been improved to meet forest practices standards, and 8,639 fish passage barriers have been eliminated, thereby opening 5,244 miles of fish habitat.

Cultural Resources

During this reporting period, 17 FPAs required a landowner/tribal meeting. All required meetings occurred.

Information Technology
During the current reporting period, 3,280 FPA/Ns were received or renewed and entered into the Forest Practices Application Review System (FPARS). As of June 30, 2023, 1,156 reviewers had subscribed to receive email notification of FPA/Ns.

Entries into the Forest Practices Enforcement Tracking System included:

- 460 Informal Conference Notes (ICN)
- 15 Notices of Conversion to Non-forestry Uses
- 44 Notices to Comply (NTC) with no civil penalty
- 13 Stop Work Orders (SWO) were entered into the Forest Practices Enforcement Tracking System

Staff processed 501Water Type Modification Forms (WTMF), resulting in updates to approximately 521.5 stream miles. These updates included stream type upgrades to approximately 27.3 miles of stream and stream type downgrades to approximately 87.5 miles of stream, including identification and mapping of new tributary streams.

DNR implemented a new mobile tool statewide during this reporting period. The tool creates pre-application, decision and post decision documents that are automatically stored in Cloud storage and routed to region office staff when appropriate to do so.

Budget
2021-23 Biennium Operation Allocation (with Personal Consumption Expenditure Conversion to 2005 dollars) was $34,013,728, which exceeds the $22.7 million minimum required funding level under the 2012 Settlement Agreement for the Forest Practices HCP.

2. Forest Practices Board

Appendix: Background on Forest Practices Board

2.1 Forest Practices Board Rule Making Activity (July 1, 2022 – June 30, 2023)

The Forest Practices Board (Board) did not adopt any permanent rules during this reporting period. The primary focus of the Board continues to be the development of a permanent water typing system rule and to amend the Type Np Water buffer rule. The Board, at its May 10, 2023, meeting approved an expedited rule making process to amend rules relating to the protection of

Marbled Murrelets. The Board, at its February 8, 2023, meeting approved two pilot rule makings for implementation by CMER for the following studies – 1) Western Washington Riparian Characteristics and Shade Response Study and 2) Eastern Washington Type N Riparian Effectiveness Project.

Riparian Characteristics and Shade Response Study, Pilot Rule Making for Western Washington
The Forest Practices Board approved the pilot rulemaking for the Riparian Characteristics and Shade Response Study in western Washington. This study evaluates stream shade response from a range of riparian harvest treatment buffers, in lieu of the forest practices buffer rules in WAC 222-30-021, -040(2) and -050.

Eastern Washington Type N Riparian Effectiveness Project, Pilot Rule Making
The Forest Practices Board approved pilot rulemaking for the Eastside Type N Riparian Effectiveness Project. The pilot rule was needed to allow Type N buffers to be applied to the upper reach of a single Type F stream, without any fish presence and meeting the stream study criteria, in lieu of WAC 222-30-022(1), -040 and -050.

Marbled Murrelet
In February 2017, the Washington State Fish and Wildlife Commission up-listed the Marbled Murrelet from the state threatened to state endangered status. The Board supported the recommendation by DNR and Washington Department of Fish and Wildlife (WDFW) to review the critical habitat needs for the species and to identify and avoid forest practice activities that are likely to have a significant adverse impact on the species through habitat loss. Washington Department of Fish and Wildlife assembled a Wildlife Working Group (WWG) to initiate a rule assessment to determine whether non-federal habitat is being adequately protected and if any rule amendments, changes, or clarifications are warranted.

The Wildlife Working Group (WWG) convened in February 2018 with stakeholders representing Washington Association of Counties, Washington Forest Protection Association, Washington Farm Forestry Association, the Conservation Caucus, U.S. Fish and Wildlife Service, DNR and WDFW.

The WWG presented their report which included their objectives, conclusions, and consensus recommendations to the Board at their May 10, 2023, meeting. The Board accepted the proposed amended rule language and that the draft rules were developed through a negotiated rule making process per RCW 34.05.310(2) (a) in the Administrative Procedures Act. The Board, by motion, approved an expedited rule making process as well as modifying Board Manual Sections 14 and 15. After the reporting period for this report, at the August 9, 2023 meeting, the Board adopted the rules with a delayed effective date of January 1, 2024.

The following are some of the key amendments to the Marbled Murrelet rules to:

- Clarify suitable Murrelet habitat includes nesting platforms 7 inches and greater in width, in western hemlock 24 inches DBH and greater, and all other conifer 32 inches DBH and greater, in WAC 222-16-010.
- Clarify "Suitable Marbled Murrelet Habitat" as areas capable of providing nesting opportunities which are at least five contiguous forested acres in size and containing qualifying platform-bearing trees, in WAC 222-16-010.
- Require the most recent Pacific Seabird Group protocols for terrestrial surveys be used when determining if suitable habitat is an "occupied Marbled Murrelet Site," in WAC 222-16-010.
- Added the following Class IV forest practice activities adjacent to an occupied marbled murrelet site is a Class IV-Special forest practice activity, in WAC 222-16-080
    - harvest within a no-cut inner buffer of 150 feet, or harvest within a managed 150-foot outer buffer to a stand density of less than a relative density of 35 for Douglas fir, or
    - less than a relative density of 50 for western hemlock – spruce dominant species group within the 300 foot buffer zone
- Add a critical habitat (state) exemption for small forest landowners who own less than 500 acres of forest land within 50 miles of saltwater, provided the land does not contain an occupied marbled murrelet site or the 300-foot average buffer of an occupied marbled murrelet site. (WAC 222-16-080)
- Clarify that survey information is necessary for DNR to evaluate the environmental impacts of forest practices, rule defined "suitable marbled murrelet habitat" and the adjacent forested area within 300 feet of "suitable marbled murrelet habitat". Without survey information, the DNR will find these forest practices may have a probable significant adverse impact on the environment and be classified Class IV-Special, WAC 222-10-042.
- Forest Practices Board Manual Sections 14 and 15 will be amended to provide implementation guidance for the amended rules, WAC 222-12-090.

2.2 Forest Practices Board Manual (Board Manual) Updates and Revisions (July 1, 2022 – June 30, 2023)

The Board approved one Board manual section for update during the reporting period.

Board Manual Section 22, *Guidelines for Adaptive Management Program (AMP)*

The manual section was amended to incorporate the Board-approved 2021 SAO performance audit of the AMP identified recommendations, to update the Dispute Resolution Process to require dispute resolution when consensus cannot be achieved within the TFW Policy Committee, as required by rule. Other amendments included a science peer review of the program every five years and the development of an onboarding/training process for new Board members and AMP participants. The Board approved a revised Board Manual Section 22 on May 10, 2023, to incorporate these changes.

Board Manual Section 14, *Survey Protocol for Marbled Murrelets* and Board Manual Section 15, *Guidelines for Estimating the Number of Marbled Murrelet Platforms*
Previously approved updating to Board Manual Section 14 and Board Manual Section 15 were reviewed at the August 9 Board Meeting. Final updates are anticipated to be approved at the November 8 Meeting.

2.3 Anticipated Forest Practices Board Direction

Anticipated Rule Making Activity

Permanent Water Typing System

The Forest Practices Board's primary focus continues to be the development of a permanent water typing system rule. The final rule element needing Board approval was an Anadromous Fish Floor (AFF). In 2019, The Board requested the Water Typing System Board Committee (Committee) to coordinate stakeholder development of an AFF. In March 2022, the Committee accepted and presented to the Board stakeholder-developed Anadromous Fish Floor (AFF) alternatives. In response the Board, at their August 10, 2022 meeting, accepted two AFF alternatives for analysis for possible inclusion in the statewide permanent water typing system rule.

These alternatives look to establish an AFF that starts at salt water and extends to the upper limit of an anadromous fish floor, downstream of which all waters are considered anadromous fish bearing, and upstream of which the Board approved Fish Habitat Assessment Methodology field protocol can be applied to establish the end of fish habitat (Type F/N Water break). The first alternative (A4 7 percent) establishes the upper limit of the floor at the sustained stream gradient of 7 percent above known anadromous fish presence in the Statewide Washington Integrated Fish Distribution (SWIFD) database. The second alternative (alternative D) establishes the upper limit of the floor at the known anadromous fish presence in SWIFD or the change in stream gradient or fish barrier potential habitat breaks found in PHB option C. The Board also requested the Chair to direct DNR staff to prepare a Proposal Initiation for the development of an Anadromous Fish Floor validation study through the Adaptive Management Program.

In November 2022, the Forest Practices Board confirmed that a lidar map-based model is one of the ultimate goals of the permanent water typing system rule. The Board also confirmed their approval and objectives for the development of the water typing system rule:

- To balance error;
- Minimize electrofishing;
- Address stream segments not shown on the DNR hydro layer;
- Improve the water typing map over time;
- To define the anadromous fish floor as "measurable physical stream characteristics downstream from which anadromous fish habitat is presumed, and an agreement that the

AFF would establish the location upstream of which fish protocol surveys may begin under fish habitat assessment methodology;"
- Include methods to locate the type F/N break on the ground; and ensure the methods provide the ability to be applied by small forest landowners; and
- Be consistent with fish habitat as defined in rule.

The Board additionally agreed to move the water typing system rule making forward as priority and directed staff to initiate the completion of the draft water typing system rule and associated analysis in preparation for Board action to initiate rule making through the filing of a Proposed Rule Making (CR102).

The Board has accepted the DNR staff projected completion of the draft water typing system rule and the associated Cost Benefit, Small Business Economic Impact Statement, and the environmental analysis under the State Environmental Policy Act (SEPA) to be completed in August 2024.

See Appendix 3 for historical information.

Western Washington Type Np Water riparian management zone
To develop potential Type Np buffer alternatives addressing the research findings, the Board approved the TFW Policy Committee recommendation to form a Type Np workgroup to address the research findings from the Hard Rock – Phase 1 study and the preliminary findings from five additional Type N CMER studies. The Board also agreed to a TFW Policy Committee proposal to wait to act based on the results of the *Hard Rock study* until the results of five other on-going CMER Type Np Water studies, including the *Type N Experimental Buffer Treatment in Soft Rock Lithology* study, were provided. This ensures that the Board will have all pertinent information representing stream lithologies in western Washington when considering potential rule changes.

TFW Policy Committee received the final report of the workgroup, which included development of proposed RMZ buffer prescriptions for Type Np streams in western Washington in July 2021, along with the final *Type N Experimental Buffer Treatment Project on Hard Rock Lithologies – Phase 2*, and *Type N Experimental Buffer Treatment Project on Soft Rock Lithologies ("Soft Rock")* studies.

TFW Policy Committee initiated the development of Type Np buffer alternatives, according to the process outlined in Part 3.4 - Development of TFW Policy Committee Recommendations - in Board Manual Section 22 *Guidelines for the Adaptive Management Program.* The review of the findings of the studies and recommendations from the Type Np workgroup was occurring slower than the alternative development timeline listed in board manual guidance and, as such, dispute was invoked over the timeline to develop Type Np Water buffer alternatives.

TFW Policy Committee was unable to reach consensus during neither the informal nor the mediated formal stages of dispute resolution. As a result, the TFW Policy Committee recommendations were presented to the Board through majority and minority reports.

The Board, in November 2022, received a summary of the CMER Type N study findings, the Type Np Workgroup recommendations to Policy, and the recommendations from the Policy majority and minority reports to the Board. These include:

- The Type N Hard and Soft Rock Studies findings were related to stream temperature. The studies found the Seven Day Temperature Response – an approximation of the measurable change standard – increased in all buffer treatments; the temperature responses were due to harvest; and, shade was the main driver of temperature response;
- The Np Workgroup recommendations for Policy encouraged consideration of the incorporation of three alternatives evaluated for stream temperature, economic impact, and wind throw. The three primary recommendations:
    1. A continuous 75-foot buffer with managed outer 25 foot;
    2. A continuous buffer that varied from 25-to-75 feet based on stream orientation;
    3. A site-specific buffer that retains that portion of buffer that provides effective shade.
- Summary of Majority and Minority Type Np Buffer Recommendations to the Board
    - Primary recommendations of the Minority report included:
        - Prescription A: 75-foot, two-sided, unmanaged continuous buffer when an Np basin greater than 30 acres is to be harvested 85 percent or more over a five-year period; and,
        - Prescription B: 75-foot, two-sided, unmanaged buffer for the first 500 feet upstream of the Type F/N Water break and a 50-foot wide, two-sided, unmanaged buffer for the next 500 feet.
    - Primary recommendations of the Majority report included:
        - Option 1: 75-foot wide, two-sided, no-harvest buffer on all Type Np streams for the first 600 feet upstream of Type F/N break, or for the lowest 600 feet for isolated Type Np streams; thereafter on streams wider than 3-foot BFW, a two-sider buffer of 75-foot buffer with the outer 25 feet manageable, or A 65-foot, two-sided, fixed-width, no-harvest buffer. For streams less than 3-foot BFW, a two-sided, 50-foot, fixed-width, no-harvest buffer; and,
        - Option 2: A 75-foot, two-sided, unmanaged continuous buffer when a Type Np Water basin greater than 30 acres is to be harvested 85 percent or more over a five-year period.

The Board approved the majority report recommendations to incorporate into the draft Type Np Water buffer rule in preparation for Board action to initiate rule making. The Board also directed the TFW Policy Committee and CMER to prioritize and begin scoping both an effectiveness (prescription scale) Type Np Water buffer study and an extensive (landscape) scale Type Np

Water buffer monitoring study, including a systematic literature review, to incorporate as part of the existing Type F and N rule-group studies and to follow the Board manual guidance for the development and implementation of these studies.

In April, 2023, the Board held a special meeting to convene an executive session to discuss alleged process violations of the Open Public Meeting Act during the Board's November 2022 meeting deliberation and decision to approve the majority recommendations for inclusion and analysis for the Type Np Water buffer rule. The Board subsequently discussed the alleged process concerns in open session at their May 2023 regular meeting. The Board approved addition to the August 2023 regular meeting agenda of a Board discussion on whether to rescind he Board's action to accept the Type Np Water buffer recommendation as a way to address the alleged Open Public Meeting Act concerns. The Board also decided to add a discussion on the TFW Policy Committee's Type Np Majority/Minority recommendations to the agenda for their August 2023 regular meeting in the event the Board rescinded the prior Type Np vote and chose to vote again on the majority and minority recommendations.

Northern Spotted Owl Safe Harbor Agreement
The Board convened a northern spotted owl (NSO) Implementation Team to develop a programmatic approach to allow landowners to take voluntary actions to contribute support for the recovery of the NSO in Washington State. The Board subsequently approved the NSO Implementation Team recommendation to pursue a safe harbor agreement (SHA), based on their finding that strategic additions of spotted owl habitat can make meaningful contributions to the conservation of the species.

This recommendation was brought forward as legislation, SB 5390, which was passed by the Washington State Legislature in their 2023 session. With passage of this bill, the Legislature authorized DNR to enter a programmatic SHA with the USFWS to enhance the conservation of NSO habitat.

When the agreement is completed, the NSO SHA would be administered by DNR, with technical expertise provided by WDFW to evaluate spotted owl habitat, and the agreement would be applicable to all non-federal forestlands within the spotted owl territory in Washington State.

It is expected that DNR and USFWS staff will have the capacity to gain federal approval for state administration of a programmatic NSO SHA in Washington State within the FY 2024 reporting period.

Anticipated Board Manual Revisions
Board Manual Section 13, *Guidelines for Determining Fish Use for the Purposes of Typing Waters*

When the Board adopts a permanent water typing system rule and associated guidance, Board Manual Section 13 will be removed. The new field protocol – a fish habitat assessment methodology used to delineate fish habitat using specific stream characteristics – will reside in Board Manual Section 23.

Board Manual Section 21, *Guidelines for Alternate Plans*

At their November regular meeting, the Board approved the TFW Policy Committee's consensus recommendations to address small forest landowner alternate plans, and for the Board to affirm the key points of agreement. The Board further approved the recommendation that DNR staff convene a stakeholder group to amend Board Manual Section 21 following the process outlined in WAC 222-12-090.

DNR convened a stakeholder workgroup to develop a new part in the manual with specific guidance for small forest landowners, and to add guidance for the design of alternate plans to restore riparian function in Eastern Washington in stands at imminent risk from insects, disease, and fire.

The manual section incorporated the consensus recommendations and key points approved by the Board, which included consolidating existing guidance and identification of riparian forests, where small forest landowners can harvest under a plan that has a low impact to riparian function. This guidance includes criteria to help DNR determine whether a small forest landowners' alternate plan qualifies as a low impact alternate plan. It also provides examples for harvest opportunities that can be considered within the RMZ for small forest landowners. It also includes information on situations where the design of the alternate plan and field review can be more successful.

The amended Board Manual Section 21, *Guidelines for Alternate Plans* will be presented to the Board for approval at their August 2023 regular meeting.

Board Manual Section 22, *Guidelines for Adaptive Management Program*

DNR staff is supporting the Adaptive Management Program Administrator-facilitated process within the TFW Policy Committee to flesh out Board approved 2021 SAO performance audit recommendations for the adaptive management program. This guidance will include development of a "net gains" approach for science proposals, projects, and decisions brought to Policy; a guidance manual for Policy; and decision criteria for actions that will occur in response to project results, before the results have been found.

Board Manual Section 23, *Guidelines for Field Protocol to Locate Mapped Divisions between Stream Types and Perennial Stream Identification*

Work on Board Manual Section 23 will resume when the Board receives and acts on additional rule elements and recommendations for the permanent water typing system rule (see part 2.3). Section 23 will be a two-part section providing guidance for identifying the water type break between Type F and N waters (Part 1) and guidance for identifying the break between Type Np (non-fish perennial) and Ns (non-fish seasonal) waters (Part 2).

- Part 1 will feature field guidance to determine the upper most extent of the Anadromous Fish Floor (AFF); and the upper most extent of fish habitat through the application of the Fish Habitat Assessment Methodology, including guidance for field identification of Potential Habitat Breaks (PHB); guidance for conducting protocol electrofishing surveys; and guidance for delineating the boundary of off-channel habitat.
- Part 2 will provide guidance for locating the division between Type Np and Ns waters through the field determination of the "uppermost point of perennial flow" of non-fish perennial streams. The development of Part 2 will begin when the TFW Policy Committee completes the revised method for determining the uppermost point of perennial flow.

3. Adaptive Management Program

Appendix: Background on Adaptive Management Program

Adaptive Management Program Efficiency and Effectiveness Improvement

In 2020, the Board received a report with results of an AMP performance-based audit (requested by the Board) that was conducted by the State Auditor's Office (SAO). The Adaptive Management Program Administrator (AMPA) developed a recommended plan of action to address the SAO recommendations and submitted the plan to the Board. The Board accepted the recommended plan of action at its May 2021 meeting, and work commenced at the Board, TFW Policy Committee, Coordinated Monitoring, Evaluation, and Research Committee (CMER), and staff levels. Tables 1 through 3 provide a summary of the implementation status of each recommendation as of June 30, 2023.

Table 1: Recommendations to be considered and acted upon by caucus principals that may be aided by third-party neutral assistance focusing on conflict transformation

Focus Area	Action Item	SAO Rec #	Status	Update
Decision-making process	1) Review decision making model. 2) Require participation by caucus principals.	1 and 2	**Delayed** Expected to be completed next biennium.	The status of these two recommendations have changed from on-track to delayed since the last update. This is primarily because any changes to the decision-making model would require a rule-change. A rule-change in the remainder of the current biennium is unlikely. Two rounds of TFW Principals meetings have been held this reporting period.

Table 2: Recommendations involving changes to AMP processes to be evaluated mainly through the appropriate AMP committees

Focus Area	Action Item	SAO Rec #	Status	Update

Decision-making process	Adopt decision criteria for determining actions that will occur depending on project results before those results have been found.	6	**Delayed** Progress is being made, although this will take more time than expected to complete.	TFW Policy SAO Workgroup held a joint session with a CMER workgroup to discuss developing decision criteria for projects in the program to make progress on this recommendation. The group drafted a recommendation on a process for opening Schedule L-1 for revisions, including identifying which sections need revisions.
Decision - making process	Implement a "net gains" approach to each proposal, project, and decision that benefits more than one caucus by considering packages of projects instead of individual projects.	5	**On-Track**	Board approved the TFW Policy's recommendation on the net gains options.
				Net Gains Option 1 - Adopt Multi-Criteria Decision Making/Structured Decision-Making. Est. due to Board Feb 2024
				Net Gains Option 2 - Clarify Process for using or incorporating outside (Non-CMER) Science (PI) Est. due to Board Nov 2023
				Net Gains Option 3 - Set Clear AMP Priorities • Synchronize CMER Work Plan and the Master Project Schedule (MPS) • List AMP Priorities • MPS Contingency Plan – complete
				Net Gains Option 4 - CMER Reform -TFW Policy Committee is expected to have a recommendation for the Board meeting Nov 2023

				Net Gains Option 5 - Develop Guidance or Manual for TFW Policy. During this reporting period a consultant worked with TFW Policy to develop a manual.

Table 3: Recommendations that are administrative in nature to be evaluated primarily by Board and AMP staff and brought to the Board for decision and action

Focus Area	Action Item	SAO Rec #	Status	Update
Decision-making process	Update language in the board manual to reflect WAC, which says dispute resolution is required when consensus cannot be achieved within the Science or TFW Policy committees.	3	**Completed**	Board Manual 22 has been updated. Board staff presented revisions to the Board in February 2022 and obtained the Board's approval.
Decision-making process	The board should set a trigger for dispute resolution. It should work with the Adaptive Management Program Administrator and the chairs of the committees to determine the appropriate amount of time: 1) Identify and recommend to the Board schedule or process-based triggers for invoking dispute resolution, 2) Add line item for dispute resolution in the Master Project Schedule. 3) Establish on-call contracts for dispute resolution for TFW Policy Committee. 4) Establish on-call contracts for a CMER technical arbitration panel. 5) Establish on-call statistical assistance contract for CMER.	4	**2 through 5 are complete** **1 is on hold**	MPS was approved with a line item for dispute resolution, and an on-call contract is established for dispute resolution for TFW Policy Committee. On-call contracts for CMER technical arbitration panel and statistical assistance were completed this reporting period. Board approved revisions to Board Manual Section 22**.**
Transparency and Accountability	1) Tracking system for life cycle of projects 2) Public-facing dashboard	10,11	**On track** Significant progress made since last update.	AMP staff have completed work on project tracking system and with cost and schedule metrics for continuous monitoring of projects.

				A DNR-supported SharePoint Online platform was created and will make this information available to the public with the launch of the Dashboard. CMER and TFW Policy members have received access and training on the SharePoint Online platform for increased transparency and access to TWF files, reports, and meeting materials. DNR worked with a consultant to build the AMP Dashboard this quarter. It is expected to be completed and launched by October 2023.
Transparency and accountability	Complete biennial fiscal and performance audits of the AMP every two years	9	**Completed**	Board and AMP staff will develop recommendations for the Board on how to get the audits done on time and regularly. Options and staff recommendations were developed and approved by the Board at its November 2022 meeting.

Transparency and accountability	Peer review science program every five years	7	**Completed**	Board approved language requiring five-year review for part 6.1 of Board Manual Section 22. The rule-required science review of the program will be fulfilled this biennium through a separate project lead by Washington Department of Fish and Wildlife. There is funding in the FY2027 MPS to fund the next 5-year AMP Science Review. AMP staff prepared a draft scope of work for the science review.
Decision-making process	Onboarding and training for new members	8	**Delayed**	Board approved language for Board Manual Section 22 that would require training for new AMP participants. The legislature did not provide funding to create and implement on-boarding training for participants in the AMP. This task is on hold. Interim training was offered on OPMA and AMP Introduction.

3.1 Cooperative Monitoring, Evaluation, and Research Committee (CMER) Work Plan and Projects

The CMER Work Plan presents an integrated strategy for conducting research and monitoring to provide scientific information to support the AMP. The overarching purpose of the CMER Work Plan is to inform CMER participants, TFW Policy Committee constituents, the Board, and interested members of the public about CMER research and monitoring activities. It describes AMP projects that have been completed, are ongoing, or are to be initiated. The number of projects described in the CMER Work Plan may not be consistent with the actual number of projects the AMP is working on. This discrepancy is due to new projects proposed after the

Work Plan was approved or phases of projects that are combined as one project in the CMER Work Plan that are more accurately described as separate projects for the purposes of this report.

Since the AMP began in 2001, 57 projects have been completed, 18 are ongoing, and 40 have yet to be initiated (that is, they will be developed in the future after higher-priority projects have been funded and completed). The most recent updated CMER Work Plan was recommended by the TFW Policy Committee in February 2023 and approved by the Board in May 2023. In May 2023, the Board adopted a Master Project Schedule (MPS) that prioritizes and describes the CMER research projects selected for funding. Ongoing projects in FY 2024 and FY 2025 are:

- Two in the Stream Typing Rule Group,
- Five in the Type N Riparian Prescriptions Rule Group,
- Three in the Type F Prescriptions Rule Group,
- Three in the Unstable Slopes Rule Group,
- One in the Roads Rule Group, and
- Two in the Wetlands Protection Rule Group.

Two projects (Riparian Literature Synthesis and Extensive Monitoring) do not fall within a rule group. Ongoing projects include projects that are in the initial stages of scoping or study design development and implementation. Some current projects have no official funding approved at this time beyond CMER staff time.

Dispute Resolution

One dispute was initiated and resolved at CMER this reporting period. A CMER member invoked the dispute resolution process concerning the Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform and Empirical Evaluation of Shallow Landslide Runout Study Design. Unstable Slope Science Advisory Group (UPSAG) approved the Study Design and sent to CMER for review in August 2022. The dispute was invoked over the sequencing of UPSAG approval prior to the Object Based Landform Mapping Report completion. At the January 2023 CMER meeting, the Informal Phase of Dispute Resolution was extended, and the Study Design was approved to go back to the Project Team and UPSAG for revisions. The dispute was resolved with CMER's approval of the revised Study Design to submit to ISPR in March 2023.

Independent Scientific Peer Review (ISPR)

Three study designs completed ISPR review this reporting period and will be ready for CMER review and approval in FY 2024. The study designs are listed below:

- *Eastside Timber Habitat Evaluation Project*: The purpose of this project is to develop a framework for applying riparian harvest rules along Type S and Type F streams in eastern Washington, based on the Forest Practices HCP functional objectives and performance targets. The Study Design was approved by CMER and sent to ISPR in June 2023.

- *Westside Type F Riparian Prescriptions Effectiveness Monitoring Pilot Project:* The purpose of this project is to examine post-harvest riparian stand conditions, riparian ecological functions, and the extent to which post-harvest riparian forest stands are on trajectory to reach desired future condition (DFC) targets in Riparian Management Zones (RMZs) that did and did not have harvest in the Inner Zones. This is the second of three planned studies evaluating the effectiveness of current forest practices regulations in achieving conservation objectives of the FPHCP for fish-bearing streams in western Washington. The Westside Type F Riparian Management Zone Exploratory Study Draft Report was submitted to ISPR in November 2022. The ISPR response package was returned for author revisions in January 2023. The revisions are pending at the time of this report.

- *Unstable Slope Criteria Project: An Evaluation of Hillslopes Regulated under Washington Forest Practices Rules*: This project will evaluate the degree to which the landforms described in the unstable slopes rules identify potentially unstable areas demonstrating a high probability of endangering public resources. Study Designs for Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform and the Empirical Evaluation of Shallow Landslide Runout were submitted for ISPR on March 29, 2023. Final edits resulting from ISPR feedback are ongoing and expected to be completed in early FY 2024.

Ongoing projects

Progress on active AMP projects described below*:*

- *Eastside Type N Riparian Effectiveness Project*: This study will determine if, and to what extent, the prescriptions found in the Type N Riparian Prescriptions Rule Group achieve performance targets and water quality standards, as applied to stream temperature and discharge in eastern Washington. This project uses a Multiple Before-After/Control Impact (MBACI) design on stream reaches occurring within Type Np basins. Each of the five study treatment basins are paired with a reference basin. The study is designed to capture data at least two years pre-harvest and two years post-harvest, with a one-year harvest window. At two sites, two years of pre-harvest data, one year of harvest-year data, and one year of post-harvest data have been collected. At one site, harvest was delayed because of labor shortages and an extremely active fire season (summer 2021). At this site, three years of pre-harvest data and one year of harvest-year data have been collected. At the remaining two sites, two years of pre-harvest data have been collected and harvest is scheduled to begin in summer 2023.

- *Eastside Timber Habitat Evaluation Project*: The purpose of this project is to develop a framework for applying riparian harvest rules along Type S and Type F streams in eastern Washington based on the Forest Practices HCP functional objectives and

performance targets. This project will examine and develop alternative(s) to the current Timber Habitat Type system using Geographic Information System (GIS) analysis of existing geospatial datasets and test and refine the alternative framework(s) for their accuracy in characterizing eastern Washington riparian forests using data collected in the field. The Project Team developed a Study Design, which was reviewed and approved by Scientific Advisory Group Eastside (SAGE) in February 2023. The Study Design was then reviewed and approved by CMER and was sent to ISPR in June 2023.

Extensive Riparian Status and Trends Monitoring Program – Riparian Vegetation and Stream Temperature: The purpose of this program is to monitor the status and trends through time of stream temperature, riparian conditions, and key habitat indicators across all lands managed under the FFR rules. It is possible several projects will be generated from this effort in the future. In February 2022, the Board directed CMER to begin scoping this study and a work group was formed in Riparian Science Advisory Group (RSAG) to take on this task. TFW Policy and RSAG had a joint workshop to share documents, gain clarity on Policy objectives, and establish ground rules. Subsequently, RSAG formalized a project team which was approved by CMER in the March 2023 CMER meeting. This new project team has been prioritizing the development and approval of a project charter before starting the scoping process. Additionally, a contractor was hired in May 2023 to complete a data assessment of existing extensive monitoring programs, the results of which will support the project team as they look forward to the scoping phase.

- *Wetland Management Zone Effectiveness Monitoring Project*: This project will evaluate wetland functions to determine if the target of no net loss of hydrologic function, water quality objectives, and hydrologic connectivity are being achieved. The Wetland Scientific Advisory Group (WetSAG) revised and approved a project charter, which outlines the project timeline. The Charter was approved by CMER and TWF Policy. WetSAG is currently working on a scoping document and is projected to be completed by the end of calendar year 2023.

- *Road Prescription-Scale Effectiveness Monitoring Project*: This project examines high-traffic, near-stream, forest logging roads as sources of sediment, and seeks to better understand and evaluate mitigating best management practices. Monitoring is accomplished through empirical sampling of road surface erosion, sediment production, sediment delivery and hydrologic connectivity at 78 field sites across western Washington. The project also uses physical modeling to quantify the interactions of previous elements with each other as well as with rainfall and motorized traffic. The fourth year of the main experiment concluded in June 2023, with multiple other parameterization experiments completed earlier in the fiscal year, such as the short time

scale interaction experiment, the road microtopography evolution experiment, and the ditch line hydraulics experiment. Data collection, maintenance, and improvements to site functionality are ongoing.

- *Deep-Seated Landslide Mapping and Classification Projects*: These projects will provide a classification of deep-seated landslides inferred to represent a range of landslide attributes, possible trigger mechanisms, and activity levels that may provide empirical inference that will aid future work to quantify potential susceptibility to natural and forest practices triggers. This effort will provide the framework needed to pursue additional related projects as described in the Deep-Seated Landslide Research Strategy. During FY23, the Upslope Processes Scientific Advisory Group (UPSAG) developed a study design based on the TFW Policy Committee-approved scoping document for the Landslide Mapping and Classification Project under the Deep-Seated Landslide Research Strategy. After invoking Dispute Resolution in FY22, the project has made significant progress. A draft of the study design for the Landslide Mapping and Classification project has been completed and is near the end of the CMER review process. The study design will enter ISPR near the beginning of FY 24.

- *Unstable Slope Criteria Project: An Evaluation of Hillslopes Regulated under Washington Forest Practices Rules*: This project will evaluate the degree to which the landforms described in the unstable slopes rules identify potentially unstable areas with a high probability of endangering public resources. This project contains five related studies:
    - Compare/Contrast Landslide Hazard Zonation Mass Wasting Map Units with Rule Identified Landform (RIL),
    - Regional Assessment of Missing RIL by Qualified Experts,
    - Object-Based Landform Mapping with High-Resolution Topography,
    - Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform and Runout, and
    - Models to Identify Landscapes/Landslides Most Susceptible to Management.

  Two projects are active under the Unstable Slope Criteria Project. The Object-Based Landform Mapping with High-Resolution Topography study final report is near completion. The report will be delivered to CMER in early FY24 and upon CMER approval, will enter into the ISPR process. Study Designs for Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform and Runout were completed during this reporting period as well as completed CMER and ISPR review. Final edits as a result of the ISPR feedback are ongoing. In FY24, the prospective six questions document will be developed, and the project will enter implementation.

- *Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow Project*: This project seeks to evaluate the influence of discontinuous surface flow

in Type Np waters on stream temperature and amphibian use. The data collected will inform the effectiveness of forest practices rules for riparian buffer placement on Type Np waters, including insights on buffer placement to maximize resource protection to meet water quality standards and ensure the long-term viability of covered species. The Landscape and Wildlife Advisory Group (LWAG) is currently working on a scoping document for this project and is projected to be completed in late summer 2023.

Forested Wetland Effectiveness Project: This project includes two stages: 1) A chronosequence study designed to evaluate how forested wetland hydrology and ecology change over half a timber rotation cycle, using a space-for-time approach; and 2) A BACI study that will prescribe manipulative forest harvest treatments and measure how forested wetlands' ecological and hydrologic functions change in real time following harvest. During the early months of FY23, the Forested Wetlands Effectiveness Project (FWEP) Project Team implemented the installation of four project sites to test the installation procedures and view preliminary data. After a successful winter of data collection at the four pilot sites and completing site selection and validation for the remaining sites, the project team completed full instrumentation of the remaining 20 field sites in Spring 2023.

- *Westside Type F Riparian Prescription Effectiveness Monitoring Pilot Project (WTF)*: The purpose of this project is to examine post-harvest riparian stand conditions, riparian ecological functions, and the extent to which post-harvest riparian forest stands are on trajectory to reach desired future condition (DFC) targets in RMZs that did and did not have harvest in the Inner Zones. This project is the second of three planned studies evaluating the effectiveness of current forest practices regulations in achieving conservation objectives of the FPHCP for fish-bearing streams in western Washington. The Westside Type F Riparian Management Zone Exploratory Study Draft Report received project team and Riparian Science Advisory Group (RSAG) approval in late FY22, then CMER initiated its review of the report in August 2022. This CMER review period was subsequently extended by several months, because of significant requested revisions and the need for additional communication between author and CMER reviewers. The report was later approved by CMER in the November 2022 meeting and a motion was passed sending the report to ISPR. In January 2023 the ISPR response document package was received and since then, the author has been responding to the ISPR comments and making the requested revisions. The effort is to develop a response document package (comprised of a comment matrix, revised report, and memo) to send back to ISPR. This effort has required the author to undertake significant and extensive revisions to the report and the underlying data analysis, which many sections of the report are based on. A complete response to ISPR is intended to be available winter of 2023.

- *Water Typing Projects*: The current water typing strategy includes two active projects: 1) Evaluation of Potential Habitat Breaks (PHBs) for Use in Delineating the Upstream Extent of Fish Habitat in Forested Landscapes in Washington State and 2) Defining Default Physical Criteria (DPC) for Fish-Bearing Streams in Forested Landscapes in Washington State. As a validation project, the PHB project," will determine which combinations of gradient, channel width, barriers to migration, and other physical habitat and geomorphic conditions would provide the most accurate definitions for potential habitat breaks. The DPC project seeks to assess the accuracy of the current default physical criteria defined in rule for presumption of fish use, and to improve upon the limited research describing the physical characteristics at the upstream extent of fish distribution. In November 2022, the Forest Practices Board approved assigning oversight of the Water Typing Studies to TFW Policy Committee. Both studies are assigned to the Instream Science Advisory Group (SAG) of CMER. The PHB study design completed concurrent CMER/ISAG review in September 2022, was approved by ISPR in May 2023, and received final CMER approval in May 2023. The DPC Project Team has initiated development of the DPC Study Design and anticipates delivering it to CMER to initiate concurrent CMER/ISAG review in fall 2023. Initial site selection is planned to begin in summer 2023. ISAG anticipates that the PHB and DPC studies will use data from the same field sites but use different analyses to answer the questions specific to each project.

- *Eastside Forest Health Strategy:* In May 2021, the TFW Policy Committee formed a workgroup to discuss development of an eastern Washington Forest Health Strategy to investigate active RMZ management approaches that build on current RMZ prescriptions and are designed to balance disturbance resiliency and resource protection objectives outlined in the FP HCP. This workgroup is made up of TFW Policy Committee and CMER members. At the end of the reporting period, the workgroup was discussing completed AMP eastside projects, where research gaps exist, and how to proceed with eastside forest health research. At the May 2021 TFW Policy Committee meeting, members expressed an interest to meet with other interested TFW Policy Committee and CMER members to discuss concerns about forest health and fire in RMZs and attempt to develop a strategy that could be handed down to Science Advisory Group Eastside (SAGE)/CMER for further development. An Eastside Forest Health Strategy workgroup was formed and, after several meetings from June 2021 to February 2022, a guidance document was created that was based on stakeholder concerns and feedback. This document was approved by CMER in April 2022, and it was shared with TFW Policy Committee in May 2022. The Eastside Forest Health Strategy has been added to the approved 2023-2025 Biennium CMER Work Plan. SAGE is currently developing a Charter to begin work developing a full strategy including a list of potential projects.

- *Riparian Characteristics and Shade Response Study*: This study will estimate how stream shade responds to a range of riparian harvest treatments within and among environments

(ecoregions) common to commercial forestlands covered under the Forest Practices HCP. The study uses a before/after empirical research approach based on a two-factor experimental design to estimate stream shade response to different riparian buffer configurations. The two factors to be examined are: 1) stream-adjacent no-harvest zone width and 2) adjacent-stand harvest intensity. The project team conducted a field trial in summer 2022. In February 2023, the Forest Practices Board approved a pilot rule request to authorize the implementation of experimental harvest treatments on approximately ten sites in western Washington. The project team was unsuccessful in identifying suitable sites for implementation in summer 2023 and has shifted focus to identifying sites for implementation in summer 2024.

- *Riparian Function Literature Synthesis:* CMER formally assigned the Riparian Function Literature Synthesis to RSAG in June 2022. This is a stand-alone literature synthesis that will include literature pertinent to, and relevant citations related to, timber harvest impacts on "riparian functions" as defined in the forest practices rules. A document providing a description and focal questions for the literature synthesis was approved by RSAG, CMER, and TFW Policy in November 2022. The literature synthesis was delivered to RSAG in June 2023. It is expected to go through RSAG, CMER, and ISPR review and approval in FY24.

- *Type N Experimental Buffer Treatment in Hard Rock Lithologies (Phase III Continued Monitoring)* – This continued monitoring study will address the effectiveness of FPHCP riparian buffer prescription for FP-designated amphibians in Type N Waters in western Washington, including a comparison of the current rule to buffer alternatives that provide more and less protection within the RMZ, and unharvested reference sites. Phase I of the study evaluated riparian processes up to three years post-harvest (2009-2011) and was delivered to the TFW Policy Committee in 2018. Based on Phase I findings, in particular the estimated increase in stream temperatures during post-harvest across all riparian buffer treatments relative to the reference, TFW Policy supported continued monitoring in a Phase II evaluation. Phase II of the study evaluated riparian processes through nine years post-harvest (through 2017) and a report was delivered to the TFW Policy Committee in 2021. Based on the Phase II study finding a substantial decline in FP-designated stream-associated amphibian densities, for Coastal Tailed Frog (*Ascaphus truei*) in particular, in all riparian buffer treatments, TFW Policy supported continued monitoring for amphibians only in a Phase III evaluation. Phase III began in FY22 and will continue into FY24. Phase III focuses solely on amphibian demographic sampling to inform continued trends in amphibian densities. Data analysis and report writing for Phase III will extend into FY25.

3.2 Timber, Fish, Wildlife (TFW) Policy Committee Activity

General TFW Policy Committee Activity

The TFW Policy Committee has worked on several priorities this fiscal year including the SAO implementation tasks noted above in Tables 1 through 3. The major topics that were actively worked on during this reporting period are summarized below.

Small Forest Landowner (SFL) Alternate Harvest Template Buffer Dispute

In 2015, the Board requested that the TFW Policy Committee determine if the western Washington small forest landowner low-impact alternate harvest template proposal, submitted by Washington Farm Forestry Association (WFFA) on behalf of the Small Forest Landowner (SFL) caucus, met the rule-defined criteria of an alternate plan template. In 2017, the Board requested that the TFW Policy Committee review existing draft alternate plan templates to determine if any could be fully developed and brought to the Board for approval.

In December 2019, TFW Policy Committee, by consensus, found that the small forest landowner low-impact alternate harvest template did not meet the rule criteria of an alternate plan template. As a result, in February 2020, TFW Policy Committee convened two workgroups to further review the specific prescriptions in the SFL template proposal, and to explore potential alternate harvest prescriptions based on existing draft alternate plan templates. The first TFW Policy Committee technical buffer workgroup, was convened to explore what, if in any, site-specific conditions (75-foot, 50-foot, or 25-foot buffer) would be acceptable as a prescription for Type F streams and under what, if any, site-specific conditions a 25-foot buffer would be acceptable as a prescription for Type Np streams. The second workgroup was to determine if two state caucus-proposed experimental alternative harvest prescriptions for conifer thinning and conifer restoration could be developed and brought to the Board for consideration.

Both workgroups completed and presented their reports to TFW Policy Committee finding: the buffer workgroup was unable to achieve a consensus recommendation for any of the proposed Type F buffers, or the Type Np buffer; the experimental alternate harvest prescription workgroup presented alternate harvest prescriptions for conifer thinning and conifer restoration as well as an alternative harvest prescription monitoring and evaluation strategy. TFW Policy Committee accepted the reports for both workgroups and the small forest landowner caucus invoked dispute resolution due to the lack of progress by the buffer workgroup. With the invocation of the dispute, TFW Policy Committee agreed to delay discussions on the experimental alternate harvest recommendations until after the completion of dispute resolution for the 75-foot, 50-foot and 25-foot buffers.

TFW Policy Committee concluded the dispute resolution process without a consensus recommendation in May 2021. The TFW Policy Committee agreed to delay the preparation of the minority/majority reports until after they received the results of the CMER review for

adequacy of the scientific justification supporting the western Washington low-impact alternate harvest template proposal.

In December 2021, TFW Policy Committee received the CMER review package in the form of two separate position papers. Dispute resolution was invoked at TFW Policy Committee on whether to send products back to CMER to receive one review product based on the standard CMER question answers provided to TFW Policy Committee to prepare an adaptive management recommendation for the Board. The dispute was resolved in the informal stage at TFW Policy Committee. The disputing parities prepared majority/minority reports as part of the SFL alternate harvest template prescription buffers package. TFW Policy Committee advanced two separate SFL issues for Board consideration and decision at the Board's November 10, 2022, meeting. These were:

1. A consensus recommendation on criteria for low impact alternate plans for SFLs:
   The SFL caucus had proposed a three-point criteria for relatively low impact alternate plans. The proposal requested the approval of the definition by the Board and sought to update Board guidance about alternate plans. The three-point criteria defined a relatively low impact alternate plan as:
   - An activity with short-term impact which produces a better long-term outcome,
   - An activity beyond the point of diminishing returns for resource protection, and
   - Smaller harvest units with stream reaches that are relatively smaller in width or shorter in length than typical larger landowner harvests.

2. Separate majority and minority recommendations on whether SFL proposed riparian buffer widths for fish and non-fish bearing waters meet the requirements of alternate plan templates.

   In 2015, the Washington Farm Forestry Association (WFFA) submitted an alternate plan template proposal to the Board to be considered through the AMP. Based on a consensus recommendation of TFW Policy, in October 2015, the Board decided that the WFFA proposal does not, in whole, meet the requirements of an alternate plan template as outlined in rules.

   TFW Policy continued deliberating on whether there are elements of the original proposal that may meet the requirements. Specifically, TFW Policy evaluated whether there are site specific conditions that would make a 75-foot and 50-foot buffer, respectively, acceptable as a prescription for fish bearing (Type F) streams and a 25-foot buffer as an acceptable prescription for non-fish bearing streams. The committee couldn't reach consensus and advanced majority and minority recommendations to the Board.

The Board accepted all recommendations of TFW Policy on clarifying alternate plan process for SFLs, including the committee's approach to clarifying criteria for relatively low impact alternate plans. The Board did not approve the SFL proposed riparian buffer widths for Type F and Type N streams to be included as templates in Board Manual Section 21 for SFLs. DNR is convening a stakeholder group to implement Board directives on improving guidance and processes for SFL alternate plans.

Budget Workgroup

The standing TFW Policy Committee budget workgroup refined the FY 2024-25 MPS and AMP budget in response to the legislative allocation. TFW Policy Committee approved sending a MPS to the Board at its August 2023 meeting. This amended MPS reflects the current priorities for the AMP and the best budget estimates for the FY 2024-25 biennium.

Type Np Workgroup

At the November Board meeting, the Board decided to approve the majority report and move that forward for rulemaking. The technical Type Np workgroup completed its final report including potential RMZ buffer prescriptions for TFW Policy Committee consideration for Type Np streams in western Washington and delivered the report to the TFW Policy Committee in June 2021. TFW Policy Committee initiated the board manual process to analyze alternative courses of action with the objective of developing a recommendation to the Board, if appropriate, for changing existing rule requirements pertaining to Type Np waters.

At its November 10, 2021 meeting, the Board voted to direct staff to prepare and file a CR-101 related to buffers on Type Np streams. Staff filed the CR-101 with the Code Reviser's Office on November 30, 2021 and it was published in the Washington State Register on December 15, 2021.

In December 2021, dispute was invoked based on no meaningful progress toward a consensus decision and due to the time it was taking TFW Policy Committee to develop Type Np buffer alternatives. This dispute was completed in September with a Majority and Minority Type Np Buffer Alternative Recommendations for the Board. The Board received Majority and Minority Type Np Buffer Alternative Recommendations and took a field tour at Port Blakely Tree Farm in October 2022.

The Board convened an executive session regarding potential litigation regarding the Type Np buffer rulemaking in April 2023.

Headwater Stream Buffer Pilot Project

This proposed scientific study involves examining the feasibility of using solar path analyses to define where along a forest stream buffers are most helpful for providing shade to streams. The Washington Forest Protection Association submitted a proposal initiation document requesting approval of its study design to the AMPA. The administrator reviewed and made a recommendation (May 2020) to the Board to accept the study design and adopt a pilot rule to

allow application of the study with industrial landowners paying to implement the study. TFW Policy Committee accepted the recommendations and asked CMER to review the study design, gaining CMER approval. CMER discussed multiple revisions to the study design. A final draft of the study design was presented to CMER for approval in August of 2021. The motion to approve the final study design failed to pass. Citing unresolved technical issues, CMER members voted down the approval and a dispute was invoked to resolve issues. An arbitration panel was formed and worked with disputing parties to resolve technical issues. By August 2022, this dispute concluded that the proposal contained too many uncertainties to recommend it be accepted by CMER and that the proposal does not meet the standards. There was a concern noted regarding the choices of sites used, which were selected in the absence of a rigorous study design and selection criteria.

3.3 Clean Water Act Assurances

During this reporting period, Ecology expressed continued support of the assurance, based on the Boards decision to move forward with rulemaking on a Type Np rule based on the Majority Caucus proposal. Work continues at CMER and TFW Policy Committee to address issues identified by Ecology as necessary for continuation of assurances after that date. Please see Appendix 3 for the assurances history.

3.4 Electrofishing Associated with AMP Research

Both the National Marine Fisheries Service and U.S. Fish and Wildlife Service Incidental Take Permits cover electrofishing conducted for research and monitoring by the AMP. One electrofishing survey was conducted between July 1, 2022, and June 30, 2023, as part of ongoing research and monitoring. The survey was conducted for the Eastside Type Np Riparian Effectiveness Project (ENREP).

4. Forest Practices Operations

Appendix: Background on Forest Practices Operations

The Forest Practices Program regulates forestry activity on non-federal, non-tribal forestlands by regulating forest practices, laws and rules. The laws and rules protect public resources by setting standards for logging, road construction, and other forestry activities on approximately 12 million acres of state and private forestlands. The Forest Practice Habitat Conservation Plan covers 9 million of these acres, the remaining 3 million acres are covered by other HCPs. Forest Practices Operations has three overarching functions within the Forest Practices Program: Forest Practices Application/Notification (FPA/N) processing, compliance, and enforcement. This section focuses on topics that have affected workload during this reporting period.

There were approximately 97 full-time equivalent positions statewide in the Forest Practices Operations. Of the 97 positions, 71 were field positions geographically dispersed across the state in the six DNR Regions. The Division Forest Practices Operations section has 20 positions. At the end of the reporting period, there were six vacant positions in the process of being recruited. Because of the unusually high employee turnover rate, the program invested significant time and attention in recruiting and onboarding new staff during this reporting period. Including the six vacant positions, this is an increase of eight full-time equivalent positions in Forest Practices Operations from the 2022 HCP Annual report.

4.1 Forest Practices Application/Notification Workload

Forest Practices Program regional staff processed 3,280 FPA/Ns during this reporting period, compared to 3,722 in the prior reporting period (a decline of 12 percent). Table 4 describes the nature of the FPAs by decision type and DNR region.

Table 4: Fiscal Year FPA Totals by Decision Type (FY 2023)

Region	Approved	Closed/Withdrawn*	Disapproved	Renewed	In Review at the End of FY23	Total by Region **
Northeast	407	38	12	27	14	498
Northwest	309	38	4	20	34	405
Olympic	371	30	5	44	37	487
Pacific Cascade	974	35	3	80	46	1138

South Puget Sound	431	38	8	29	29	535
Southeast	167	14	3	17	11	212
Total by Decision	**2,659**	**193**	**35**	**217**	**171**	**3,275**

***Closed** means the *landowner either has completed all forest practices or has chosen not to conduct forest practices and wants to close the FPA/N. A Forest Practices Forester may also request an FPA/N be closed if they confirm the landowner has completed all forest practices activities.*
*** Does not include 1 rejected Long-term Application (LTA) step 1 which was rejected, 2 LTA step 1 which were validated, and 2 FPA's waiting on Washington Department of Fish and Wildlife (WDFW) concurrence review.*

Including FPA/Ns approved during the reporting period, there were 10,775 active (not yet expired) approved and renewed FPA/Ns statewide at the end of the reporting period. This was a reduction of 834 (7 percent) compared to the end of the last reporting period.

4.2 Priority Project Work

Active Haul Route Deliverable Review

DNR Regions conduct haul route evaluations on forest roads being actively used for timber and/or gravel haul with a focus on ensuring no or minimal sediment delivery into typed waters. There is a specific emphasis on best management practices and whether roads are being functionally maintained to forest practices rule standards. Similarly, regions are tasked to assess all water crossings on Type F water located on active timber or gravel haul routes within active small forest landowner FPAs for fish passage and compliance with other rule requirements. Table 5 provides the number of haul route reviews of best management practices and Type F water crossings.

Table 5. Post FPA Haul Route Approval Compliance

Region	July-Sept Compliance Checks Completed	Oct-Dec Compliance Checks Completed	Jan-March Compliance Checks Completed	Apr-June Compliance Checks Completed	FY 23 Compliance Checks	FY23 Assessments of Type F Crossings
Northeast	2	184	270	76	532	213
Northwest	11	9	14	7	41	12
Olympic	71	67	61	113	312	6
Pacific Cascade	196	128	120	184	628	0
Southeast	27	26	31	35	119	5
South Puget Sound	23	98	99	73	293	15
Totals	**330**	**512**	**595**	**488**	**1,925**	**251**

Forest Practices Engineering Reviews

Forest Practices engineers assisted Forest Practices Foresters with review of 35 harvest and/or road construction FPAs involving hydraulic projects. This involved pre-approval reviews, review of the hydraulic project design paperwork, participation on interdisciplinary teams, and post-installation field compliance reviews.

Forest Practices Science Team Reviews

The Forest Practices Science Team is staffed by a lead licensed engineering geologist, five licensed engineering geologists, three geologists training to become licensed, and one geologist that provides geology sciences support to the team. During the reporting period, the Forest Practices Science Team provided professional analysis and advice to DNR Region regulatory Forest Practices Foresters for 756 pre-approval harvest and/or road construction FPAs with potentially unstable landforms. This effort included 766 office reviews, 356 field reviews, and participation at 48 interdisciplinary team meetings. The Forest Practices Science Team also performed 31 pre-application reviews, including office and field reviews of potentially unstable landforms. As of June 30, 2023, the Forest Practices Science Team is fully staffed.

4.3 Forest Practices Program Guidance

DNR Forest Practices issued one guidance document during this reporting period (Table 6).

Table 6: Summary of Written Guidance Issued to DNR Forest Practices Staff July 1, 2022 – June 30, 2023

Date	Reason for guidance	Accomplishment
12/05/2022	Fact sheet had not been updated since bald eagles were delisted by Washington State	Fact Sheet: *Current Bald Eagle Protection on Forest Land in Washington State* This fact sheet is provided to assist landowners with appropriately planning forest practice activities around the presence of bald eagles on their property.
03/02/2023	Annual Waterflow Memorandum	Guidance Memorandum: *2023 Fish Survey Season-Water Lebel and Streamflow Forecast.* DNR provides this forecast for statewide water abundance to stakeholders statewide to inform them of conditions expected in the 2023 fish survey season, and to focus appropriate attention on potential drought conditions when scheduling and conducting fish surveys.
07/27/2022	Application of 20-acre exempt rules within Bull Trout Population of Concern	Guidance Memorandum: Direction for review of "20-acre exempt" FPAs in Bull Trout Population of Concern areas under the Forest Practices Habitat Conservation Plan

4.4 Washington Department of Fish and Wildlife contribution to Forest Practices Operations

Forest Practices Hydraulic Projects

WDFW's goal is to review all FPAs containing Forest Practices Hydraulic Projects to help ensure accurate implementation of fish protection standards and that project approvals are timely and successful for landowners. It is important to note that an individual FPA may have multiple FPHP projects, which may be a combination of projects requiring WDFW concurrence, and other "standard" projects pertaining to Shorelines of the State (Type S) and F waters that require WDFW review and comment.

From July 1, 2022, through June 30, 2023, WDFW biologists reviewed 730 FPHPs, including 217 concurrence-required project reviews and 429 standard FPHPs. WDFW encourages landowners to engage in pre-application consultation and on-site technical assistance to identify the optimal project-operating season. During this period, WDFW consulted on 84 pre-application site visits. This accounted for roughly 1480 hours of staff time spent on FPHPs.

Water Typing/Resource Identification and Wildlife Reviews

WDFW biologists reviewed and participated in more than 2017 water-typing-related opportunities during the reporting period. Those activities included review of water type modification forms or participation in field reviews as appropriate to validate the water types, participation on interdisciplinary teams for various forest practices water-typing-related issues and reviewing FPAs for correct water typing. This accounted for approximately 2,093 work hours. Biologists also reviewed and commented to the DNR regional offices and conducted field reviews on more than 862 FPAs that had potential wildlife conflicts. Wildlife-related work accounted for approximately 1482 work hours.

5. Small Forest Landowner Office (SFLO)

Appendix: Background on Small Forest Landowner Office

5.1 Forestry Riparian Easement Program (FREP)

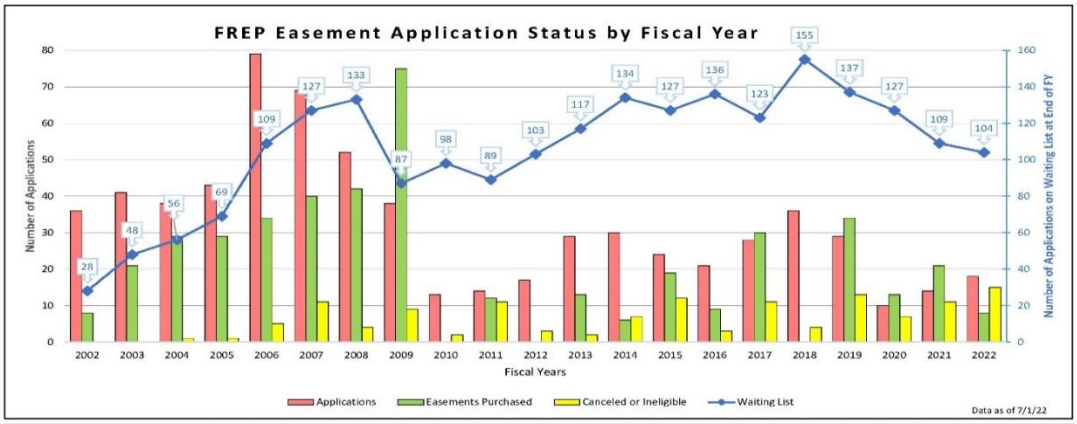
During this reporting period, 47 easements were purchased, a rate of purchase that is 87 percent more than last year's reporting period. The backlog of eligible-but-unfunded applications was reduced from 108 at the beginning of this reporting period to 88 applications at the end of this reporting period (Table 7). New applications increased from 21 applications in FY2022 to 39 new applications in FY 2023. The number of new applications was above the average number of 30 applications per year, dating back to 2001. SFLO outreach and increased funding are likely factors for increased applications. The program expects the rate of applications to continue to increase.

The original FREP budget for the 2021-23 biennium was $6.6 million. However, the Legislature in the 2022 session provided an additional $5 million of one-time funding that became available on July 1, 2022, increasing to $11.6 million the funding available for the 2021-23 biennium. This is the highest level yet appropriated for this program and is evidence of the legislature's recognition that prior appropriations were insufficient to keep up with demand for this program from small forest landowners. Note that the 2023-25 budget has been increased to $20.1 million.

Table 7: Forestry Riparian Easement Program Activity by Fiscal Year

State of Washington
Dept. of Natural Resources

Forest Practices Division
Small Forest Landowner Office



Fiscal Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Applications	36	41	38	43	79	69	52	38	13	14	17	29	30	24	21	28	36	29	10	14	18	679
Easements Purchased	8	21	29	29	34	40	42	75	0	12	0	13	6	19	9	30	0	34	13	21	8	443
Canceled or Ineligible	0	0	1	1	5	11	4	9	2	11	3	2	7	12	3	11	4	13	7	11	15	132
Waiting List	28	48	56	69	109	127	133	87	98	89	103	117	134	127	136	123	155	137	127	109	104	
Funding by Biennium (in millions)	$1.2		$3.3		$8.0		$9.9		$0.9		$1.0		$2.0		$3.5		$3.5		$3.5		$11.0	$47.8

Summary_FREP_20220708.xlsx

7/8/2022

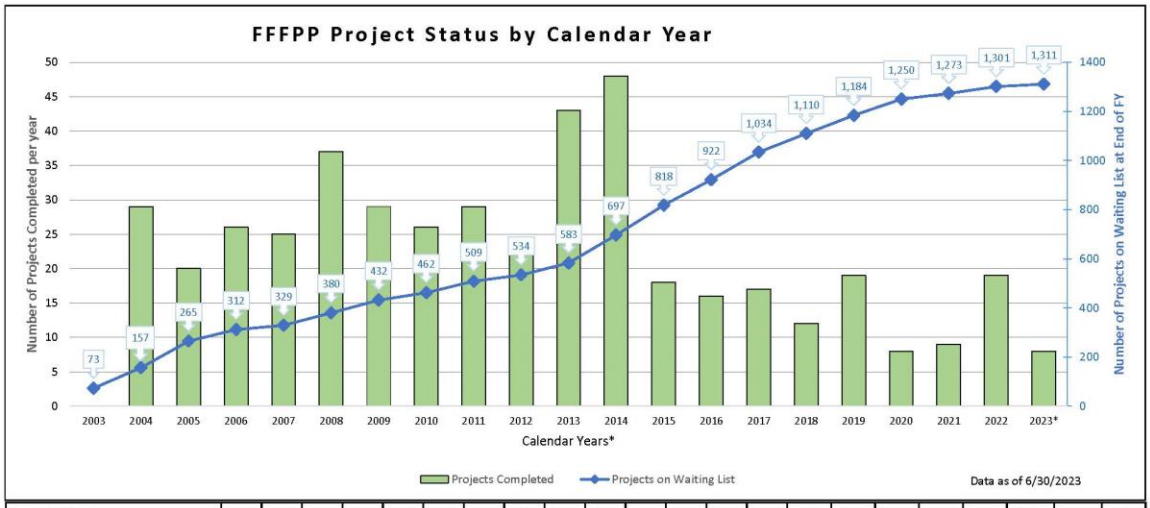
5.2 Family Forest Fish Passage Program (FFFPP)

The 2023 Legislative Session provided $7.78 million funding for the Family Forest Fish Passage Program along with $2.9 million re-appropriated from the last Legislative Session.

During FY 2023, FFFPP completed 19 fish passage barrier removal projects that opened up approximately 114 miles of fish habitat. The program anticipates completing eight projects in the next fiscal year FY 2024. The waitlist of FFFPPs increased from 1,301 reported in the 2022 Annual Report to 1,311 by June 30, 2023 (Table 8). An increased effort to review the waitlist has resulted in decreasing the waitlist by removing projects that are not eligible to FFFPP or have been previously replaced by other grant programs or the landowner. The number of new applications has remained constant of approximately 80-100 applications per year.

Table 8: Family Forest Fish Passage Program Accomplishments since 2003

State of Washington - DNR



Calendar Year*	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	Total
Projects Completed	0	29	20	26	25	37	29	26	29	22	43	48	18	16	17	12	19	8	9	19	8	460
Projects on Waiting List	73	157	265	312	329	380	432	462	509	534	583	697	818	922	1,034	1,110	1,184	1,250	1,273	1,301	1,311	1,291
Funding by Biennium (in millions)		$2.0		$4.1		$6.0		$5.0		$2.0		$2.0		$5.0		$5.0		$5.0		$5.9		$42.0
Re-appropriation (in millions)			$1.2		$2.7		$2.5		$3.2		$0.8		$1.0		$2.7		$3.3		$3.9		$2.9	
Additional Jobs Bill FY 2012-2013										$10.0												
Stream Miles Opened	0	50	65	79	84	81	39	53	43	51	145	102	43	30	32	37	68	98	50	114	68	1332

*Project Completed numbers are funded and anticipated to be completed during the summer's approved work windows for fish protection.

Forest Practices Division
Small Forest Landowner Office

5.3 Long-Term Forest Practices Applications

As of June 30, 2023, DNR's Forest Practices Application Review System (FPARS) database reported 312 approved Long-Term Forest Practices Applications for small forest landowners. This is an increase of four since the last reporting period.

5.4 Regulation Assistance for Small Forest Landowners

The Regulation Assistance Program provides guidance and expert technical assistance to small forest landowners in preparation for forest practices activities on their forestland. They help small forest landowners understand and apply the complexity of Forest Practices Rules. This assistance includes applying the typical forest management rules and Board manual guidance, assistance with FPAs, alternate plans, 20-acre exempt harvest activities, long-term applications, road construction/maintenance options, timber harvest techniques, and other forest practices rule-related issues. Additionally, regulation assistance foresters conduct forest road surveys (on volunteer landowners lands) to assess the condition of small forest landowner roads and discusses landowners' road construction and maintenance obligations under forest practices rules and CWA requirements.

SFLO has expanded with the creation of a new Small Forest Landowner Regulation Assistance Program. A new regulation assistance program manager position was created along with six new positions that are located across the state. These positions continue to educate and provide expert technical assistance to assist small forest landowners.

SFLO staff includes a statewide fish and wildlife biologist to assist with stream and wetland typing on small forest landowners' properties. The biologist is prepared to assist with permitting, expertise, and equipment to conduct electrofishing, as necessary, to determine water typing associated with landowner requests and FPAs. During this reporting period, the fish and wildlife biologist received and responded to 50 requests for water typing assistance from small forest landowners; the responses included 33 site visits, 76 phone calls, and 443 emails.

The five regulation assistance foresters have received and responded to 378 requests for assistance from small forest landowners during the reporting period; there were 121 site visits associated with the responses. The average time from receiving the response to conducting a reply was six work hours. Sometimes, there were multiple communications with requests; total landowner responses included calls, emails, and site visits totaling 1,431 landowner interactions. SFLO regulation assistance foresters addressed each one of these requests for assistance and always conducted site visits when needed. Requests were primarily for direction on standard forest practices questions, completing an FPA, identifying resources in the field, water/wetland typing and buffer requirements, rule interpretation, long-term applications, alternate plans, the 20-acre exempt rule, road maintenance, and other forest practices related questions. Additionally, the regulation assistance foresters provide referrals to other professional sources for information and expert guidance.

Small forest landowners continue to receive highly professional and thorough forest practices regulation guidance. As a credit to all regulation assistance field personnel, our staff consistently receives positive feedback regarding SFLO services. Regulation assistance fulfils the intent of

RCW 76.13.005(4): "Providing for long-term stewardship of nonindustrial forests and woodlands in growth areas and rural areas is an important factor in maintaining Washington's special character and quality of life."

Public Outreach

To further public education, an SFLO outreach specialist position was created. This position is dedicated to outreach and providing educational information to current and prospective small forest landowners regarding SFLO programs. All SFLO staff are coordinating with the Outreach Specialist to educate small forest landowners about all available pathways for assistance. During this reporting period, regulation assistance engaged in numerous outreach events including some major events, like Eastside and Westside Family Forest Owner Field Days and Forestry Roundtable.

Small Forest Landowner Roads Assessments

The DNR, in consultation with the WDFW and Ecology, is required by RCW 76.09.420(4) and WAC 222-24- 050 to monitor the extent, effectiveness, and progress of the Checklist RMAP implementation and to report to the Legislature and the Board. Additionally, as the agency responsible for carrying out provisions of the federal Clean Water Act (CWA) in Washington State, Ecology monitors water quality to determine whether activities meet the state's water quality standards. Ecology established milestones for retaining CWA Assurances for the forest practices rules and associated programs. One of the CWA milestones the Forest Practices Program is required to meet, in consultation between DNR, Ecology and the Small Forest Landowner Office Advisory Committee, is to develop a plan for evaluating the risk posed by small forest landowner roads for the delivery of sediment to waters of the state.

During this reporting period, the SFLO received 29 requests from small forest landowners to have their roads assessed. Since inception, 212 landowners have volunteered to have their roads assessed; 39 of these have been dropped due to an array of factors including non-forest roads, individual landowners deciding they were not interested, survey respondents could not be reached by various communication efforts, property sale/transfer, or safety concerns for regulation staff. Of the eligible road assessments, 173 are completed (86 percent) covering 7,858 miles over almost every county in the state that contains forestland. Table 9 below shows the acreage distribution of the completed road assessments. These assessments are intended to help determine if there are concerns with forest roads owned by small forest landowners complying with applicable forest practices rules.

Table 9: SFLO Acreage Cumulative Distribution of Road Assessments

Acreage Ranges	Number of Assessments
0 – 6 ac	11
7 - 20 ac	42
21-39	29
40-100	40

>100	51
TOTAL	**173**

With input from Ecology, it was determined that a sample size of 200 road assessments would be adequate to conduct a sufficient analysis to determine whether small forest landowners are complying with the applicable forest practices road rules. Most road segments assessed were frequently used by the landowner and were maintained using best management practices.

Since inception of the road assessment survey in 2019, no forest practices rule violations have been identified. There were several segments that contained fish crossing structures and the landowners were active in the FFFPP, or the regulation assistance forester informed the landowner about the program. Of the 1,033 road segments [1]assessed since inception, 16 segments were found to have low delivery potential, one each for medium and high sediment delivery potential, 35 segments showed de minimis delivery potential, and the remaining 980 road segments showed no delivery potential. Of the 16 road segments with low delivery potential, the landowners were taking active steps to mitigate the potential delivery. The medium and high delivery potential segments were orphaned roads with existing culverts that only posed delivery potential if the road segment was re-opened and vehicle traffic was to occur over the stream crossings. The region Forest Practices Forester was notified and concurred with the assessment; it was determined that if the road was re-opened, the culverts would need to be replaced.

In summary, field observations and verifiable data are self-evident. The road assessments conducted by regulation assistance staff indicates that small forest landowners are, by vast majority, complying with the Forest Practices Rules.

5.5 Small Forest Landowner Office Outreach

The Small Forest Landowner Office (SFLO) conducts outreach and training efforts designed to educate and inform small forest landowners regarding the management of their land and the various financial assistance programs available to them. With the new full-time community outreach and environmental education specialist hired last year, outreach and promotion of educational activities increased greatly. The community outreach and environmental education specialist attended more than 30 virtual and in-person outreach and educational events across the state to promote DNR's technical and financial programs available to small forest landowners.

Planning has started for new outreach opportunities for summer 2023, including promotion of our landowner service programs at various county and state fairs.

In addition to promoting programs externally, the SFLO and the community outreach and environmental education specialist participated in the development and roll out this year of

[1] The total reported segment numbers from the last biennium were found to be reported in error and have been updated to reflect the accurate assessed road segments.

DNR's Integrated Small Forest Landowner Service Program. The DNR Integrated Small Forest Landowner Service Program is a collaboration between DNR's Forest Regulation, Forest Resilience, Wildfire divisions and regions to deliver a cohesive landowner services program, by integrating existing landowner assistance programs to reach small forest landowners statewide more efficiently and effectively. The community outreach and environmental education specialist worked collaboratively across divisions to design and coordinate the DNR Integrated Small Forest Landowner Service Program Staff Training for over 90 DNR staff directly involved with providing forest management assistance services to Washington small forest landowners.

Continued education training for DNR Integrated Small Forest Landowner Service Program staff included an expert panel webinar on service forestry and a webinar on the Washington Small Forest Landowner Carbon Workgroup. The SFLO and the community outreach and environmental education specialist assisted with development of the DNR Integrated Small Forest Landowner Service Program's new online tools, including the Landowner Assistance Portal and Find Your Forester websites, to help small forest landowners explore topics related to forest management, financial and technical assistance, education, and DNR staff resources.

The community outreach and environmental education specialist is responsible for managing the small forest landowner service requests that come through the Landowner Assistance Portal and SFLO "contact us" emails, phone calls, and intake forms to answers questions, share educational content, and connect landowners with their local DNR staff and program resources.

With the roll out of the new DNR Integrated Small Forest Landowner Service Program, the community outreach and environmental education specialist also coordinated updating and creation of printed outreach materials. Educational outreach also happens through bi-monthly distribution of two educational e-newsletters, the Small Forest Landowner News and Forest Stewardship Notes, with a growing list of more than 6 thousand subscribers. Landowners can subscribe or catch up on previous editions at www.dnr.wa.gov/sflo or request by email to sflo@dnr.wa.gov.

6. 20-Acre Exempt Riparian Forestland

Appendix: Background on 20-acre Exempt FPA Incidental Take conditions

6.1 20-Acre Exempt Forest Practices Application Data

Of the 3280 FPAs processed throughout the reporting period, 2,659 were approved, and of those, 74 were approved non-conversion[2] FPAs that used the 20-acre exempt RMZ forest practices rules adjacent to fish-bearing streams. This number was 34 percent lower than the value from the prior reporting period (112).

Please see annual and cumulative 20-acre exempt FPA maps at:
Appendix 2b and 2c: Maps of 20-acre exempt FPAs

Table 10: 20-Acre Exempt Forest Practices Applications (July 2022 – June 2023)

20-Acre Exempt Forest Practices Applications with Specific Characteristics	Number
Number of 20-Acre Exempt applications	74
Number of 20-Acre Exempt non-conversion applications with fish-bearing water	60
Number of 20-Acre Exempt applications with non-fish-bearing water	14
Number of 20-acre Exempt applications that were conversions with fish-bearing water	0
Number of 20-Acre Exempt applications that were not conversions	74
Number of 20-Acre Exempt applications that used 20-acre exempt forest practices rules in Bull Trout Populations of Concern Areas	0

The 20-acre exempt non-conversion applications along fish-bearing waters comprised approximately 2.3 percent of all approved applications submitted during FY 2023.

6.2 Type Np Water Leave Tree Requirement

There were 15 Forest Practices Applications associated with 20-acre exempt parcels that had Type Np waters (Table 6). Fifteen applications were conditioned according to the Np guidance memo (see Appendix 3 for explanation) or did not propose harvest within 29 feet of an Np water. Three approved FPAs did not include the leave tree requirements language provided in WAC 222-30-023(3). Training is planned to address this oversight.

6.3 Potential Large Woody Debris (LWD) Reduction in Function

Appendix 2a: Potential Reduction in Function by WAU

[2] The 20-acre exempt conversion FPAs are not included in the calculation because the Incidental Take Permits do not cover 20-acre exempt FPA/Ns that are conversions.

There are 846 WAUs in Washington state, of which 263 (31 percent) have had 20-acre exempt FPAs approved (Table 7). The estimated percent of loss of potential large woody debris recruitment in each watershed administrative unit (WAU) containing one or more 20-acre exempt FPA over the elapsed 16-year period of the Incidental Take Permits can be found in Appendix 2a.

Table 11: Potential Large Woody Debris Reduction in Function Data (July 2022 – June 2023)

WAU Reduction in Function Information	Number
Percent of WAUs with potential large woody debris recruitment reduction	31%
Number of WAUs with less than 1 percent potential reduction in function	253
Number of WAUs with 1 percent or greater reduction in function	10
Maximum percent potential loss of function in any individual WAU	2.375%

Currently, the State believes that all but ten WAUs affected by 20-acre exempt applications have less than 1 percent potential cumulative reduction in function relative to standard forest practices prescriptions. The nine noteworthy WAUs are: Diobsud Creek (2.10 percent), Many Creeks (1.554 percent), Muck Creek (2.375 percent), Smith Point (2.099 percent), Upper Little Pend Oreille River (1.192 percent), Copper Creek (1.408 percent), Wanacut (2.049 percent), Trout Creek (2.049 percent), Cedar Creek/Chelatchie Creek (1.097 percent) and Friday Creek (1.115 percent); all are assessed to have less than 3 percent potential cumulative reduction in function. None of the ten WAUs with potential reduction in function more than one percent is near the 10 percent threshold (explained in Appendix 3) established in the Incidental Take Permits.

6.4 Watershed Administrative Unit and Water Resource Inventory Area Thresholds

No WAUs approached the 10 percent threshold for reduction in function. Therefore, no areas were at risk of reaching the 15 percent Water Resource Inventory Area total stream length threshold.

6.5 Bull Trout Populations of Concern Areas

No FPAs were located within Bull Trout Populations of Concern Areas during this reporting period.

7. Alternate Plans, Rivers and Habitat Open Space Program

Appendix: Background on Alternate Plan FPAs and Rivers and Habitat Open Space Program

7.1 Alternate Plans

In FY23, landowners submitted 130 FPAs with alternate plans (Table 12). Small forest landowner FPAs accounted for 68 percent of the total alternate plan submissions. Of these FPAs, 109 were approved; excluding those that were in review, this amounted to 85 percent of the applications. FPAs with alternate plans accounted for 4 percent(109 of 2,659) of all FPA/Ns approved during this timeframe.

Table 12: Forest Practices Applications with Alternate Plans (July 1, 2022, to June 30, 2023)

Landowner Type	Status of Forest Practices Applications with Alternate Plans				Total
	Approved	Disapproved	In Review	Withdrawn*	
Small	**82	0	5	8	**95**
Large	37	0	3	5	**45**
Total	**109**	**0**	**8**	**13**	**130**

***Withdrawn** means that the applicant asked that the FPA be withdrawn and closed.

**This data value includes two long-term applications.

7.2 Rivers and Habitat Open Space Program

DNR received six applications for the FY 21-23 biennial Rivers and Habitat Open Space Program funding cycle, which had $1.4 million allocated to process and purchase conservation easements (Table 8). Two conservation easements totaling 68 acres for northern spotted owl critical habitat were selected from this competitive process and were acquired in state fiscal year 2023.

Table 13: Rivers and Habitat Open Space Program Budget and Acres Purchased by Biennium and Type of Easement (Reported in nominal dollars)

Fiscal Year	Budget Allocated	Amount Spent	Number of Transactions	Acres Purchased/Channel Migration Zones	Acres Purchased/Critical Habitat*
01-03	$1,000,000	$1,000,000	3	387	0
03-05	$1,000,000	$500,000	5	197	0

05-07	$2,000,000	$0	0	0	0
07-09	$2,200,000	$2,200,000	4	339	0
09-11	$500,000	$460,000	4	119	0
11-13	$0	$0	0	0	0
13-15*	$500,000	$500,000	1	0	25
15-17	$1,000,000	$840,000	2	40	39
17-19	$1,000,000	$1,000,000	2	23.5	50
19-21	$1,000,000	$1,000,000	2	41	30
21-23	$1,400,000	$1,400,000	2	0	68
23-25	$5,014,000				
Total	**$11,600,000**	**$8,900,000**	**25**	**1,146.5**	**212**

*13-15 was the first biennium in which funding was allocated for Critical Habitat-State

8. Enforcement

Appendix: Background on Enforcement

During the reporting period, the DNR Forest Practices Program had approximately 71 field staff statewide who completed compliance visits and enforced the Forest Practices Act and Rules.

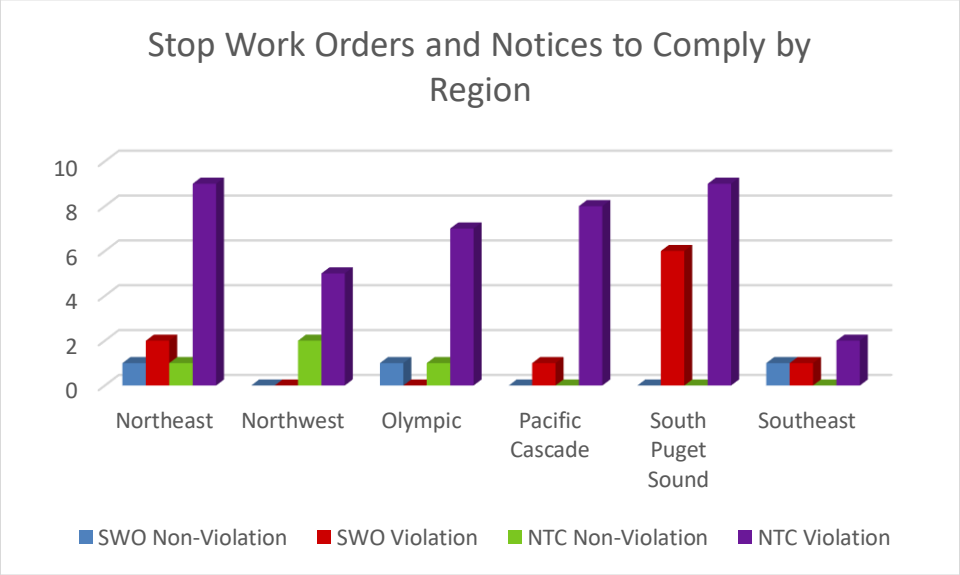
8.1 Stop Work Orders and Notices to Comply

Table 14 shows enforcement activity, including *Stop Work Orders* and *Notices to Comply* during the reporting period. There were a combined 50 violation *Stop Work Orders* and *Notices to Comply* during this period, which equals the average of 50 combined violations over the past three years.

Table 14: Fiscal Year Stop Work Orders and Notices to Comply by Region (FY2023)

DNR Region	Stop Work Orders		Notices to Comply		Total
	Non-Violation	Violation	Non-Violation	Violation	
Northeast	1	2	1	9	13
Northwest	0	0	2	5	7
Olympic	1	0	1	7	9
Pacific Cascade	0	1	0	8	9
South Puget Sound	0	6	0	9	15
Southeast	1	1	0	2	4
Total	**3**	**10**	**4**	**40**	**57**

Figure 1: Stop Work Orders and Notices to Comply by Region



8.2 Civil Penalties and Notices of Intent to Disapprove

Most violations do not require additional enforcement action, such as the issuance of a

- Civil Penalty or Notice of Intent to Disapprove (NOID). Many lower-level initial enforcement actions have proven to bring landowner into compliance with the Forest Practices Rules without need to take more aggressive levels of enforcement action. When determining the appropriate level of enforcement, several factors are taken into consideration. These include:
- Is there failure to comply with the terms or conditions of a Forest Practices Application /Notification or *Stop Work Order*?
- Is there the existence or probability of more than minor harm to the environment as the result of non-compliance?
- Is there a threat to public safety?
- What is the extent of potential damage to public resources?
- Is there a history of past violation of the same Forest Practices Act or Rule by the same landowner or operator?

Notices of Intent to Disapprove (NOID) and civil penalties (having penalty fees or mitigation requirements) are used when multiple violations pose substantive threats to public safety or public resources, and when multiple violations have occurred over time. Table 15 shows the number of civil penalties and NOIDs that became *Final Orders* (that is, all appeal processes are concluded) during the reporting period. No civil penalties and no NOIDs were issued during the reporting period (compared to an average of one civil penalty and one NOID per year over the past three years). One civil penalty was paid in full, resulting in a removal of a NOID.

Table 15: Fiscal Year Civil Penalties and Notices of Intent to Disapprove (FY2023)

Region	Civil Penalties	Notice of Intent to Disapprove
Southeast	0	0
Northwest	0	0
South Puget Sound	0	0
Northeast	0	0
Pacific Cascade	0	0
Olympic	0	0
Total	**0**	**0**

8.3 Stop Work Order and Notice to Comply Ratios

Table 16 provides summary data for *Stop Work Orders* (SWOs) and *Notices to Comply* (NTCs). In this reporting period, the Forest Practices Program issued 57 *Stop Work Orders* and *Notices to Comply* in contrast to the three-year average of 80 per year over the past three years. It is the staff's professional judgment that a combination of voluntary pre-application reviews, focused

compliance efforts, and training aided in the reduction in the need for formal enforcement actions.

Table 16: Enforcement Data Summary (FY2023)

Number of active Forest Practices Application/Notifications (FPA/Ns) through June 30, 2023 (See Chapter 4 for information about FPAs received or renewed during Fiscal Year 2022.)	10,775 *
Number of Notice to Comply / Stop Work Orders issued for violations	50
Ratio of Notice to Comply / Stop Work Orders **violations** to the total number of active FPA/Ns (50/10,775) × 100	0.46%
Number of Notice to Comply / Stop Work Orders issued for non-violations	7
Ratio of Notice to Comply / Stop Work Orders **non-violations** to total number of active FPA/Ns (7/10,775) × 100	0.07 %
Total number of documents issued (violation & non-violation)	57
Ratio of all documents issued to total active FPA/Ns (57/10,775) × 100	0.529%

*Approved and/or renewed FPA/Ns

9. Compliance Monitoring Program

Appendix: Background on Compliance Monitoring Program

9.1 Compliance Monitoring Program Reports and Findings

The Compliance Monitoring Program (CMP) operates on a two-year sampling window and provides a report in the latter part of each biennia.[3] The 2022-23 Forest Practices Compliance Monitoring Biennium Report is scheduled to be published in Fall 2023. This section highlights some of the important findings anticipated to be included in that report.

Riparian Prescription Compliance Monitoring Standard Sample Findings

The 2022-23 Forest Practices Rule prescription compliance rates range from 93.8-99.5 percent, up from 88 to 97.8 percent in BN 2020-21. The Compliance Monitoring Program evaluated all applicable Forest Practices Rules for each prescription during each field site visit alongside landowners and a team of experts from DNR, Department of Ecology, and tribal nations. The number of Forest Practices Rules assessed varied in terms of the prescription and applicability of the Forest Practices Rules to that prescription.

Table 17: 2022-23 Riparian Prescription Compliance Monitoring Findings

Riparian Prescription type	Percent (%) Compliance	Samples Assessed	Rules Evaluated
Statewide Type F or S No Inner Zone Harvest	96.8%	19	77
Statewide Type Np Activities	98.4%	33	110
Statewide Type Ns Activities	94.3%	33	27
Statewide Type A&B Wetlands	97.4%	37	100
Statewide Forested Wetlands	98.3%	27	28
Western WA Desired Future Condition 1	96.7%	11	126
Western WA Desired Future Condition 2	93.8%	9	93

Statewide Water Typing Findings

During the 2022-23 field season, the compliance monitoring field team evaluated 169 riparian-related prescriptions involving typed water or wetlands. Across these prescriptions, compliance ratings varied from 98.3-98.4 percent.

Indeterminate Calls for 2022-2023 Compliance Monitoring Program Biennium

In some cases, enough uncertainty existed during field reviews to warrant the use of an "indeterminate" rating.

[3] Compliance monitoring reports can be accessed through the DNR forest practices program website here.

A single indeterminate rating was applied for a Type A and B Wetland prescription, due to an inability to clearly determine whether the wetland was inundated and associated with a fish stream due to lack of field crew access. A single indeterminate rating was also applied for a Forested Wetland prescription, due to rutting appearing in the wetland during the field review; the FPA indicated only tracked equipment was used in the harvest operations.

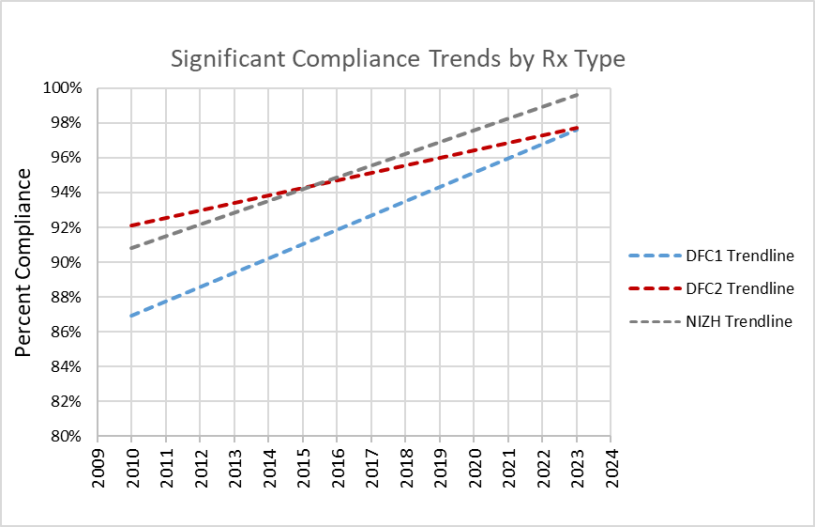
Please see Appendix 4 for additional definition description.

Roads and Haul Routes Findings
During the 2022-23 field season, 186 of the sampled 187 road segments were compliant for the roads prescription sample, resulting in a 99.5 percent compliance rate. For roads prescriptions, compliance with a single Forest Practices Rule on a single FPA is the percentage of applications of that road rule that were compliant. Thus, for road rules only, compliance with a single rule and total number of rules can be a number between zero and one.

The Compliance Monitoring Program assessed 54.3 miles of haul routes during the 2022-23 biennium. For 53.7 miles of the 54.3 miles of haul routes evaluated, no delivery or *de minimis* sediment delivery was observed, resulting in a compliance rate of 99 percent.

Trend Analysis Findings
Statistically significant trends of yearly increasing prescription compliance rates were observed for DFC1 (0.8 percent), DFC2 (0.4 percent), and NIZH (0.7 percent) (Figure 5). No statistically significant trends were observed for Ns, Np, Type A&B wetlands, Forested wetlands, and Roads. No downward trending rates were observed.

Figure 2: Compliance Trend Lines for DFC1, DFC2, and NIZH* Prescription Types



*No Inner Zone Harvest

9.2 Future Plans for the Compliance Monitoring Program

Forest practices hydraulic project (FPHP) was scheduled to be sampled for rule compliance during the 2020 fall field season. However, this was not completed due to the inability to enter the field with a field review team during the COVID-19 pandemic. FPHP was not performed in fall of 2022 due to the need to complete an Aerial Herbicide Spray Pilot Study during this period (as mandated by the legislature). It is expected that FPHP reviews will restart in fall of 2024.

In the 2020-2021 and 2022-2023 biennial periods, the Compliance Monitoring Program began work to develop and incorporate methodology for an ongoing study to help determine the Aerial Herbicide Spray compliance rate. The findings of this pilot study were completed in Summer 2023. The report was published on Forest Regulation Division website.

9.3 Compliance Monitoring Funding

DNR's Forest Practices Program actively seeks funding from the Legislature and support from the program's partner agencies and tribes to effectively implement the Compliance Monitoring Program. Since 2006, DNR has provided funding through interagency agreements to support at least one full-time staff member each from the Department of Ecology and the Department of Fish and Wildlife.

10. Training/Information/Education

Appendix: Background on Training

The Statewide Training Program Manager position was filled in early July 2022, resulting in a significant effect on the scope and scale of formal training provided during this reporting period. Upon taking up the new position, the new Training Manager completed a comprehensive review of the status of training delivery to program staff, as well as to external stakeholders and landowners to identify effective ways to enhance the Program and resume providing core trainings on a regular schedule. The comprehensive review resulted in establishing a Forest Practices Training Committee, expansion of the courses offered from the previous year, and a return to in-person instruction for *Unstable Slopes* and *Enforcement and Compliance Training* as well as an ongoing effort to re-establish a suite of core classes provided on a predictable schedule.

10.1 Single-/Multiple-Day Forest Practices Program Trainings

The Forest Practices Program normally provides a range of single-day and multiple-day trainings that address complex subjects. Region staff learned during specific forest practices training sessions how to share the information they learned in the class with landowners and,where appropriate, other stakeholders at region or supplementary Region TFW meetings to promote statewide, consistent implementation.

During this reporting cycle, the Forest Practices Training Program re-established cyclical training using distance learning, classroom, and video-based delivery methods.

Unstable Slopes Training
Total Participants: 10
Classroom and field training were offered.

Enforcement and Compliance Training
Total Participants: 24
Classroom training was offered.

10.2 Single-Day/Multiple-Day Workshop Classes

Workshop classes generally fall into the category of public outreach. These are partnership opportunities to educate the public about forest practices. Some workshops are internal to DNR forest practices staff, but most are typically directed toward public education.

Washington Contract Loggers Association (WCLA) Training
Total Participants: 105
The Forest Practices Training Program cooperates with the Western Contract Loggers Association (WCLA) to provide two annual one-day trainings. The training broadly covers many

aspects of forest regulation. Included in this day course is instruction on: Forest regulation history, guidance on Forest Practices Application forms, unstable slopes, best management practices, wetland identification, and regulation of riparian management zones.

Eugene Loggers Conference
Total Participants: 50
Division staff presented on the *Washington Forest Practices Habitat Conservation Plan*, Washington State Forest Practices Compliance Monitoring Program, and the Washington Small Forest Landowner Office Resources available to small forest landowners.

10.3 DNR Internal Forest Practices Program Training

Forest Practices Program-focused training generally consists of short-duration training offered specifically for Forest Regulation Division and Region Forest Practices staff. Region staff provide other training for a broader audience across the state through district meetings, TFW meetings, and other interactions with forest industry staff, small forest landowners, and forestry consultants.

Training provided to Forest Practices staff by Region and Division staff

Shade Tool Training
Total Participants: 78
Training has been offered in classroom and virtual settings.
The Shade Tool training provides instruction for using and interpreting the newly developed Minimum Canopy Cover layer in FPRAM/FPAMT to determine the minimum percentage of Canopy Cover Required as outlined in FP Board Manual 1.

Forester Field Tool Training
Total Participants: 77
The training was offered in classroom and virtual settings.
The Forester Field Tool Training provided instruction to DNR Forest Practices staff on how to use the recently developed Forester Field Tool data collection and reporting application.

State Environmental Policy Act (SEPA) Training
Total Participants: 34
The training was offered virtually.
The SEPA training is designed to provide Forest Practices staff tools to evaluate forest practices proposals and SEPA environmental checklists, track and manage deadlines, respond to comments received, and make recommendations on the threshold determination of proposals to the Responsible Official.

Recommendations for Resource Protection in Road Construction
Total Participants: 8

The training covers engineering considerations for the protection of public resources (water quality and fish habitat) and public safety when road construction is proposed on potentially unstable slopes or landforms (rule identified landforms) and steep slopes (greater than 60 percent).

Training Conducted by Region Staff

- Region staff have many opportunities to provide informal training to landowners and regulation partners throughout the year. These informal sessions generally occur at TFW meetings and during interdisciplinary teams. Trainings were provided by region staff to address the following points of emphasis:
    - FPA Common Errors
    - Ford Crossings
    - FPA/N Office Review Process
    - DNR WAC Guidance
    - Interdisciplinary Teams Training
    - Water Typing

11. Road Maintenance and Support

Appendix: Background on Road Maintenance and Abandonment Plans

11.1 Road Maintenance and Support

Forest roads are necessary to accomplish and support the many forest practices operations occurring on state and private forestlands. Following the expiration of the Road Maintenance and Abandonment Plan (RMAP) extension Forest Practices Rules on October 31, 2021, the Forest Practices Program is continuing its road construction and maintenance evaluation, enforcement, and compliance efforts in alignment with standard Forest Practices Rule requirements. The standard Forest Practices Rule requirements address sediment delivery to Typed Waters from roads, correction of fish passage barriers resulting from road structures, and best practices to construct and maintain forest roads needed to accomplish forest practices operations.

11.2 Road Maintenance and Abandonment Plan (RMAP) Implementation

The improvements to roads and fish passage made through RMAPs represent one of the greatest successes within the Washington forest practices arena over the last 20-plus years. During its effective lifespan, the Road Maintenance and Abandonment Plan (RMAP) Forest Practices Rules resulted in:

- Bringing substantive numbers of forest roads into compliance with standard Forest Practices Rules,
- Minimizing or eliminating sediment delivery to live waters,
- Disconnecting ditch water from live streams,
- Corrected many, many fish passage barriers restoring fish access to upstream habitats,
- Ensuring abandoned forest roads were left in a condition that would not adversely affect Typed Waters, and
- Creatively applied best management practices to upgrade forest roads

Over its 20-plus year lifespan, RMAP goals were achieved through an unprecedented cooperative effort between private landowners, tribes, and state agencies. The overwhelming majority of RMAP agreements were fully met within the prescribed time periods of the original and extension programs.

At the end of the RMAP period, a few RMAP agreements with deferred work were addressed in this reporting period. Region decisions to defer work on these few projects were made in consultation with interdisciplinary teams comprised of resource experts from DNR, Ecology, WDFW, affected tribes, and the landowner. In this reporting period (January 1, 2022, to December 31, 2022), landowners continued to work to complete their deferred obligations.

Table 18: Remaining RMAP Identified Fish Passage Barriers and Schedule for Correction

RMAP #	Number of Deferred Crossings as of Oct 2021	Number Corrected in this Reporting Period	Number left to correct or monitor	Reason for deferral(s)	Fix by date
2610010	**1**	**0**	**1**	Stakeholder passability disagreement	10/31/2025
2690005	**1**	**0**	**1**	Fixed in 2013 but needed remediation. Recheck remediation in 2024	Spring 2024
2690008	**1**	**0**	**1**	Fixed in 2014 but needed remediation. Re-check remediation in 2024.	Spring 2024
2690009	**3**	**0**	**3**	Quinault Tribe may purchase road. ICN states,*" if points not addressed by 2024 then Quinault will assume responsibility."*	Spring 2024
2690010	**3**	**2**	**1**	One water type changed to non-fish. One work completed. One water type disagreement but confirmed fish.	Remaining barrier to be fixed by 2026

Status of Fish Passage Barriers

The total number of fish passage barriers (including life of pipe and new discoveries) remaining to be corrected, as shown in Table 20, is derived from landowner annual reports, and includes:

- 362 "life of pipe" determinations (described previously) (or 4.0 percent of the total number of barriers identified on RMAPs); and
- 87 discoveries of new barriers after extensions were granted in 2016 (or 1.0 percent of the total number of barriers identified on RMAPs).

Therefore, 8,611 of 9,068 of reported fish passage barriers have been corrected, with those left to be completed being either a "life of pipe", "new discovery", or a deferral issued due to transfer of ownership or a change in water typing.

Table 19: Fish Passage Barrier Information for Large Forest Landowners

DNR Region	Number of Fish Passage Barriers Identified[A]	Number of Fish Passage Barriers Corrected From 2001-2022	Number of Fish Passage Barriers Corrected in 2022	Percent of total fish passage barriers corrected as of 12/31/2022	Total number of Barriers Remaining to be Corrected[B]
Northeast	835	835	0	100%	0
Northwest	519	487	0	94%	32
Olympic	2,2,252[C]	2,157	2	96%	95
Pacific Cascade	3,534	3,244	0	92%	290
South Puget Sound	939	938	0	99%	1
Southeast	989	950	0	96%	39
Totals	**9,068**	**8,611**	**2**	**95%**	**457**

[A]This number fluctuated annually as water types were confirmed and/or modified (e.g., change to or from fish bearing). In addition, interdisciplinary teams have determined incorrect barrier calls, changing pipe statuses from barrier to fish passable.

[B]This number includes "life of pipe," "new discoveries" and "other" such as transfer of ownership or change in water typing which allowed a deferral to complete work post October 2021

[C] Table updated to include 10 barriers not included in previous years' data

11.3 Washington Department of Fish and Wildlife Participation (*written by WDFW*)

WDFW biologists provide an essential role in the review and implementation of RMAPs. WDFW biologists reviewed RMAPs and the associated FPHPs, and assisted landowners and DNR to assure that project plans and designs would be successful and meet fish protection standards. Since integration of WDFW's hydraulic code into forest practices rules, WDFW can no longer track which FPHPs are specifically associated with RMAPs. However, most of the FPHPs pertaining to fish-bearing streams are road-related. Therefore, the numbers of FPHPs reported in Chapter 4 as having been reviewed by WDFW is thought to be a close estimate.

WDFW biologists reviewed 730 individual FPHPs[4], including 217 concurrence-required project reviews (including the identification of the optimal project-operating season) and 429 individual standard FPHPs (those not requiring concurrence, but pertaining to Type F and S streams), and participated in 84 pre-application reviews.

12. Cultural Resources

Appendix: Background on Cultural Resources

12.1 Landowner/Tribe Meeting Update

During this reporting period, 17 Forest Practices Applications required a landowner-tribe meeting. All required meetings took place.

Washington Department of Archaeology and Historic Preservation

The Forest Practices Program funded one FTE in the Washington Department of Archaeology and Historic Preservation (DAHP) for database administration and FPA/N review. DNR and DAHP entered into a contract, through which DNR provided $204,872 for this purpose during the 21-23 biennium.

12.2 WAC 222-20-120 Updates/Process Improvements

The TFW Cultural Resources Roundtable did not meet during FY 2023. The Forest Practices Board placed a pause on this committee in 2019. Tribes continue to work with individual landowners and State agencies to facilitate protection for cultural resources under WAC 222-20-120.

[4] It is important to note that an individual FPA can have multiple FPHPs.

13. Washington State Legislature

Introduction

In 1974, the Washington State Legislature passed the Forest Practices Act declaring that:

> "forest land resources are among the most valuable of all resources in the state; that a viable forest products industry is of prime importance to the state's economy; that it is in the public interest for public and private commercial forestlands to be managed consistent with sound policies of natural resource protection; that coincident with maintenance of a viable forest products industry, it is important to afford protection to forest soils, fisheries, wildlife, water quantity and quality, air quality, recreation, and scenic beauty" (RCW 76.09.010).

The Act was the State's first comprehensive law addressing the impacts of forest practices on the environment. The Act also created the Forest Practices Board, which sets certain minimum standards that are the basis for the Forest Practices Program.

Each year, DNR monitors laws being passed by the Legislature for those that could impact the Forest Practices Program. There were no new laws that would result in a change in protection of habitat for the species covered in the Forest Practices HCP.

There was one bill during this reporting period that passed into law with an effect on the Forest Practices Program:

1. **SB 5390 –** ***Establishing a programmatic safe harbor agreement (SHA) on forestland.***

The law requires the Washington State Department of Natural Resources (DNR) to:

- Administer a programmatic SHA for the northern spotted owl for any forestland owner.
- Enter an agreement and consult with Washington Department of Fish and Wildlife.
- Administer the federal SHA permit, monitor compliance with the terms of certificates of inclusion, suspend or terminate landowner participation from the program, and provide all other landowner technical assistance as needed to facilitate program implementation.
- The Forest Practices Board may adopt or amend rules to implement the SHA.
- DNR received $748,000 in funding in the Operating Budget for Natural Resource Specialists to establish and implement the program.

In addition, there were two enhancements to the agency operating budget with an effect on the Forest Practices Program:

PROVISO 15:
<u>Reforestation</u> – Investment of $2.06 million - Natural Climate Solutions Account (NCSA)
A combination of ongoing and one-time funding is provided for reforestation activities, including strategy development, mapping, seed collection, and increased public nursery capacity. This ask was an important follow-up piece to DNR's "Keep Washington Evergreen" proposal from 2022.

PROVISO 16:
<u>Watershed Resilience Action Plan</u> (WRAP) – Investment of $2.86 million NCSA
Funding needed to meet Snohomish watershed WRAP deliverables, including kelp and eelgrass stewardship; a large woody debris program; aquatic restoration grants; culvert removal; and begin planning for pilot projects in three additional target watersheds for systems-level efforts to benefit salmon recovery.

The following budget requests submitted on the agency's behalf this year were not successful and are slated for further development in the coming year for resubmission.

Lidar Funding – Policy Level (PL) was funded at $5 million instead of the $7.756 million requested. More importantly, this funding was provided one-time instead of ongoing. Without ongoing funding for the lidar program, lidar collection will remain inconsistent and unequal across the state, perpetuating a data disparity between urban and rural counties. Acquiring full coverage across the state may take several decades to achieve. To remedy gaps in Lidar data, DNR agency leadership is working with the Washington Geological Survey staff to inform efforts to seek ongoing funding in 2024.

Adaptive Management Program (AMP) Funding – The AMP received a total of $17,465,709 for the 23-25 biennium ($12,076,874 Forest & Fish Surcharge Account (FFSA), $3,714,000 General Funds-State (GF-S) and $974,000 PL) PL was funded at $984,000 instead of the $2.257 million requested. Partial funding of the Adaptive Management Program (AMP) is a concern for both DNR and Timber, Fish and Wildlife Policy participants. Twelve ongoing projects; scoping of four priority projects; as well as the study design development of one project will receive less than planned funding leading to AMP delays. Notably, the implementation of much needed State Auditor Office recommended AMP reforms will be delayed due to TFW Policy need to prioritize funding to be distributed to ongoing projects. This is very likely to be a challenging prioritization task that could lead to formal disputes in the program further delaying projects and program reforms.

Forest Regulation staff on behalf of Forest Practices will continue to work with DNR leadership to inform efforts slated for 2024 to seek the full level of funding needed to implement AMP.

14. Information Technology Tools

Appendix: Background on Information Technology Tools

14.1 Forest Practices Information Technology Team (FP IT Team)

The FP IT Team has seven staff positions. The team works closely with forest practices staff in the Division and the six DNR Regions on technology-related matters including providing digital tools that help staff to do their jobs efficiently and effectively. The team also provides customer support to Forest Practices Program staff, staff from other state agencies, and citizens who use Forest Practices Program IT tools. IT skills currently found in the team include data analysis and management, business analysis, GIS analysis and programming, web and SharePoint support, and customer service.

14.2 Forest Practices IT Projects

Forest Practices Online (fpOnline)

The Forest Practices Program fpOnline project team completed project initiation in spring of 2023. The project team focused on ensuring essential staff were hired and critical fpOnline project planning documents completed to ensure effective and efficient progress.

DNR hired consultants for several project roles: a Project Manager who has experience with complex IT projects that are under Office of the Chief Information Officer (OCIO) oversight; one full-time and one part-time Business Analyst; an Organizational Change Management team; a Quality Assurance team and will be hiring a software vendor team to build the fpOnline cloud-based system. The successful implementation of a large-scale effort like the fpOnline project requires all the operational, technical, and project implementation expertise these individuals bring to our team.

Some of the critical documents included the Project Charter, Project Management Plan, Investment Plan, and Technology Budget. These documents provide the fundamental structure for consistent messaging as well as the financial strategy which will support the fpOnline project through its lifecycle.

The fpOnline project team is in the process of moving forward with steps to build, test and release fpOnline – a multi-faceted tool which is anticipated to allow forest landowners and their representatives to submit, track, and manage their Forest Practices Applications and Water Type Modification Forms (WTMFs) remotely. fpOnline project updates will be posted on DNR's main Forest Regulation website. This new system will replace the outdated Forest Practices Application Review System (FPARS) and the Water Type Application (WTA) database.

The online and mobile application-based tool will allow virtual filing, signature, and payment; processing, real-time status tracking and notifications, creating efficiencies and reducing postal service mail delays and drive-time to submit FPAs or WTMFS. A busy landowner working

remotely will know exactly when their FPA or WTMF is approved by the ping of the phone in their pocket. fpOnline will allow Timber, Fish, and Wildlife (TFW) stakeholders and others to comment on FPAs remotely.

fpOnline will allow the Forest Practices Region staff to further assist landowners with their forms or in the field. This proactive, customer-focused approach allows for increased protection of public resources such as water, fish, wildlife, and capital subdivisions. The ultimate purpose of the project is to create an efficient, accessible, adaptable and modern FPA/N system that meets regulatory requirements, continues to comply with rules, and adheres to DNR Forest Practices Program policies, including the fair and consistent application of forest practices rules across the State. For additional information about the fpOnline project, information can be found on the Washington State Information Technology (IT) Project Dashboard website under the Project title: Forest Practices Online. Department of Natural Resources also has a webpage for fpOnline which also provides the opportunity for those interested to sign up for fpOnline Project update notifications.

The buildout of fpOnline is funded from Washington State budget's General Fund. After the system is made operational, on-going annual funding will be required for maintenance and operating (M&O) costs including licensing fees, cloud data storage, and dedicated permanent professional information technology staff. The M&O will ensure the system is updated and receives bug and error fixes throughout the life of the software to ensure users benefit.

It is expected that contractors will be in place and begin work on fpOnline during the fall of 2023, with the work scheduled to continue through winter 2025. The target date for go-live for fpOnline is early 2026.

Intersection of National Hydrology Database (NHD) and Forest Practices Program Hydrography Database

The DNR Forest Practices Hydrology data layer maintained by the Forest Regulation Division does not align with the state standard, which is the National Hydrology Database (NHD). DNR requested and received an extension waiver in 2020 from the Office of the Chief Information Officer (OCIO) with an expectation that the program will work to adopt the NHD standard.

Over the past several years, FP IT staff have worked closely with Ecology, WDFW, and the GIS lead at the OCIO toward that goal. This collaboration resulted in the Forest Practices Program submitting an application and receiving a three-year National Environmental Exchange Network Grant from the EPA.

The grant supports a pilot approach to define a detailed process and understand the effort and cost required to convert DNR Hydrography to the NHD framework. When acted on, and migration to NHD has been completed, tribes, local and county governments, state agencies, forestland owners, and the public will have access to both Clean Water Act and fisheries

information, including locations of the end of fish habitat, thereby supporting DNR in meeting its hydrology regulation responsibilities.

At the current time, the project is unstaffed and DNR has received an extension to the EPA grant so that further progress can be made. DNR staff have also learned that Ecology and United States Geological Survey are planning to conduct a project that would use lidar to create a new more accurate NHD layer. DNR is considering waiting to begin the work of moving DNR Hydro attributes to NHD until Ecology and USGS complete the upgrade.

14.3 Forest Practices Information Technology Tools

Forest Practices Application Review System (FPARS)

At the end of the reporting period, there were 3,280[5] FPAs processed in FPARS and 1,156 reviewers (compared to 1,166 last fiscal year) receiving automated email notification about FPA/Ns through the opt-in notification system.

Forest Practices Enforcement Tracking System (FPETS)

The following enforcement data were entered into FPETS during the reporting period:

- 460 Informal Conference Notes
- 15 Notices of Conversion to Non-forestry Use
- 44 Notices to Comply
- 13 Stop Work Orders
- 0 civil penalty

DNR Hydrography Data Layer and Water Type Modification Form Tracking Application

DNR GIS staff edited approximately 4,915GIS stream segment updates. Updates for approximately 521.5 miles in the hydrography data set were based on 635 Water Type Modification Forms. These updates included stream type upgrades (for example, a segment that was previously classified as non-fish-bearing that was changed to fish bearing) of approximately 27.3 miles of stream, and stream type downgrades (for example, a segment that was previously classified as fish bearing that was changed to non-fish-bearing) of approximately 87.5 miles of stream. The remaining 324.4 miles of stream were edited as either a change of location or a verification of existing water type.

Road Maintenance and Abandonment Plan Point Data Set

Updated datasets were posted quarterly to the Forest Practices RMAP Program stakeholder review site. DNR last published revised versions of the Forest Practices RMAP point dataset in June 2023. The forest practices roads specialists continued to update this information, providing

[5] This number of total FPAs includes partially processed FPAs that were not completed because they were an incomplete FPA. In the remainder of the annual report, the total number of FPAs quoted does not include the incomplete FPAs. Therefore, this total number of FPAs differs from the number of total FPAs quoted in the remainder of the report.

barrier replacement dates and other previously missing data. WDFW displays the DNR RMAP database on its Washington State Fish Passage map viewer.

A new stream crossing data set is being considered, the RMAPs database would be incorporated into that data and then the RMAPs database would be retired (saving a copy for future reference).

Forest Practices Mobile Technology

A new mobile tool was implemented statewide during this reporting period. The tool creates pre-application, decision and post decision documents that are automatically stored in cloud storage and routed to region office staff when appropriate to do so. Deliverable numbers can be easily found through a dashboard. The tool saves time and provides consistency. The mobile mapping tool has also been enhanced with new GIS layers and improvements to those already in the tool.

Other Completed Work

In addition to the work described above, the FP IT team completed the following:

- Provided RMAP data to the Recreation and Conservation Office (RCO),
- Completed the upgrade to Forest Practices Application Mapping Tool and the Forest Practices Risk Assessment Map,
- Developed a proto type for potential stream crossing layer using spatial analysis, and
- Updated the FREP data layer.
- A standard process for updating the FREP layer is currently being worked out and documented.
- The team contributed to the Anadromous Fish Floor project by researching and managing data and completing spatial analysis.
- A GIS layer was created that completes calculations found in the Board Manual for shade requirements near streams. This layer has been added to FPAMT.

FP staff also assisted region staff with water type modifications form updates, conducted quarterly processing of DAHP data, semi-annual processing of Washington Department of Health data, and the annual update of the FFFPP layer. The IT team provided support for and participated on the Parks, Landslide Reporting, Mobile Tech, and future RMAPs committees.

15. Forest Practices Program Budget

15.1 Introduction

In May 2021, Governor Jay Inslee signed the 2021-2023 biennial operating budget bill (ESSB 5092), which provided approximately $45.6 million across five major funding sources for the Forest Practices Program: General Fund-State (GF-S), General Fund-State Long Term Forest

Health, Model Toxics Control Operating Account (MTCOA), Forests and Fish Support Account (FFSA), and Forest Practices Application Account (FPAA).

On March 2022, the Governor signed the 2022 supplemental operating budget bill (ESSB 5693) which shifted MTCOA to GF-S for the Forest Practices programs and provided climate commitment and one-time funding for helping to reduce the backlog of Forestry Riparian Easements (FREP) in the Small Forest Landowner Assistance Office.

As of March 2023, the Governor signed the 2023 supplemental operating and capital budget bills (ESSB 5693 and ESSB 5190, respectively), moving the entire $4.9 million Salmon Recovery Account appropriation from operating to the capital budget. The supplemental funding provided a total program operating budget of $44.5 million during the 2021-23 biennium. Expressed in 2005 dollars as $34.0 million, this exceeded the minimum $22.7 million funding level identified in the 2012 Settlement Agreement (Table 20). In FY23, DNR continued to utilize these dollars to achieve the results described in Chapter 13 of this report.

The General Fund-State Long Term Forest Health provides new funding for Forest Practices program by creating new positions specifically to provide more forest practices regulatory assistance to individual small forest landowners as a part of the agency's "One Stop Shop," (or the "integrated small forestland owner forest health program" identified in Section 7 of HB 1168). This source of funding also supports six regional forest practices employees to process and evaluate anticipated increased numbers of forest practices applications directed toward implementing forest health silvicultural treatments.

Approximately 57 percent of the Forest Practices Program's 21-23 biennium operating budget funding comes from GF-S. Another 22 percent of the operating funding comes from Forest and Fish Support Account, of which 52 percent is allocated solely to fund participation of tribes in the Forest Practices Program. Nearly 7 percent is MTCOA funds; 10 percent is allocated solely to fund the FREP backlog; and 2 percent comes from the Forest Practices Application Account.

During this reporting period, the program continued to provide core programs utilizing the appropriated financial resources to sustain the state's Forest Practices Habitat Conservation Plan and federal Clean Water Act (CWA) assurances.

Table 20: 2021-2023 Biennial Forest Practices Program Operating Budget Allocation by Sub Program, expressed in nominal dollars and as 2005 dollars.

Functional Sub-Program or Activity	GF-State	GF-State Provisos	General Fund Federal	1168 Long-Term FH (AA1 & 25P)	GF-State Aerial Herbicide	Forest & Fish Support Account	Forest Practices Application Account	Model Toxics Control Account	Total
Forest Practices Act & Rules	$18,145,900	$582,091	$108,200	$150,200	$99,600	$225,800	$972,600	$3,050,000	$3,334,391
Adaptive Management Program	$994,000	$3,982,000	$ -	$633,200	$ -	$4,842,300	$ -	$ -	$10,451,500
Tribal Participation			$ -		$ -	$5,500,000	$ -	$ -	$5,500,000
Small Forest Landowner	$512,200	$2,326,300	$ -	$802,500	$ -		$ -	$ -	$3,641,000
Program Development	$552,600	$407,000	$ -	$57,300	$516,700		$ -	$ -	$1,533,600
Forest Practices Total	**$20,204,700**	**$7,297,391**	**$108,200**	**$1,643,200**	**$616,300**	**$10,568,100**	**$972,600**	**$3,050,000**	**$44,460,491**
PCE Conversion (2005 dollars)	**$15,457,255**	**$5,582,742**	**$82,777**	**$1,257,102**	**$471,490**	**$8,084,942**	**$744,071**	**$2,333,350**	**$34,013,728**

Table 21: 2021-2023 Biennial Forest Practices Program Capital Budget Allocation by Program, expressed in nominal dollars and as 2005 dollars.

Functional Sub-Program or Activity	Salmon Recovery Account	State Building Construction Account (SBCA)	Total
FREP	$4,990,000[6]	$6,454,930	$11,454,930
RHOSP		$1,419,000	$1,419,000
Forest Practices Total	**$4,990,000**	**$7,873,930**	**$12,873,930**
PCE Conversion (2005 dollars)	**$3,817,513**	**$6,023,814**	**$9,848,977**

[6] NOTE: $4,900,900 Salmon Recovery Account funding was moved from Operating to Capital in the 2023 Supplemental Budget.

15.2 2021-2023 Biennial Funding Allocation by Functional Sub-Program or Activity

The Forest Practices Program is organized into four functional sub-programs or activities (Table 22), with funding coming from four main sources.

Table 22: Forest Practices Program Functional Sub-Programs and Funding Sources[7]

Functional Sub-Program	Activity Components	Funding Source[1]
Forest Practices Act & Rules (Operations)	Application Processing, Compliance Monitoring, Enforcement, RMAPS, IT/GIS Development & Support & Stakeholder Assistance Training	GF-State, GF-State Long Term Forest Health, MTCOA and FFSA
	Department of Archeology & Historic Preservation Interagency agreement for GIS/Spatial data on FPAs with cultural resources.	FFSA
	FPAs with activities carried out in water, such as the construction, removal, or replacement of a culvert or bridge. Department of Fish & Wildlife Interagency agreement for consultation on forest practices hydraulic projects.	FPAA
Adaptive Management Program	Adaptive Management Research/Monitoring Projects & Administration Staff & Project Management Staff	GF-State and FFSA
	Participation grants to tribes /tribal organizations; Participation grants to nonprofits; & interagency agreements with departments of Ecology and Fish and Wildlife.	FFSA
Small Forest Landowner Office	SFLO Program and Operations; Forest Regulation Assistance & Forestry Riparian Easement Recovery	GF-State, GF-State Long Term Forest Health (proviso), Salmon Recovery Account
Program Development	Forest Practices Board; Rule Making/Board Manual; Forest Practices HCP; and Clean Water Act Assurances.	GF-State and MTCOA

15.3 FY2023 Operating Expenditures by Activity

The Forest Practices Program spent a total of $22.5 million in fiscal year 2023 (Table 23). Reported expenditures exclude a federally funded grant used in Act & Rules and state capital funds spent through the Small Forest Landowner Office.

[7] Funding source acronyms are explained in the report narrative.

Table 23: Fiscal Year 2023 Forest Practices Program Expenditures by Functional Sub-Program and Funding Source (all figures reported in dollars)

Functional Sub-Program	GF-State	GF-State Proviso	GF Federal	1168 Long-Term FH (25P)4	FFSA	FPAA	MTCOA & Aerial	TOTAL FUNDS
Forest Practices Act & Rules	11,126,436	433,118	200	63,771	28,213	149,483	29,726	**11,830,947**
Adaptive Management Program	1,828,934	1,945,626			4,560,785		10,345	**8,345,690**
Small Forest Landowner Office	223,384	1,255,641		445,685				**1,924,710**
Program Development	386,674						-	**386,674**
TOTALS	**13,565,428**	**3,634,385**		**509,456**	**4,588,998**	**149,483**	**40,071**	**22,488,021**

15.4 Full-Time Employees

The Forest Practices Program funded 119.54 FTEs and utilized 113.57 FTEs during the 2021-23 biennium, which translates to a 5 percent variance rate (Table 24). The variance is due to a higher-than-average vacancy level within the first fiscal year of the biennium.

Table 24: FY2022 Forest Practices Program Staffing by Functional Sub-Program, Showing Allotted and Utilized Full Time Equivalents

Forest Practice Program Functional Sub-Program	Allotted 21-23 FTEs	Actual FTEs used during 21-23 biennium	2021-23 Difference
Forest Practices Act & Rules	98.30	93.03	5.28
Adaptive Management Program	6.81	6.34	0.47
Small Forest Landowner Office	10.08	10.51	(0.43)
Program Development	4.35	3.70	0.65
TOTALS	**119.54**	**113.57**	**5.96**

16. Washington Timber Harvest

16.1 Introduction

The data used in the previously reported (2018) Washington State Timber Harvest Report (actual timber harvest data by thousand board feet) is being replaced by the data in Table 25 below because actual timber harvest data is no longer available. Table 25 contains calendar year acres of proposed harvest. The data in Table 25 is reported by large forest landowner (LFLO) and small forest landowner (SFL), by DNR Region, and by westside and eastside.

Table 25: Proposed FPA Harvest Acres per Calendar Year

North East Region	2018	2019	2020	2021	2022
LFLO	30508	28793	29558	25691	22349
SFL	46584	23165	28124	42049	14948
	77091.6	51958.3	57681.5	67740	37297
Northwest Region	**2018**	**2019**	**2020**	**2021**	**2022**
LFLO	18925	11460	12858	10716	12540
SFL	4410	24153	3770	4886	3026
	23335	35612	16628	15602	15566
Olympic Region	**2018**	**2019**	**2020**	**2021**	**2022**
LFLO	20855	24720	25766	21791	22810
SFL	3114	286	592	1842	2463
	23969	25006	26357	23633	25273
Pacific Cascade Region	**2018**	**2019**	**2020**	**2021**	**2022**
LFLO	58931	52793	42979	35049	34304
SFL	10330	5293	6963	10866	8253
	69262	58086	49942	45915	42557
South East Region	**2018**	**2019**	**2020**	**2021**	**2022**
LFLO	16099	12409	11509	13081	17669
SFL	5051	2881	3704	1727	2966
	21150	15291	15213	14808	20635
South Puget Sound Region	**2018**	**2019**	**2020**	**2021**	**2022**
LFLO	21135	19615	24511	16443	16139
SFL	6158	6688	7239	6802	4442
	27293	26303	31749	23245	20581
STATEWIDE LFLO TOTAL	166452	149791	147180	122771	125811
STATEWIDE SFL TOTAL	75647	62465	50391	68172	36098
STATEWIDE TOTAL	242099	212256	197571	190943	161909

Table 25 Continued: Proposed FPA Harvest Acres per Calendar Year

WESTSIDE					
LFLO	119846	108588	106114	83999	85793
SFL	24012	36419	18563	24396	18184
TOTAL	143858	145007	124676	108395	103977
EASTSIDE					
LFLO	46607	41203	41067	38772	40018

SFL	51635	26046	31828	43776	17914
TOTAL	98242	67249	72895	82548	57932
STATEWIDE TOTAL	242099	212256	197571	190943	161909

These numbers came from running the date range renewed and date range received reports in Logi Ad Hoc Reporting.
Calendar year was used for the date range.

Appendices

Appendix 1a: CWA Milestone Update July 2023

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

Memorandum

July 20, 2023

TO: Forest Practices Board

FROM: Brandon Austin, Forest Policy Lead

SUBJECT: Clean Water Act Milestone Update

The Washington State Department of Ecology (Ecology) committed to providing the Forest Practices Board (Board) with periodic updates on progress being made to meet corrective milestones established for retaining the Clean Water Act 303(d) Assurances (Assurances) for the Forest Practices Rules (Title 222 WAC) and Programmatic Habitat Conservation Plan (HCP, 2006). The last update to the Board was at the May 2022 Board meeting.

Ecology continues to support the adaptive management program (AMP) and track the progress of the corrective milestones. Nine research milestones remain representing five projects, with three projects currently underway and two project off-track or not progressing. Of the original program implementation milestones, one is currently underway with completion expected in 2024 and one is not progressing (awaiting development of the water typing rule and associated Board Manual).

Enclosed are two tables showing the milestones and their status. Points of note are highlighted in red and reflect changes since our last briefing in 2021:

- Table 1 shows the CMER Research Milestones. Scoping, study design, implement and complete (final report) are used to indicate the different steps of a Clean Water Act (CWA) project and occur in different calendar years. A CWA project may have completed scoping and study design but be delayed or off-track for implementation or completion.
- Table 2 shows the non-CMER project milestones. These milestones are implemented outside of the Cooperative Monitoring, Evaluation, and Research (CMER) program and are largely within the control of the Forest Practices Operations Section of the Department of Natural Resources (DNR) or the Timber Fish and Wildlife Policy Committee (Policy).

Please contact me if you have any questions or concerns (360) 890-5882.

Enclosures: Table 1. Summary CMER Research Milestones and their status
Table 2. Summary Non-CMER Project Milestones and their status.

Table 1. Summary CMER Research Milestones and their current status.

CMER Research Milestones		
Description of Milestone		**Status as of March 2023**
2009	Complete: Hardwood Conversion – Temperature Case Study (Completed as data report)	**Completed** June 2010
	Study Design: Wetland Mitigation Effectiveness	**Completed** October 2010
2010	Study Design: Type N Experimental in Incompetent Lithology	**Completed** August 2011
	Complete: Mass Wasting Prescription-Scale Monitoring	**Completed** June 2012
	Scope: Mass Wasting Landscape-Scale Effectiveness	**Milestone Eliminated**
	Scope: Eastside Type N Effectiveness	**Completed** November 2013
2011	Complete: Solar Radiation/Effective Shade	**Completed** June 2012
	Complete: Bull Trout Overlay Temperature	**Completed** May 2014
	Implement: Type N Experimental in Incompetent Lithology	**Completed** October 2017
	Study Design: Mass Wasting Landscape-Scale Effectiveness	**Milestone Eliminated**
2012	Complete: Buffer Integrity-Shade Effectiveness	**Completed** November 2018
	Literature Synthesis: Forested Wetlands Literature Synthesis	**Completed** January 2015
	Scoping: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.	**Completed** April 2017
	Study Design: Eastside Type N Effectiveness	**Completed** March 2018

CMER Research Milestones		
Description of Milestone		**Status as of March 2023**
2013	Scoping: Forested Wetlands Effectiveness Study	**Completed** December 2016
	Wetlands Program Research Strategy	**Completed** January 2015
	Scope: Road Prescription-Scale Effectiveness Monitoring	**Completed** March 2016
	Study Design: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.	**Underway** Study is being designed and implemented in five separate projects.
	Implement: Eastside Type N Effectiveness	**Underway** Study is in implementation with some harvests completed and one unit planned for summer 2023 . Implementation through 2025. Study should be complete by 2028.
2014	Complete: Type N Experimental in Basalt Lithology	**Completed** August 2017
	Study Design: Road Prescription-Scale Effectiveness Monitoring	**Completed** February 2017
	Scope: Type F Experimental Buffer Treatment	**Completed** December 2015 Projected completion of study 2028.
	Implementation: Examine the effectiveness of the RILs in representing slopes at risk of mass wasting	**Underway** Complete project 2 with final report in 2023. Complete work projects 3 & 4 with final reports in 2025. Complete project 5 in 2026 with final report in 2027.
	Study Design: Forested Wetlands Effectiveness Study	**Complete** Implementation expected to start spring 2022.
2015	Complete: First Cycle of Extensive Temperature Monitoring	**Completed** April 2019.

CMER Research Milestones		
Description of Milestone		**Status as of March 2023**
	Scope: Watershed Scale Assess. of Cumulative Effects	**Off Track** Project intended to follow other effectiveness monitoring studies which are behind schedule. Funding to begin in 2029.
	Scope: Amphibians in Intermittent Streams (Phase III - renamed: Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow Project)	**Underway** Expected April 2023
2017	Study design: Watershed Scale Assess. of Cumulative Effects	**Off Track** Expected 2029.
	Study Design: Amphibians in Intermittent Streams (Phase III - renamed: Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow Project)	**Underway** Expected in 2025.
2018	Complete: Roads Sub-basin Effectiveness	**Not Progressing** Project to be re-scoped in 2029 with completion in 2032.
	Implement: Watershed Scale Assess. of Cumulative Effects	**Off Track** Implementation in 2030.
	Complete: Type N Experimental in Incompetent Lithology	Complete August 2021
2019	Complete: Eastside Type N Effectiveness	**Underway** Projected completion in 2028.

Table 2. Summary Non-CMER Project Milestones and their current status.

Non-CMER Project Milestones		
	Summarized Description of Milestone	**Status as of March 2023**
2009	July 2009: CMER budget and work plan will reflect CWA priorities.	**Completed** October 2010
	September 2009: Identify a strategy to secure stable, adequate, long-term funding for the AMP.	**Completed** October 2010
	October 2009: Complete Charter for the Compliance Monitoring Stakeholder Guidance Committee.	**Completed** December 2009
	December 2009: Initiate a process for flagging CMER projects that are having trouble with their design or implementation.	**Completed** November 2010 Process not being used in Policy or CMER.
	December 2009: Compliance Monitoring Program to develop plans and timelines for assessing compliance with rule elements such as water typing, shade, wetlands, haul roads and channel migration zones.	**Completed** March 2010
	December 2009: Evaluate the existing process for resolving field disputes and identify improvements that can be made within existing statutory authorities and review times.	**Completed** November 2010
	December 2009: Complete training sessions on the AMP protocols and standards for CMER, and Policy and offer to provide this training to the Board. Identify and implement changes to improve performance or clarity at the soonest practical time.	**Completed** May 2016
2010	January 2010: Ensure opportunities during regional RMAP annual reviews to obtain input from Ecology, WDFW, and tribes on road work priorities.	**Completed** September 2011
	February 2010: Develop a prioritization strategy for water type modification review.	**Completed** March 2013
	March 2010: Establish online guidance that clarifies existing policies and procedures pertaining to water typing.	**Completed** March 2013
	June 2010: Review existing procedures and recommended any improvements needed to effectively track compliance at the individual landowner level.	**Completed** November 2010

Non-CMER Project Milestones		
	Summarized Description of Milestone	**Status as of March 2023**
	June 2010: Establish a framework for certification and refresher courses for all participants responsible for regulatory or CMP assessments.	**Completed** September 2013
	July 2010: Assess primary issues associated with riparian noncompliance (using the CMP data) and formulate a program of training, guidance, and enforcement believed capable of substantially increasing the compliance rate.	**Completed** August 2012
	July 2010: Ecology in Partnership with DNR and in Consultation with the SFL advisory committee will develop a plan for evaluating the risk posed by SFL roads for the delivery of sediment to waters of the state.	**Completed** December 2018
	July 2010: Develop a strategy to examine the effectiveness of the Type N rules in protecting water quality at the soonest possible time that includes: a) Rank and fund Type N studies as highest priorities for research, b) Resolve issue with identifying the uppermost point of perennial flow by July 2012, and c) Complete a comprehensive literature review examining effect of buffering headwater streams by September 2012.	**Not Progressing** Part 'b' to be addressed after water typing system rule and Board Manual work is completed.
	October 2010: Conduct an initial assessment of trends in compliance and enforcement actions taken at the individual landowner level.	**Completed** November 2010
	October 2010: Design a sampling plan to gather baseline information sufficient to reasonably assess the success of alternate plan process.	**Completed** December 2014
	December 2010: Initiate process of obtaining an independent review of the Adaptive Management Program.	**Completed** February 2021
2011	December 2011: Complete an evaluation of the relative success of the water type change review strategy.	**Completed** March 2013
	December 2011: Provide more complete summary information on progress of industrial landowner RMAPs.	**Completed** September 2011
2012	October 2012: Reassess if the procedures being used to track enforcement actions at the individual land owner level provides sufficient information to	**Completed** June 2012

Non-CMER Project Milestones		
	Summarized Description of Milestone	**Status as of March 2023**
	potentially remove assurances or otherwise take corrective action.	
	Initiate a program to assess compliance with the Unstable Slopes rules.	**Completed** October 2017
2013	November 2013: Prepare a summary report that assesses the progress of SFLs in bringing their roads into compliance with road best management practices, and any general risk to water quality posed by relying on the checklist RMAP process for SFLs.	**Underway** State, Tribal, and Small Landowner caucus staff cooperatively developed a plan to conduct online and field surveys to inform the condition of SFL roads. Implementation began in 2019. According to DNR the field survey is about 80% complete based on the goal of 200 surveys. Additional responses from landowners have been slow.

Status terminology:

"Completed" - milestone has been satisfied (includes those both on schedule and late).

"On Track" - work is occurring that appears likely to satisfy milestone on schedule.

"Underway" - work towards milestone is actively proceeding, but likely off schedule.

"Earlier Stage Underway" – project initiated, but is at an earlier stage (off schedule) then the listed milestone.

"Not Progressing" - no work has begun, or work initiated has effectively stopped.

"Off Track" - 1) No work has begun and inadequate time remains, 2) key stakeholders are not interested in completing the milestone, or 3) attempt at solution was inadequate and no further effort at developing an acceptable solution is planned.

Appendix 1b: Ecology CWA Extension letter to Board 11/30/2022

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

November 30, 2022

Dear Forest Practices Board Members:
Sent by email only: patricia.anderson@dnr.wa.gov

On December 3, 2021, the Department of Ecology extended the Clean Water Act Assurances for forest practices in Washington State until December 31, 2022. The letter extending the assurances underscored Ecology's commitment to the 1999 Forests and Fish Report while identifying two conditions for the Assurances to be extended beyond December 31:

1. The Policy Committee that is part of the Adaptive Management Program (AMP) was required to submit a final recommendation on non-fish bearing perennial (Type Np) stream buffers to the Board, with the Board directing Board staff and DNR to develop a rule package and prepare a CR 102.
2. The Timber Fish and Wildlife (TFW) stakeholders needed to make clear and measurable progress towards addressing recommendations in the February 23, 2021, State Auditor's Report to ensure that the forest industry is making progress towards protecting water quality.

The first condition for extension of the Assurances has been met. At your November 10 meeting, a majority of Board members elected to accept the recommendations for rulemaking contained in the October 15, 2022, Majority Recommendations Report.[1] The Majority Report includes riparian buffer recommendations that, if adopted into rule, will make meaningful progress towards meeting the water quality standards on Type Np streams. This is an important step towards achieving one of the four overarching goals of the 1999 Forests and Fish Report: "to meet the requirements of the Clean Water Act for water quality on non-federal forest lands."

It is less clear whether the second condition has been met. Although the TFW principals convened for a handful of meetings beginning in December 2021 through 2022, addressing the Auditor's report was not a key focus of those meetings. Nevertheless, the Policy Committee

[1] The Majority Report was joined by the following TFW Policy Caucuses: Westside Tribal Caucus, Eastside Tribal Caucus, Conservation Caucus, Department of Ecology, and Washington Department of Fish and Wildlife.

adhered to established process, completing dispute resolution, and exhausting all avenues for reaching consensus. Because the parties were unable to reach consensus, the Policy Committee presented majority and minority recommendations to the Board for Type Np riparian buffer rules. The Board adopted the proposal that best ensures that forest practices will advance towards achieving water quality standards on Type Np streams.

Although some TFW members are disappointed in the Board vote, the progress on Type Np buffers demonstrates that the AMP can perform its core function to study the effectiveness of the forest practices rules and update rules that are found to be inadequate. For that reason, the Department of Ecology is again extending the Assurances to allow DNR to conduct cost benefit analysis on the majority proposal and prepare a CR-102. This decision and next steps are further explained below.

History of the Clean Water Act Assurances

In 1999, Ecology and the federal Environmental Protection Agency (EPA) issued Clean Water Act Assurances for a period of ten years as a means of implementing Section 303(d) of the Clean Water Act (CWA) on non-federal forest lands. In doing so, the agencies acknowledged that "attainment of the water quality standards" was the goal of the Assurances and that there needed to be steady progress towards improving water quality, even though fully meeting the standards could take many years. When they issued the Assurances, the agencies agreed "that forest practices in the State of Washington need considerable improvement to meet CWA concerns."

On October 9, 2009, Ecology extended the Assurances for an additional ten years. In doing so, Ecology identified significant problems with the AMP's ability to "make adjustments as quickly as possible to portions of the forest practices rules that are not achieving resource objectives." Ecology specifically identified buffer prescriptions on Type Np streams as one of the top concerns, noting that "the prescriptions associated with the Type Np rules have the greatest potential risk of violating the water quality standards."

By 2019, the AMP had completed one study that looked at the effectiveness of current rules on Type Np streams and expected to complete the remaining studies in 2020. To allow for completion of the studies and development of a rule proposal, Ecology extended the Assurances for two more years. The extension was explicitly tied to the need to better protect water temperature on Type Np streams through improved buffer requirements. Specifically, Ecology "found that the Type N studies clearly show Type N riparian rules need strengthening to protect water quality" and that "[r]evising the rules to meet water quality objectives was the precursor for the establishment of the Adaptive Management Program." Ecology's 2019

extension required that a CR 101 be filed in summer 2021 and a draft CR 102 be distributed for public review by the end of November 2021.

Neither deadline was met. However, the Board did direct staff to issue a CR 101 at its November 2021 meeting, and all TFW stakeholders expressed to me a good faith commitment to moving Type Np rulemaking forward. Ecology thus extended the Assurances for one additional year subject to the two conditions described above.

As this history demonstrates, the Clean Water Act Assurances were issued with the understanding that forest practices needed to be improved so that there would be progress towards meeting water quality standards on forest lands. For the 23-year history of the Program, it has been clear that temperature increases on Type Np streams were of particular concern and that the rules would likely need to be improved to protect against temperature impairment. The Assurances were never intended to exist in perpetuity regardless of whether water quality improvements are achieved. Now that the Type Np studies have been completed, it is necessary to achieve the improvements that the TFW parties have worked towards in good faith for the past two-plus decades.

Type Np Science Studies and the Majority Recommendations

A 2001 Environmental Impact Statement for Forests and Fish Report rules found that forest practices on Type Np streams in Western Washington pose "a moderate to high risk of temperature increases." In response to this risk, the Board prioritized studies to determine the effectiveness of riparian buffers in meeting water quality standards on Type Np streams.

Through the Cooperative Monitoring, Evaluation, and Research Committee (CMER), the TFW parties reached consensus on study design and representative sites to evaluate the effectiveness of current rules. The first of these studies (Hard Rock) was completed in 2017 with a second phase of the Hard Rock study completed in 2021. The Soft Rock study was completed in 2022.

The Hard Rock Phase 1 and 2 studies demonstrated that all riparian buffer treatment options resulted in temperature increases that greatly exceeded the allowable increase of 0.3 degrees Celsius, and that increased temperatures typically persisted for ten-plus years post-harvest.[2] Four of the representative sites also exceeded the numeric water quality criteria of 16 degrees

[2] The 0.3 degree Celsius limit is based on Washington's antidegradation water quality standard. WAC 173-201A-320(3)(a). Antidegradation standards are required by the federal CWA and EPA's implementing regulations. *E.g.*, 33 U.S.C. sec. 1313(d)(4)(B); 40 C.F.R. sec. 131.12. The Hard Rock study demonstrated average temperature increases of 1.2 degrees Celsius, or four times the allowable increase under the antidegradation standard.

Celsius. The Soft Rock study likewise demonstrated temperature increases exceeding the allowable amount at all harvested sites, with one site exceeding the numeric water quality criteria.

The Policy Committee recommended and the Board approved formation of an expert panel, the Type Np Prescription Workgroup (Technical Workgroup). The Technical Workgroup consisted of experts from the timber industry and academia. The Workgroup's function was to review the studies and provide recommendations to the Policy Committee for updated Type Np riparian buffer rules.

The Technical Workgroup concluded that the Hard and Soft Rock studies were well designed and demonstrated that current rules for Type Np streams are not maintaining temperatures as required by the water quality standards. The Workgroup offered three options for improving water quality. All three options required continuous buffering along the length of Type Np streams

The TFW caucuses attempted to reach consensus on updated buffer prescriptions but were ultimately unable to do so, in large part because the caucuses were unable to agree to the continuous buffer prescriptions reflected in the Technical Workgroup's recommendations. After dispute resolution, the majority caucuses developed compromise recommendations that may not fully protect stream temperature but would create demonstrable improvement beyond existing forest practices rules. The recommendations, which were ultimately adopted by the Board, were aimed at balancing the need to make progress towards meeting water quality standards with the goal of minimizing economic impact to industry.

Next Steps

The recommendations contained in the Majority Report now go to DNR for completion of a cost-benefit analysis and small business economic impact statement. Ecology is also required to do a Tier 2 antidegradation analysis. The analyses completed by DNR and Ecology will help inform the substance of the draft rule language for the CR 102. Ecology has extended the assurances to allow this additional work to be completed, but expedient progress on the draft and final rules remains an important outcome to ensure water quality protections. If progress stalls or the parties abandon a continued commitment to the AMP, Ecology will consider withdrawing the Assurances and pursuing alternatives to achieve water quality protection under the CWA.

By the end of this year, Ecology is required to update Washington's Nonpoint Plan to document the process and outcomes of the AMP through 2022. This update will reflect Ecology's

continued support of the Assurances. Ecology's regulatory role will continue to include annual reporting to EPA on the state's nonpoint program and presentation of our Assurances Report to the Board every spring.

I appreciate the TFW parties' good faith attempts to reach consensus on buffer prescriptions for Type Np streams, and I regret that we were ultimately unable to get there. I am sensitive to the disappointment of TFW parties that did not support the recommendations in the Majority Report. Despite current mistrust among some of the parties, I sincerely hope that we can reinvigorate the spirit of TFW and work constructively together. Doing so presents the best path forward for maintaining an economically vigorous forest practices industry while protecting our shared natural resources for current and future generations.

Yours Truly,

Laura Watson
Director

cc: Hilary Franz, Commissioner of Public Lands, DNR
Casey Sixkiller, Regional Administrator, EPA Region 10

Appendix 2: FPAs Associated with 20-Acre Exempt Parcels

Appendix 2a: Potential Loss of LWD Recruitment

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Abernathy	0.086
Acme	0.129
Alder	0.049
Anderson Creek	0.214
Antonie Creek	0.022
Bangor-Port Gamble	0.712
Bear River	0.094
Beaver Creek	0.029
Bellingham Bay	0.128
Birch Bay	0.162
Black River	0.123
Blanchard Creek	0.037
Bogachiel	0.053
Bremer	0.040
Bunker Creek	0.463
California/Lower Rock	0.055
Camano Island	0.327
Camas Valley	0.039
Carbon	0.121
Carpenter	0.398
Cathlapotl	0.506
Cedar Creek	0.152
Cedar Creek/Chelatchie Creek	1.090
Chamokane Creek	0.068
Chehalis	0.324
Chehalis Headwaters	0.023
Chehalis Slough	0.102
Chico Creek	0.111

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Chimakum	0.099
Chinook	0.027
Chumstick	0.143
Church Creek	0.704
Cloquallum	0.152
Coal Creek	0.719
Columbia River/Rock Creek	0.018
Colvos Passage/Carr Inlet	0.618
Conboy	0.042
Connelly	0.148
Copper Creek	1.408
Corkindale	0.163
Cottonwood Creek	0.067
Cowlitz River/Mill Creek	0.177
Curlew Lake	0.054
Damfino	0.218
Davis Creek	0.153
Day Creek	0.259
Deadman Creek	0.035
Deadman Creek/Peone Creek	0.261
Delameter	0.180
Delezene Creek	0.165
Deming	0.063
Diobsud Creek	2.100
Discovery Bay	0.053
Dragoon Creek	0.115
Drayton	0.851
Dungeness Valley	0.031
Dyes Inlet	0.548
East Creek	0.070
East Fork Hoquiam	0.213
East Fork Humptulips	0.102
East Fork Satsop	0.006
East Stranger Creek	0.087
Electron	0.033

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Elk Creek	0.019
Elk River	0.088
Everett	0.040
Ferndale	0.428
French-Boulder	0.098
Friday Creek	1.115
Garrard Creek	0.046
Germany	0.241
Gibson Creek	0.203
Gilligan	0.239
Grays Bay	0.094
Great Bend	0.052
Haller Creek	0.179
Hamilton Creek	0.044
Hansen Creek	0.503
Harmony	0.373
Harris Creek	0.183
Harstine Island	0.331
Hoko	0.004
Hope Creek	0.204
Horseshoe Falls	0.976
Huckleberry Creek	0.023
Hutchinson Creek	0.149
Independence Creek	0.227
Jim Creek	0.087
Johns River	0.058
Johnson Creek	0.084
Jordan	0.067
Jordan Boulder	0.102
Kennedy Creek	0.009
Key Peninsula	0.408
Kiona Creek	0.152
Lacamas	0.294
Lacamas Lake	0.449
Lake Cavanaugh	0.026

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Lake Crescent	0.249
Lake Merwin	0.560
Lake Whatcom	0.146
Lakes	0.096
Liberty Miller - Appletree	0.651
Lilliwaup	0.025
Lincoln Creek	0.090
Little Boulder Creek	0.177
Little Deep Creek	0.040
Little Spokane/Deer Creek	0.093
Little Washougal	0.351
Little White Salmon River	0.017
Long Beach	0.135
Lopez Island	0.044
Lost Creek	0.517
Lower Chehalis/Elizabeth Creek	0.191
Lower Coweeman	0.380
Lower Cowlitz	0.743
Lower Deschutes	0.126
Lower Dosewllips	0.262
Lower Green Duwamish	0.006
Lower Elochoman	0.222
Lower Humptulips River	0.075
Lower Kalama	0.244
Lower Little Pend Oreille	0.139
Lower Middle Snoqualmie	0.028
Lower Naselle	0.105
Lower Newaukum	0.856
Lower North Fork Skykomish	0.214
Lower North Fork Stillaquamish	0.173
Lower Pilchuck Creek	0.370
Lower Pilchuck River	0.365
Lower Quinault River	0.173
Lower Riffe Lake	0.109
Lower Salmon Creek	0.171

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Lower Skookumchuck	0.010
Lower Skokomish	0.162
Lower Snoqualmie River/Cherry Creek	0.137
Lower Stilloquamish River	0.026
Lower Willapa	0.481
Lower Wind	0.104
Lower Wishkah	0.042
Lynch Cove	0.272
Magee Creek	0.125
Many Creeks	1.554
Mashel	0.036
Mason	0.206
McAllister	0.484
McLane Creek	0.049
Middle Fork Satsop	0.034
Middle Humptulips	0.056
Middle Sauk	0.025
Mill Creek	0.019
Mill Creek/Clugton Creek	0.066
Mitchel	0.039
Mortan	0.137
Moran Creek	0.076
Mox Chehalis	0.159
Mt Zion	0.034
Muck Creek	2.375
Naselle Headwaters	0.049
Nemah	0.037
Nineteen Creek	0.185
Nookachamps	0.034
North Fork Granite Creek	0.063
North Fork Newaukum	0.048
North Headwaters	0.048
North-Middle Forks Deer Creek	0.122
Ohop	0.044
Ohop Creek	0.019

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Olequa	0.363
Onion Creek	0.150
Orcas Island	0.024
Ostrander	0.506
Otter Creek	0.077
Packwood Lake	0.383
Palix	0.007
Patit Creek	0.046
Pend Oreille/Cedar Creek	0.084
Pend Oreille/Deer Creek	0.031
Pilchuck Mountain	0.013
Pingston Creek	0.311
Port Angeles	0.172
Porter Canyon	0.091
Possession Sound-N. Elliot Creek	0.120
Quilceda Creek	0.396
Quillisascut Creek	0.517
Quinault Lake	0.208
Raging River	0.041
Reese Creek	0.056
Rock Creek	0.248
Salmon Creek	0.086
Salt Creek	0.416
Salzer Creek	0.155
Samish Bay	0.143
Samish River	0.267
Sammamish River	0.039
San Juan	0.032
Satsop	0.165
Scatter Creek	0.076
Sekiu	0.022
Sequim Bay	0.297
Siebert McDonald	0.085
Silver Lake	0.297
Skookum	0.015

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Smith Creek	0.062
Smith Point	2.099
Sol Duc Lowland	0.071
Sol Duc Valley	0.045
South Fork Chehalis	0.009
South Fork Newaukum	0.062
South Fork Skokomish	0.252
South Fork Skykomish River	0.052
South Fork Willapa	0.121
South Sinclair Inlet	0.099
Spring Creek	0.071
Squalicum Creek	0.472
St. Peter-Lambert	0.174
Stahley Mountain	0.249
Stensgar Creek	0.037
Stillaguamish Flats	0.166
Stillman Creek	0.007
Stillwater	0.058
Sultan River	0.072
Sumas River	0.205
Sutherland Aldwell	0.319
Tacoma Creek	0.114
Tanwax Creek	0.589
Tenmile Creek	0.074
Thompson Creek	0.097
Toandos Peninsula	0.076
Toutle River	0.395
Trout Creek	2.049
Tululip Creek	0.584
Upper Chehalis/Cedar Creek	0.047
Upper Chehalis/Rock Creek	0.099
Upper Coweeman	0.066
Upper Little Pend Oreille River	1.192
Upper Little Roosevelt/Deep Crk	0.066
Upper North Fork Stillaguamish	0.095

Estimated Potential Percent Loss of Large Woody Debris Recruitment Potential, by Watershed Administrative Unit (WAU)	
Watershed Administrative Unit	**Percent (%) Reduction in LWD Function in WAU**
Upper Wallace River	0.045
Vancouver	0.791
Vashon Island	0.094
Vedder	0.733
Verlot	0.121
Vesta Little North	0.019
Wanacut	2.049
Warnick	0.084
West Branch	0.029
West Fork/Middle Fork Hoquiam	0.082
West Fork Wasougal	0.215
West Kitsap	0.027
West Prong	0.053
Whidbey Island	0.555
White Salmon/Buck Creek	0.027
Wilkeson	0.032
Willapa Headwaters	0.029
Wilson Creek	0.056
Winston Creek	0.035
Wishkah Headwaters	0.076
Woodland Creek	0.671
Woods Creek	0.100
Wynochee River System	0.059
Yacolt	0.981
Yelm Creek	0.964
Young Cove	0.223

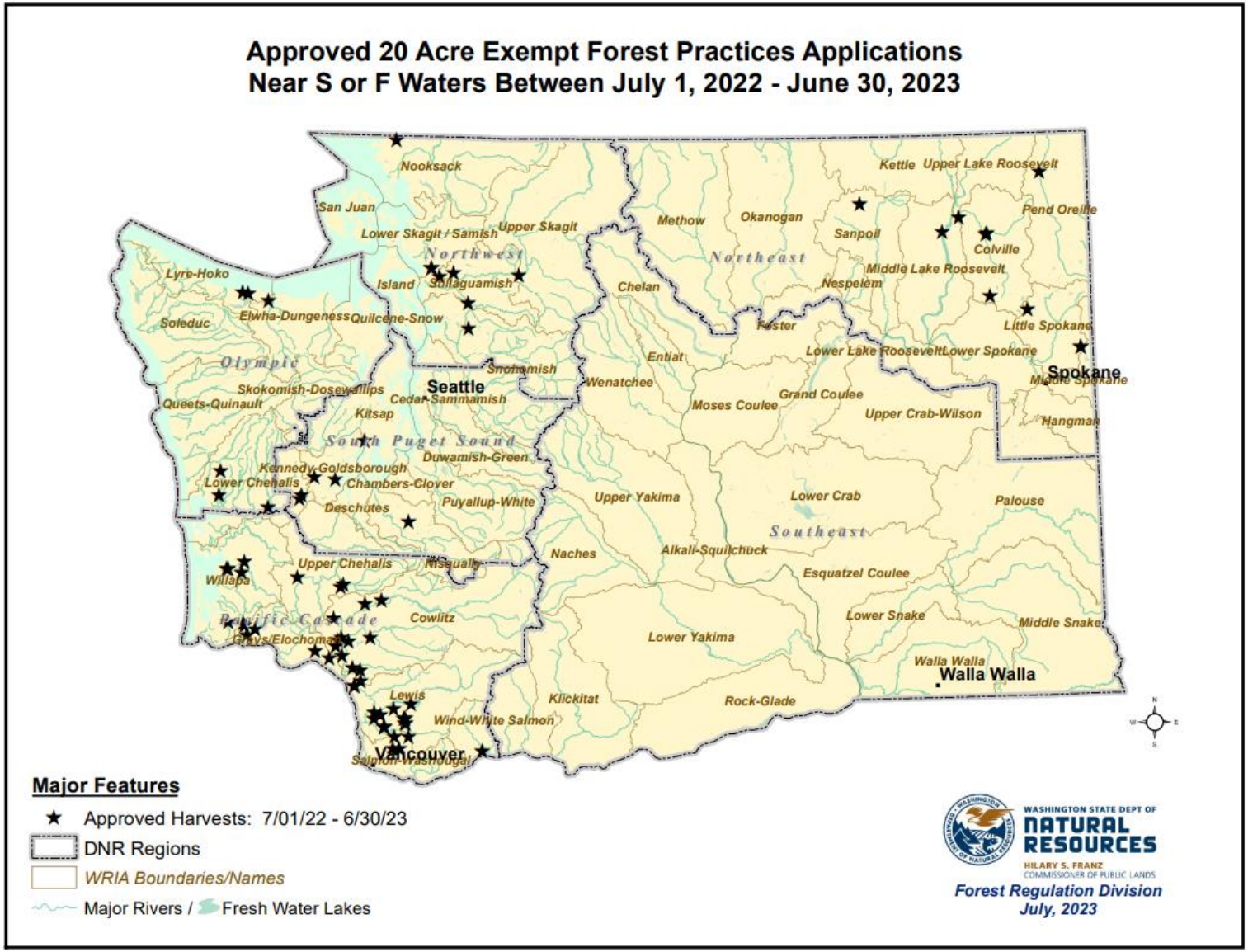
NOTE: Table includes a 2016 recalculation of fish-bearing stream length by WAU on Forest Practices HCP-covered lands to align report calculations with current GIS data.

The table above shows estimated percent of loss (relative to standard forest practices prescriptions) of potential large woody debris recruitment in each WAU containing one or more 20-acre exempt FPA(s) over the elapsed 17-year period of the Incidental Take Permits. There are 846 WAUs in the state, of which 267 have had approved 20-acre exempt FPAs since the 2006 issuance of the forest practices HCP Incidental Take Permits. Currently, in-office calculations indicate that all but ten WAUs affected by 20-Acre Exempt applications have less than 1%

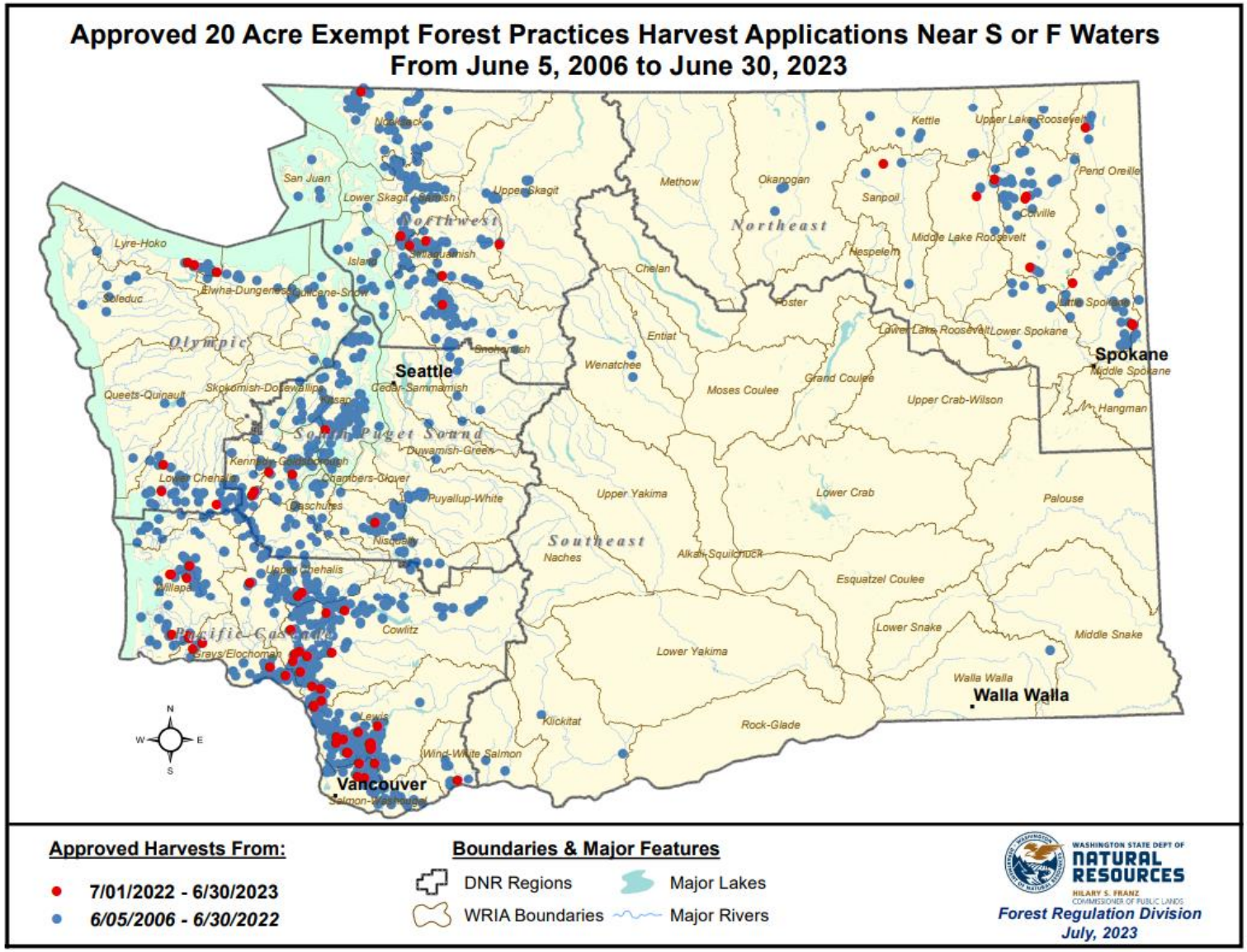
potential cumulative reduction in function relative to standard Forest Practices prescriptions. The ten WAUs including Cedar Creek/ Chelatchie Creek (1.10%), Diobsud Creek (2.100%), Many Creeks (1.554%), Muck Creek (2.375%), Smith Point (2.099%), Upper Little Pend Oreille River (1.192%), Copper Creek (1.408%), Wanacut (2.049%), Trout Creek (2.049%) and Friday Creek (1.115%) all have less than 3% potential cumulative reduction in function. None of the ten WAUs with potential reduction in function over 1% is near the ITP maximum 10% threshold (explained in Appendix 3). There are 126 WAUs indicating a potential of reduction in function between 0.1 and 0.9%, and the remaining 126 WAUs listed in the above table show the possibility of less than 0.1% reduction in function since the 2006 issuance of the Incidental Take Permits.

Back to Body of FPHCP Annual Report

Appendix 2b: Approved 20-Acre Exempt FPAs near S or F Waters 7/1/22 – 6/30/23



Appendix 2c: Approved 20-Acre Exempt FPAs near S or F Waters 6/5/06 – 6/30/23



Appendix 2d Bull Trout Population of Concern Areas FPA Processing

DEPARTMENT OF
NATURAL RESOURCES

FOREST REGULATION DIVISION
1111 WASHINGTON STREET
OLYMPIA, WA 98504-7012

360-902-1400
FPD@DNR.WA.GOV
WWW.DNR.WA.GOV

July 28, 2022

TO: Region Managers

FROM: Joe Shramek, Forest Regulation Division Manager

SUBJECT: Direction for review of "20-acre exempt" FPAs in Bull Trout Population of Concern areas under the Forest Practices Habitat Conservation Plan

The attached guidance addresses how to evaluate and act upon "20-acre exempt FPAs" that fall within Bull Trout Population of Concern (BTPOC) areas addressed by the US Fish and Wildlife Service in their Incidental Take Permit (ITP) for the Forest Practices Habitat Conservation Plan under condition number 9(d)(iii).

This guidance replaces a prior process memo; it has been developed with the involvement of Region forest practices staff and U.S. Fish and Wildlife Service staff with an eye toward clearly explaining each process step and the role of each party involved in the process. It is intended to provide a useful reference document that will help achieve the broad goal of having consistent and effective program-wide application over the remainder of the term of the ITP.

The infrequent occurrence of these specific FPAs was a driving reason for updating the guidance. On average, FPAs of this type have occurred only once every 4 years. The infrequency of occurrence makes it difficult to remember from FPA to FPA occurrence what the process is.

If you have any questions, please contact Charlene Rodgers, FPHCP Administrator at: charlene.rodgers@dnr.wa.gov or 360-292-0978. General and detailed information about the forest practices habitat conservation plan can be accessed here: Forest Practices Habitat Conservation Plan | WA - DNR.

Attachment

c: Alex Smith, Deputy Supervisor
Assistant Region Managers with Forest Regulation responsibility
Region Forest Practices District Managers
Region Forest Practices Coordinators
Charlene Rodgers, FP HCP Administrator, Forest Regulation Division
Forest Regulation Division staff

"20-Acre Exempt" Forest Practices Applications and Bull Trout Populations of Concern Areas Review Process

Background

In 2006, the State of Washington was issued an incidental take permit (ITP) based on the Forest Practices Habitat Conservation Plan (FPHCP) (as directed by RCW 77.85.190), from the United States Fish and Wildlife Service (USFWS).

Included in the USFWS ITP is a condition related to Forest Practices Applications (FPAs) that include elective use of 20-acre exempt riparian management zone (RMZ) rules (these are described in WAC 222-30-023). The condition specifically states:

> *The Permit shall not apply to 20-acre exempt forestlands in any WAU where there is found the spawning and rearing habitat of bull trout populations identified in Table [8-50] of the Opinion until the permittee has established, with review and approval of the FWS, that forest practices under the 20-acre exempt provisions will not measurably diminish the level of riparian function provided by FPHCP Covered Lands in the WAU as measured by recruitable LWD when compared to that which would have been provided under the standard riparian strategies.* (USFWS Permit TE121202-0).

In explanation, forest practices are not covered under the USFWS ITP if the following conditions exist:

1. The forest practice(s) is located in one of the Bull Trout (BT) populations of concern areas; and
2. The forest practice(s) utilizes 20-acre exempt riparian rules, and
3. Washington State establishes, together with USFWS, that the forest practice(s) will "measurably diminish the level of riparian function provided by FPHCP covered lands in the WAU [watershed administrative unit] as measured by recruitable LWD [large woody debris] when compared to that which would have been provided under the standard riparian strategies" (USFWS Permit TE121202-0, condition number 9(d)(iii)).

In order to properly review for areas that may be affected by this ITP condition, the USFWS provided Washington State with geographic information system (GIS) data that identifies the areas within the bull trout populations of concern. These data are available as a layer in DNR's Forest Practices Risk Assessment Mapping Tool (FPRAM), titled "FPHCP Bull Trout Populations of Concern" (BTPOC). FPRAM is an internal GIS tool used by forest practices staff to assess a variety of risks in a specific geographic location.

In order to protect bull trout habitat in the BTPOC areas, Washington State and the USFWS have developed a process for prompt notification to the FPHCP Administrator and the USFWS representative of applicable "20-acre exempt FPAs". Notification timeliness is critical so that DNR, together with USFWS, can establish prior to the FPA decision due date that an FPA would

or would not measurably diminish riparian function. This allows DNR to inform the landowner, prior to the FPA decision due date, when it is determined that the forest practice(s) may not be covered under the USFWS ITP.

If it cannot be established that the actions described in the FPA will not measurably diminish the level of riparian function provided by FPHCP-covered lands in the WAU, as measured by recruitable LWD when compared to that LWD which would have been provided under the standard riparian strategies, the landowner's forest practice may not be covered by the USFWS ITP when the landowner uses the 20-acre exempt riparian management zone (RMZ) rule.

However, if the landowner, instead chooses to use standard forest practices RMZ rules (WAC 222-30-021 and 022), or other standard rules such as alternate plans (WAC 222-12-0401), the forest practice(s) *are* covered by the USFWS ITP.

Review/Determination process for "20-acre exempt" FPAs

Region Forest Practices Staff:

1. Review 20-acre exempt FPAs using the BTPOC layer in FPRAM. If the proposal is clearly not situated within the BTPOC area, no further action is needed.
2. For instances where the FPRAM layer does not clearly indicate whether an FPA/N is located within or outside of the BTPOC area, Region office staff will collaborate with the appropriate Forest Practices Forester (FP Forester) to make the determination based on an on-the-ground site visit.
    a. If the FP Forester finds that the FPA does not fall within the BTPOC area, they will contact the Region office to let them know.
    b. Region office will then contact FHCP Administrator to let them know the FPA does not fall within the BTPOC area. No further action is needed.
3. If the proposal is within the BTPOC area:
    a. Region office will document this fact by checking "HCP Bull Trout Population" on the Office Checklist form for the particular FPA.
    b. Region office will promptly notify the FPHCP Administrator, the Division's Region Operations Outreach Manager, and the applicable Region FP Forester.
    c. FPHCP Administrator (or Region Operations Outreach manager in their absence), will contact USFWS to inform them of the FPA and describe steps being taken to help establish that the FPA will not measurably diminish the level of riparian function. Timing of initial communication with USFWS will depend on when relevant information has been obtained from the Region (keeping in mind the overall short timeframe of the FPA Decision due date).
        i. FPHCP Administrator and Region Operations Outreach Manager will coordinate to ensure one of them makes contact with the USFWS.
    d. FP Forester will contact the landowner and explain that the FPA falls within the BTPOC area and that the landowner has the option of changing the forest

practices proposal by choosing to use standard forests and fish riparian rules (WAC 222-30-021 and 022), or other standard rules such as alternate plans (WAC 222-12-0401), that will not result in measurably diminished function, to ensure the forest practice(s) would be covered by the USFWS ITP.

i. If the landowner chooses to do this and withdraws the FPA for revision, Region staff notifies the FPHCP Administrator, and no further action is needed under this guidance.

e. FPHCP Administrator will coordinate with the Region field and/or office staff for assistance in determining whether the FPA will avoid measurably diminishing the level of riparian function.

i. FP Forester will call an Interdisciplinary Team (IDT) meeting, which must include the local WDFW habitat biologist, to review the proposal, specifically identifying if the proposal using 20-acre exempt riparian rules will bring the riparian function in the WAU, as measured by recruitable LWD, to a level of "measurably diminished" when compared to the level of function that would have been provided in the WAU if that specific FPA had used standard riparian rules instead of 20-acre exempt riparian rules. The basis of the determination will be the condition of the WAU as it stands at that moment.

1. FP Forester will use an Informal Conference Note (ICN) to document their findings of whether the FPA will bring the function in the WAU to a level of "measurably diminished" riparian function as measured by recruitable LWD.

ii. Region will provide to the FPHCP Administrator the ICN and applicable reference documents/data (such as maps etc.) that were used in determining a recommendation for the purposes of the record and so that the information can be shared with USFWS.

f. If it is established that the FPA will measurably diminish riparian function (as described below), Region staff will inform the landowner prior to the FPA decision due date, using the FPHCP ITP non-coverage notification letter, that the FPA falls within the BTPOC area and that the use of the 20-acre exempt RMZ rule on their proposal might result in non-coverage of the FPA under the USFWS ITP.

FPHCP Administrator and USFWS Representative:

1. FPHCP Administrator and USFWS representative receive 20-acre exempt FPA notifications through the Forest Practices Application Review System (FPARS).
   a. Daily, the 20-acre exempt FPAs from notifications are compared to the Excel list (named bt_locpop_areas_for_fpa_review –upfstrf8-4-2010sorted61416) of WAU and legal descriptions of BTPOC area locations or to the FPRAM "FPHCP Bull Trout Populations of Concern' layer to determine if any FPA units fall into those areas.

b. If the FPHCP Administrator finds that the FPA might fall within the BTPOC area before the Region notifies them of the FPA, then the FPHCP Administrator will contact the Region to verify and to obtain any information needed to help establish if the FPA will measurably diminish the level of riparian function.
c. If the USFWS representative finds that an FPA might fall within the area before being notified by DNR, they will notify the FPHCP Administrator.
d. When reviewing the FPA, take note of the FPA comment/decision date for notification timeliness purposes.

2. When the FPHCP Administrator becomes aware of a 20-acre exempt FPA in the BTPOC areas, they will jointly review the FPA with Region staff and establish a recommendation to provide to USFWS regarding the likelihood of whether or not the forest practice will result in measurably diminished riparian function within the WAU.
3. An assessment by DNR and USFWS to determine whether or not the FPA would measurably diminish riparian function shall be completed in time to alert the DNR Region forest practices staff before the FPA decision due date.
    a. USFWS will review and provide a written comment (including rationale) regarding their approval or disapproval of the State's assessment as to whether or not the FPA would measurably diminish riparian function in the WAU, prior to the comment due date listed on the FPA Office Checklist Page 1.
    b. The USFWS written comment with supporting rationale shall be sent via email to the appropriate Region staff and to the FPHCP Administrator.

Appendix 3: History and Background for the Forest Practices Habitat Conservation Plan Reporting Elements

Introduction to Forest Practices HCP

Washington state's forest practices stakeholders (those interested in regulation of forest practices) focused on regulatory changes for habitat protection measures for aquatic resources on non-federal, non-tribal forestlands from the mid-1990s to the early 2000s. Three emerging concerns propelled the state toward change during this time: multiple listings under the Endangered Species Act (16 U.S.C. 1539) (ESA) of threatened and endangered salmonids, forest stream water quality issues, and water-typing inconsistencies that affected Forest Practices Applications (FPAs).

In the mid-1990s, 660 Washington stream segments were identified as not meeting Federal Clean Water Act (CWA) water quality standards and were placed on the CWA 303(d) list[8]. The CWA requires each state to develop and adopt water quality standards that are approved by the Environmental Protection Agency (EPA). The CWA solution for stream segments affected by non-point-source pollution, such as pollution resulting from timber harvest, is the development of a "plan of control" written by state agencies. The Department of Ecology (Ecology), the state agency that protects water quality in Washington, uses forest practices rules, some of which Ecology co-adopts, as the primary tool for a plan of control when forest practices are a potential contributor to water pollution. Given the growing list of streams found on the 303(d) list at the time, Ecology turned toward forest practices rulemaking to address potential forestry impacts to water quality.

[8] The term "303(d) list" is a state's list of impaired and threatened waters. States are required to submit their list for EPA approval every two years. For each water on the list, the state identifies the pollutant causing the impairment, when known.

Concurrently, the accuracy of forest practices water type base maps used to establish fish presence and absence – for purposes of determining and implementing appropriate forest practices habitat protection measures – was in question. In the early 1990s, biologists often reported finding fish farther upstream in some areas than the official stream typing maps recognized. In 1996, Timber, Fish, and Wildlife (TFW) – a group of forest stakeholders – developed an emergency forest practices rules recommendation to address water typing issues that resulted in the Forest Practices Board's (Board) adoption of new emergency water typing rules until a more permanent solution could be implemented. These emergency rules changed the water typing definitions by modifying the gradient and width criteria for fish-bearing waters. However, revised permanent forest practices rules were still needed to improve water typing accuracy.

Ultimately, multiple listings of threatened and endangered salmonids under the ESA played the heaviest role in the regulatory change efforts to protect Washington's aquatic resources. Salmon are an integral part of life in the northwestern United States, and the collective impact of losing these iconic fish led the state to prioritize development of solutions to prevent the potential loss.

In October 1996, upon the urging of representatives from National Marine Fisheries Service and the EPA, TFW agreed to tackle the immense task of negotiating and developing a rule package solution for the three concerns. TFW invited federal agencies and county representatives to join with traditional TFW caucuses – state agencies, tribes, forest landowners, and conservationists – to negotiate a rule package. The federal caucus was invited to the table to ensure the final product would reflect federal Endangered Species Act and CWA requirements, and the counties were invited because of their shared management of natural resources and the potential impact on listed aquatic species and water quality.

Concurrently in 1997, Gov. Gary Locke, in consideration of the state's potential loss of salmon, formed a Joint Natural Resources Cabinet and charged it with creating a salmon recovery plan for Washington state with an initial deadline of June 1998. A Salmon Recovery Strategy developed by the Cabinet called for the protection of salmon habitat through forest, agriculture, and urban modules. The Joint Natural Resources Cabinet turned to TFW to develop recommendations for the forestry module portion of the state's salmon recovery plan.

All forest stakeholders were looking to TFW to resolve forestry impacts on water quality, water typing, and threatened and endangered salmonid species through regulatory rule change. As a stopgap measure for impacts on salmon, the Board adopted an emergency rule in 1998 to protect riparian habitat temporarily until permanent rules could be developed and implemented. The emergency rule made all forest practices activities within 100 feet of a stream or river that served as habitat for a listed species subject to review under State Environmental Policy Act.

TFW forestry module negotiations for a permanent solution to forest stakeholder concerns formally began in November 1997 and ended in September 1998. Though the TFW negotiations did not produce a final TFW consensus product, (TFW follows a consensus decision-making model), the intense work of the TFW participants laid the foundation for a framework and comprehensive set of recommendations. Five out of six TFW caucuses (after the conservation caucus left the negotiating table) continued working and produced a five-caucus consensus product, recorded in a set of recommendations called the Forests and Fish Report (U.S. Fish and Wildlife Service et.al., 1999). The stated goals in the report are:

1) To provide compliance with the Endangered Species Act for aquatic and riparian-dependent species on non-federal forest lands;
2) To restore and maintain riparian habitat on non-federal forest lands to support a harvestable supply of fish;
3) To meet the requirements of the Clean Water Act for water quality on non-federal forestlands; and
4) To keep the timber industry economically viable in the State of Washington.

The recommendations in the Forests and Fish Report applied to approximately 12.7 million acres of non-federal, non-tribal-owned forestland.

The Washington State Legislature incorporated the Forests and Fish Report recommendations into the 1999 Salmon Recovery Act, directing the Board to adopt permanent forest practices rules that reflected the recommendations in the report with the option of adopting emergency rules first. Subsequently, the Board adopted emergency rules in January 2000 and permanent rules in May 2001, which became effective July 1, 2001.

The Forests and Fish Report and subsequent forest practices rules developed two broad regulatory protection strategies designed to minimize and mitigate forestry-related impacts and conserve habitat for aquatic resources. The first was called the Riparian Conservation Strategy, which includes protection measures implemented in and adjacent to surface waters and wetlands, including the water typing system, riparian and wetland management zones, and channel migration and equipment limitation zones. The second strategy, the Upland Conservation Strategy, provides measures aimed at protecting aquatic resources by minimizing and mitigating upslope forest impacts, including forest road condition, stream crossings, unstable slopes, and rain-on-snow hydrology. These measures are intended to limit excess coarse and fine sediment delivery to surface waters and wetlands, to eliminate fish blockages, and to maintain hydrologic regimes.

A final step in gaining compliance with the ESA for aquatic and riparian dependent species was obtaining Incidental Take Permits under the ESA. The state developed the Forest Practices Habitat Conservation Plan (Forest Practices HCP) as a vehicle to obtain the ITPs and submitted

it to the United States Fish and Wildlife Service and National Marine Fisheries Service (collectively, the Services) in 2005. An Incidental Take Permit assures landowners and the state that as long as they follow the protection measures and Forest Practices Program as described in the Forest Practices HCP, they are protected from certain types of liability should incidental take (defined under the ESA as unintentional, but not unexpected, taking) (Take as defined under the ESA means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.)) of listed threatened or endangered species occur during a covered forest practices activity.

In 2006, the Services accepted Washington's Forest Practices HCP and under the authority of the ESA, the Services issued Incidental Take Permits (one from each agency) to Washington State. The permits put Washington state forest practices into compliance with the ESA for those species covered by the Forest Practices HCP. The Forest Practices HCP covers approximately 9.3 million acres of forestland (not including forestlands already covered by an aquatic species HCP) and provides coverage for 53 fish species and seven amphibian species. The implementation of the Forest Practices HCP is a partnership between the Services and Washington state, which protects public resources habitat (specifically, aquatic and riparian-dependent species habitat). This multi-stakeholder effort addresses the habitat needs of all covered species.

- Three state agencies – the Washington State Department of Natural Resources, the Washington Department of Fish and Wildlife, and the Washington Department of Ecology – work together to ensure implementation of the Forest Practices HCP. DNR provides the majority of staff positions that oversee implementation of the Forest Practices HCP under the authority given to the department in the Forest Practices Act (Chapter 76.09 Revised Code of Washington (RCW)) and Rules (Title 222 Washington Administrative Code (WAC)). In addition, both WDFW and Ecology have dedicated office and field staff supporting the various functions of the Forest Practices Program and the implementation of the Forest Practices HCP. A portion of the work that WDFW and Ecology conduct is funded through Interagency Agreements 16-44 and 16-149 respectively. WDFW and Ecology support includes participation in:
- The Adaptive Management Program (AMP)
- The Compliance Monitoring Program (CMP)
- The Family Forest Fish Passage Program (FFFPP)
- The review of Road Maintenance and Abandonment Plans (RMAPs)
- Consultation on Forest Practices Hydraulic Project Approvals (FPHPs)
- The development of chapters in the Forest Practices Board Manual (Board Manual)
- The evaluation of water type change proposals
- The review of Forest Practices Applications/Notifications (FPA/Ns)
- Interdisciplinary teams (ID teams)
- Writing portions of and editing the required annual and five-year reports to the Services

Back to FPHCP Annual Report

Forest Practices Board

The Forest Practices Board sets the public resource protection standards that are the basis for the Forest Practices Program. The state's Forest Practices Act established the Board's authority in 1974 as an independent state agency responsible for the adoption of rules for forest practices on non-federal and non-tribal forestlands. The Legislature directed the Board to protect public resources while maintaining a viable forest products industry. "Public resources" are defined as water, fish and wildlife, and capital improvements of the state or its political subdivisions.

Forest practices rules marked with an asterisk (*) pertain to water quality protection and can only be amended by agreement between the Board and Ecology.

The Board consists of 13 members: the Commissioner of Public Lands or the Commissioner's designee; four additional state agency directors or their designees; and eight members appointed by the governor. The represented agencies are the state departments of Natural Resources, Commerce, Ecology, Agriculture, and Fish and Wildlife. The governor-appointed members include a member representing a timber products union, a forest landowner who actively manages his or her land, an independent logging contractor, an elected county commissioner or council member, and four general public members whose affiliations are not specified in the Forest Practices Act. The membership of the Board as of June 30, 2023, is:

- Alex Smith, Commissioner of Public Lands Designee, Chair
- Ben Serr, Department of Commerce designee
- Rich Doenges, Department of Ecology designee
- Kelly McLain, Department of Agriculture designee
- Chris Conklin, Department of Fish and Wildlife designee
- Vickie Raines, Grays Harbor County Commissioner
- Wayne Thompson, timber products union representative
- Steve Barnowe-Meyer, general public member and small forest landowner
- Frank Chandler, general public member and independent logging contractor
- Cody Desautel, general public member
- Meghan Tuttle, general public member
- David Herrera, general public member
- Pene Speaks, general public member

Forest practices are conducted in a dynamic environment where continual advancements in knowledge and understanding of natural forest systems and science that inform the need to change protective measures for public resources. The Board addresses this need for change by adopting or revising rules to protect public resources while maintaining a viable timber industry.

When developing proposed rules for the Board to consider, the TFW Policy Committee strives to develop and recommend rules that are implementable, repeatable, and enforceable.

In addition to adopting rules, the Board provides guidance through the Board Manual, an advisory technical supplement to the rules. The Board Manual guides field practitioners and DNR regulatory staff when implementing certain rule provisions. The Forest Practices Rules and Board Manual largely represent the state's protection measures for public resources associated with forestlands.

The Board is also a key structural component of the Forest Practices Adaptive Management Program and empowers three of the five primary structural components engaged in the process, including:

- The Cooperative Monitoring, Evaluation and Research Committee (CMER)
- The TFW Policy Committee
- The Adaptive Management Program Administrator (AMPA)

The Board itself and the Independent Scientific Peer Review Committee (ISPR) are the fourth and fifth structural components of the adaptive management process. For more information, refer to the Adaptive Management Program section below.

- Since the Board's 1976 creation, there have been a few large-scale seminal rule adoption/revision packages:
- 1976 adoption of the initial forest practices rules
- 1982 package for adoption for threatened and endangered species, reforestation, and slash disposal
- 1988 package for riparian management zones (RMZ), alternate plans, cultural resources, and interdisciplinary teams
- 1992 package for wetlands, watershed analysis, Class IV-special forest practices, stream temperature, wildlife reserve trees and down logs, and chemicals and fertilizer use
- 2001 package for RMZ, roads, unstable slopes and other aquatic species habitat protection measures (Forests and Fish Rules)

Forest Practices Board Manual

The Board Manual is an advisory technical supplement to the forest practices rules. Washington Administrative Code (WAC) 222-12-090 directs DNR to develop Board Manual sections, each of which provides guidance for implementing a specific rule or set of rules. DNR develops and amends sections of the Board Manual in cooperation with WDFW, Departments of Agriculture and Ecology, affected tribes, and interested parties having appropriate expertise. The development or modification process typically begins with a working group identifying key elements and progressing to drafting Board Manual language with DNR in the lead. A final draft of Board Manual sections providing guidance for implementation of rules protecting aquatic

resources is provided to the TFW Policy Committee for review prior to DNR presenting the section to the Board for approval. Board-approved final draft sections are then placed in the Board Manual.

Permanent Water Typing System Rule Adoption Process

In 2013, in response to concerns about the continued use of electrofishing under the interim water typing rule, the Board directed the TFW Policy Committee to begin the development of recommendations for a permanent water typing system rule. In 2001, both the interim water typing rule language and the rule language setting the foundation for the development of a permanent rule was adopted by the Board and codified into rule. Required work for developing permanent water typing rules included an evaluation of all the components in the current interim rule as well as the process in Board Manual guidance for delineating the break between Type F (fish bearing) and Type N (non-fish-bearing) waters.

The TFW Policy Committee developed a Type F matrix as the framework for evaluating the necessary elements for a permanent rule. This matrix guided the work for the TFW Policy Committee through 2015 and 2016. Several technical presentations and field trips occurred to inform the committee in the application of the current rule, identifying fish habitat, and evaluating new procedures in electrofishing surveys. The Board requested the TFW Policy Committee present its recommendations on the development of each element of the Type F matrix in November 2016.

The Board accepted several of the TFW Policy Committee's recommendations for inclusion in a new water typing system rule in November 2016. Based on the consensus recommendations for key elements to be included in the rule language, the Board requested DNR staff file a Proposal Statement of Inquiry (CR 101) with an understanding that formal rule making would not occur until final draft language and an economic and an environmental analysis was complete. The Board directed the TFW Policy Committee to continue to work on missing key elements for the rule and bring forward recommendations at the Board's May 2017 meeting.

The TFW Policy Committee, through the results of dispute resolution, brought forward additional elements for the water typing system rule at the Board's May 2017 meeting. These elements were primarily composed of Type F water delineation elements and included a new field protocol process – the fish habitat assessment methodology (FHAM) – for delineating fish habitat. FHAM is the central component for identifying the upper extent of fish habitat while achieving the goal to reduce electrofishing. The Board accepted the TFW Policy Committee recommendations for inclusion in the new rule. The Board requested the AMP Administrator to convene an expert science panel to determine the appropriate potential habitat break (PHB) metrics to be used when implementing FHAM for the remaining element that the TFW Policy Committee was not able to address.

The expert science panel presented a report outlining possible PHB metrics to consider at the February 2018 Board meeting. At that time, several stakeholders petitioned the Board to consider not one set of PHBs, but an evaluation of three sets of PHB options in addition to two

alternatives to define and establish an anadromous fish floor (AFF). The Board agreed and requested DNR to include the three PHB and two AFF alternatives in the development of the water typing system rule language; and to analyze the effects of each alternative in the subsequent economic (cost-benefit analysis and small business economic analysis) and State Environmental Policy Act analyses.

An important step in developing a new water typing system strategy is to ensure that the rule-identified PHBs serve as an appropriate metric to locate the end of fish habitat. In May 2018, the Board directed the AMP Administrator to work with the expert science panel to determine if a validation study could be implemented to evaluate the utility of the PHB criteria used in the FHAM.

To verify that the methodology for measuring PHB criteria met the objectives in the PHB validation study, a pilot study was executed in summer 2018. The results of the pilot study confirmed that the data collected could be used to identify PHBs including stream reaches of distinct gradients. Ultimately, the pilot study found that the methodology is suitable for surveying headwater streams and objectively identifying potential habitat breaks to delineate the uppermost extent of fish habitat.

Several stakeholders voiced concerns regarding the accuracy of the DNR spatial analysis to determine the effects of the application of FHAM using each PHB option for Western and Eastern Washington. The spatial analysis is necessary to inform associated economic and environmental impacts analyses. The TFW Policy Committee decided not to fund the PHB validation study the Board had agreed to implement. These two issues, among concerns with rule implementation, caused the Board to postpone approving the draft rule package in May 2019 as intended. The Board acknowledged the need to restore a collaborative approach to arrive at a well-vetted permanent rule. As a result, the Board established a Water Typing Rule Board Committee (Board Committee) to facilitate discussions with DNR staff and stakeholders to resolve the outstanding concerns and then bring forward recommended rule elements to the Board for inclusion in the water typing system rule.

In August 2019, the Board acknowledged the TFW Policy Committee's recommendations to include an AFF component for the new rule and to not propose new rule language addressing functioning water crossing structures as they relate to changes in water typing. It was determined that there was no need for new rule language for functioning water crossing structures because forest practices staff and WDFW biologists already address the structural integrity of a pipe when considering pipe replacements. The Board also confirmed the Committee's oversight of the AFF workgroup's efforts and the assessment of options to gather additional stream data for inclusion in the eastern Washington spatial analysis of the PHB options[9].

[9] The Board approved three PHB options (A-Westside tribes, B-eastside tribes, and C-landowners) for analysis in February 2018.

In November 2019, the Board approved:

- The AFF workgroup charter including the goal of the AFF to establish a floor below which all downstream waters will be considered habitat used by anadromous fish;
- The TFW Policy Committee recommendation acknowledging exceptions where certain streams will still be eligible for a full protocol survey (electrofishing sampling) under FHAM;
- DNR revising the existing preliminary PHB spatial analysis for western and eastern Washington with the incorporation of the methodology to determine the width component PHB using flow estimates at tributary junctions for option B and with additional stream data for eastern Washington (if determined to be available);
- CMER to develop study designs to enhance the water typing system rule. The first, a PHB validation study, is meant to enhance the application of FHAM, which is the field protocol to determine the extent of fish habitat in a stream. Two additional studies were requested to prepare for an eventual map-based system to determine the extent of fish habitat: The first is a model to determine fish habitat using Light Detection and Ranging (LIDAR) and the second the physical stream characteristics present at the end of fish habitat. The Board also requested CMER to determine if the map-based model study could be combined with the physical characteristics study for efficiencies;
- The Committee to establish a collaborative workgroup to explore options for gathering additional eastside water type data and approved the AFF workgroup charter; and
- An extension of the committee's work timeline due to the progress they had made in facilitating discussions and overseeing technical work.

In February 2020, the Board approved funding up to $75,000 from the AMP budget for GIS support work to support the AFF workgroup. The funding was to be used to contract for spatial analysis services to assist the AFF workgroup.

In May 2020, the Committee reported on the quality assurance/quality control work being done by the eastern Washington fish data group to screen potential stream data for consideration.

In August 2020, the Committee reported that the project team of the AFF workgroup was working with a contractor to develop hydrographic stream networks that are used to compare known anadromous fish locations and natural barriers with the Board's accepted AFF alternatives (A-westside tribes, B-eastside tribes, and C-landowners). At the conclusion of this work, the AFF project team would begin developing recommendations for appropriate AFF metrics to submit to the Board Committee. Final recommendations were anticipated to be provided to the Board in November 2021.

In August 2020, the Board accepted the Committee recommendation to accept the technical workgroup additional eastern Washington fish distribution data (needed for a statewide PHB spatial analysis) for a subset of the CMER Committee data from fish distribution studies conducted between 2001 and 2005. This new data would be combined with the existing western Washington data for DNR to perform the statewide PHB spatial analysis.

In December 2021, the Committee received the draft AFF technical analysis and TFW Policy Committee member report. The Committee approved AFF TFW Policy Committee members' request to analyze two additional AFF alternatives.

In March 2022, the Committee accepted the AFF technical analysis and TFW Policy Committee member AFF alternative recommendations to be presented to the Board. The Committee also recommended the Board receive the AFF technical report and alternatives in a workshop at a special meeting of the Board.

In June 2022 special meeting and workshop, the Board received and accepted the final AFF project team technical report and TFW Policy Committee member AFF alternatives. It is anticipated the Board would make a final decision for an AFF alternative at its August 2022 meeting. It is also anticipated that with the acceptance of an AFF for inclusion in the water typing system rule, the Board will direct staff to complete the draft water typing system rule packet for consideration to initiate rule making through the filing of a CR -102 (Proposed Rule Making).

Back to FPHCP Annual Report

Adaptive Management Program

The Forests and Fish Report included provisions for a science-based adaptive management program, which looks at effectiveness of the forest practices prescriptions in meeting resource objectives, the validity of the resource objectives for achieving the overall goals, and basic scientific uncertainties in the ecological interactions among managed forests, in-stream functions, and fish habitat. In concert with Forests and Fish Report recommendations, the Services require the inclusion of an adaptive management strategy as an integral component of approved habitat conservation plans.

The Board, when it adopted the permanent Forests and Fish rules in 2001, incorporated an adaptive management program (WAC 222-12-045) as a formal science-based program. Schedule L-1 from the Forests and Fish Report served as the foundation for the Adaptive Management Program, and more specifically guides the development of research and monitoring projects.

The AMP's purpose is to provide science-based recommendations and technical information to assist the Board in determining if and when it is necessary or advisable to adjust forest practices rules and guidance for protecting aquatic resources' habitat. The program helps to ensure that programmatic changes will occur as needed to achieve the goals of Forests and Fish as well as other Board goals; there is predictability and stability in the process of change so that landowners, regulators, and public can be prepared; and, there are quality controls applied to scientific study designs, project execution, and the interpreted results.

The Board governs the AMP and directs and approves funding allocations for the implementation of the Program. AMP includes TFW Policy Committee, Cooperative Monitoring and Research Committee (a science-based committee), and an AMP Administrator who oversees the program, determines applicability of proposals and supports the CMER Committee. The unique model of collaborative decision-making used by TFW applies also in the AMP program itself. Additionally, an independent scientific peer review process was established to ensure the rigor and integrity of adaptive management research and monitoring projects and reports.

CMER

CMER is the research component of the AMP. Its purpose is to advance the science needed to support the AMP process. CMER reviews existing science and contributes original research to the program. For AMP, best available science is considered relevant science from all credible sources. CMER follows a consensus decision-making model. CMER comprises scientists from forest landowners, conservationists, state agencies, county governments, federal agencies, and tribal governments. The Board approves membership of voting CMER members. Potential members are those who have a demonstrated background in research and represent the science, not the position of their caucus.

TFW policy Committee

The TFW Policy Committee considers scientific findings from CMER and makes recommendations to the Board related to potential forest practices rule amendments and guidance changes. The function of the TFW Policy Committee is to develop solutions to issues that arise in the Forest Practices Program. The TFW Policy Committee provides the forum for discussions and problem solving for the ongoing implementation of the Forest Practices Act and rules while following a consensus decision-making model. This includes the development of Board Manual sections (see above Board section for more information). These issues may be raised by science reports on rule or program effectiveness or policy questions on implementation of forest practices. Solutions may include the preparation of rule amendments and/or guidance recommendations. The TFW Policy Committee also assists the Board by providing guidance to CMER and recommendations on adaptive management issues. The committee consists of one caucus principal, or designee, from conservationist interests, industrial private timber landowners, nonindustrial private timber landowners, western Washington tribal governments,

eastern Washington tribal governments, county governments, DNR, other state natural resource agencies (including WDFW and Ecology as one vote), and federal agencies.

AMP Administrator

The Adaptive Management Program Administrator (AMPA) is a full-time DNR employee and is responsible for overseeing the program, supporting CMER, and reporting to the TFW Policy Committee and the Board. The administrator coordinates the flow of information between the TFW Policy Committee and CMER.

ISPR

AMP contracts the Independent Scientific Peer Review Committee to perform an independent peer review of CMER and other scientific Forest Practices Program work products to ensure they are scientifically sound and technically reliable.

Funding

From 2000 to 2011, more than $25 million in federal funding provided through the Pacific Coastal Salmon Recovery Fund was spent to help implement the 1999 Forests and Fish Report. This included funding for development of an adaptive management program, a multi-landowner Forest Practices HCP, and information systems. Funds were primarily used to design and implement research and monitoring projects, workshops, and science conferences.

CMER

The federal funding early on was used for developing scientific "rule tools" – projects designed to develop, refine, or validate tools (e.g., models, methods and protocols) used to implement the forest practices rules that support the 1999 Forests and Fish Report. These projects have helped define, test, or refine protocols, models, and guides that allow the identification and location of rule-specified management features, such as landslide screening tools or the achievement of specified forest stand conditions, such as the "desired future riparian condition" basal area target for Type F (fish-bearing) streams. Target verification projects were designed to confirm riparian function performance targets developed during Forests and Fish Report negotiations that authors identified as having a weak scientific foundation, such as the desired future condition basal area targets.

After the initial focus on rule tools, CMER's focus shifted from rule tools to effectiveness and extensive status and trends projects. Effectiveness monitoring evaluates forest practices prescription effectiveness in achieving resource goals and objectives at the site or landscape scale. Extensive status and trends monitoring evaluates the status and trends of resource condition indicators over time as the forest practices prescriptions are applied across Forest Practices HCP lands. Results from these types of projects will inform if forest practices rules are effectively protecting natural resources or if changes are necessary.

Since its establishment in 2001, AMP research and monitoring efforts have led to revisions in the forest practices rules, guidance in the Board Manual, and guidance for small forest landowners.

CMER Work Plan and Activities

The CMER Work Plan is a dynamic document that is revised biennially in response to research findings changes in the Board and the TFW Policy Committee objectives, and available funding. The Biennium CMER Work Plan, found at dnr.wa.gov/about/boards-and-councils/forest-practices-board/cooperative-monitoring-evaluation-and-research, describes CMER projects. The CMER Work Plan is updated biennially and presented to the TFW Policy Committee at its regular April meeting.

The projects in the work plan originally were prioritized based on the level of scientific uncertainty and resource risk as related to the priorities of Schedule L-1 in the Forests and Fish Report and incorporated into the Forest Practices HCP. CMER projects are intended to address the needs of higher-priority subjects first, to ensure that the most important questions about resource protection are answered before questions with lower scientific uncertainty or lower resource risk. Projects were reprioritized in 2010 to focus on CWA assurances, reprioritized in the Master Project Schedule (MPS) proposed in the 2012 Forest Practices HCP Settlement Agreement, and again in bringing the settlement before the TFW Policy Committee for adoption in the 2014 CMER Work Plan.

The purpose of the MPS is to have a planning document that will help the Adaptive Management Program forecast when projects can be implemented, sequence projects for efficiencies, keep the budget within projected revenue, and complete the critical projects that are already on the MPS by 2030. In addition, development of the MPS provides the AMP with a tool to evaluate its progress, which meets requirements of the 2012 Forest Practices HCP Settlement Agreement.

Clean Water Act Assurances

Upon the completion of the Forests and Fish Report in 1999, Ecology (with EPA's approval) agreed to provide CWA assurances to the state of Washington for 10 years. It was assumed that 10 years would be sufficient time to determine if implementation of the revised rules and Forest Practices Program, including adaptive management, were effective in meeting water quality standards, or putting impaired waters on a trajectory to meeting standards.

In 2009, Ecology reviewed CWA assurances and produced a report that concluded that while much had been accomplished, work remained to be done. In particular, AMP research and monitoring projects designed to determine if the rules were effective in meeting water quality standards were not yet complete. Consequently, Ecology was unable to provide conclusive evidence of rule effectiveness. The report contained a list of milestones for the Forest Practices

Program, including the Adaptive Management Program with a schedule for individual research and monitoring projects deemed important for retaining the CWA assurances. Ecology conditionally extended CWA assurances based on satisfactory accomplishment of milestones.

Ecology transmitted the 2009 report to the Board in October of that year. Ecology committed to providing the Board periodic status updates on established milestones for retaining the CWA Assurances for the Forest Practices Program. Appendix 1a above provides the CWA milestone update produced annually by Ecology.

Ecology submitted a letter to the Board in December 2019 regarding the expiration of the 10-year CWA Assurances Extension Period (2009-2019). The letter provided an additional two-year extension of the Assurances period to Dec. 31, 2021. Ecology extended the assurances further in their December 2021 letter to the Board (Appendix 1b). Work continues at CMER and TFW Policy Committee to address the CWA Assurances and meet the new deadline.

Adaptive Management Program Websites

Refer to the following websites for more information about the Adaptive Management Program.

Adaptive Management Program:

dnr.wa.gov/programs-and-services/forest-practices/adaptive-management

CMER:

dnr.wa.gov/about/boards-and-councils/forest-practices-board/cooperative-monitoring-evaluation-and-research

Electrofishing Report

One of the conditions in the Incidental Take Permits relates to electrofishing used in adaptive management research and monitoring. The Services asked for an accounting of any electrofishing related to adaptive management research and monitoring. While electrofishing associated with AMP is a covered activity as per the ITPs, the ITPs do not cover electrofishing used during operational water typing. Refer to the NMFS ITP "Specific Conditions number 4" which states: "This incidental take permit does not apply to operational water typing by individual landowners: these activities would need incidental take authorization through other means."

Back to FPHCP Annual Report

Forest Practices Operations

Forest Practices Operations is responsible for administering and enforcing the forest practices rules on approximately 12.7 million acres of private, state, and other public forestlands. Washington's forest practices rules protect forestland public resources and establish some of the

highest standards for resource protection on forestlands in the nation. They give direction on how to implement Washington's Forest Practices Act and Forest Practices HCP.

Forest Practices Operations has three overarching functions: processing/reviewing Forest Practices Application/Notifications, Forest Practices Application/Notifications compliance, and Forest Practices Application/Notifications and forest practices rules enforcement. Forest Practices Operations consists of both office and field staff. Forest Practices field forester positions are directly responsible for reviewing, complying, and enforcing Washington's Forest Practices Act and rules on active FPA/Ns (typically valid for three years).

Program Guidance

Forest Practices Program guidance supplements the Forest Practices Rules and Board Manual. The complexity of the Forest Practices Rules, details of program administration, and variability in the forested environment pose unique challenges for landowners and DNR Forest Practices staff in implementing the Rules across the landscape. Situations arise in which neither the Rules nor the Board Manual provide enough specificity to resolve a particular implementation issue. Therefore, the Forest Practices Program develops internal guidance when necessary to provide direction consistent with established program goals, resource protection objectives, and performance targets. Forest Practices Operations delivers the new written guidance or changes to existing guidance to region Forest Practices staff. Division and Region staff shares guidance affecting cooperating agencies, organizations, and landowners with those organizations.

Back to FPHCP Annual Report

Small Forest Landowner Office

The Small Forest Landowner Office (SFLO) serves as a resource and focal point for small forest landowner concerns and policies. Its mission is to promote the economic and ecological viability of small forest landowners while protecting public resources. The office was created as a requirement of the 1999 Salmon Recovery Act, which directed the adoption of the Forests and Fish rules. The State Legislature recognized that the Forests and Fish rules would have a disproportionate economic effect on small, family-owned forests. To help small landowners navigate the regulatory system, the Legislature authorized the creation of SFLO within DNR to provide technical assistance to small forest landowners.

Small forest landowners manage approximately half of the private forest acreage in the state. Their forests tend to be concentrated in the lower-elevation habitats along lakes and streams, which are key locations for providing ecosystem functions. Their forests also tend to be subject to development pressures, making it especially important to support them in their efforts to maintain their land in forestry. Due to population growth and a shrinking commercial forestland

base, these landowners' forests face demands for timber, fish, wildlife, and water protection, recreational uses, and aesthetics.

The SFLO focuses on several efforts, including small forest landowner assistance through the Forestry Riparian Easement Program (FREP), the Family Forest Fish Passage Program (FFFPP), and the Regulation Assistance Program, as well as outreach to inform landowners of the various assistance programs available to them. Another program administered by the office, which assists both small and large forest landowners, is the Rivers and Habitat Open Space Program (RHOSP). For more information, see the RHOSP section below.

Small Forest Landowner Advisory Committee

The Small Forest Landowner Advisory Committee was established in RCW 76.13 to assist the SFLO in developing policy and recommending rules to the Board. The Small Forest Landowner Advisory Committee consists of seven members, including a representative from Ecology, WDFW, and a tribal representative. Four additional committee members are small forest landowners who are appointed by the Commissioner of Public Lands from a list of candidates submitted by the Board of Directors of the Washington Farm Forestry Association (WFFA) or its successor organization. The WFFA submits more than one candidate for each position, and the commissioner designates two of the initial small forest landowner appointees to serve five-year terms and the other two small forest landowner appointees to serve four-year terms. The Small Forest Landowner Office reviews draft rules or rule concepts with the Small Forest Landowner Advisory Committee prior to recommending such rules to the Board. In the past, the Small Forest Landowner Advisory Committee played key roles in the development of the two small forest landowner alternate plan templates: the Overstocked Stand Template and the Fixed Width Buffer Template.

Forestry Riparian Easement Program

Provisions included in the 1999 Salmon Recovery Act established the Forestry Riparian Easement Program. This easement program acknowledges the importance of small forest landowners and the potential for a disproportionate financial effect of forest practices riparian protection rules on them.

The Forestry Riparian Easement Program compensates eligible small forest landowners for "qualifying timber" within riparian management zones in exchange for a 50-year conservation easement. "Qualifying timber" includes those trees that the landowner is required to leave unharvested in the riparian zone because of forest practices rules protecting Washington's aquatic resources. Landowners cannot cut or remove any qualifying timber during the life of the easement. The landowner still owns the property and retains full access, but has "leased" the trees and their associated riparian function to the state. The Washington State Legislature has allocated funding for the program since 2002.

Fish Passage Barriers

The Washington State Legislature established the Family Forest Fish Passage Program in 2003 (RCW 76.13.150) to provide a cost-share program to help small forest landowners comply with the Forests and Fish rule requirement for the removal of fish passage barriers. The voluntary program allows these landowners to sign up for assistance to correct fish passage barriers on their forest road stream crossings. The program is a continuing success, recognized as a model for interagency cooperation and for assisting landowners.

In general, the 2003 law required the state to:

- Create a cost-share program that would provide from 75 to 100 percent of the cost of removing fish barriers on small forest landowner lands.
- Annually rate and then rank barriers and repairs based on specific criteria explained below in "WDFW Ranking."
- Relieve landowners who sign up for the program of any forest practices obligations to fix a fish passage barrier until funding is made available to complete the project.

Three state agencies and a stakeholder group (see below) cooperate to manage and fund the program through a Steering Committee: The FFFPP Steering Committee comprises two members from DNR, one member from WDFW, one member from the Washington State Recreation and Conservation Office (RCO), and one small forest landowner/member from WFFA. The Steering Committee reviews and approves yearly FFFPP projects to be undertaken, all major policies, and program implementation recommendations for the FFFPP. The Committee reviews program policies, funding decisions, and other significant program development considerations. Responsibilities of each entity are as follows:

- DNR's SFLO is the main point of contact for program information, assisting landowners, providing outreach, and coordinating additional funding sources.
- WDFW is responsible for evaluating barriers, assessing habitat quality of streams, and ranking barriers for correction.
- The Washington State Recreation and Conservation Office administers program funding and provides information on program contracts, billing, and reimbursement.
- The Washington Farm Forestry Association represents the small forest landowner community on the steering committee, providing program oversight and assisting with project approval.

WDFW Ranking of Fish Passage Barriers for the Family Forest Fish Passage Program

- Program legislation (RCW 77.12.755) directs the repair of the worst barriers first, starting with barriers lowest in the watersheds. To identify and prioritize the worst barriers, WDFW rates the barriers enrolled in the FFFPP on the following criteria:
- How many fish species benefit from the repair?

- What will be the amount and quality of habitat opened?
- What is the degree of fish barrier (that is, the degree to which fish are prevented from moving up- or downstream)?
- What are the number and location of other barriers and the degree of those barriers?
- Is there concurrence from lead entity watershed groups (groups that take the lead on salmon habitat recovery plans in the watershed) on the repair?
- How cost-effective is the project?

Projects are scored to provide an initial list that is evaluated by the three state agencies – DNR, RCO, and WDFW. This information, along with project cost estimates, is provided to the FFFPP Steering Committee for final funding decisions.

Information on the fish passage barriers obtained during site visits is placed in the WDFW Fish Passage Barrier Inventory. The inventory includes those stream crossings that have been identified through Washington State Department of Transportation inventories, local government inventories, barriers identified in FFFPP stream surveys, and local inventories funded by the Salmon Recovery Funding Board.

When a small forest landowner signs up for the FFFPP, they are then relieved of responsibility to correct that fish passage barrier until it becomes a funded high priority for correction under FFFPP, or if the barrier becomes a threat to public resources. If a landowner does not sign up for the FFFPP, it is the landowner's responsibility to correct the fish passage barrier.

In addition to providing adequate funding, the two greatest challenges for the FFFPP are filling data gaps in the fish passage barrier inventory information and getting the word out to landowners who would benefit from the program. DNR and cooperating partners continue to pursue funding for inventory-related work.

Long-Term FPAs

Washington's forest practices rules allow a landowner to apply for an FPA to engage in forest practices, which is valid for three years, and in certain cases up to five years. Permits are renewable under certain conditions. The three-year permit works well for those who frequently conduct forest practices, such as timber harvesting and road building. Landowners who harvest small volumes of timber and harvest infrequently often find that the application process can be complex, time-consuming, and challenging.

To ease the paperwork burden and allow more flexibility in timing harvests with the market, small forest landowners may apply for a long-term permit that is valid for up to 15 years. To prepare for a longer period, landowners need to plan further ahead than the typical permit requires, while the flexibility will allow landowners to react quickly to changing markets and unforeseen events such as forest health problems or weather-related disturbances.

Regulation Assistance for Small Forest Landowners
The SFLO regulation assistance foresters assist small forest landowners in understanding the forest practices rules, timber harvest systems, small forest landowner alternate plan templates, 20-acre exempt harvest rules, long-term applications, low-impact harvest activities, road construction techniques, and any other forest practices rules-related issues. The foresters also perform non-regulatory forest road surveys to assess the condition of small forest landowner roads and discusses landowners' road construction and maintenance obligations under forest practices rules and Clean Water Act requirements.

3

Small Forest Landowner Outreach
The SFLO communicates with agencies and the public to foster a mutual understanding, promote public involvement, and influence actions with the goal of serving as a resource and focal point for small forest landowners' concerns and policies. One of the challenges of the SFLO is reaching small forest landowners to make them aware of technical, educational, and cost-share assistance programs to protect water quality, fish and wildlife habitat, improve forest health, reduce the risk of wildfire, and help small forest landowners retain their forestland.

Small Forest Landowner Road Survey and Road Assessments
In 2003, the Legislature adopted RCW 76.09.420, which removed the requirement for small forest landowners to submit an RMAP for all of their forest roads and created the Checklist RMAP process for small forest landowners.

While the Checklist RMAP process minimized the financial impacts to small forest landowners, it has limited DNR's ability to report on the extent, effectiveness, and progress of small forest landowners' completion of all required forest roads work on their properties through the Checklist RMAP approach. The Checklist RMAP process lacks a mechanism to determine the scope of small forest landowner roads, and the condition of the roads or status of required upgrades. Small forest landowners submit a Checklist RMAP when they are planning to harvest or salvage timber. The Checklist RMAP is a brief assessment of certain road characteristics and is limited to the area of application, resulting in a checklist that may not cover the entire ownership. Many small forest landowners may only conduct a harvest once or twice during their lifetime, and information about the condition of their forest roads may be limited or unknown.

DNR, in consultation with WDFW and Ecology, is required by RCW 76.09.420(4) and WAC 222-24- 050 to monitor the extent, effectiveness, and progress of the Checklist RMAP implementation and report to the Legislature and the Board. Additionally, as the agency responsible for carrying out provisions of the federal CWA in Washington State, Ecology monitors water quality to determine whether activities meet the state's water quality standards.

One of the CWA milestones (established by Ecology for the State to maintain CWA assurances) requires Ecology, in partnership with DNR, and in consultation with the Small Forest Landowner Office Advisory Committee, to develop a plan for evaluating the risk posed by small forest landowner roads for the delivery of sediment to waters of the state.

Online Road Survey
To meet this milestone, DNR, Ecology, and WFFA have:

- Developed an online roads survey to gain sufficient data to determine the status of forest roads on the properties of small forest landowners;
- Gained support from DNR, Ecology, WFFA and the western Washington tribes to conduct on-site road assessments when requested by small forest landowners; and,
- Developed a process in which DNR and Ecology will prepare a CWA milestone report on the status of small forest landowner compliance with the RMAP rules.

The goal of the survey and road assessments is to gain information regarding small forest landowner demographics and information regarding the condition of their roads. This survey is intended to improve our knowledge base regarding the status of small forest landowners in meeting their forest practices road maintenance requirements. The Small Forest Landowner Road Survey is posted online and the SFLO manager documents all of the survey results.

On-Site Road Assessments
Qualified DNR staff (regulation assistance foresters) are conducting a focused effort of on-site landowner road assessments:

- For DNR to assess the condition of small forest landowner roads; and
- To discuss with landowners their road construction and maintenance obligations, and provide information on financial assistance available through FFFPP as well as other cost-share and assistance programs.

This process will allow DNR to fulfill its obligation to the forest practices rules and the CWA, as well as to educate landowners about their forest roads.

Back to FPHCP Annual Report

20-Acre Exempt Forest Practices Applications

The 1999 Washington State Legislature exempted certain forestland parcels from some riparian protection measures in the forest practices rules derived from the 1999 Forests and Fish Report. Exempt parcels include those that are 20 contiguous acres or less and are owned by individuals whose total ownership is less than 80 forested acres statewide. These parcels are commonly referred to as “exempt 20-acre parcels.” While not subject to some forest practices riparian

protection rules, exempt 20-acre parcels must still provide protection for public resources in accordance with the Forest Practices Act and rules.

In arriving at their ESA permitting decisions in 2006, the federal Services concluded that they would condition the Incidental Take Permits regarding 20-acre exempt forest practices. Permit conditions specify:

- Leave trees to be left along Type Np (non-fish-bearing, perennial) waters for riparian function.
- The establishment of eligibility criteria for coverage of 20-acre exempt parcels under the Incidental Take Permits. (The permits will not cover 20-acre parcels that do not meet the eligibility criteria.)
- The definition of coverage thresholds for 20-acre exempt parcels in watershed administrative units (WAUs) and water resource inventory areas (WRIAs).
- Certain spawning and rearing habitat of bull trout (also known as "Bull Trout Populations of Concern Areas") where Incidental Take Permit coverage may not apply.

Type Np Water Leave Tree Requirement

Washington Administrative Code requires trees to be left on Np (non-fish perennial) waters on 20-acre exempt parcels where needed to protect public resources, defined as water, fish, and wildlife. The Services concluded that leaving trees along Np waters is necessary in most situations. The Forest Practices HCP Incidental Take Permits say, "permittee (Washington State) shall require trees to be left along Type Np waters under the 20-acre exemption unless such leave trees are not necessary to protect covered species and their habitats." To implement this permit condition, a guidance memo was written September 26, 2006, and delivered to DNR region forest practices staff clarifying that "henceforth Forest Practices Applications (FPA/Ns) should be conditioned to require leave trees along Type Np waters within exempt 20-acre parcels unless DNR determines this is not necessary." See the 2007 Forest Practices HCP Annual Report for a copy of the guidance memo. Leave-tree requirements are detailed in WAC 222-30-023(3): "leave at least 29 conifer or deciduous trees, 6 inches in diameter or larger, on each side of every 1,000 feet of stream length within 29 feet of the stream. The leave trees may be arranged to accommodate the operation."

Thresholds for Watershed Administrative Units and Water Resource Inventory Areas

In the Incidental Take Permits, the Services defined permit coverage thresholds for Watershed Administrative Units (WAUs) and Water Resource Inventory Areas (WRIAs). The Services placed a 10% threshold on cumulative reduction in riparian function (as measured by the amount of recruitable large woody debris, such as snags and tall trees that could fall across a stream or other water body) within a watershed administrative unit for 20-acre exempt parcels. Additionally, the Services placed a 15% stream length threshold within WRIAs. The 15 %

threshold is based on the cumulative stream length of the affected streams within each WAU in the WRIA that has reached the 10% threshold.

When a threshold within a watershed administrative unit or water resource inventory area is reached, the Incidental Take Permits will not cover subsequent FPAs on 20-acre exempt parcels within those WAUs or WRIAs unless the landowner chooses to follow standard RMZ rules. Washington State has adopted a method, approved by the Services, to estimate potential cumulative percent reduction of potential large woody debris recruitment function by WAU and percent cumulative stream length affected by WRIA.

Cumulative Reduction in Function Calculation Methodology

The state uses a formula called the Equivalent Area Buffer Index (Buffer Index) to estimate the percent reduction in function, as measured by potential large woody debris that could be recruited along fish-bearing streams. A contractor developed the Buffer Index for the Forest Practices HCP Environmental Impact Statement as a tool for comparing management alternatives in terms of the level of ecological function conserved through various management practices.

The Buffer Index for large woody debris recruitment potential is a quantitative measure that evaluates the potential of a riparian forest to provide trees and other woody debris across and into streams originating from tree mortality, windthrow, and bank undercutting. The methodology takes into account management activities within the buffer zone. The Buffer Index value is determined based upon the "mature conifer curve of large woody debris recruitment potential" by McDade et al. (1990). It relates the cumulative percent of large woody debris recruitment with the distance from the stream bank in terms of tree height. The EIS for the Forest Practices HCP provides average Buffer Indices for Western and Eastern Washington. The state uses these averages each year to estimate the potential cumulative reduction in large woody debris recruitment function from 20-acre exempt FPAs submitted to DNR since the 2006 issuance of the Incidental Take Permits.

Example explaining Buffer Index formula for fish-bearing stream in western Washington

- **Step 1 — Consider a fish-bearing stream (Type F).**
- The assumptions for this stream's Riparian Management Zone include a Channel Migration Zone (CMZ) that is 10 feet wide, followed by a 50-foot core zone of forest along the stream, followed by a 60-foot inner forest zone in which a light selection harvest is assumed (30 percent volume removal), followed by a 45-foot outer zone in which a moderately heavy selection harvest is assumed (70 percent volume removal). This gives a total RMZ width of 155 feet including the 10-foot CMZ. The total RMZ width of 155 feet is based on an average of Site Class II and III areas [(140+170)/2], which represent the most common site classes on forestland covered by the Incidental Take Permits.

- **Step 2 — Refer to the McDade (1990) mature conifer curve.**
- The McDade curve has been standardized for 155 feet, as the buffer distance that assumes full protection for the 100-year Site Potential Tree Height. This curve shows the cumulative percentage of large woody debris contribution in relation to the distance from the stream. In our example, we need to determine the percent of the total large woody debris contributed by the different RMZ zones (e.g., 0-10 feet, 10-60 feet, 60-120 feet and 120-165 feet). The values from McDade are 17% for the 0-10 foot zone, 62 percent for the 10-60 foot zone, 18% for the 60-120 foot zone, and 3% for the 120-165 foot zone.
- **Step 3 — Multiply the contribution percentage by the tree retention percentage for each RMZ zone, and sum them up.**
    - x 1.0) + (0.62 x 1.0) + (0.18 x 0 .7) + (0.03 x 0.3) = 0.925
- **Step 4 — Results**
- Therefore, the RMZ on Type F streams in western Washington would provide for an estimated 92.5% of large woody debris recruitment potential, given the assumption that full recruitment potential is achieved at a buffer width equal to the 100-year Site Potential Tree Height.

Annual in-office calculations of reduction in function based on proposed harvests

The state calculates an estimate of potential reduction in function by watershed administrative unit annually and submits the results to the Services in the Forest Practices HCP annual report. The impact is "potential" because the calculations are based on "proposed" harvests, not "completed" harvests and estimates of stream impact are made in-office from information supplied on the FPA/N, not on-the-ground measurements.

The state uses average Buffer Index values (found in the Final EIS (Appendix B) of the Forest Practices HCP) to calculate the annual overall possible reduction in function by WAU. The contractor obtained these average Buffer Index values through modeling harvests based on both Forests and Fish Rules and pre-Forests and Fish Rules. Many assumptions went into the modeling effort including degree of harvest, width of riparian area, stream width, etc. A result of the harvest modeling was the development of average values for an overall Buffer Index for eastern and western Washington for harvests complying with Forests and Fish Rules, as well as with pre-Forests and Fish Rules.

The EIS average Buffer Index values for Forests and Fish Rules are used in our calculations without modification; however, an additional 15% was added to the EIS average Buffer Index values for pre-Forests and Fish rules. The 15% was added because the 1999 Salmon Recovery Act required 20-acre exempt landowners to protect an additional 15 percent of riparian trees above previous rules. The average reduction in function value was calculated by subtracting the pre-Forests and Fish Rules Buffer Index values from the Forests and Fish Rules Buffer Index values for a percent reduction in function.

Below are the Buffer Index values and reduction in function factors used for the Forest Practices HCP Annual Report.

Buffer Indexes for Western Washington:
Buffer Index average for Forests and Fish Rules = 0.93
Buffer Index average for Rules prior to Forests and Fish = 0.60
Buffer Index average for 20-acre exempt rules = 0.60 x 1.15 = 0.69
Average Reduction in function factor = 0.93 – 0.69 = 0.24

Buffer Indexes for Eastern Washington:
Buffer Index average for Forests and Fish Rules = 0.91
Buffer Index average for Rules prior to Forests and Fish = 0.67
Buffer Index average for 20-acre exempt rules = 0.67 x 1.15 = 0.77
Average Reduction in function factor = 0.91– 0.77 = 0.14
The State tracks, by FPA/N, the estimated number of feet of fish-bearing stream potentially affected by harvests throughout the year. The total number of feet of stream length on fish-bearing waters in each potentially affected WAU is calculated for the fiscal year and then multiplied by 0.24 in western Washington and 0.14 in eastern Washington to derive the total annual stream distance over which large woody debris recruitment functions are potentially reduced in function. The state then annually calculates cumulative affected stream lengths and divides them by analyzed GIS total fish-bearing stream length on all forestlands regulated by Forest Practices in each watershed administrative unit to determine total potential percent cumulative reduction in function.

Appendix 2a contains the cumulative in-office estimates of potential reduction in function by watershed administrative unit since June 2006. Please find a visual representation of the 20-acre Exempt FPAs in Appendices 2b and 2c. The two maps show: 2a) the location of the current reporting period 20-acre exempt applications, and, 2b) the location of all 20-acre exempt applications since June 2006. The reader can find maps showing 20-acre exempt FPAs for a previous fiscal year in previous Forest Practices HCP Annual Reports.

Data Collection for Watershed Administrative Unit Threshold
Cumulative Stream Length for Water Resource Inventory Areas
A total fish-bearing Forest Practices HCP covered stream baseline length was calculated, and is recalibrated periodically for all WAUs and WRIAs, as the DNR hydrography and forest GIS layers are improved. As in-office calculations indicate that the 10 percent threshold may be approaching in watershed administrative units, the state will compare the total Forest Practices HCP-covered stream length in each WAU to determine when the 15% threshold might be reached for the WRIA. DNR will then inform landowners who apply for an FPA associated with a 20-acre exempt parcel that subsequent FPAs associated with 20-acre exempt parcels within the

area will no longer be covered by the Incidental Take Permits, unless the landowner chooses to apply standard RMZ rules on their 20-acre exempt forest practice.

Bull Trout Population of Concern Areas

The U.S. Fish and Wildlife Service placed conditions on its Incidental Take Permit regarding specific, identified spawning and rearing habitat areas for bull trout. These areas are of concern because of extremely low populations of bull trout. The condition states that the Incidental Take Permits will not cover a forest practice that qualifies for and uses the 20-Acre Exempt riparian rules and falls within these bull trout areas of concern unless the forest practice is determined not to measurably diminish the level of riparian function. If, however, the landowner chooses to apply standard forests and fish riparian buffers instead of 20-acre exempt riparian buffers, the forest practice would not be eliminated from coverage. The function is measured by potential large woody debris recruitment and is compared to the level of function that would have been provided by the standard forest practices rules. The state and USFWS together developed a process to track forest practices in these bull trout areas of concern. The guidance memo explaining the process is Appendix 2d.

Back to Body of FPHCP Annual Report

Alternate Plans and Riparian and Habitat Open Space Program

Alternate Plans

An alternate plan is a tool forest landowners can use to develop site-specific management plans for forest activities regulated under the Forest Practices Act. An Alternate Plan may deviate from the standard Forest Practices Rules as long as the alternate plan provides protection to public resources at least equal in overall effectiveness to that provided by the Forest Practices Act and Rules. WAC 222-12-0401 describes the alternate plan process, including the review by interdisciplinary teams. Any rule prescription not changed as part of an alternate plan must be followed as outlined by rule.

- Alternate plans are an option for all forest landowners; however, small forest landowners have exclusivity with respect to alternate plan templates. The Forest Practices Act and rules require developing simple, easy-to-apply small forest landowner options for alternate plans or alternate harvest restriction on smaller harvest units that may have a relatively low impact on aquatic resources. These alternate plans are intended to provide flexibility to small forest landowners that will still provide protection of riparian functions based on specific field conditions or stream conditions on the landowner's property. Template prescriptions are prescriptions for common situations that are repeatedly addressed in alternate plans. Templates are therefore standardized alternate plans. Currently there are two Templates:
- Template 1: 2004. Small Forest Landowner Western Washington Thinning Strategies for Overstocked Conifer-Dominated Riparian Management Zones, and

- Template 2: 2010. Fixed Width Riparian Buffers for Small Forest Landowners in Western Washington

Rivers and Habitat Open Space Program (RHOSP)

The Rivers and Habitat Open Space Program is used to establish permanent forestland conservation easements between landowners and the state. Eligible for this program are channel migration zones (CMZs) and forestland considered habitat for critical habitat for state-listed threatened or endangered species. The Rivers and Habitat Open Space Program is available to all forest landowners, regardless of size. The program promotes long-term conservation of aquatic resources and upland habitats.

Like the Forestry Riparian Easement Program (see Small Forest Landowner section), the original Riparian Open Space Program was a product of the 1999 Salmon Recovery Act and focused strictly on CMZs. It was codified in the Forest Practices Act and adopted by the Board as a Forest Practices Rule. The 2009 Legislature amended the Riparian Open Space Program, as it was called at the time, to include all unconfined CMZs as well as forestland that contains habitat of state-recognized threatened or endangered species.

A channel migration zone is the area where the active channel of a stream is prone to move in the near term. Unconfined channel migration zones are generally larger water bodies, have less than 2% gradient and are found in a valley more than four times wider than the bankfull width of the channel. These areas typically have very high ecological value as spawning and rearing habitat for salmon and other fish species. Under the forest practices rules, no timber harvesting or road construction may occur within channel migration zones due to their ecological importance and sensitivity.

The forest practices rules protect critical habitat of 10 upland species, two of which are the northern spotted owl and the marbled murrelet. “Critical habitat” is a designation to protect the important habitat characteristics that will assist in the recovery of the federally threatened or endangered species. Landowners of forests determined to be critical habitat for these species are eligible to grant to the state a perpetual conservation easement under the Rivers and Habitat Open Space Program.

DNR screens applications, prioritizes qualifying applications, and acquires conservation easements based on available funding. The program prioritizes applications for conservation easements for channel migration zones separately from applications for habitat of threatened and endangered species. Applications are prioritized based on conservation benefits and landowner management options.

Back to Body of FPHCP Annual Report

Enforcement

The Forest Practices Program is responsible for ensuring forest practices activities are conducted in accordance with the Forest Practices Act and Rules and any conditions placed on the approved Forest Practices Application/Notification.

Forest practices staff classify FPA/Ns based on the level of potential risk the proposed activity has on public resources. This classification helps Forest Practices Foresters prioritize compliance inspections. For example, a proposal to construct road in steep terrain where there is potential for sediment delivery to a stream will receive a higher priority for compliance inspections than a proposal that has limited road construction on gentle slopes with no associated risk of sediment delivery to a stream. This targeted approach ensures the most effective and efficient use of the Forest Practices Forester's time.

Four classes of forest practices

- **Class I** – Class I forest practices activities are determined to have no direct potential for damaging a public resource.
- **Class II** – Class II forest practices activities are determined to have a less than ordinary potential to damage a public resource.
- **Class III** – Class III forest practices activities are determined to have an average potential to damage a public resource.
- **Class IV- Special** – Class IV- Special forest practices activities are determined to have potential for a substantial impact on the environment.
- **Class IV- General –** Class IV- General forest practices activities involve converting forestland to a use incompatible with growing timber or are determined to have a higher potential for a conversion to a use other than forestland.

Regardless of the classification, all forest practices must be carried out in compliance with the Forest Practices Act and Rules. Please find additional information on Forest Practices classifications in WAC 222-16-050. The program also places an emphasis on pre-approval review of FPA/Ns to address potential issues prior to submittal and ultimately reduces the need for enforcement actions.

Compliance inspections are an important aspect of a Forest Practices Forester's job, in large part because the inspections are a means of ensuring landowners comply with the Forest Practices Rules. Additionally, the information gathered during compliance inspections coupled with the data collected by the Compliance Monitoring Program (section below) can help inform the Forest Practices Program of areas where the Program could benefit from modification. Modifications may include things such as providing clarification of Rule language or Board

Manual chapters, improving forms and administrative processes, developing guidance documents, and training. Compliance inspections are an integral component of the continuous Forest Practices Program feedback loop.

When an activity does not comply with the Forest Practices Rules, Program staff have several enforcement options available: *Notices to Comply, Stop Work Orders,* civil penalties, and *Notices of Intent to Disapprove*. Forest Practices staff use *Notices of Intent to Disapprove* and civil penalties when multiple violations have occurred over time. The Forest Practices Act and Rules encourage informal, practical, results-oriented resolution of alleged violations and actions needed to prevent damage to public resources and impairment of public safety. A progressive approach to enforcement is used which begins with consultation and voluntary efforts to achieve compliance while reserving civil penalties (monetary fines and required mitigation) for more serious infractions. Often, *Informal Conference Notes* are used to document conversations and decisions, which are not related to enforcement actions, or to document the process when, or if, future enforcement actions may become necessary.

Staff use enforcement documents for both violations and non-violations. Violations are forest practices activities that violate the Forest Practices Act or Rules or have resulted in damage to a public resource. Non-violations are situations where damage to a public resource has not yet occurred, but the Forest Practices Forester has determined damage is imminent if the activity or condition is not stopped or addressed. For example, if an operator does not have adequate road surface drainage on a haul road for use in the rainy season, the operator could be issued a non-violation *Notice to Comply* requiring the road be improved and maintained so that it does not pose a threat to public resources during heavy rain events.

Overall, the intent is to encourage landowners to implement the Forest Practices Rules successfully to protect public resources.

Staff do not issue *Notices of Intent to Disapprove* or civil penalties often because most violations do not rise to the level of repeat violation penalties. Many initial enforcement actions have proven to bring landowner behavior into compliance with the Forest Practices Rules without a need to take more severe levels of enforcement action. Staff take several factors into account when determining the appropriate level of enforcement, including:

- Is there failure to comply with the terms or conditions of an FPA/N, Notice to Comply, or Stop Work Order?
- Is there the existence or probability of more than minor harm to public resources (water, fish, and wildlife) as the result of noncompliance?
- Is there a threat to public safety?
- What is the extent of damage to the public resource?
- Is there a history of similar violation by the same landowner or operator?

Back to Body of FPHCP Annual Report

Compliance Monitoring Program

The 1999 Forests and Fish Report first formally proposed the Compliance Monitoring Program as an essential element for forest practices. Forest Practices Rules adopted in 2001 included the following Rule related to compliance monitoring, WAC 222-08-160(4):

> "DNR shall conduct compliance monitoring that addresses the following key question: '***Are forest practices being conducted in compliance with the rules?***' DNR shall provide statistically sound, biennial compliance audits and monitoring reports to the Board for consideration and support of rule and guidance analysis. ***Compliance monitoring shall determine whether Forest Practices Rules are being implemented on the ground.*** An infrastructure to support compliance will include adequate compliance monitoring, enforcement, training, education and budget."

In 2006, DNR, with input from other stakeholders, developed a Compliance Monitoring Program design and implemented a pilot sampling effort with the funding allocated by the Legislature. The Compliance Monitoring Program has completed annual compliance monitoring sampling every year since the 2006 pilot. The program has also produced biennial reports that provide and explain results of the field reviews.

Please find all completed reports on the CMP website: dnr.wa.gov/programs-and-services/forest-practices/rule-implementation.

The Compliance Monitoring Program is designed to respond to evolving needs, using detailed field protocols to produce statistically reliable compliance determinations. Compliance monitoring provides feedback on how well operators and landowners are complying with the forest practices rules when conducting forest practices activities. The information gained through the Compliance Monitoring Program (as well as from the daily efforts of on-site Region Forest Practices Foresters) provides critical feedback to the Forest Practices Program about where to focus training efforts and where improvements may be needed in FPA/N forms, form instructions, application review, compliance, or enforcement, and where rule clarification or Board Manual revisions are warranted.

A Compliance Monitoring Program Manager administers the program. One program specialist reports to the manager to help implement the program. Survey teams of four to five professional foresters, geologists, and biologists conduct the monitoring. The professionals come from DNR, Ecology, WDFW, and several tribes. Landowners are invited to attend the field assessments.

The Compliance Monitoring Stakeholder Committee provides input to the program. The Committee is comprised of representatives from DNR, WDFW, and Ecology, and tribal organizations, the Federal Services, Washington Farm Forestry Association, Washington Forest Protection Association, industrial landowner representatives, and the conservation caucus. This forum meets regularly and provides advice on:

- Clarification of rule elements when questions arise,
- Consistent implementation of program protocols, and
- Possible Compliance Monitoring Program improvements.

Compliance monitoring is limited by mandate and staffing which results in a focused program with a well-defined, yet limited, scope. Compliance monitoring does not:

- Focus on individual landowners and compliance specific to those landowners, but rather focuses on the two overall groups of small and large forest landowners.
- Focus on individual region results. All data collected informs the overall population sample for a particular activity.
- Enforce forest practices rules violations: When field reviewers encounter rule violations, the appropriate DNR regional staff is notified for further action.
- Modify water types: However, field reviewers do record observed differences between water type documentation on FPAs and on-the-ground physical features.

The Compliance Monitoring Program currently evaluates compliance with those rules considered to have the greatest impact on the protection of aquatic and riparian species and their habitat.

The Compliance Monitoring Program monitors by "rule prescription type." Prescription types are groupings of similar forest practices rules that apply to a forest practices activity, operations such as timber harvest, and forest road construction. There are, for example, many options available for harvest in RMZs, such as desired future condition (DFC) Option 1, and DFC Option 2 and by function/feature being protected such as water quality and wetlands. In compliance monitoring reports, for example, DFC Option 1 is called a prescription type. The Compliance Monitoring Program monitors and reports compliance monitoring findings by each of the prescription types.

The prescription type rule groupings allow for statistical estimation of compliance by those specific rule groups rather than an overall forest practices compliance rate. This enhances the ability to determine where additional training, education, or forest practices compliance efforts might be needed to increase compliance with forest practices rules. The Compliance Monitoring Program with stakeholder input determines which prescription types are sampled each year and then estimates the sample size required for each rule prescription to obtain the desired statistical

precision. The compliance monitoring field team then collects data from the required number of samples for each rule prescription type.

Some forest practices rules are monitored annually and are referred to as the "standard sample." In addition, certain rule groups (or prescription types) are monitored periodically and these are known as a "periodic sample." Periodic samples are those performed recurrently on infrequently occurring forest practices rule groups. Often, several years are necessary to build up a large enough sample size for study purposes.

The standard sample monitors the following rules:

- Riparian protection (WAC 222-30-021 and WAC 222-30-022)
- Wetland protection (WAC 222-30-020(7) and WAC 222-24-015)
- Road construction, maintenance, and abandonment (WAC 222-24)
- Haul routes for sediment delivery (WAC 222-24)

Statewide Water Typing Findings

In the initial years of compliance monitoring, compliance monitoring field team observations indicated that at times water types observed on the ground did not match water type classifications provided on submitted and approved FPAs. This led to concern regarding consistency and accuracy of water type information on FPAs because the width and length of riparian buffers required under forest practices rules are directly linked to water type. Stream and wetland type classification is a fundamental aspect of determining which rules apply to forest management activities taking place adjacent to typed water.

History of Compliance Monitoring Program Design

2006 – A statewide working group led by DNR completed a Compliance Monitoring Program design focusing on RMZ forest practices rules for all typed waters and road activities. The program design also included a detailed protocol for field assessments, field form revisions, and data collection templates. A pilot sampling effort was completed.

2008 – The Board recommended technical review of the program design. Five reviewers were selected who had operational monitoring experience and the report results were presented to the Board in February 2008.

2008 – In response to the 2008 review, four significant changes to sampling were implemented for 2008-2009.

1. A protocol was added to capture observed differences between water type classification at the time of application approval and at the time of the compliance review.

2. Compliance with the rules as they are applied on the ground is assessed in addition to compliance with what was stated on the approved application.
3. The FPA selection strategy was modified to sample each DNR region proportional to their representation in the entire population of applications statewide. This was to assure representation of each region in the sample.
4. DNR contracted with a professional statistician to review and approve the program design.

2011 – An interim annual report between biennial reports became a required element of the program.

2012 – The Compliance Monitoring Program made significant changes in the sample design to increase confidence in statistical estimates for each prescription type observed. Previously, the design was based on a random selection of FPAs stratified by the proportion of the population found in each DNR region. The sample size for each prescription type was dependent on what prescription types were observed on the selected FPAs. Beginning in 2012, the sample design randomly selected instances of each sampled prescription type occurring in the population. An estimated sample size was calculated for each prescription type, which met a desired confidence interval for a biennium sample. This change in selection design allowed for some control in the level of statistical confidence in results and provided a larger information set to help determine causes of deviation from the rules. It also added flexibility in the future to add or remove different prescription types from the sample as needed while still providing the desired confidence intervals for each prescription type.

This change instituted in 2012 was designed to improve the confidence of the compliance estimates for the less frequently occurring prescription types. The design included using a finite population correction factor to estimate the sample size needed to provide a $\pm$ 6% confidence interval (CI) for all prescription types assessed. The $\pm$ 6% CI was selected because it was perceived to be the best precision achievable within the program budget. As a result, the 2012-13 biennium sample saw a modest improvement in confidence but the implementation cost was too high to sustain.

2014 – The Compliance Monitoring Program made significant study design modifications to increase precision in statistical estimates for each prescription type observed. The updated study design divides the number of compliant rules by the number of total sampled rules within each prescription type, resulting in an average compliance rate by prescription. This change makes results more precise and provides more information to help determine causes of noncompliance associated with rule interpretation and implementation. The modified design adds flexibility for future sampling to add or remove different prescription types from the sample as needed, while still providing the desired confidence intervals for each prescription type. Additionally, the No

Inner Zone Harvest prescription, and No Outer Zone Harvest prescription have been combined into one sampled prescription. The cluster analysis method has distinct advantages:

- The method requires a smaller sample of FPA/Ns, which allows more flexibility for possible emphasis samples, or sampling upland prescriptions.
- The revised method observes the same prescriptions assessed in the 2012-13 report, which has not resulted in substantial changes to field data collection procedures.
- The program can use data from previous biennia and produce results using the cluster sampling ratio method, which will allow a comprehensive comparison of compliance trends.
- This method benefits the program in detecting the specific rules or guidance that will require additional clarification and training. This could also inform the Adaptive Management Program about effectiveness monitoring studies that the Cooperative Monitoring Evaluation and Research Committee could engage.

Each analysis method provides a different metric, which are not directly comparable with each other. However, the change from binomial ratio analysis will still allow for analysis of past data using the cluster sampling ratio method because past data were collected with the same method. During this reporting period, the CMP analyzed previous biennia data using the cluster analysis method and presented the results in the 2014-15 biennium Compliance Monitoring Report.

2016 – The Compliance Monitoring Program incorporated an ongoing trend analysis project to discern patterns of changes in compliance rates measured over time. Data collected prior to 2014 were transformed to be consistent with current data collections, and analytical protocols. Data for rules were combined and compared through time within each corresponding prescription type. Trends in average compliance with prescriptions and individual rule compliance are tracked to maintain consistency with current methods. Weighted least squares multiple univariate linear regression was used to predict general trends in average compliance across all prescription types through time.

2017 – The Compliance Monitoring Program submitted the 2014-15 biennial report, which includes current sampling and analytical methodology for Independent Scientific Peer Review. The program's goal for submittal of the report and methodology for peer review is a strengthening of the overall statistical validity of the methodology and results. The results from the peer review were incorporated into the 2016-17 Compliance Monitoring Program biennial report, and subsequent compliance monitoring reports.

2017 – It was determined that an interim annual report would no longer be provided by the Compliance Monitoring Program because it was no longer needed.

2018 – Recommendations from Independent Scientific Peer Review were incorporated into the program's study design and the 2016-2017 Compliance Monitoring Program biennial report. Forest practices rules compliance is calculated using a jackknifed form of the ratio estimator, and an expanded methodology appendix was developed and incorporated into the report. Jackknife analysis requires recalculation of ratio estimates leaving out one sample each time. For example, if 13 samples were used to estimate DFC1 compliance, 13 ratio estimates would be calculated from the data, using 12 samples per estimate. The 13 estimates are then averaged to come up with a less biased estimate of DFC1 compliance. Jackknife ratio estimates can be compared to original ratio estimates to determine the sample size at which the difference between the two estimates becomes negligible. By using a jackknifed form of the ratio estimator, bias may be reduced, yielding a more accurate variance estimate.
Back to Body of FPHCP Annual Report

Training/Information/Education

Training is a key element to successful implementation of, and compliance with, the forest practices rules – some of the most comprehensive and function-based rules in the nation. Forest practices rules require DNR to "conduct a continuing program of orientation and training, relating to forest practices and rules thereof, pursuant to RCW 76.09.250" (WAC 222-08-140). DNR conducts ongoing training to educate internal agency staff, forest landowners, and staff from cooperating agencies and organizations on implementation of forest practices rules.

Single-/Multiple-Day Forest Practices Program Training

The program provides single-day and multiple-day training for complex subjects, which require larger blocks of time.

Unstable Slopes

The unstable slopes course objectives are to improve the ability to recognize unstable slopes and landforms, improve consistency in recognition of these features, and identify when a specialist is needed for further consultation.

Channel Migration Zone

Channel Migration Zone course objectives are to define what a forest practices Channel Migration Zone is, field delineation, and the relationship with the forest practices rules.

Wetlands

Course objectives highlight the technical criteria for determining wetland hydrology, soils, and plants, with a focus on understanding, the forest practices wetland types and the relationship with forest practices rules.

Forest Practices Enforcement

This course provides program guidance and direction to all Forest Practices Staff to review, class, and condition FPA/Ns and comply and defend Department actions taken under RCW 76.09 and WAC 222. Actions taken are to implement the rules using proactive compliance and use all necessary enforcement tools to protect, correct, and recover environmental damage. Additionally, the following course objectives serve as a common theme throughout:

- Ensure compliance with the Forests and Fish rules and CWA assurances
- SEPA: Evaluate all Class IV FPAs to assure adequate environmental review and protection; assist local government agencies in transition to accept implementation of Class IV-General FPAs
- Respond to any complaint or concern from the public with a proper investigation
- Ensure public safety and protection of public resources
- Understand the specific roles as a program team member

Brief Adjudicative Proceedings
This course is designed to give forest practices staff the ability to identify why and when DNR uses Brief Adjudicative Proceedings. Students will demonstrate how and when DNR responds to these requests and identify the role of the Attorney General's Office. Additionally, this course demonstrates the DNR regions' role as advocate for issuance and gives understanding of specific guidelines for presiding officers' conduct.

Forest Practices Hydraulic Project
Course objectives are to inform forest practices staff on what to look for when accepting and approving a forest practices hydraulic permit. Additionally, the goal is to ensure that hydraulic permit implementation complies with forest practices rules, regulations, and guidance.

Single-/Multiple-Day Workshop Classes
Workshop classes generally fall into the category of public outreach. These are partnership opportunities to educate the public about forest practices. Some workshops are internal to DNR forest practices staff, but they usually are directed toward public education.

Compliance Monitoring
The CMP provides annual training for staff from DNR, Department of Ecology, WDFW, and tribes who participate in on-site review of completed FPAs. New program participants provide additional field coaching and on-the-job training.

Washington Contract Loggers Association
DNR forest practices staff teach select classes to the Washington Contract Loggers Association (WCLA). WCLA annually conducts a four-day training course, which includes one day of training and one day of forest silviculture and ecology for operators seeking WCLA Master Logger certification. DNR Forest Practices Program, WDFW, and Ecology staff teach subjects

including water typing, riparian and wetland management zones, cultural resources, road maintenance, hydraulic projects, and general information regarding the FPA/N process.

DNR Region-Focused Training
Region-focused training constitutes short-duration training provided specifically to region forest practices staff and training provided by region staff across the state. These are interactions at a local level via district meetings, stakeholders at TFW meetings, and other various interactions with forest industry professionals and small forest landowners across the state.

Training Provided to Forest Practices Staff
Short, focused training sessions are provided to forest practices staff during regularly scheduled program meetings. The meetings are held three times a year with the purpose of division and region staff sharing information and addressing program topics.

Training Conducted by Region Staff
DNR forest practices region staff deliver both statewide and region-specific training. One of the forums used for region training are the regularly held region TFW "cooperator" meetings. During these meetings, the forest practices staff train on such topics as changes in forest practices rules, rule implementation, and application processing. Region staff also organize informal meetings where technical or scientific information is presented to inform field practitioners about recent research findings.

Back to FPHCP Annual Report

RMAP for Large Landowners

The 2022 report includes information about the final year of work accomplished under the RMAPs program. The program was successfully concluded on October 31, 2021. Since 2001, 31,095 miles of forest roads were improved to meet forest practices standards, and 8,609 fish passage barriers were eliminated, opening 5,244 miles of fish habitat.

Historically, studies have identified forest roads as sources of sediment delivery to streams and hydrology related impacts in Washington's forests. Research has demonstrated that well-designed and properly maintained roads minimize impacts to public resources. Forest practices rules include a Road Maintenance and Abandonment Plan (RMAP) program found in Chapter 222-24 WAC, to help prevent sediment and hydrology-related impacts to public resources, such as fish and water quality, and to fix fish passage barriers. Forest landowners are responsible for maintaining all of their forest roads to the extent necessary to prevent potential or actual damage to public resources.

RMAP rules state that large forest landowners were required to have all forest roads within their ownership covered under a DNR-approved RMAP (WAC 222-24-051) by July 1, 2006, and were to bring all roads into compliance with forest practices rules standards by October 31, 2016. This includes all roads that were constructed or used for forest practices after 1974. An inventory and assessment of orphaned roads (i.e., forest roads and railroad grades not used for forest practices since 1974) must also be included in the plan. In areas where watershed analysis has been conducted and approved, large forest landowners may elect to follow the watershed administrative unit-road maintenance plan rather than developing an RMAP under WAC 222-24-051.

Forest practices rules required large forest landowners to prioritize road maintenance and abandonment work based on a "worst first" principle – starting with road systems where improvements would produce the greatest benefit for public resources. Landowners were to schedule their RMAP work to be metered throughout the time prior to the deadline, on an "even-flow" basis so as not to wait until the last few years to complete all the work. Within each plan, maintenance and abandonment work is prioritized as follows:

- Remove blockages to fish passage
- Prevent or limit sediment delivery
- Correct drainage or unstable side-cast[10] in areas with evidence of instability that could adversely affect public resources or threaten public safety
- Disconnect the road drainage from entering typed waters
- Repair or maintain roads that run adjacent to streams
- Minimize road interception of surface and ground water

Each year on the anniversary date of the plan's submittal, landowners report work accomplishments for the previous year, work proposed for the upcoming year, and any modifications to the plan. In an effort to minimize the economic hardship on small forest landowners, the 2003 Washington Legislature passed an RMAP bill (HB1095) that modified the definition of "small forest landowner" and clarified how the RMAP requirements applied to small forest landowners. Small forest landowners have the option to submit a "checklist" RMAP with each FPA/N, rather than to provide a plan for their entire ownership. DNR, in consultation with WDFW and Ecology, submitted a report to the Legislature and the Board in December 2008 on the effectiveness of the checklist RMAP. Please find the report at the following web address: dnr.wa.gov/Publications/fp_sflo_rmap_legreport_2008.pdf.

Please see small forest landowner section above in Appendix 3 for more information on small forest landowner roads.

[10] Extra material (dirt and debris) generated from clearing for a road. The debris can be put to the side.

Board Manual Section 3 *Guidelines for Forest Roads* explains requirements and processes in the RMAP program.

Extension of RMAP Deadline

On August 9, 2011, the Board amended WACs 222-24-050 and 222-24-051 to allow forest landowners to extend the deadline for completing the roadwork scheduled in their RMAPs beyond October 31, 2016. The rule change allowed for an extension of the deadline (for up to five years) until October 31, 2021. The Board adopted this rule amendment because of the impact of the 2008 economic downturn on forest landowners.

Data Tables – Tables 18, 19 and 20 in RMAP Chapter 11

Data Precision

The RMAP data identified in Tables 16-19 are based solely on what landowners provided in their initial RMAP reports and subsequent annual reports of work completed. For many regions, the exercise of totaling landowners' RMAP information was conducted using the annual paper reports. Some DNR regions recorded this data through GIS early in the annual RMAP reporting process and others did not. Through time, landowners and DNR experienced staff changes that affected program continuity, resulting in introduction of errors in some annual reports that were undetected until corrected years later. In addition, DNR's decision to change region boundaries in 2013-14 contributed to reporting errors in South Puget Sound and Pacific Cascade Region values that have subsequently been corrected. Although DNR staff strives for accuracy in its reporting, it recognizes that the final RMAP statistics, in this 2022 Forest Practices HCP Annual Report, may include errors and may not report all of the work that has been completed.

Reporting Elements

Number of Approved RMAPs

The number of approved RMAPs represents those plans submitted predominantly by large forest landowners. Many large landowners have more than one plan. There are 12 small forest landowners that could have opted to submit a "checklist" RMAP, but chose (in writing) to continue to follow their pre-2003 submitted RMAP, or decided to submit a plan as described in WAC 222-24-0511(2). This does not include land previously owned by a large landowner covered under an approved RMAP, which has been sold to a small forest landowner that chooses not to continue or implement an RMAP.

In 2016, 55 RMAPs were granted extensions beyond the original due date of October 2016 to October 2021. No new RMAPs will be added because the application deadline for an extension has passed. Therefore, the cumulative number of RMAPs will no longer change. However, the cumulative number of RMAP checklists are still changing as small forest landowners submit RMAP checklists with their FPAs.

Miles of Forest Roads Assessed

Landowners arrived at these miles of forest roads assessed numbers by conducting an inventory and assessment of all forest roads contained within a specific RMAP. This number includes roads that meet forest practices rules standards as well as those that need to be improved.

Miles of Forest Road Identified Needing Improvement

Implementing the definition as described below, *Miles of Road Improvement*, the data was partially completed (dependent upon each landowner's RMAP accomplishment reporting date) and first reported in the 2012 Forest Practices HCP Annual Report.

Miles of Road Improvement

For RMAP purposes, an improved road or road segment is defined as locations where actions have been taken to address issues associated with the following:

- Fish passage
- Delivery of sediment to typed waters
- Existing or potential slope instability that could adversely affect public resources;
- Roads or ditch lines that intercept ground water
- Roads or ditches that deliver surface water to any typed waters

The improvements are to meet the current forest practices rule requirements and are identified in the landowner plan, or problematic road conditions are subsequently discovered and actions are identified for inclusion within the period associated with an approved RMAP.

Once a landowner confirms that a road or road segment is brought up to current forest practices rules standards, it is captured in that year's accomplishment report. Landowners submit accomplishment reports per the landowner's annual RMAP date. This date ranges from November to May of the following year after the operational roadwork season is complete and is dependent upon their plan's anniversary date. The DNR RMAP specialist or Forest Practices forester may concur with the reports, meaning the road no longer will be identified as an RMAP obligation; therefore, the road or road segment would not be included in subsequent reporting years for miles of road needing improvement. All roads not under an RMAP obligation are subject to standard forest practices rules found in Chapter 222-24 WAC.

Miles of Road Abandonment

The number of road abandonment miles includes those that have been reported under an approved RMAP as abandoned per WAC 222-24-052(3). Roads are not considered "officially abandoned" until the DNR RMAP specialist or Forest Practices forester reviews the on-the-ground abandonment to ensure it meets the requirements. Reported road abandonment miles

reflect some road miles that may not have been officially abandoned at the time this report was distributed.

Miles of Orphaned Roads

The number of miles of orphaned roads includes those that have been reported under an approved RMAP as orphaned. Inventory and assessment of orphaned roads will be used to help in the evaluation of the hazard-reduction statute and to determine the need for cost-share funding (RCW 76-09-300).

This information is challenging to track precisely due to the difficulty in locating orphaned roads on the landscape; they often are obscured by brush and forest cover and do not appear on any map. Some orphaned roads have been converted to active forest roads, some are properly abandoned, and some may be scattered throughout the landscape with present status unknown.

Number of Fish Passage Barriers Identified

The total number of fish passage barriers includes those identified as part of an approved RMAP inventory.

The total number of fish passage barriers will fluctuate over time, depending on when landowners verify on-the-ground physical characteristics or perform a protocol survey or other approved methodology for verifying fish presence or absence. In cases in which a stream type has been changed from Type F to Type N – therefore negating the landowners' obligation to remove fish passage barriers – sizing of the culvert will be assessed to ensure that it is able to pass a 100-year flood level event plus debris. Due to limited habitat gained, barriers also may be removed from the total number if the structure was determined in consultation with WDFW to be partially fish passable and sufficient to remain until the end of its functional life. In addition, a barrier may be removed from the list if the structure was determined to play an important role in maintaining pond or wetland habitats; these decisions are made with stakeholder consultation.

Number of Fish Passage Barriers Corrected

The corrected number of fish passage barriers includes the total number that have been permanently removed or fixed with a fish-passable structure.

Miles of Fish Habitat Opened

The "miles of fish habitat opened" refers to upstream habitat opened for fish use after the fish passage barrier has been removed or replaced. This number is an estimate because it is not always possible to measure stream length on the ground. The measurement is often based upon aerial photos or maps.

This number of miles of fish habitat opened may fluctuate depending on when, or whether, a stream type verification survey occurs. This number is reflected by large forest landowner data or topographical information when there are no protocol surveys to pinpoint exact breakpoints. It also is difficult for landowners to determine this number if the stream enters another ownership.

Number of RMAP Checklists Submitted by Small Landowners

The "number of RMAP checklists" is the total submitted to the DNR regions by small forest landowners since the 2003 rule change. Small forest landowners may submit more than one RMAP checklist.

Back to Body of FPHCP Annual Report

Cultural Resources

As sovereign nations, federally recognized Indian tribes in Washington State are key cooperators in the Forest Practices Program. The Services have a particular interest in tribal connections with FPAs due to the federal government's fiduciary relationship with federally recognized Indian tribes. As a result, the Services requested reporting of updates on tribal/landowner meetings and process improvements. The Forest Practices HCP reporting obligations include information concerning "*landowner/tribal meetings and process improvements pursuant to WAC 222-20-120*" in both the annual and five-year Forest Practices HCP reports. See Table 1.1 FPHCP Reporting Elements, "Administrative and Regulatory Program Updates" (open the link, scroll to page 9).

The Board, under the authority of Forest Practices Act chapter 76.09 RCW, adopts forest practices rules that foster cooperative relationships and agreements with affected tribes. These rules direct DNR Forest Practices staff to notify and consult with affected Indian tribes when developing and implementing many parts of the Forest Practices Program. (RCW 76.09.010 and WAC 222-12-010). In the forest practices rules, "*affected Indian tribe means any federally recognized Indian tribe that requests in writing information from the department on forest practices applications and notification filed on specified areas*" (WAC 222-16-010).

Tribes in Washington – as well as some tribes in Oregon and Idaho – currently participate as forest practices cooperators to varying degrees. Tribes are members of the Forest Practices Adaptive Management Program's TFW Policy Committee and the Cooperative Monitoring, Evaluation, and Research Committee. Tribal representatives are also members of DNR's Small Forest Landowner Advisory Committee.

Additionally, tribal members and their representatives work with staff from DNR's Forest Practices Program in FPA/N review, technical expertise during DNR's interdisciplinary team reviews, water typing, and wetland typing. Tribal members participate with other agencies and organizations that work with DNR to draft forest practices rules and Board Manual sections. Tribes also work with those landowners who are interested in pre-application planning of their forest practices.

Landowner/Tribe Meetings and WAC 222-20-120 Updates

Background

This Forest Practices HCP reporting element reads "*landowner/tribal meetings and process improvements pursuant to WAC 222-20-120*". See Table 1.1 FPHCP Reporting Elements, "Administrative and Regulatory Program Updates" (open the link, scroll to page 9).

Forest Practices Rule WAC 222-20-120, titled "*Notice of forest practices that may contain cultural resources to affected Indian tribes,"* requires:

- DNR to notify tribes of all proposed applications within the tribe's designated geographic area of interest, and;
- When an FPA/N may contain cultural resources, DNR notifies the landowner of the requirement for them to contact affected tribes who will determine if a meeting is required. When a meeting is required, landowners meet with the affected tribe(s) to determine if the proposed activities within the forest practices activity area requires a plan to protect cultural resources. In the rule's definitions, "*cultural resources means archaeological and historic sites and artifacts, and traditional religious, ceremonial and social uses and activities of affected Indian tribes"* (WAC 222-16-010).

Currently, all but one of the federally recognized tribes in Washington has chosen and is signed-up to review Forest Practices Applications and Notifications, Multi-Year Permits, and Small Forest Landowner Long-Term Applications. Several Washington state tribal organizations, the Northwest Indian Fisheries Commission, the Skagit River Cooperative, and the Upper Columbia United Tribes have signed up to review FPA/Ns on behalf of member tribes.

Process

- The Forest Practices Program uses its Forest Practices Risk Assessment Mapping tool (FPRAM) to review and appropriately classify proposed forest practices and implement WAC 222-20-120. FPRAM is the GIS-based interactive mapping and reporting tool, which allows Forest Practices staff to see the geographic relationships between known environmental features and the location of proposed forest practices. FPRAM includes:
- Data from the Washington Department of Archaeology and Historic Preservation
- The 1893-1950 U.S. Geological Survey and Army Mapping Service maps for Washington state
- Bureau of Land Management Government Land Office historical maps
- Tribal Cultural Resources Contacts (each tribe or tribal organization has a designated geographic area of interest for cultural resources and the name and contact information of their designated cultural resources contact)

Back to Body of FPHCP Annual Report

Information Technology-Based Tools

Information technology-based tools provide significant support for the administration of the Forest Practices Program, and support the implementation of the Forest Practices HCP. These

tools include information systems such as the Forest Practices Application Review System (FPARS), Forest Practices Enforcement Tracking System (FPETS), Forest Practices Application and Mapping Tool (FPAMT), Forest Practices Risk Assessment Mapping (FPRAM), and the Water Type Application (WTA) tracking system.

There are also discrete data sets, such as the DNR Hydrography Geographic Information System (GIS) data layer that forms the basis of the water typing system used to implement the forest practices rules. Within DNR, the Forest Regulation Division works closely with DNR Information Technology Division to develop and maintain these information technology tools.

Forest Practices Application Review System

FPARS streamlines the processing of FPAs and provides the public with the ability to review proposed forest practices activities. It makes use of the Internet, document imaging and management technology, interactive GIS technology, and the Oracle database system to collect FPA/N information, and distribute it for regulatory and public review. FPARS also supports archiving FPAs and risk assessments of proposed forest practices activities. A large IT project began July 1, 2022 that will replace and enhance the functionality currently found in FPARS, FPETS and WTA. Goals of the project include implementing online FPA and WTMF submittal including online payment and signature.

Forest Practices Enforcement Tracking System

The FPETS provides the ability for region-based Forest Practices staff and Forest Regulation Division staff to enter and report on data related to enforcement actions, civil penalties and appeals. It uses the Internet, document imaging and management technology, and the Oracle database system to collect forest practices enforcement information.

Capturing enforcement data in a common database facilitates data streamlining and improved data accuracy by removing redundancies and enables production of automated reports used in the enforcement tracking process. FPETS also includes a robust search tool that allows users to query on and search the FPETS database for information related to informal conference notes, enforcement orders, civil penalties, and appeals.

Forest Practices Risk Assessment Mapping

The Forest Practices Risk Assessment Mapping application is a web-based interactive mapping and reporting tool. It gives DNR Forest Practices Program staff, in both the division and the region offices, access to GIS data related to the implementation of the forest practices rules. It allows staff to see and review the geographic relationships between environmental features including, streams, potential landslide areas, archaeological sites, northern spotted owl habitat, and the locations of proposed forest practices activities.

Water Type Modification Form Tracking Application (WTA)

Initiated in April 2016, WTA facilitates review and processing of Water Type Modification Forms (WTMF). WTA stores key data about each WTMF, automatically sends email notifications to all stakeholders, and captures reviewer comments and feedback.

DNR Hydrography Data Layer and Water Type Updates

The Forest Practices GIS section updates DNR's hydrography data layer with water typing information received on WTMFs. DNR personnel, forest landowners, fish survey contractors, and others base these updates on direct observations in the field.

Road Maintenance and Abandonment Plan Point Data Set

The Road Maintenance and Abandonment Plan (RMAP) points' dataset is compiled from individual RMAP annual accomplishment and planning reports and other sources into a statewide data system. DNR continues to work to make the dataset as complete as possible.

Field Maps App and Mobile Map Packages

This is a GIS app that runs on smartphones and tablets that shows field staff where they are on the ground and shows existing FPA areas, water type changes, RMAP projects, parcel information, and habitat and slope stability information.

Forester Field Tool

This mobile tool provides a way for Foresters to create and send documentation on pre-application review site visits, FPA decisions and site visits and post-decision (compliance) visits. The tool is run through an app on mobile devices and runs workflows that create Word documents, save the documents in cloud storage and emails them to region office staff. Training was completed in January of 2023.

Back to FPHCP Annual Report

References

McDade, M.H., F.J. Swanson, W.A. McKee, J.F. Franklin and J. Van Sickle. 1990. Source distances for coarse woody debris entering small streams in western Oregon and Washington. Can. J. For. Res. 20:326-330.

U.S. Fish and Wildlife Service, et al. 1999. Forests and Fish Report. Available at: http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesHCP/Pages/fp_hcp.aspx

U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). 2006. Final Environmental Impact Statement – For the Proposed Issuance of Multiple Species Incidental Take Permits or 4(d) Rules for the Washington State Forest Practices Habitat Conservation Plan. Washington Department of Natural Resources, Forest Practices Program, Olympia, Washington. Available at: http://www.dnr.wa.gov/programs-and-services/forest-practices/forest-practices-habitat-conservation-plan

Washington State Department of Ecology. 2009. 2009 Clean Water Act Assurances Review of Washington's Forest Practices Program.

Washington DNR. 2005. Final Forest Practices Habitat Conservation Plan. Washington Department of Natural Resources, Forest Practices Program, Olympia, Washington. Available at: http://www.dnr.wa.gov/programs-and-services/forest-practices/forest-practices-habitat-conservation-plan

Washington Forest Practices Act. Washington State Legislature. http://apps.leg.wa.gov/rcw/default.aspx?cite=76.09

Washington Forest Practices Board. Washington forest practices board manual, Section 22. Washington Department of Natural Resources, Olympia, Washington. Available at: http://www.dnr.wa.gov/about/boards-and-councils/forest-practices-board/rules-and-guidelines/forest-practices-board-manual

Washington Forest Practices Board. Washington Forest Practices Rules. Washington Department of Natural Resources, Olympia, Washington. Available at: http://www.dnr.wa.gov/about/boards-and-councils/forest-practices-board/rules-and-guidelines/forest-practices-rules

List of Acronyms

Agencies and Organizations

Board	Washington Forest Practices Board
CPeace	Center for Conservation Peacebuilding
DAHP	Department of Archaeology and Historic Preservation
DNR	Washington State Department of Natural Resources
Ecology	Washington State Department of Ecology
EPA	Environmental Protection Agency
NMFS	National Marine Fisheries Service
RCO	Washington State Recreation and Conservation Office
SAO	State Auditor's Office
SFL	Small Forest Landowner
SFLO	Small Forest Landowner Office
TFW	Timber/Fish/Wildlife
USFWS	United States Fish and Wildlife Service
WCLA	Washington Contract Loggers Association
WDFW	Washington Department of Fish and Wildlife
WFFA	Washington Farm Forestry Association
WFPA	Washington Forest Protection Association

Technical Terms

AFF	Anadromous Fish Floor
BACI	Before-after-control-input
DFC	Desired future condition
DFC1	Desired future condition option 1
DFC2	Desired future condition option 2
DNA	Deoxyribonucleic acid
FFSA	Forests and Fish Support Account
FHAM	Fish Habitat Assessment Methodology
F/N	Break between fish bearing water and non-fish bearing water
FTE	Full Time Equivalent
FY	Fiscal Year
FWEP	Forest Wetlands Effectiveness Project
GF-State (GF-S)	General Fund-State
GIS	Geographic Information System
ISAG	Instream Scientific Advisory Group
IT	Information Technology
LiDAR	Light Detection and Ranging
LTA	Long-Term Application

LWAG	Landscape and Wildlife Advisory Group
LWD	Large Woody Debris
MBACI	Multiple Before-after-control-input
MPS	Master Project Schedule
MTCOA	Model Toxics Control Operating Account
NHD	National Hydrology Database
NIZH	No Inner Zone Harvest
PCE	Personal Consumption Expenditure
PHB	Potential Habitat Break
PI	Proposal Initiation
QA	Quality Assurance
RCS	Riparian Characteristics and Shade Response Study
RFP	Request for Proposal
RIL	Rule Identified Landform
RMZ	Riparian Management Zone
RSAG	Riparian Scientific Advisory Group
SAG	Scientific Advisory Group
SAGE	Scientific Advisory Group, Eastside
Toxics	State Toxics Control Account
Type F	Fish-bearing stream
Type Np	Non-fish-bearing, perennial stream
Type Ns	Non-fish-bearing, seasonal stream
Type S	Shorelines of the state
UPSAG	Upslope Processes Scientific Advisory Group
WAU	Watershed Administrative Unit
WMZ	Wetland Management Zone
WRIA	Water Resource Inventory Area

Staff, Programs, Official Documents

AMP	Adaptive Management Program
AMPA	Adaptive Management Program Administrator
CMER	Cooperative Monitoring, Evaluation, and Research Committee
CMP	Compliance Monitoring Program
CR-101	Proposal Statement of Inquiry
CR-102	Proposed Rule Making
FFFPP	Family Forest Fish Passage Program
FFR	Forests and Fish Report
Forest Practices HCP	Forest Practices Habitat Conservation Plan
FPAMT	Forest Practices Application and Mapping Tool
FPA/N	Forest Practices Application/Notification
FPARS	Forest Practices Application Review System

FPETS	Forest Practices Enforcement Tracking System
fpOnline	Forest Practices Online Project
FPRAM	Forest Practices Risk Assessment Mapping
FREP	Forestry Riparian Easement Program
HCP	Habitat Conservation Plan
ICN	Informal Conference Note
IDT (ID Team)	Interdisciplinary team
ISPR	Independent Scientific Peer Review
NOID	Notice of Intent to Disapprove
NTC	Notice to Comply
PI	Principle Investigator
RHOSP	Rivers and Habitat Open Space Program
RMAP	Road Maintenance and Abandonment Plan
SWO	Stop Work Order
WTA	Water Type Modification Form Tracking Application
WTMF	Water Type Modification Form

Regulations, Acts, Official Guidance, and Permits

Board Manual	Forest Practices Board Manual
CCR	Climate Commitment Act
CWA	Clean Water Act
EIS	Environmental impact statement
ESA	Endangered Species Act
FPHP	Forest Practices Hydraulic Permit
IA	Implementing Agreement
ITP	Incidental Take Permit
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
WAC	Washington Administrative Code