



**DEPARTMENT OF
NATURAL RESOURCES**

**OFFICE OF THE COMMISSIONER
OF PUBLIC LANDS**

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December 15, 2022

Kim Kratz, Assistant Regional Administrator
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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: 2022 Forest Practices HCP Annual Report, Incidental Take Permits 1573
(NOAA) and TE 121202-0 (USFWS)

Dear Assistant Regional Administrator Kratz and State Supervisor Thompson:

The 2022 Annual [Report](#) for the *Forest Practices Habitat Conservation Plan* (Forest Practices HCP) is now available for your review. The report covers the period from July 1, 2021 through June 30, 2022. 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 remained focused on developing the essential elements needed for a permanent water typing system rule, specifically fish habitat elements regarding anadromous fish and to define the regulatory division between streams that provide fish habitat and those that do not. In addition, the Board worked towards initiating a rulemaking process related to riparian buffers on perennial streams that are not fish habitat.

Adaptive Management Program (AMP)

- AMP began implementing recommended steps to address the Washington State Auditors' Office 2021 [report](#) concerning improving effectiveness and efficiency of the program.
- AMP completed two Master Project Schedule research projects during the reporting period.
- Fifty-six research projects have been completed since the AMP began in 2001, and there were 16 projects underway at the end of the reporting period.

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Road Maintenance and Abandonment Plans

- The 2022 report includes information about the final year of work accomplished under the RMAPs program. As you know, 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 up 5,244 miles of fish habitat. This is perhaps the greatest accomplishment achieved under Washington's forest practices program since the Forest Practices HCP was authorized.

There are many other accomplishments described in the 2022 annual report. 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 Charlene Rodgers, FPHCP Administrator at charlene.rodgers@dnr.wa.gov.

The State looks forward to a strong, continuing 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,

Kathryn W. Taylor

for Hilary S. Franz
Commissioner of Public Lands

cc: 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, 2021-June 30, 2022

Annual Report

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



Acknowledgements

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

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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

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1. Introduction to Forest Practices HCP 2021 Annual Report

[Appendix: Background on Forest Practices HCP](#)

In 2005, the State of Washington 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 (ESA), issued ITPs 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 Implementing Agreement, the Forest Practices Program, on the behalf of Washington state, submits to the Services an annual report describing implementation activities.

2022 Annual Report Highlights

COVID-19 Impacts

The activities covered in this report continued to be impacted by the COVID-19 pandemic. A pandemic response initiated by the Washington State Department of Natural Resources (DNR) in March 2020 continued throughout the reporting period in order to provide for the safety of DNR employees; Timber, Fish, and Wildlife (TFW) partners; and the public.

DNR staff generally worked from home during this reporting period, and indoor face-to-face meetings were limited. Specific safety protocols were followed when people traveled and worked in the field in close proximity with others. The program continued to utilize virtual meetings and other means to minimize the risk of COVID-19 transmission in the course of carrying out its business. These practices contributed to a stellar safety record, and DNR is grateful to everyone involved in the implementation of the Forest Practices HCP for their diligence in acting to keep others safe and healthy.

Highlights of the Forest Practices HCP implementation from July 1, 2021, through June 30, 2022, include:

Forest Practices Board (Board)

The Board remained focused on developing the essential elements needed for a permanent water typing system rule; specifically, fish habitat elements regarding anadromous fish and defining the regulatory division between streams that provide fish habitat and those that do not (the “F/N break”). A sub-committee of Board members continued to meet to help address specific issues and gather required data related to the water typing system rulemaking, and completed its work during this reporting period. See [Appendix 3](#) for background information and discussion on the work accomplished toward completion of the permanent water typing system rule. In addition, the Board worked towards initiating the rulemaking process related to riparian buffers required along perennial non-fish-bearing streams (“Type Np” streams).

In January 2021, the Board received the results of a [performance audit](#) of the AMP that was conducted by the State Auditor’s Office (SAO) at the Board’s request. The report contained 11 recommendations within the Board’s purview. The Board approved an SAO Recommendation [Work Plan](#) in May 2021 and the Board, TFW Policy Committee, and Board staff (DNR) began working to implement the plan and continued the work during this reporting period.

Adaptive Management Program (AMP)

- AMP began implementing recommended steps to address the SAO report on improving effectiveness and efficiency of AMP.
- The AMP completed two research projects during the reporting period:
 - *Type N Experimental Buffer Treatment in Hard Rock Lithologies (Phase II Extended Monitoring)*
 - *Effectiveness of Forest Practices Buffer Prescription on Perennial Non-fish-bearing Streams on Marine Lithologies in Western Washington (Soft Rock Study)*
- Since the AMP began in 2001, 56 projects have been completed. Sixteen projects were ongoing at the end of the reporting period.

Forest Practices Operations

- Forest Practices Operations staff processed 3,722 Forest Practices Applications/Notifications (FPA/Ns) and 756 water type modification forms (WTMFs).
- One program guidance document was issued for forest practices staff and the public:
 - Guidance Memoranda
 - *2022 Fish Survey Season-Water Level and Streamflow Forecast*
 - External Website Information Posting
 - Updated lists for Notices of Intent to Disapprove (NOID) and Outstanding Civil Penalties
- Region and Division Operations staff were involved in planning and conducting statewide training on:
 - Unstable Slopes
 - Channel Migration Zones
 - 2022 Protocol Survey Season (Water Typing)
 - Complex Alternate Plans

- Western Contract Loggers Association (WCLA)
- Please see Section 10 for details and description of additional training conducted by Region staff.
- Washington Department of Fish and Wildlife (WDFW) reported:
 - Biologists reviewed 592 Forest Practices Hydraulic Permits, and consulted on 57 pre-application site visits, accounting for 1,457 hours of work.
 - Biologists reviewed and participated in more than 2,210 water-typing-related opportunities, which accounted for 2,432 work hours.
 - Biologists reviewed and commented to the DNR regional offices and conducted field reviews on FPAs that had potential wildlife conflicts. Wildlife-related work accounted for approximately 1,193 work hours.

Small Forest Landowner Office (SFLO)

- The SFLO expanded by creating a new Small Forest Landowner Regulation Assistance Program, which works statewide to help landowners navigate the Forest Practices rules.
- During this reporting period, regulation assistance foresters addressed 439 requests for assistance from small forest landowners.
- Eight Forestry Riparian Easement Program (FREP) easements were purchased, and 18 new applications were received during the reporting period. Since the program started in 2001, the state has purchased 443 conservation easements. As of June 30, 2022, 104 easement applications were on the FREP funding waiting list.
- Under the Family Forest Fish Passage Program (FFFPP), nine fish passage barriers were removed during FY22 making 50 miles of fish habitat accessible. Since the program's inception in 2003, 433 barriers to fish passage have been eliminated, making approximately 1,150 miles of fish habitat accessible. As of June 30, 2022, 1,369 eligible projects were on the waiting list for FFFPP funding.

20-Acre Exempt Riparian Forestland

- The small forest landowner “20-acre exempt rule” riparian management zone (RMZ) buffers along fish-bearing waters were approved as a component of 87 FPAs. These accounted for 2.9 percent of all approved applications during the reporting period.
- Of the 846 watershed administrative units (WAUs) in the state, 263 (31 percent) were assessed to have a possible reduction in potential recruitment of large woody debris resulting from non-conversion FPAs with fish-bearing waters using the narrower buffers allowed by the 20-acre exempt riparian rule. However, none was assessed to have a reduction impact above 3 percent: 254 have the potential of less than 1 percent cumulative reduction in function, and all nine WAUs with more than 1 percent potential reduction in function show less than 3 percent cumulative potential reduction of riparian function in the WAU. Therefore, no WAU is assessed to approach the 10 percent permit threshold.

Alternate Plans

- There were 184 alternate plan proposals received (53 from large forest landowners and 131 from small forest landowners), and 151 (82 percent) were approved as part of an FPA.

Rivers and Habitat Open Space Program (RHOSP)

- No easements were finalized during the reporting period, because RHOSP easements are acquired in the second year of each state biennial funding cycle. It is anticipated that two easements will be purchased during the next fiscal year (FY2023) and the results will be reported in the next annual report.
- Since the program began in 2001, 23 easement areas have been purchased, encompassing approximately 1,146 acres in channel migration zones and 144 acres of critical habitats for state-listed threatened and endangered species.

Enforcement

- There were 11,609 active (non-expired) FPAs existing at the end of the reporting period. During this reporting period, DNR issued 36 Notices to Comply (NTC) and 16 Stop Work Orders (SWO). Of these enforcement actions, 44 were for violations of the forest practices rules.
- One civil penalty and no Notices of Intent to Disapprove were issued.

Compliance Monitoring Program (CMP)

- CMP collected data for the second year of the two-year (2020-21) biennial data collection process. The 2020-21 CMP report is expected to be published during August 2022.
- During the 2020-21 field season, the compliance monitoring field team evaluated 155 riparian-related prescriptions involving typed water or wetlands. Across these prescriptions, compliance ratings varied from 88 to 97 percent. Results for all except one prescription exceeded the 90 percent performance objective.
- Statistically significant trends of yearly increasing prescription compliance rates were observed for Desired Future Condition 1 (DFC1) (0.82%), Desired Future Condition 2 (DFC2) (0.64%), and No Inner Zone Harvest (NIZH) (0.82%) (Figure 2). No statistically significant trends were observed for water types Ns (non-fish seasonal water), Np (non-fish perennial water), or Type A&B wetlands, forested wetlands, or roads. No downward trending rates were observed.

Training, Information, Education

- Training sessions provided, and number of students in each included: Unstable Slopes – 36 students; Channel Migration Zone – 25 students; Water Typing Refresher – 60 students; Complex Alternate Plan – 60 students; Forest Practices Habitat Conservation Plan Basics – 60 students; and Washington Contract Logger Association – 98 students.
- The program used virtual and hybrid meeting models to deliver trainings during the COVID-19 pandemic.

Road Maintenance and Abandonment Planning (RMAP) for Large Forest Landowners

The data/information provided in this report represents the final data from the RMAP program, which was completed on Oct. 31, 2021. The improvements made through RMAPs represent one of the greatest successes within the Washington forest practices arena over the past 20 years. This work has minimized and or eliminated sediment delivery to live waters, corrected fish passage barriers, disconnected ditch water from live streams, and creatively applied best management practices to upgrade forest roads. This has been a focused and sustained effort by many over a long period. The accomplishments are remarkable.

- Remaining work on all RMAPs with approved extensions was completed by Oct. 31, 2021, with 33 plans completed during the reporting period.
- In calendar year 2020, 313 miles of forest road were improved.
- Since the beginning of the program in 2001, 31,095 miles of forest roads were improved to forest practices standards, and 8,609 fish passage barriers were eliminated that collectively opened up 5,244 miles of fish habitat.

Cultural Resources

- During this reporting period, 26 FPAs required a landowner/tribal meeting. All 26 meetings occurred.

Information Technology

- In this reporting period, 3,728 FPAs were received or renewed and entered into the Forest Practices Application Review System (FPARS) (see [note](#) in Chapter 14 for more information). As of June 30, 2022, 1,166 reviewers had opted-in and were subscribed to receive email notification of FPAs.
- During this reporting period, 482 Informal Conference Notes (ICN), 8 Notices of Conversion to Non-Forestry Use, 36 NTC, 16 SWO and 1 Civil Penalty were entered into the Forest Practices Enforcement Tracking System.
- DNR processed 756 concurred Water Typing Modification Forms, resulting in updates to approximately 826 stream miles. These updates included water type upgrades to approximately 33 miles of stream and water type downgrades to approximately 42 miles of stream. The remaining 751 miles of stream were edited as either a change of location or verification of existing water type. As of June 2022, five concurred Water Type Modification Forms were backlogged and had yet to be entered into the database.
- DNR received legislative funding to develop a modern forest practices application and information system (called “fpOnline”) that will replace FPARS. Dedicated funding will become available on July 1, 2022; however, pre-project milestones completed by the end of this reporting period included appointing a full-time product owner who will serve as the general manager for the overall multi-year effort; contracting for a full-time project manager; and hiring a quality assurance (QA) consultant.

Budget

- 2021-2022 Biennium Operating Budget Allocation (with Personal Consumption Expenditure Conversion to 2005 dollars) is \$38,058,601, 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, 2021 – June 30, 2022)

The Board did not initiate any formal rule making during the reporting period. Section 2.3 below provides information on the Board and adaptive management program actions during this reporting period. The actions were centered on developing and preparing the permanent water typing system and Type Np Water riparian management zone buffer rule making packets for Board approval to initiate rule making.

2.2 Forest Practices Board Manual (Board Manual) Activity (July 1, 2021 – June 30, 2022)

The Board approved two Board Manual section updates during the reporting period.

Board Manual Section 12, Guidance for Application of Forest Chemicals

During the 2019 session, the Legislature passed Substitute Senate Bill 5597, which created the [Aerial Application of Herbicides in Forestlands workgroup](#). The workgroup recommended updates to Board Manual Section 12 to incorporate best management practices regarding site signage, equipment use, weather conditions, neighbor outreach, and information on alternatives to using herbicides. The Board adopted those recommendations and approved an updated [Board Manual Section 12](#) on February 9, 2022.

Board Manual Section 22, Guidelines for Adaptive Management Program

The 2021 SAO performance audit of the AMP indicated that Board Manual Section 22 needed clarifications to make its technical guidance consistent with the requirements of the pertinent rule. The Board approved a revised [Board Manual Section 22](#) on February 9, 2021 that accomplished this purpose.

2.3 Anticipated Forest Practices Board Direction Anticipated Rule Making Activity

Permanent Water Typing System

The Board's primary focus continues to be the development of a permanent water typing system rule. In June 2019, the Board formed the Water Typing Rule Board Committee (Committee) to provide oversight in resolution of the final issues needed to complete the rule packet to initiate formal rulemaking with the filing of a CR-102 (*Proposed Rule Making*). The final Board directed work product for the Committee was the development of an anadromous fish floor (AFF).

During this reporting period, the Committee brought to the Board three potential AFF alternatives for inclusion in the permanent water typing system rule. On June 27, 2022, the Board held a special meeting to receive presentations of the potential AFF alternatives for Board

consideration. The Board will discuss the inclusion of an AFF in the permanent water typing system rule and, if so, which AFF alternative(s) to accept for analysis at their August 2022 meeting.

See [Appendix 3](#) for historical information.

Western Washington Type Np riparian management zones

The Board accepted the TFW Policy Committee recommendation that action needed to be taken to address the findings of the Cooperative Monitoring, Evaluation, and Research Committee (CMER) *Type N Experimental Buffer Treatment Project on Hard Rock Lithologies- Phase 1 (“Hard Rock”)* study. This study demonstrated a temperature increase in Type Np waters flowing through the current Type Np RMZ buffers in hard rock lithologies in western Washington.

The Washington State Department of Ecology (Ecology) provides Clean Water Act (CWA) assurances to forest landowners whose forest-related activities are subject to the Forest Practices Act and rules. Those assurances are predicated on the development of forest practices rules in which, when implemented, will maintain the Ecology anti-degradation rules standards, as measured in part by water temperatures. In December 2019, Ecology extended the assurances based on an assumption that the Board would initiate a Type Np RMZ rule making for western Washington by the end of calendar year 2021. The Board agreed to a TFW Policy Committee proposal to wait to take action 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 in order to have pertinent information representing all stream lithologies in western Washington when considering potential rule changes.

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. 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. The report presents eight prescriptions, including an assessment of the level of effectiveness of each prescription at meeting resource objectives identified in the Board-approved [Schedule L-1 of the Forests and Fish Report for TFW Policy Committee consideration](#). All six CMER studies were completed and presented to TFW Policy Committee before the end of the reporting period, with the TFW Policy Committee recommendations for action on the remaining two studies expected to come to the Board as part of their recommendations for Type Np buffer alternatives.

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 the informal and formal, mediated, stages of dispute resolution. As a result, the TFW Policy Committee recommendations will be presented to the Board through a majority/minority report. The Board has scheduled a special meeting/field tour in October 2022 to receive Type Np buffer alternatives in a workshop and see them applied in the field. A final Board decision on Type Np buffer alternatives is anticipated in November 2022.

Marbled Murrelet Critical Habitat

WDFW convened a Marbled Murrelet wildlife working group to review the forest practices critical habitat rules in response to the state uplisting of the Marbled Murrelet. WDFW and the working group are recommending rule changes to several forest practices rules relating to the marbled murrelet. The intent of the rule changes are to enhance avoidance of impacts on this state and federally listed species, refine regulatory requirements for forest managers and benefit the conservation of the species. It is anticipated WDFW will request the Board to begin rule making at their November meeting.

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 that will be used to delineate fish habitat using certain specific stream characteristics – will reside in Board Manual Section 23.

Board Manual Section 22: Guidelines for Adaptive Management Program

The Board will receive staff and TFW Policy Committee recommendations to amend this Board manual section as recommended by the SAO. The Board is expected to act on these recommendations at their November 2022 and February 2023 meetings. Expected changes include:

- Manual changes to incorporate net gains options recommended by TFW Policy Committee
- Staff recommended amendments on: 1) guidance on providing training to all new Board, TFW Policy Committee and CMER members; 2) guidance and options for performance review of the program every two years and a science review of the program every five years
- Amendments that would trigger Board intervention if an AMP project is behind a specified schedule or process threshold

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 takes action 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 and Ns (non-fish seasonal) waters (Part 2).

- Part 1 will feature guidance to determine the extent of fish habitat through the application of the Fish Habitat Assessment Methodology, including guidance for measuring 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 the non-fish perennial stream. 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 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, and staff levels. Tables 1 through 3 provide a summary of the implementation status of each recommendation as of May 11, 2022.

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	On track to be completed during this biennium	DNR requested \$75,000 in a funding decision package for consideration in the 2022 supplemental operating budget. Request covers the cost of a facilitated caucus principals’ meetings. No new funds were allocated in supplemental operating budget. Notwithstanding, two rounds of TFW Principals meetings have been held, with DNR paying for the facilitator.

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	On track to meet the November 2022 deadline	CMER work group was formed in October. The work group has started work and is on track to prepare an options paper in collaboration with TFW Policy Workgroup on SAO Recommendations.
Decision-making process	Implement a “net gains” approach to each proposal, project, and a decision that benefits more than one caucus by considering packages of projects instead of individual projects.	5	On track	TFW Policy workgroup was formed and worked with AMPA on a list of six net gains options. Implementation timeline will vary based on the complexity of each option.

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: <ol style="list-style-type: none"> 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 or near completion 1 is on track to be completed	Board staff are developing draft mark-up language for Board Manual Section 22. Board staff will present revisions for Board decision in August 2022 .
Transparency and Accountability	<ol style="list-style-type: none"> 1) Tracking system for life cycle of projects 2) Public-facing dashboard 	10,11	On track Can be completed with existing resources this biennium	<p>AMP staff have started work on a project tracking system and on introducing cost and schedule metrics for continuous monitoring of projects.</p> <p>DNR requested \$185,000 in a funding decision package as one-time cost for these items. The legislature did not provide funds in the 2022 supplemental operating budget.</p> <p>The Board approved the use of existing resources to accomplish these tasks at its May 2022 meeting.</p>
Transparency and accountability	Complete biennial fiscal and performance audits of the AMP every two years	9	Planned	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 are being developed and will be presented to the Board for decision at its November 2022 meeting.

Transparency and accountability	Peer review science program every five years	7	Planned	<p>Board staff are developing mark-up draft language requiring five-year review for part 6.1 of Board Manual Section 22. Draft language will be presented for Board decision in August 2022.</p> <p>AMP staff prepared a draft scope of work for the science review.</p> <p>DNR has requested \$280,000 of additional resources to conduct peer review of the science program. The legislature did not provide funding in the 2022 supplemental operating budget.</p>
Decision-making process	Onboarding and training for new members	8	Planned	<p>Board staff are working on a draft mark-up language for Board Manual Section 22 that would require training for new AMP participants. DNR has requested \$140,000 as a one-time cost of creating and implementing onboarding training for participants in the AMP.</p> <p>The legislature did not provide funding in the 2022 supplemental operating budget.</p>

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, 56 projects have been completed, 16 are ongoing, and 41 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 presented to the TFW Policy Committee in February 2021 (and to the Board in May 2021). In May 2021, the

Board adopted a Master Project Schedule that prioritizes and describes the CMER research projects selected for funding. For the ongoing projects in FY 2022 and FY 2023, there are:

- two in the Stream Typing Rule Group,
- six in the Type N Riparian Prescriptions Rule Group,
- three in the Type F Prescriptions Rule Group,
- two in the Unstable Slopes Rule Group,
- one in the Roads Rule Group, and,
- two in the Wetlands Protection Rule Group.

Ongoing projects include projects that are in the initial stages of scoping or study design development. Some have no official funding approved at this time beyond CMER staff time.

Two projects were completed and approved by CMER during the reporting period:

- *Type N Experimental Buffer Treatment in Hard Rock Lithologies (Phase II Extended Monitoring)* – This extended monitoring study assessed the effects of three riparian buffer strategies (compared to unharvested reference basins) in basins with basalt or other hard rock lithologies. Initial field sampling included amphibians, water quality (temperature, turbidity, nutrients and suspended sediment concentration), riparian stand characteristics, large woody debris (LWD), riparian shade, litterfall, stream discharge, and detritus and macroinvertebrate export. Hard Rock Phase II evaluated riparian processes nine years post-harvest (2009-2017). Phase I of the study evaluated riparian processes two years post-harvest (2009-2011) and was delivered to TFW Policy Committee in 2018. Both phases of the study followed CMER’s scientific protocols including review and approval of study design and the findings report by Landscape and Wildlife Scientific Association Group (LWAG), Riparian Scientific Association Group (RSAG), the ISPR and CMER.

Hard Rock Phase II tested the effectiveness of existing Type N riparian prescriptions as well as alternative riparian buffers in maintaining key aquatic conditions and processes. The results have policy implications on whether existing buffer prescriptions on Type N water meet the overall performance goals, the long-term viability of stream-associated amphibians or meet water quality standards. TFW Policy Committee determined that the results warrant action and would need to prepare recommendations to the Board. TFW Policy Committee also received recommendations from the Type N technical working group during this reporting period. The committee is actively developing consensus around Type N alternatives. This process, however, is carried out through a time-bound dispute resolution process.

CMER approved all nine chapters of the [final report](#) between February and April 2021, the executive summary in July 2021 and the answers to six questions document¹ in November 2021. TFW Policy Committee accepted the final report and findings package at the January 2022 meeting.

The completion of Hard Rock Studies is a major milestone for AMP. This study provides a substantial gain in understanding of the degree to which Type Np Forest Practices rules meet the resource objectives and performance targets outlined in Schedule L-1 of the Forest Practices HCP.

- *Effectiveness of Forest Practices Buffer Prescription on Perennial Non-fish-bearing Streams on Marine Lithologies in Western Washington (Soft Rock Study)*

This project was a field experiment analogous to the Hard Rock project but implemented on more erodible lithologies (largely marine sedimentary). Two years of pre-harvest data and two years of post-harvest data were collected. Two experimental buffer treatments were evaluated on 10 Type N stream sites in western Washington. These included three unharvested reference sites, and seven treatment sites with two-sided 50-ft riparian buffers along at least half the length of the Riparian Management Zone (RMZ) - consistent with current forest practices buffer prescriptions for Type N streams. The Forest Practices treatments included buffers prescribed for sensitive sites and unstable slopes. All treatments were implemented between 2013 and 2015. CMER approved all seven chapters of the [final report](#) between July and August 2021, the executive summary in September 2021, and the answers to six questions document in December 2021. TFW Policy Committee accepted the final report and findings package at the January 2022 meeting.

The Soft Rock Study tested the effectiveness of existing Type N riparian prescriptions in maintaining key aquatic conditions and processes. The results have policy implications on whether existing buffer prescriptions on Type N water meet the overall performance goals or meet water quality standards. TFW Policy Committee determined that the Soft Rock Study also warrants action. TFW Policy Committee is developing Type N alternatives as described earlier. The completion of the Soft Rock Study is a major milestone for AMP. This study provides a substantial gain in understanding of the degree

¹ The Board has established a framework for successful TFW Policy and CMER interaction. CMER answers six policy relevant questions that become part of the finding package that TFW Policy receives. This is referred to as the answer to six questions document. Policy then answers an additional set of policy questions that completes the framework. The final package – if a consensus recommendation – is then delivered to the Board including answers to all questions in the successful TFW Policy and CMER interaction framework.

to which Type Np Forest Practices rules meet the resource objectives and performance targets outlined in Schedule L-1 of the Forest Practices HCP.

Independent Scientific Peer Review (ISPR)

As described below, one study design went through ISPR this reporting period and will be ready for CMER review and approval in FY 2023.

- *Riparian Characteristics and Shade Response Study (RCS):*
This study will estimate how stream shade responds to a range of riparian harvest treatments within and among environments common to commercial forestlands covered under the Forest Practices HCP. Additionally, this study will estimate stream shade response to different riparian buffer configurations through two factors: stream-adjacent no-harvest zone width and adjacent-stand harvest intensity. The study design was sent to ISPR in March 2021 and was approved by ISPR in February 2022.

Ongoing projects

In addition to the completed projects, progress is being made on an additional 16 projects. Of these projects, three are extensive projects, nine are effectiveness projects, and four are rule tool type projects. Two are in the Wetland Protection Rule Group, six are in the Type N Riparian Prescriptions Rule Group, three are in the Type F Riparian Prescriptions Rule Group, two are in the Stream Typing Rule Group, two are in the Unstable Slopes Rule Group, and one is in the Roads Rule Group. One of the Type N Riparian Effectiveness Projects (Headwater Stream Buffer Pilot Project) is described in Section 3.2 *TFW Policy Committee Activity*; therefore, only 15 projects are described below.

- *Westside Type F Riparian Prescription Effectiveness Monitoring Project:* The purpose of this two-phase project is to determine how stand conditions respond over time to the Westside Type F riparian prescriptions and to evaluate the effectiveness of the prescriptions in meeting Forest Practices HCP resource objectives and performance targets. Phase I is an exploratory project which used an after-impact approach that focused on assessing riparian stand conditions and selected riparian functions across a range of prescription variants and site conditions. A draft final exploratory report was completed in April 2022 and submitted to CMER for review the same month. The Principal Investigator (PI) will incorporate and respond to comments with the anticipated submission of the final exploratory report for approval in July 2022. Phase II is an experimental project that will rely on a Before-After/Control Impact (BACI) design and focus on the response of riparian stands, riparian inputs (such as heat energy and large wood), channel habitat, and aquatic biota to answer the critical questions regarding effects of the harvest prescriptions on habitat conditions. Development of the study design will begin after the exploratory report is approved.

- *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, particularly as they apply to stream temperature and discharge in eastern Washington. This project uses a Multiple Before-After/Control Impact (MBACI) design with reaches nested within Type Np basins. Each of the five treatment basins for the study are paired with a reference basin. At two sites, two years of pre-harvest data and one year of harvest-year data have been collected. At one of the sites, harvest was delayed due to labor shortages and an extremely active fire season in the summer of 2021. At this site, three years of pre-harvest data have been collected. At the remaining two sites, one year of pre-harvest data has been collected. Harvest at these two sites is scheduled for 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 alternatives to the current Timber Habitat Type system using primarily Geographic Information System (GIS) analysis of existing geospatial datasets. TFW Policy Committee approved the scoping document in June 2021 and Scientific Advisory Group Eastside was directed to move forward with developing a study design for Alternative 2 from the scoping document. The Project Team has identified a post-doc and advisor to assist in developing the Study Design.
- *Extensive Riparian Status and Trends Monitoring – Vegetation, Type F/N Westside and Eastside Projects* (This is tracked as two projects; one in the Type F rule group and one in the Type N rule group): The Type F/N eastside and westside studies will be performed concurrently. These projects will assess riparian conditions in Type N, F, and S (Shorelines of the State waters) stream reaches across Forest Practices HCP lands in the state to estimate conditions statewide. The sampling method is yet to be determined. Two pilot studies have been completed to determine if remote sensing can be used in conjunction with traditional fieldwork to accomplish the purposes for extensive status and trend vegetation analysis. The Precision Forestry Cooperative at the University of Washington completed the first pilot study in 2017 and the second in 2020. Based on this previous work, RSAG and CMER developed and approved a status and trends strategy and presented it to the TFW Policy Committee in March 2022. A project goal is to collect data to understand status/trends of key indicators and provide context for ongoing and future prescription scale studies. The TFW Policy Committee formed a workgroup (called the Extensive Monitoring Workgroup) to prioritize the recommendations from the strategy and determined that an extensive monitoring workshop should be held to help inform future status and trends AMP research. The workshop was held remotely on

January 29, 2021. On June 3, 2021, TFW Policy Committee accepted the Extensive Monitoring Workgroup recommendation that “a strategy be developed to inform the direction of this component [extensive monitoring] of the CMER research and monitoring program”. In order to meet the goals in Schedule L-1 of the Forests and Fish Report (FFR) and the Forest Practices HCP, TFW Policy Committee requested that CMER develop an Extensive Monitoring (EM) proposal for a study on stream temperature and riparian stand conditions and CMER was requested to identify if and how existing data can be incorporated into the study design and presented to TFW Policy Committee. TFW Policy Committee included Extensive Monitoring on the Master Project Schedule with a budget to develop the study design and identify potential collaborations and present proposal(s) for CMER integration with existing status and trends work conducted by different agencies including efforts lead by members of the public, private, and academic sectors taking place on and off Forests and Fish Report (FFR) lands of interest. In April 2022, the TFW Policy Committee requested CMER to begin scoping this study. In May 2022, a project team was formed and conversations were initiated to outline the scoping process.

- *Wetland Management Zone Effectiveness Monitoring Project:* This project will evaluate wetland functions to determine if the target of no net loss of hydrologic function, Clean Water Act assurance targets, and hydrologic connectivity are being achieved. The Wetland Scientific Advisory Group revised and approved a project charter, which outlines the project timeline, noting the initiation of scoping this project as a priority for the next reporting period.
- *Road Prescription-Scale Effectiveness Monitoring Project:* This project monitors reductions in surface erosion and sediment production from site-specific measures. Monitoring is accomplished through empirical sampling of road surface erosion, sediment production, sediment delivery and hydrologic connectivity. The project also uses physical modeling to quantify the interactions of previous elements with each other as well as with rainfall and traffic. All 78 sites have been constructed. There are 39 in each of the two lithologies (sedimentary and volcanic) with overlapping ranges of rainfall typical of forestland in western Washington. The third year of data collection concluded in June 2022. In addition to the main experiment, parametrization experiments used to inform the physical model were completed such as micro-topography, ditch line hydraulics and short time scale interaction. 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, and 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 FY22, the Upslope Processes Scientific Advisory Group (UPSAG) worked to develop 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. The project was significantly delayed; therefore, the AMPA invoked Dispute Resolution. The first informal meeting occurred on June 14, 2022. Through this process, UPSAG will continue to focus on resolving technical issues and if unresolved, the issues will get elevated to CMER for consideration.

- *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, Empirical Evaluation of Shallow Landslide Runout, and Models to Identify Landscapes/Landslides Most Susceptible to Management. The Object-Based Landform Mapping with High-Resolution Topography study has been implemented and a final report is being developed. Study Designs for Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform (Project 3) and the Empirical Evaluation of Shallow Landslide Runout (Project 4) were drafted during this reporting period and are expected to go through ISPR and CMER review in FY23.
- *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. This project 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. Due to funding shortages, this project was put on hold. The Landscape and Wildlife Advisory Group (LWAG) will begin work on a scoping document for this project in fall of 2022.
- *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 FY22, the Forested Wetlands Effectiveness Project (FWEP) Project Team completed the Site Selection and Data Collection Document and began field reconnaissance. Field data collection is set to begin in summer 2022.

- *Water Typing Projects:* The current water typing strategy includes two active projects: Evaluation of Potential Habitat Breaks for Use in Delineating End of Fish Habitat in Forested Landscapes Across Washington State and Default Physical Criteria Assessment Project: The PHB project, also known as “the validation study,” 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 Default Physical Criteria (DPC) Assessment 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. During FY22, the Instream Scientific Advisory Group (ISAG) developed the PHB Study Design, which is currently in joint CMER/ISAG review. The Project Team is responding to reviewer comments, and expects to submit the revised Study Design to ISPR in FY23. The Project Team also plans to initiate development and review of the DPC Study Design in FY23.
- *Eastside Forest Health Strategy:* In May 2021, the TFW Policy Committee formed a workgroup to discuss development of an Eastern Washington forest health strategy. 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, the resulting guidance and questions based on stakeholder concerns was created. 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 workgroup is waiting for direction on next steps from TFW Policy Committee.
- *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 will use 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 study design was sent to ISPR in March 2021. The Riparian Shade Characteristics and Response Project Study Design was approved by ISPR in February 2022, and approved by CMER in March 2022. RSAG approved a project management plan and updated the project charter in June 2022. The project team is working on developing a field trial, which is planned for implementation in FY23.

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. The major topics 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; and, 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.

TFW Policy Committee, by consensus, in December 2019, found that the small forest landowner low-impact alternate harvest template did not, as a whole, 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, a TFW Policy Committee technical buffer workgroup, was convened to explore what, if in any, site-specific conditions a 75-foot, 50-foot, or 25-foot buffer would be acceptable as a prescription for Type F streams and under what, if in 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-, 50-, 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 parties are preparing majority/minority reports as part of the SFL alternate harvest template prescription buffers package, which will be delivered to the Board at its August 2022 meeting.

Budget Workgroup

The standing TFW Policy Committee budget workgroup reviewed the CMER work plan and the status of the projects in the Master Project Schedule (MPS) and brought forward to the TFW Policy Committee alternatives to amend the MPS and the AMP Budget for FY 2023. TFW Policy Committee accepted the workgroup alternatives and the Board approved the TFW Policy Committee consensus FY 2023 MPS and AMP budget in May 2022.

In addition, the budget workgroup developed a FY 2024-25 MPS and AMP budget for TFW Policy Committee consideration to present to the Board at its August 2022 meeting. This amended MPS reflects the current priorities for the AMP and the best budget estimates for the FY 2024-25 biennium. When approved by the Board, DNR will incorporate the budget request into a decision package requesting legislative funding through the state general fund budget for the FY 2024-25 biennium.

Type Np Workgroup

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 is nearing completion with an expected TFW Policy Committee product, either consensus Type Np buffer alternative(s) or preparing majority/minority report recommendations for the Board, to be completed by early September.

The Board scheduled a special meeting for October 2022 to receive Type Np buffer alternatives through a workshop with an anticipated Board decision at its November 2022 meeting.

Headwater Stream Buffer Pilot Project

This proposed scientific study involves examining the feasibility of using solar path analyses to define where along a stream forest 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, which lead to 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 is now formed and will work with disputing parties to resolve technical issues. This dispute is expected to be concluded by August 2022.

3.3 Clean Water Act Assurances

During this reporting period, the CWA assurances were extended for one year until December of 2022. 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 Adaptive Management Program. No electrofishing surveys were conducted between July 1, 2021, and June 30, 2022, as part of the Adaptive Management Program's research and monitoring.

4. Forest Practices Operations

[Appendix: Background on Forest Practices Operations](#)

The Forest Practices Program regulates forestry activity on non-federal, non-tribal forestlands through the administration of forest practices law and rule. The law and rule protect public resources by setting standards for logging, road construction, and other forestry activities on approximately 12 million acres of state and private forestlands. 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 89 full-time equivalent positions statewide in Forest Practices Operations. Of the 89 positions, 60 were field positions geographically dispersed across the state in the six DNR Regions. The Division Forest Practices Operations section has twenty positions. At the end of the reporting period, there were two vacancies and eight positions had recently been filled (40%). Because of the unusually high rate of employee turnover, an extraordinary amount of time and attention during this reporting period was invested in recruiting and onboarding new staff. Including the two vacant positions, this is a decrease of three full time equivalent positions in Forest Practices Operations from the previous Forest Practices 2021 HCP Annual report.

4.1 Forest Practices Application/Notification Workload

Although the COVID-19 pandemic continued to affect the world and forest practices work, DNR officially re-opened its facilities to the public on March 21, 2022. DNR is working to staff its facilities at levels that support normal business interactions between DNR and members of the public.

Forest Practices Program regional staff processed 3,722 FPA/Ns during this reporting period, as compared to 4,096 in the prior reporting period (a decline of 9%). Table 4 describes the nature of the FPAs by decision type and DNR region.

Table 4: Fiscal Year FPA Totals by Decision Type (FY 2022)

Region	Approved	Closed/Withdrawn*	Disapproved	Renewed	In Review at End of FY	Total by Region
Northeast	644	18	8	26	25	721
Northwest	366	52	12	23	23	476
Olympic	348	23	3	58	44	476

Pacific Cascade	1,082	34	8	89	62	1,275
South Puget Sound	455	50	22	35	31	593
Southeast	148	11	6	9	7	181
Total by Decision	3,043	188	59	240	192	3,722

**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.*

Including FPA/Ns approved during the reporting period, there were 11,609 active (not yet expired) approved and renewed FPA/Ns statewide at the end of the reporting period. This was a reduction of 831 (8%) compared to the end of the last reporting period.

4.2 Priority Project Work

Active Haul Route Deliverable Review

DNR Regions are tasked with conducting 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 specific emphasis on best management practices and whether or not 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	2022 Fiscal Year Compliance Checks	2022 Fiscal Year 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 Program civil engineers provided professional analysis and advice to DNR Region regulatory foresters with review of 72 hydraulic project designs and participation in 29 field review (pre-approval and 30-day) meetings including ID team meetings. Engineers did not conduct any post-installation compliance reviews and there were no FPA appeals associated with forest practices hydraulic projects. One of the two civil engineer positions was vacant at the end of the reporting period.

Forest Practices Science Team Reviews

The Forest Practices Science Team is composed of licensed engineers. During the reporting period, the engineers provided professional analysis and advice to DNR Region regulatory foresters for 756 pre-approval harvest and/or road construction FPAs with potential unstable landforms. This effort included 766 office reviews, 356 field reviews, and participation at 48 interdisciplinary team meetings. The science team also performed 31 pre-application reviews that include both office and field review of unstable landforms. One position became vacant and was filled during the reporting period, and two of the nine team positions were vacant at the end of the reporting period,

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, 2021 – June 30, 2022

Date	Reason for guidance	Accomplishment
02/05/2022	Waterflow Memorandum	Guidance Memorandum: 2022 Fish Survey Season-Water Level and Streamflow Forecast : Forecast for statewide water abundance for the 2022 fish survey season to focus appropriate attention on potential drought conditions when scheduling and conducting fish surveys.

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, 2021, through June 30, 2022, WDFW biologists reviewed 592 FPHPs, including 102 concurrence-required project reviews and 358 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 57 pre-application site visits. This accounted for roughly 1,457 hours of staff time spent on FPHPs.

Water Typing/Resource Identification and Wildlife Reviews

WDFW biologists reviewed and participated in more than 2,210 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 2,432 work hours. Biologists also reviewed and commented to the DNR regional offices and conducted field reviews on more than 641 FPAs that had potential wildlife conflicts. Wildlife-related work accounted for approximately 1,193 work hours.

5. Small Forest Landowner Office (SFLO)

Appendix: Background on Small Forest Landowner Office

5.1 Forestry Riparian Easement Program (FREP)

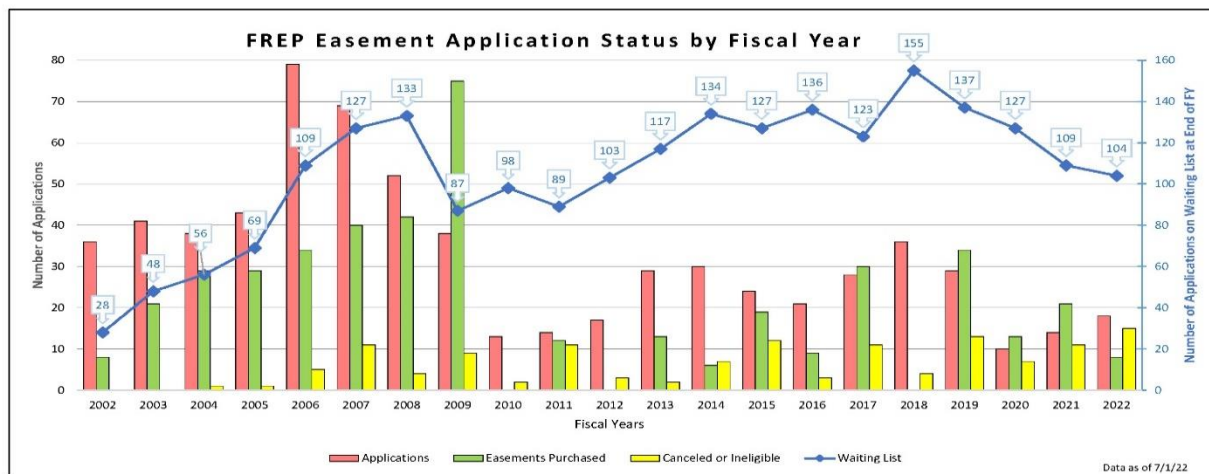
During this reporting period, eight easements were purchased and the backlog of eligible-but-unfunded applications was reduced by 5% to 104 applications (Table 7). New applications increased from eight applications in FY2021 to 18 applications in FY2022. The number of new applications was well below the average number of 30 applications per year dating back to 2001. This may be a result of the COVID-19 pandemic, although timber market prices were high during this period.

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 \$11.3 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 from small forest landowners.

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									

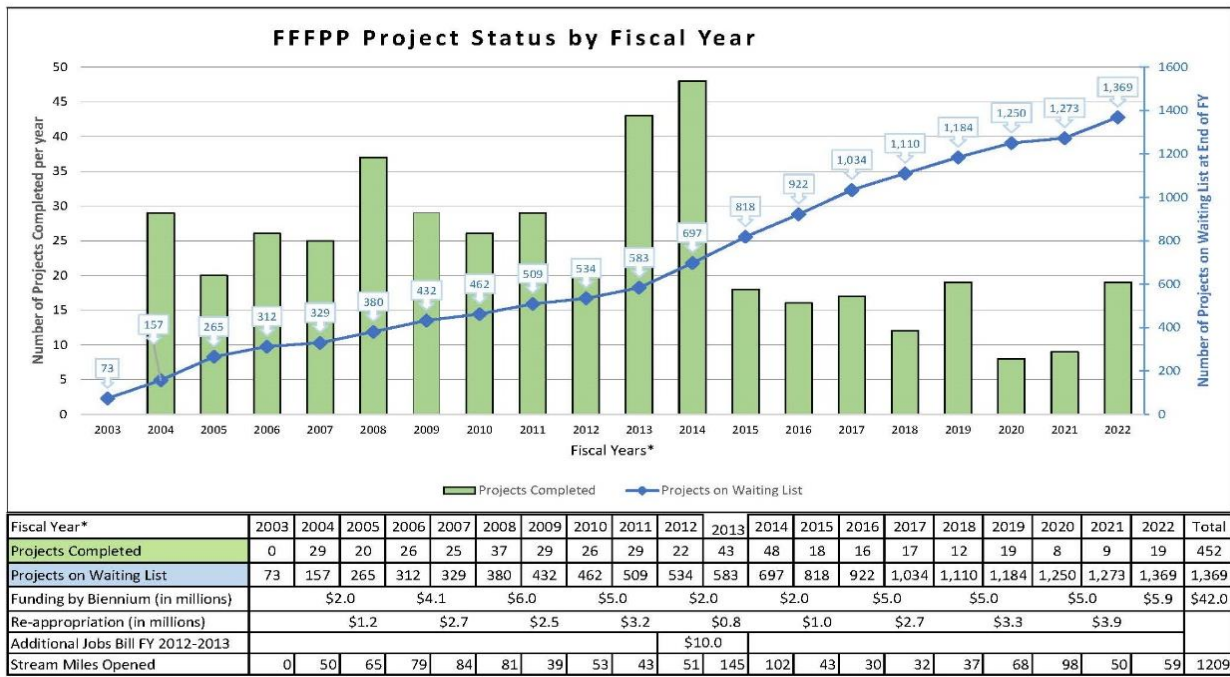
5.2 Family Forest Fish Passage Program (FFFPP)

The 2022 Legislative Session provided \$5.9 million funding for the Family Forest Fish Passage Program along with \$3.7 million re-appropriated from the last Legislative Session.

During FY 2022, FFFPP completed nine fish passage barrier removal projects that opened up approximately 50 miles of upstream fish habitat. The program anticipates completing 19 projects in the next fiscal year FY 2023. The backlog of FFFPPs rose from 1,273 reported in the 2021 Annual Report to 1,369 by June 30, 2022 (Table 8).

Table 8: Family Forest Fish Passage Program Accomplishments since 2003

State of Washington - DNR



Fiscal Year*	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Projects Completed	0	29	20	26	25	37	29	26	29	48	18	16	17	12	19	8	9	19	452		
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	1,369	1,369
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	
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	59	1209

*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, 2022, DNR's Forest Practices Application Review System database reported 308 approved Long-Term Forest Practices Applications for small forest landowners. This was an increase of 22 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 forest practices rules, which includes applying standard 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, the regulation assistance forester conducts 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 seven new positions that are located across the state. These positions will consult and provide expert technical assistance to help small forest landowners prepare to conduct forest practices activities on their forestland. They will help landowners understand and apply the forest practices rules including; small forest landowner alternate plan templates, long-term applications, forest road assessments and construction techniques, timber harvest techniques, and other forest practices rule related issues.

SFLO also has a statewide fish and wildlife biologist whose focus will be assisting with water typing on small forest landowners' properties with the expertise and equipment to electro-fish, if necessary, to determine water typing for FPAs.

Additionally, an SFLO outreach specialist position was created. This position is dedicated to outreach and providing educational information to small forest landowners regarding SFLO programs.

Currently, three regulation assistance foresters have been hired and received 439 requests for assistance from small forest landowners during the reporting period. A regulation assistance forester addressed each one of these requests. Requests were primarily for assistance on standard forest practices questions, long-term applications, alternate plans, information regarding the 20-acre exempt rule and other forest practices related questions.

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 23 requests from small forest landowners to have their roads assessed. At this point in time, 168 landowners have volunteered to have their roads assessed. Of these road assessments, 138 are completed (82%) covering 7,486 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 Distribution of Road Assessments:

Acreage	Number
0 ac - 6 ac	4
6 ac - 20 ac	34
21-39	22
40-100	34
>100	44
TOTAL	138

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. There were several segments that contained fish crossing structures and the landowner was active in the FFFPP or the regulation assistance forester informed the landowner about the program. To date, no forest practices rule violations have been identified. Of the 1,141 road segments assessed, only five segments were found to have low delivery potential, with the remaining 1,136 road segments showing no delivery or de minimis delivery potential. Of the five road segments with low delivery potential, the landowners were taking active steps to mitigate the potential delivery. Thus, anecdotal observations of the road assessments indicate that small forest landowners are complying with the Forest Practices Rules.

5.5 Small Forest Landowner Office Outreach

The Small Forest Landowner Office 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. During this reporting period, the SFLO used new, ongoing funding to hire a full time community outreach and environmental education specialist to conduct outreach and educational activities to promote the SFLO and what its staff

can do to assist small forest landowners. In-person education events have resumed, starting with the Eastern Washington Forest and Range Owners Field Day in Chewelah in June 2022. More than 200 landowners attended this event and attended more than 50 educational presentations. The community outreach and environmental education specialist attended more than 15 virtual and in-person outreach and educational events across the state to promote SFLO programs.

The SFLO now has a growing list of more than 6,000 subscribers to the Small Forest Landowner News. The newsletter is distributed three times a year. Landowners can subscribe at www.dnr.wa.gov/sflo or request by email to sflo@dnr.wa.gov. Readers can catch up on previous Small Forest Landowner News editions at sflonews.wordpress.com.

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 3,722 FPAs processed throughout the reporting period, 3,043 were approved and, of those, 87 were approved non-conversion² FPAs that used the 20-acre exempt RMZ forest practices rules adjacent to fish-bearing streams (Table 10). That number was 29% lower than the value from the prior reporting period (122).

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 2021 – June 2022)

20-Acre Exempt Forest Practices Applications with Specific Characteristics	Number
Number of 20-Acre Exempt applications	112
Number of 20-Acre Exempt non-conversion applications with fish-bearing water	87
Number of 20-Acre Exempt applications with non-fish-bearing water	23
Number of 20-acre Exempt applications that were conversions with fish-bearing water	5
Number of 20-Acre Exempt applications that were not conversions	107
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 2.9% of all approved applications submitted during FY 2022.

6.2 Type Np Water Leave Tree Requirement

There were 23 FPAs associated with 20-acre exempt parcels that had Type Np waters (Table 10). Seventeen applications were conditioned according to the Type Np guidance memo (see [Appendix 3](#) for explanation) or did not propose harvest within 29 feet of a Type Np water. Six approved FPAs (26%) 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 WAU in Washington state, of which 263 (31%) have had FPAs utilizing the 20-acre exempt rule approved (Table 11). The estimated percent of loss of potential large woody debris recruitment in each 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 2020 – June 2021)

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	254
Number of WAUs with 1 percent or greater reduction in function	9
Maximum percent potential loss of function in any individual WAU	2.375%

Currently, the state believes that all but nine WAUs affected by 20-acre exempt applications have less than 1% potential cumulative reduction in function relative to standard forest practices prescriptions, and the remaining nine have no more than a 3% reduction. The nine noteworthy WAUs are Diobsud Creek (2.1%), Many Creeks (1.6%), Muck Creek (2.4%), Smith Point (2.1%), Upper Little Pend Oreille River (1.2%), Copper Creek (1.4%), Wanacut (2.0%), Trout Creek (2.0%) and Friday Creek (1.1%). None of the nine WAUs with potential reduction in function more than 1% is near the ITP maximum 10 % threshold ([explained in Appendix 3](#)).

6.4 Watershed Administrative Unit and Water Resource Inventory Area Thresholds

No WAUs approached the 10% threshold for reduction in function. Therefore, no areas were at risk for reaching the 15% 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. The Bull Trout Population of Concern FPA Processing guidance memo was revised during this reporting period so that the process steps and participant roles would be clear to the user of the memo. The revised memo will be distributed to DNR Regions in August 2022 and reported as program guidance issued in the next annual report. The revised memo is provided in Appendix 2d.

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 FY22, landowners submitted 184 FPAs with alternate plans (Table 12). Small forest landowner FPAs accounted for 71% of the total submissions. Of these FPAs, 151 were approved; excluding those that were in review, this amounted to 88% of the applications. FPAs with alternate plans accounted for 5% (151/3,043) of all FPA/Ns approved during this timeframe.

Table 12: Forest Practices Applications with Alternate Plans (July 1, 2021 to June 30, 2022)

Landowner Type	Status of Forest Practices Applications with Alternate Plans				Total
	Approved	Disapproved	In Review	Withdrawn*	
Small	**108	4	9	10	131
Large	43	1	4	5	53
Total	151	5	13	15	184

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

**This data value includes one long-term application.

7.2 Rivers and Habitat Open Space Program (RHOSP)

For the FY21-23 biennium, the legislature appropriated \$1.4 million to RHOSP and it is anticipated that the program will purchase one channel migration zone easement and one easement containing critical habitat for state listed threatened or endangered species during the second half of this biennium (Table 13).

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	24	50
19-21	\$1,000,000	\$1,000,000	2	41	30
21-23	\$1,400,000	\$0**	0	0	0
Total	\$11,600,000	\$7,500,000	23	1,147	144

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

** Easements will be purchased the second half of the FY21-23 biennium.

8. Enforcement

[Appendix: Background on Enforcement](#)

During the reporting period, the DNR Forest Practices Program had approximately 60 field staff statewide who completed compliance visits and enforced the Forest Practices Act and Rules.

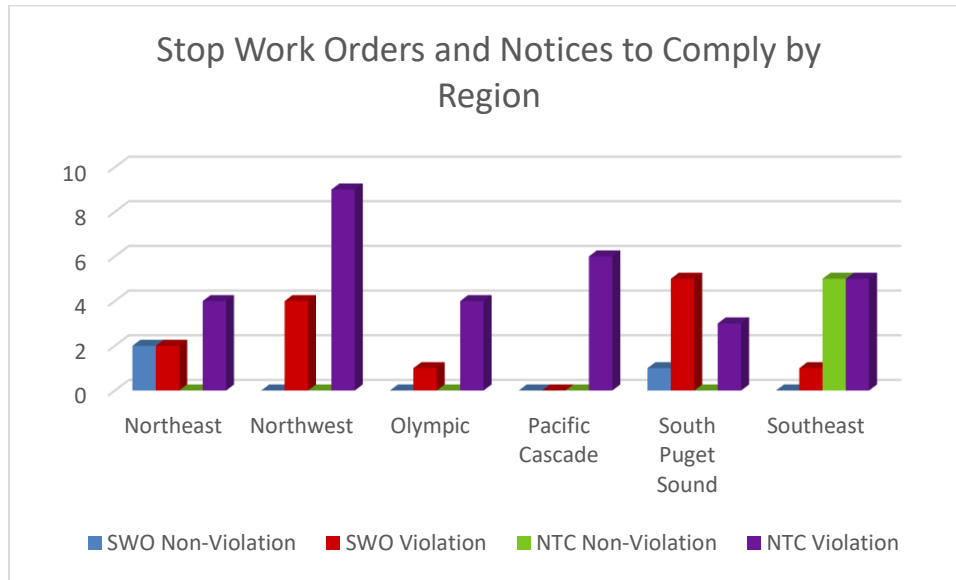
8.1 Stop Work Orders and Notices to Comply

Table 14 shows enforcement activity including stop work orders and notices to comply during the reporting period. There were a combined 44 violation stop work orders and notices to comply during this period, compared to an average of 50 over the past three years.

Table 14: Fiscal Year Stop Work Orders and Notices to Comply by Region (FY2022)

DNR Region	Stop Work Orders		Notices to Comply		Total
	Non-Violation	Violation	Non-Violation	Violation	
Northeast	2	2	0	4	8
Northwest	0	4	0	9	13
Olympic	0	1	0	4	5
Pacific Cascade	0	0	0	6	6
South Puget Sound	1	5	0	3	9
Southeast	0	1	5	5	11
Total	3	13	5	31	52

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



8.2 Fiscal Year Civil Penalties and Notices of Intent to Disapprove

The majority of violations do not require additional enforcement action, such as issuance of a

- civil penalty or Notice of Intent to Disapprove (NOID). The majority of initial enforcement actions have proven to bring landowner behavior into compliance with the rules without a need to take more severe levels of enforcement action. When determining the appropriate level of enforcement, a number of 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?
 - What is the extent of damage to the public resource?
 - Is there a history of past violation of the same rule or law by the same landowner or operator?

Notices of Intent to Disapprove and civil penalties are used 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 had been concluded) during the reporting period. One civil penalty 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 (FY2022)

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	1	0
Total	1	0

8.3 Stop Work Order and Notice to Comply Ratios

Table 16 provides summary data for SWOs and NTCs. There were 52 stop work orders and notices to comply issued this period, versus an average of 87 per year over the past three years. It is staff’s professional judgement 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 (FY2022)

Number of active Forest Practices Application/Notifications (FPA/Ns) through June 30, 2022 (See chapter 4 for information about FPAs received or renewed during Fiscal Year 2022.)	11,609 *
Number of Notice To Comply / Stop Work Orders issued for violations	44
Ratio of Notice To Comply / Stop Work Orders violations to total number of active FPA/Ns (48/11,609) × 100	.37%
Number of Notice To Comply / Stop Work Orders issued for non-violations	8
Ratio of Notice To Comply / Stop Work Orders non-violations to total number of active FPA/Ns (9 / 11,609) × 100	0.07 %
Total number of documents issued (violation & non-violation)	52
Ratio of all documents issued to total active FPA/Ns (58 /11,609) × 100	0.45%

*Approved and/or renewed FPA/Ns

9. Compliance Monitoring Program

[Appendix: Background on Compliance Monitoring Program](#)

9.1 Compliance Monitoring Program Reports and Findings

CMP operates on two-year sampling periods that result in a report being published in the latter part of each biennium.³ The 2020-21 Forest Practices Compliance Monitoring Biennium Report is scheduled to be published in August 2022. This section highlights some of the important findings that will be included in that report.

Riparian Prescription Compliance Monitoring Standard Sample Findings

The 2020-21 rule prescription compliance rates range from 88.0 to 97.8 percent (Table 17). This is evaluated in comparison to a performance objective of 90 percent for each prescription. CMP evaluated all applicable forest practices rules for each prescription during each field site visit alongside landowners and a team of experts from DNR, Ecology, and Tribal Nations. The number of rules assessed varied on the prescription and applicability of the forest practices rules to that prescription.

Table 17: 2020-21 Riparian Prescription Compliance Monitoring Findings

Riparian Prescription type	Percent (%) Compliance	Samples Assessed	Rules Evaluated
Statewide Type F or S No Inner Zone Harvest	96.1%	15	77
Statewide Type Np Activities	92.7%	33	110
Statewide Type Ns Activities	96.3%	24	27
Statewide Type A&B Wetlands	88.0%	39	100
Statewide Forested Wetlands	96.4%	15	28
Western WA Desired Future Condition 1	92.1%	16	126
Western WA Desired Future Condition 2	97.8%	13	93

Statewide Water Typing Findings

During the 2020-21 field season, the compliance monitoring field team evaluated 155 riparian-related prescriptions involving typed water or wetlands. Across these prescriptions, compliance ratings varied from 88.0 to 97.1 percent.

Indeterminate Calls for 2020-2021 CMP 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](#).

For DFC1 prescriptions, in one instance no data could be found across four field form questions (relating back to four individual forest practices rules) collected due to blowdown and inability to access the site.

For Type Np prescriptions, three indeterminate ratings were applied due to safety concerns in accessing a stream, a finding of roughly five stumps within the 50-foot no-cut buffer without knowledge of the length of the stream due to unsafe conditions, and inability to see slopes to verify compliance around harvests that occur 50-feet from headwall seeps and springs (again due to safety concerns).

For Type Ns prescriptions, seven indeterminate calls were made based on inability to determine whether stream size and typing was accurate due to lack of clear vegetation evidence and flow evidence to make a call at the time of the field visit. One indeterminate for Type Ns prescription was due to exposed soil, but there was a lack of clarity around rule application for equipment limitation zone exposure.

Finally, one indeterminate call for the Type A and B Wetland prescription was made due to unclear understanding of the field review team around required Wetland Management Zone (WMZ) buffers and a lack of trees present to meet the 75 trees-per-acre rule with respect to size classes.

Please see [Appendix 3](#) for additional definitions and descriptions.

Roads and Haul Routes Findings

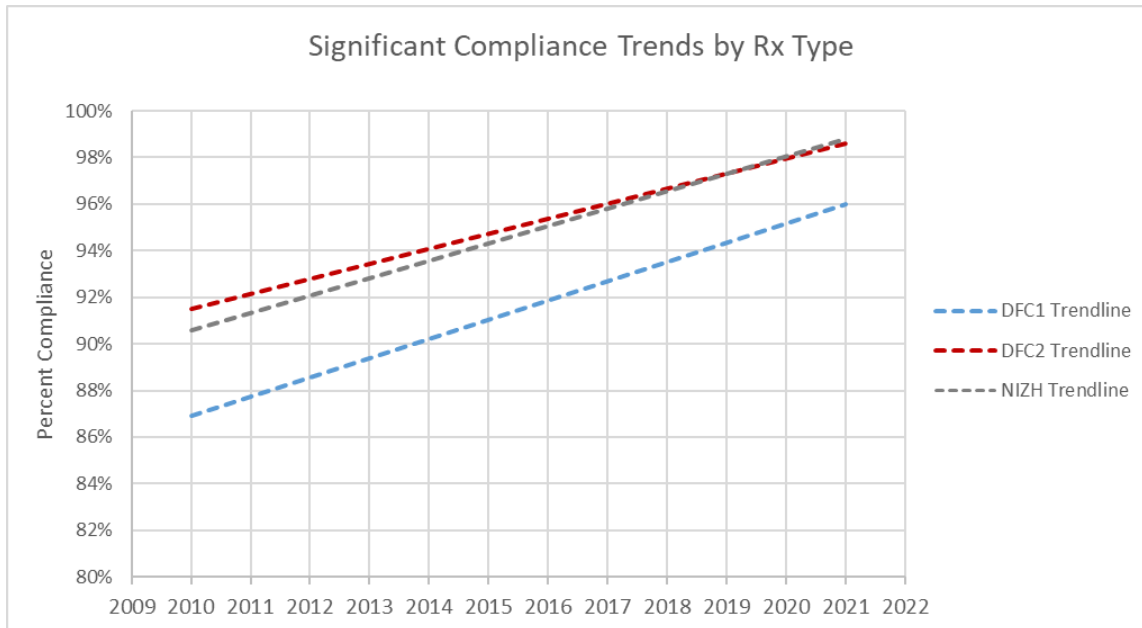
During the 2020-21 field season, 169 of the sampled 171.47 rules from sampled road segments were compliant for the roads prescription sample, resulting in a 98.6% compliance rate. For roads prescriptions, compliance with a single rule on a single FPA is the percentage of applications of that road rule 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.

CMP assessed 77.4 miles of haul routes during the 2020-21 biennium. For 76.2 miles of the 77.4 miles of haul routes evaluated, no delivery or *de minimis* sediment delivery was observed, resulting in a compliance rate of 99.0 percent.

Trend Analysis Findings

Statistically significant trends of yearly increasing prescription compliance rates were observed for DFC1 (0.82%), DFC2 (0.64%), and NIZH (0.82%) (Figure 2). No statistically significant trends were observed for Ns, Np, Type A and B wetlands, forested wetlands, and foods. No downward trending rates were observed.

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



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 will not be performed in fall of 2022 due to the need to complete the Aerial Herbicide Spray pilot study during this period (as dictated by the legislature); fall of 2023 will be a repeat year of the unstable slopes study. It is expected that FPHP will restart in fall of 2024.

In the 2020-2021 biennium, the CMP began work to develop and incorporate methodology for an ongoing study to help determine the Aerial Herbicide Spray compliance rate. The intention is to complete the design and conduct the initial field pilot study in fall of 2022.

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 from Ecology.

10. Training/Information/Education

[Appendix: Background on Training](#)

The COVID-19 pandemic and Gov. Jay Inslee’s stay-at-home order began affecting the Forest Practices Training Program in early 2020. The program adapted by focusing on virtual and web-based learning for classroom portions of training and has incorporated DNR safety protocols for essential in-person sessions. In 2021, field sessions were reintroduced as part of the unstable slopes, and channel migration zone courses.

The program’s training program manager position was vacant for nearly the entire reporting period (Sept. 2021 to July 2022), but was filled in early July 2022. This had a significant effect on the scope and scale of formal training provided during this period. With the hiring of a new training manager, the training program is being reviewed to find ways to enhance the program. It is anticipated that there will be changes in the future, such as new trainings. One of those potential new trainings will be an internal staff training on 20-acre exempt FPAs and the corresponding ITP Condition requirements. See Chapter 6 and Appendix 3 in this report for more information.

As pandemic gathering restrictions have eased, the program has continued to evaluate and adjust training delivery, including the use of hybrid delivery methods and the reintroduction of classroom-based trainings with associated field sessions.

10.1 Single-/Multiple-Day Forest Practices Program Trainings

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

The Forest Practices Training Program continues working to resume its pre-pandemic training cycle. The delivery of these trainings will occur outside of this report’s reporting cycle, but pandemic protocols allowing, the next reporting period is expected to demonstrate a return to cyclical training using distance learning, and classroom or video-based delivery methods.

Unstable Slopes Training

Total Participants: 36

Classroom and field portions of training were offered

Channel Migration Zone Training:

Total Participants: 25

Classroom and field portions of training were 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: 98

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 riparian management zone management.

10.3 DNR Internal Forest Practices Program Training

Program-focused training generally consists of short-duration training offered specifically for DNR 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. These offerings continued during the COVID-19 outbreak via online meeting platforms such as Skype, Teams, and Zoom.

Training provided to Forest Practices staff by Region and Division staff

Refresher Training on Current Water Type Rules:

Staff Trained: 60

This course was designed to ensure staff are aware of current water type rules and guidance and can communicate that information to landowners across the state.

Complex Alternate Plan Training:

Staff Trained: 60

This new course was developed for and provided to forest practices staff to familiarize staff with appropriate uses, requirements, and approval standards for a complex alternate plan proposal. Special emphasis was given to preparation, field review, interdisciplinary teams, riparian function, and monitoring and compliance; and included a field session.

Forest Practices Habitat Conservation Plan Basics Training:

Staff Trained: 45

This new course was developed in 2021 to instruct DNR staff on the basics of the FPHCP through the next 34 years of the remaining life of the FPHCP permit. The goal of this training is to provide a reference tool for internal, as well as external, users.

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 interdisciplinary teams, but are always present in any interaction with

stakeholders. Trainings were provided by region staff to address the following points of emphasis:

- Complex alternate plan training
- Water typing

11. Road Maintenance and Abandonment Planning by Large Forest Landowners

[Appendix: Background on Road Maintenance and Abandonment Plans](#)

11.1 Road Maintenance and Abandonment Plan Implementation

The RMAP was established in 2001 as a forest practices rule following adoption of the TFW *Forest and Fish Report* into the *Salmon Recovery Act of 1999*. Since then, it has been carried out as required by large landowners, in collaboration with DNR, tribes, the Departments of Ecology and Fish and Wildlife to the benefit of public resources including salmon and clean water.

In 2011, the Board changed the RMAP rule completion deadline in consideration of economic impacts resulting from the Great Recession. The rule change provided interested landowners up to an additional five years to complete their RMAP obligations. Extensions were requested and approved by DNR for 55 plans (with some individual landowners having approved extension plans for multiple different geographic holdings). By January 2021, DNR Road Specialists and Forest Practice Foresters working with the large landowners were tracking completions for the remaining 33 active RMAP plans with approved extensions. The extension ended on Oct. 31, 2021.

This report summarizes RMAP program data through the final year⁴ of RMAP implementation. In this reporting period (Jan. 1, 2021 to Jan. 1, 2022), landowners completed all work associated with the remaining 33 RMAP extensions, thereby fully completing all outstanding RMAP extension obligation work.

The improvements made through RMAPs represent one of the greatest successes within the Washington forest practices arena over the last 20-plus years. This work has minimized or eliminated sediment delivery to live waters; corrected fish passage barriers; disconnected ditch water from live streams; and creatively applied best management practices to upgrade forest roads. This has been a focused and sustained effort by many over a long period.

Explanation of Annual Landowner Accomplishment Reports/Data

When discussions ensued in 2006 between the State and the Services regarding ways to report progress on RMAPs, both parties understood the difficulties of consistently obtaining and reporting the data. Discussions culminated with an agreement to provide data that were known to be approximations but expected to provide a relative picture of progress over time. The information provided in this chapter is derived from data supplied by large landowners in their annual accomplishment reports. For the majority of DNR Regions, the annual exercise of totaling landowners' RMAP information has been accomplished using the paper records provided. The State acknowledges that various factors through the years of data collection have

⁴ In this fifth year of the extension, the operating season ended Oct. 31, 2021, in alignment with the conclusion of the RMAP extension period (see also WAC [222-24-051](#)).

affected the accuracy of RMAP data reported in the annual reports, including the following: RMAP data evolving and becoming more standardized, clarifications of definitions, staffing changes, and a DNR administrative geographic boundary change. That stated, DNR endeavors to provide the most accurate RMAP information it can in each Forest Practices HCP annual report.

RMAP Data Tables

Tables 18 through 21 detail the progress made by large forest landowners from July 2001 through Oct. 2021. [Appendix 3](#) provides a description of reporting elements in the tables.

- Table 18: *2021 Statewide Road Maintenance and Abandonment Plan Accomplishment Report for Landowners with Extensions by Region*;
- Table 19: *Cumulative Statewide Road Maintenance and Abandonment Plan Accomplishment Report (2001-2021) by Region*;
- Table 20: *Statewide Cumulative Road Maintenance and Abandonment Plan Accomplishment Report by Year*; and
- Table 21: *Fish Passage Barrier Information for Large Forest Landowners*

It is important to note that RMAP data is captured and reported on a calendar year, rather than on a fiscal year, basis. Some tables reflect numerical decreases because all remaining work in a previously active RMAP plan was completed during the reporting period or because land

ownership changes occurred during this reporting period.

Table 18: 2021 Statewide Road Maintenance and Abandonment Plan Accomplishment Report for Landowners with Extensions by Region

DNR Region	Number of Approved RMAPs	Miles of Forest Road Assessed	Miles of Forest Road Identified Needing Improvement*	Miles of Road Improved	Miles of Road Abandonment	Miles of Orphaned Roads
Northeast	0	0	0	0	0	0
Northwest	0	1,997	0	2	19	200
Olympic	0	5,006	405	47	2	123
Pacific Cascade	0	12,299	67	264	7	0
South Puget Sound	0	0	0	0	0	0
Southeast	0	0	0	0	0	0
Statewide Totals	0	19,302	472	313	28	323

The content of this table is based upon data provided by landowners who are responsible for the facts and accuracy of the information presented herein.

Note 1: The values reported in the “Number of Approved RMAPs” and “Miles of Forest Road Assessed” columns may vary from previous reports due to land ownership transfers and changes that occurred since the prior reporting period.

Table 19: Cumulative Statewide Road Maintenance and Abandonment Plan Accomplishment Report (2001-2021) by Region

DNR Region	Number of Approved RMAPs	Miles of Road Improved	Miles of Road Abandonment	Miles of Orphaned Roads	Number of Fish Passage Barriers Identified**	Number of Fish Passage Barriers Corrected	Miles of Fish Habitat Opened	Total of RMAP Checklists from Small Forest Landowners
Northeast	89	6,147	312	96	835	835	418	6,308
Northwest	31	3,871	1,425	1,499	519	487	149	2,116
Olympic	38	2,263	149	534	2,242	2,155	728	1,406
Pacific Cascade	22	14,277	950	663	3,534	3,244	2,119	4,227
South Puget Sound	29	1,548	568	1,044	939	938	300	1,422
Southeast	15	2,989	616	914	989	950	1,530	4,086

Statewide								
Totals	224 *	31,095	4,020	4,750	9,058	8,609	5,244	19,565

Note: In 2016, 55 RMAPs were granted extensions to October of 2021. Since then, no new RMAPs have been initiated so the cumulative “Number of Approved RMAPs” has remained static. This cumulative “Number of Approved RMAPs” column does not include RMAP checklists from small forest landowners.

** : This number fluctuated annually as water types or barrier determinations were confirmed and/or modified (e.g., change to or from fish bearing and/or interdisciplinary teams determining incorrect barrier decision changing crossing statuses from barrier to fish passable).

Table 20: Statewide Cumulative Road Maintenance and Abandonment Plan Accomplishment Report by Year

Year	Number of Approved RMAPs & Submitted Checklists	**Total # of RMAP Checklists from Small Forest Landowners		Miles of Forest Road Identified Needing Improvement	Miles of Road Improved		Miles of Road Abandoned		Miles of Orphaned Roads	Miles of Habitat Opened		# of Fish Passage Barriers Corrected	
		Cumulative	Annual		Cumulative	Annual	Cumulative	Annual		Cumulative	Annual	Cumulative	Annual
2001-2002	4,066	---	---	---	---	---	645	---	502	52	---	46	---
2001-2003	5,530	---	---	---	---	---	1,007	*362	1,246	175	*123	355	*309
2001-2004	7,401	---	---	---	---	---	1,587	*580	1,944	647	*472	1,217	*862
2001-2005	8,419	---	---	---	---	---	1,856	*269	2,107	775	*128	1,363	*146
2001-2006	9,950	---	---	---	---	---	2,068	*212	2,313	982	*207	1,819	*456
2001-2007**	107	8,121	---	---	13,140	---	2,153	*85	2,293	1,221	*239	2,248	*429
2001- 2008	130	8,628	*507	---	15,019	*1,879	2,431	*278	2,305	1,448	*227	2,871	*569
2001-2009	126	8,804	*176	---	16,195	*1,176	2,621	*190	2,305	1,569	*121	3,141	*324
2001-2010	262	9,187	*383	---	18,475	*2,280	2,915	*294	2,333	1,772	*203	3,769	*628
2001-2011	247	9,696	*509	7,413 (new element)	18,711	*236	3,090	*175	2,393	2,189	*417	4,258	*489
2001-2012	254	10,268	*572	7,568	20,026	*1,315	3,275	*185	2,162	2659	*470	4,846	*588
2001-2013	263	10,971	*703	8,886	22,793	*2,767	3,417	*142	2,356	3,130	*471	5,298	*452
2001-2014	266	11,854	*883	7,811	24,282	*1,489	3,550	*133	2,059	3,419	*289	5,730	*432
2001-2015	260	12,632	*778	7,202	25,589	*1,307	3,833	*283	2,231	3,507	*88	6,086	*356
2001-2016	253	12,813	*181	6,421	27,694	*2,105	3,895	*62	2,926	4,180	*673	6,956	*870
RMAP EXTENSIONS													
2001-2017	256	13,742	*929	3,781	28,078	*384	3,901	*6	2,927	4257	*77	7,230	*274
2001-2018	224	15,971	*2,229	6,301	28,651	*573	3931	*30	3,154	5,024	*767	7,424	194*
2001-2019	252	17,803	*1,832	7,956	29,672	*1021	3,960	*29	3,646	5,134	*110	8,300	876
2001-2020	341	18,804	*1,001	1,446	30,782	*1,110	3,992	*32	4,427	5,184	*50	8,468	168
2001-2021	341	19,565	*761	1,918	31,095	*313	4,020	*28	4,750	5,244	*60	8,609	*141

* Note 1: Number represents the increase from the previous year's report.

** Note 2: Beginning in reporting year 2007 and thereafter, checklists have been separated from the "Number of Approved RMAPs" and tracked separately.

Fish Passage Barriers

In addition to the fish barrier information reported in Tables 19 and 20, Table 21 displays, by DNR Region: (a) the cumulative number of fish passage barriers corrected since 2001; (b) the total corrected in calendar year 2021 until the expiration of the RMAP rules on Oct. 31, 2021; (c) the percent of total corrected as of Oct. 31, 2021; and (d) the number of barriers that remain to be corrected.

“Life of Pipe” Fish Passage Barriers

As of Oct. 31, 2021, DNR was tracking approximately 362 potential fish barrier water crossing determinations for which the potential fish barrier will be allowed to remain in place until the end of the crossing structure’s (culvert) functional life. DNR used interdisciplinary teams which included experts from the WDFW, Ecology, and tribes to make and track these “life of pipe” determinations. In general, corrective work associated with life of pipe determinations is postponed beyond Oct. 31, 2021, for one or more of the following reasons:

- (a) To reduce multiple equipment entries across watercourses as a means to minimize potential adverse impacts to streams, wetlands, and associated aquatic habitat and the wildlife that relies upon it;
- (b) To maintain unique upstream wetland habitats; and/or,
- (c) To reflect acknowledgement that some streams are unable to support healthy, robust populations of fish due to very poor quality habitat.

These water crossing structures will be reassessed later⁵ to decide whether to retain them as a means to maintain upstream conditions or replace them with a fish passable structure.

New Discoveries of Fish Passage Barriers

After submission and DNR approval of their original inventories of fish passage barriers to be corrected during the original and extended RMAP period, some landowners identified additional fish passage barriers on their lands. As part of their annual RMAP reporting, some of these landowners added these “new discoveries” to the inventories addressed in their annual reports including subsequently reporting their progress on correcting them to be fish passable. DNR does not consider these finds to be additions to a landowner’s RMAP obligations. Instead, new discoveries are regulated in accordance with standard forest practices regulations for fish passage barriers, including convening interdisciplinary teams to determine whether or not the landowner needs to correct the barrier, or if it is more beneficial to keep it unchanged to meet other resource needs. If the newly discovered fish passage barrier is to be corrected, DNR, the interdisciplinary team, and the landowner collaborate to establish a plan and timeline for correction and DNR ensures that plan is carried out.

Status of Fish Passage Barriers to be corrected by Oct. 31, 2021

The total number of fish passage barriers (including life of pipe and new discoveries) remaining to be corrected, as shown in Table 19, is derived from landowner annual reports, and includes:

⁵ Life of Pipe means action will be deferred until the pipe is no longer viable.

- 362 “life of pipe” determinations (described previously) (or 4% of the total number of barriers identified on RMAPs); and
- 87 discoveries of new barriers after extensions were granted in 2016 (or 1% of the total number of barriers identified on RMAPs).

Therefore, 8,609 of 9,058 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 21: Fish Passage Barrier Information for Large Forest Landowners

DNR Region	Number of Fish Passage Barriers Identified*	Number of Fish Passage Barriers Corrected From 2001-2021	Number of Fish Passage Barriers Corrected in 2021	Percent of total fish passage barriers corrected as of 10/31/2021	Total number of Barriers Remaining to be Corrected**
Northeast	835	835	0	100%	0
Northwest	519	487	5	94%	32
Olympic	2,242***	2,155	74	96%	87
Pacific Cascade	3,534	3,244	56	92%	290
South Puget Sound	939	938	6	99%	1
Southeast	989	950	0	96%	49
Totals	9,058	8,609	141	95%****	459

*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.

**This number includes “life of pipe,” “new discoveries” and “other” such as transfer of ownership or change in water typing.

***The Olympic Region identified fish passage barriers number was reduced by five because these crossings, originally considered a barrier to fish passage, were determined to be non-barriers by interdisciplinary teams.

****8609/9058=95%

11.2 Future Reporting of Fish Passage and Roads Projects

With the completion of the RMAP program and data reporting through the RMAP deadline of Oct. 31, 2021, DNR is considering potential data collection and reporting options associated with water crossings and road maintenance, abandonment, and construction in the future. The data collection methods currently under consideration would likely not rely on landowner self-reporting; instead focusing on DNR staff collecting information about fish passability at water crossings.

11.3 Washington Department of Fish and Wildlife Participation

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 592 individual FPHPs⁶, including 102 concurrence-required project reviews (including the identification of the optimal project-operating season) and 358 individual standard FPHPs (those not requiring concurrence, but pertaining to Type F and S streams), and participated in 57 pre-application reviews.

⁶ An individual FPA can have multiple FPHPs.

12. Cultural Resources

[Appendix: Background on Cultural Resources](#)

12.1 Landowner-Tribe Meeting Update

During this reporting period, 26 FPAs required a landowner-tribe meeting. All required meetings took place.

Washington State Department of Archaeology and Historic Preservation (DAHP)

The Forest Practices Program funded one FTE in DAHP for database administration and FPA/N review. DNR and DAHP entered into a contract through which DNR provided \$99,807 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 FY2022. The Forest Practices Board suspended 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](#).

13. Washington State Legislature

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

(1)“forestland 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 effects of forest practices on the environment. The Act also created the Forest Practices Board (Board), giving the Board rule-making authority and allowing it to set the specific standards that are the basis for the Forest Practices Program.

Each year, DNR monitors laws being considered by the Legislature for those that could affect the Forest Practices Program. No new laws during the 2022 legislative session resulted in a change in protection of habitat for the species covered in the Forest Practices Habitat Conservation Plan (HCP). Three bills passed into law that affect the Forest Practices Program. Those were:

- 1) [ESHB 1753](#) – *Concerning tribal consultation regarding the use of certain funding authorized by the Climate Commitment Act (CCA)*. This bill requires state agencies that administer funds from certain accounts created by the CCA to offer consultation to federally recognized tribes whose tribal resources may be affected by the award of funds from the accounts. This bill requires applicants for funding from certain CCA accounts to engage in a preapplication process with all affected federally recognized tribes within the project area. The bill requires agencies to:
 - Prior to submittal of an application, applicants shall engage in a preapplication process with all affected federally recognized tribes within the project area.
 - The preapplication process must include the applicant notifying the DAHP and all affected federally recognized tribes within the project area.
 - The applicant must also offer to discuss the project with DAHP, and all affected federally recognized tribes within the project area.
 - All affected federally recognized tribes might submit to the action agency or agencies a summary of tribal issues, questions, concerns, or other statements regarding the project, which must become part of the official application file.
 - Upon completion of agency and tribal consultation, an affected federally recognized tribe may request a formal review of the consultation.

- After the state agencies and tribe or tribes have conducted a formal review, an affected federally recognized tribe or state agency may request that the governor and an elected tribal leader or leaders meet to formally consider the recommendations from the parties.
- After the meeting has occurred, the governor or an elected tribal leader may call for the state and tribe or tribes to enter into formal mediation.
- During the above proceedings, the action agency may not approve or release funding, or make other formal decisions, including permitting, that advance the proposed project except where required by law.

The Governor's Office of Indian affairs, in coordination with the DAHP and federally recognized tribes, shall develop a state agency tribal consultation process, including best practices for consultation.

- 2) [2SSB 5793](#) – *An act relating to allowing compensation for lived experience on boards, commissions, councils, committees, and other similar groups.* This bill authorizes stipends and reimbursement of expenses such as childcare and travel for eligible members of Class 1 groups. It requires the Office of Equity to establish uniform guidelines that agencies must follow when issuing stipends or reimbursements to eligible members of Class 1 groups.
 - Authorizes stipends and reimbursement of other expenses for eligible individuals participating in Class 1 groups.
 - Requires agencies issuing stipends to report to the Office of Equity by August 30, 2023.
 - Requires the Office of Equity to compile agency responses and report to the Governor and Legislature by August 30, 2024.

- 3) [ESB 5961](#) – *Incentivizing the use of biochar in government contracts.* This bill requires state agencies and local governments to consider whether biochar products can be used when planning government-funded projects that are public works or when soliciting and reviewing bids for such projects, and requires them to use biochar when possible except in certain circumstances.
 - Directs the DNR to implement a pilot project to evaluate the costs and benefits of marketing and selling forest products to a biochar facility.
 - Adds a pilot project to evaluate the feasibility of sourcing forest products from lands managed by the DNR for the production of biochar.

Bills of Interest That Did Not Pass

The Lorrain Loomis Act ([HB 1838/SB 5727](#)) and the Keep Washington Evergreen Act ([HB 1895/SB 5633](#)) bills were not successful in moving through the legislative process. The Northern Spotted Owl Safe Harbor Agreement authority bill ([SB 5411](#)) timed out on the floor waiting for approval from the Legislature. DNR plans to pursue authorization from the Legislature again in

the 2023 legislative session, to allow it to negotiate with the federal government and enter into an “opt-in” programmatic safe harbor agreement for private forest landowners. The Senate bill ([SB 5637](#)) to increase fees for forest practices applications to pay for some of the costs for the new online application system (fpOnline) did not pass.

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 is 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 from a computer or smartphone. fpOnline project updates will be posted on DNR’s main [Forest Regulation website](#). This new system will replace the outdated FPARS.

The online and mobile application-based tool will allow virtual filing and payment, processing, real-time status tracking and text or email notifications, creating efficiencies and reducing postal service mail delays. A busy landowner working in the field could know exactly when their FPA is approved by the ping of the phone in their pocket. fpOnline will allow TFW stakeholders and others to comment on applications remotely.

The buildout of fpOnline is funded with \$3.68 million from the Washington state budget’s General Fund. It is anticipated that after the system is made operational, on-going annual funding of about \$500,000 will be needed for maintenance and operating costs including licensing fees, cloud data storage and dedicated permanent professional information technology staff positions.

It is expected that contractors will be in place and begin work on fpOnline during the fall of 2022, with the work scheduled to continue for the next two years. The target date for project completion is June 30, 2024.

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.

During this reporting period, DNR staff continued to research and test methods for transferring DNR Hydro tabular data (attributes) to the NHD system. To date no good automated method has been found, however, the United States Geological Survey (USGS) did release an online editing tool that shows promise. One drawback is that attributes would need to be transferred one at a time, which would take a considerable amount of effort and time.

At the current time, the project is unstaffed and DNR has requested 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 3,901⁷ FPAs processed in FPARS and 1,166 reviewers (compared to 1,116 last fiscal year) receiving automated email notification about FPA/Ns through the opt-in notification system.

Although funding has been partially secured to develop a modern application and information system as described in Section 14.2, during the reporting period DNR still relied upon FPARS -- a 20-year old FPA application review and management tool. The system is inefficient for DNR staff to use, cumbersome for forest landowners submitting FPAs, and unwieldy for concerned residents and stakeholders seeking information about the applications. It is also increasingly

⁷ 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.

subject to reliability problems. For example, during this reporting period there was an outage of the notification system that lasted for two days because of critical system changes.

The State is currently working with the Washington Department of Revenue to streamline the method in which they receive FPARS data from DNR.

Forest Practices Enforcement Tracking System (FPETS)

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

- 482 Informal Conference Notes
- 8 Notices of Conversion to Non-forestry Use
- 36 Notices to Comply
- 16 Stop Work Orders
- 1 civil penalty

DNR Hydrography Data Layer and Water Type Modification Form Tracking Application

DNR GIS staff edited approximately 8,139 GIS stream segment updates. Updates for approximately 826 miles in the hydrography data set were based on 756 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 33 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 42 miles of stream. The remaining 751 miles of stream were edited as either a change of location or a verification of existing water type. Five modification forms were still awaiting processing as of June 2022, two fewer than the end of the prior reporting period.

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 2022. The forest practices roads specialists continued to update this information, providing 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

The internal program mobile technology committee is currently testing a new tool that creates pre-FPA, decision, and post-decision documentation on mobile devices. Pacific Cascade and Olympic Regions are conducting a six-month pilot of the tool. The pilot will end Sept. 30, 2022. If the pilot goes well, the tool will be implemented in all regions.

Other 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), Forest Practices HCP data to Thurston County and consultants working on the safe harbor agreement, completed a spatial analysis resulting in data used in a newspaper article, provided data to fulfill Public Disclosure Requests, successfully upgraded the file management software, prepared fish point data for a Forest Practices Board Committee, created a story map that describes the Forest Practices HCP, worked on upgrading Forest Practices Application Mapping Tool and the Forest Practices Risk Assessment Map, added a clarifying dataset for the Columbia River Gorge, prototyped and tested a process for identifying FP jurisdiction (forested lands), and updated the FREP data layer. The FP program Business Analyst also spent considerable effort in learning and documenting current program processes and desired enhancements in preparations for the fpOnline project.

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. Finally, 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).

As of March 31, 2022, the Governor signed the 2021-2023 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 in the SFLO. This supplemental funding increased the statewide program's biennial operating budget to \$48.8 million. Expressed in 2005 dollars as \$38.1 million, this exceeded the minimum \$22.7 million funding level identified in the 2012 Settlement Agreement (Table 22).

The General Fund-State Long Term Forest Health provides new funding for the 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 9 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 HCP and CWA assurances.

Table 22: 2021-2022 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	GF-S Forest Health	Salmon Recovery FREP	GF-State Aerial Herbicide	Model Toxics Control Account (MTCOA)	Forest & Fish Support Account (FFSA)	Forest Practices Application Account (FPAA)	Total
Forest Practices Act & Rules	18,145,900	48,300	290,200		99,600	3,050,000	225,800	972,600	22,832,400
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	4,900,900					8,541,900
Program Development	552,600	407,000			57,300	516,700			1,533,600
Forest Practices Total	20,204,700	6,763,600	1,092,700	4,900,900	156,900	4,199,900	10,568,100	972,600	48,859,400
PCE Conversion (2005 dollars)	15,738,274	5,268,447	851,149	3,817,513	122,216	3,271,475	8,231,929	757,598	38,058,601

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 23), with funding coming from four main sources.

Table 23: Forest Practices Program Functional Sub-Programs and Funding Sources⁸

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 and GF-State Long Term Forest Health
Program Development	Forest Practices Board; Rule Making/Board Manual; Forest Practices HCP; and Clean Water Act Assurances	GF-State and MTCOA

⁸ Funding source acronyms are explained in the report narrative.

15.3 FY2022 Biennium Operating Expenditures by Activity

The Forest Practices Program spent a total of \$17.6 million in fiscal year 2022 (Table 24). Reported expenditures exclude a federally funded grant used in Act & Rules and state capital funds spent through the Small Forest Landowner Office.

Table 24: FY2022 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-State Long Term FH	FFSA	FPAA	MTCOA & Aerial	TOTAL FUNDS
Forest Practices Act & Rules	6,997,251		85,502	42,569	263,334	2,543,968	9,933,624
Adaptive Management Program	122,298	1,991,060		4,230,290			6,343,648
Small Forest Landowner Office	188,732	331,282	176,368				696,382
Program Development		260,576				389,128	649,704
TOTALS	7,308,281	2,582,918	262,870	4,272,859	263,334	2,933,096	17,623,358

15.4 Full-Time Employees

The Forest Practices Program funded 113.52 FTEs and utilized 104.77 FTEs in FY2022, which translates to an 8% variance rate (Table 25). The variance is due to a higher than average vacancy level within the first fiscal year of the biennium.

Table 25: FY2022 Forest Practices Program Staffing by Functional Sub-Program, Showing Allotted and Utilized Full Time Equivalents

Forest Practice Program Functional Sub-Program	Allotted FY22 FTEs	Actual FTEs used in FY22	FY22 Difference
Forest Practices Act & Rules	95.79	90.48	5.31
Adaptive Management Program	6.97	5.96	1.01
Small Forest Landowner Office	6.41	4.55	1.86
Program Development	4.35	3.78	0.57
TOTALS	113.52	104.77	8.75

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 26 below because actual timber harvest data is no longer available. Table 26 contains calendar year acres of proposed harvest. The data in Table 26 is reported by large forest landowner (LFLO) and small forest landowner (SFL), by DNR Region, and by westside and eastside.

Table 26: Proposed FPA Harvest Acres per Calendar Year

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

**Table 26 Continued: Proposed FPA
Harvest Acres per Calendar Year**

WESTSIDE				
LFLO	119846	108588	106114	83999
SFL	24012	36419	18563	24396
TOTAL	143858	145007	124676	108395
EASTSIDE				
LFLO	46607	41203	41067	38772
SFL	51635	26046	31828	43776
TOTAL	98242	67249	72895	82548
STATEWIDE TOTAL	242099	212256	197571	190943

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 May 2022




STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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Memorandum

April 21, 2022

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 2021 Board meeting. Since that time Ecology's Director sent the attached letter to the Board extending the Assurances until December 2022.

In 2009, Ecology reviewed the Forest Practice Rules and concluded the Adaptive Management Program (AMP) needed to provide more information on the effectiveness of the rules in protecting water quality. Corrective milestones were developed for both research development and program improvements within the AMP and a 10-year extension to the Assurances was granted. Ecology granted a second extension of the Assurances in 2019, to December 2021. The decision to extend was largely based on the completion of *Effectiveness of Experimental Riparian Buffers on Perennial Non-fish-bearing Streams on Competent Lithologies in Western Washington* (McIntyre et al, September 2018, CMER #18-100) and the charter timeline development and formation of the *Timber Fish and Wildlife Policy Technical Type N Prescriptions Workgroup*. A third extension, to December 2022, was granted based on the Boards direction to issue a CR101, TFW Policy's work towards recommending Type Np rule prescriptions, and the AMP's establishing a process to address the concerns raised in the State Auditor's review of the program.

Ecology continues to support the AMP and track the progress of the corrective milestones. Five research milestones remain, with four projects currently underway and one project off-track. Of the original program implementation milestones, one is currently underway with completion expected in 2022 and one is not progressing (awaiting development of the water typing rule and associated Board Manual).

In the last year CMER completed and delivered final reports to TFW Policy for the following projects:

- *Effectiveness of Experimental Riparian Buffers on Perennial Non-fish-bearing Streams on Competent Lithologies in Western Washington– Phase 2 (Nine Years after Harvest) – July 2021*
- *Effectiveness of Forest Practices Buffer Prescriptions on Perennial Non-fish-bearing Streams on Marine Sedimentary Lithologies in Western Washington – August 2021*
- *Identifying Distribution Boundaries at the Upper Extent of Fish in Streams Using Environmental DNA – May 19, 2021*
- *Wetland Intrinsic Potential (WIP) Tool – May 20, 2021*

Enclosed are two tables showing the milestones and their current 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 current status
Table 2. Summary Non-CMER Project Milestones and their current status.
Director Watson letter to the Forest Practices Board – December 3, 2021

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

<i>CMER Research Milestones</i>		
	Description of Milestone	Status as of March 2022
2009	Complete: <u>Hardwood Conversion – Temperature Case Study</u> (Completed as data report)	Completed June 2010
	Study Design: <u>Wetland Mitigation Effectiveness</u>	Completed October 2010
2010	Study Design: <u>Type N Experimental in Incompetent Lithology</u>	Completed August 2011
	Complete: <u>Mass Wasting Prescription-Scale Monitoring</u>	Completed June 2012
	Scope: <u>Mass Wasting Landscape-Scale Effectiveness</u>	Milestone Eliminated
	Scope: <u>Eastside Type N Effectiveness</u>	Completed November 2013
2011	Complete: <u>Solar Radiation/Effective Shade</u>	Completed June 2012
	Complete: <u>Bull Trout Overlay Temperature</u>	Completed May 2014
	Implement: <u>Type N Experimental in Incompetent Lithology</u>	Completed October 2017
	Study Design: <u>Mass Wasting Landscape-Scale Effectiveness</u>	Milestone Eliminated
2012	Complete: <u>Buffer Integrity-Shade Effectiveness</u>	Completed November 2018
	Literature Synthesis: <u>Forested Wetlands Literature Synthesis</u>	Completed January 2015
	Scoping: <u>Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.</u>	Completed April 2017
	Study Design: <u>Eastside Type N Effectiveness</u>	Completed March 2018

CMER Research Milestones		
	Description of Milestone	Status as of March 2022
2013	Scoping: <u>Forested Wetlands Effectiveness Study</u>	Completed December 2016
	<u>Wetlands Program Research Strategy</u>	Completed January 2015
	Scope: <u>Road Prescription-Scale Effectiveness Monitoring</u>	Completed March 2016
	Study Design: <u>Examine the effectiveness of the RILs in representing slopes at risk of mass wasting.</u>	Underway Study is being designed and implemented in five separate projects.
	Implement: <u>Eastside Type N Effectiveness</u>	Underway Study is in implementation with harvests planned for summer/fall 2021. Implementation through 2027. Study should be complete by 2028.
2014	Complete: <u>Type N Experimental in Basalt Lithology</u>	Completed August 2017
	Study Design: <u>Road Prescription-Scale Effectiveness Monitoring</u>	Completed February 2017
	Scope: <u>Type F Experimental Buffer Treatment</u>	Completed December 2015 Projected completion of study 2028.
	Implementation: <u>Examine the effectiveness of the RILs in representing slopes at risk of mass wasting</u>	Underway Complete project 2 with final report in 2022. Complete work projects 3 & 4 with final reports in 2025. Complete project 5 in 2026 with final report in 2027.
	Study Design: <u>Forested Wetlands Effectiveness Study</u>	Complete Implementation expected to start spring 2022.
2015	Complete: <u>First Cycle of Extensive Temperature Monitoring</u>	Completed April 2019.
	Scope: <u>Watershed Scale Assess. of Cumulative Effects</u>	Off Track

CMER Research Milestones	
Description of Milestone	Status as of March 2022
	Project intended to follow other effectiveness monitoring studies which are behind schedule. Funding to begin in 2029.
	Underway Expected April 2022
2017	Scope: <u>Amphibians in Intermittent Streams</u> (Phase III - renamed: Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow Project)
	Off Track Expected 2029.
	Study Design: <u>Amphibians in Intermittent Streams</u> (Phase III - renamed: Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow Project)
	Underway Expected in 2025.
2018	Complete: <u>Roads Sub-basin Effectiveness</u>
	Not Progressing Project to be re-scoped in 2029 with completion in 2032.
	Implement: <u>Watershed Scale Assess. of Cumulative Effects</u>
	Off Track Implementation in 2030.
	Complete: <u>Type N Experimental in Incompetent Lithology</u>
	Complete August 2021
2019	Complete: <u>Eastside Type N Effectiveness</u>
	Earlier Stage Underway Projected completion in 2028.

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

<i>Non-CMER Project Milestones</i>		
	Summarized Description of Milestone	Status as of March 2022
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 2022
	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) <u>Resolve issue with identifying the uppermost point of perennial flow by July 2012</u> , 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 2022
	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. Due to the COVID-19 Pandemic the field survey is about 83% complete. Completion expected in 2022.

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) than 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 12/3/2021



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December 3, 2021

Forest Practices Board Members

Sent by email only: patricia.anderson@dnr.wa.gov

Dear Forest Practices Board Members:

Twenty-two years have passed since the adoption of the 1999 Forests and Fish Report. During the intervening years, the Department of Ecology (Ecology), with the support of the U.S. Environmental Protection Agency (EPA), has maintained the commitment to provide the Clean Water Act Assurances (Assurances) for forest practices in Washington State. The Assurances provided promised state and federal guarantees covering both the Clean Water Act as well as the Endangered Species Act, to serve as a predictable and a consistent regulatory framework for the forest industry.

The Assurances require Ecology's considered determination that the Adaptive Management Program (AMP) established under the Timber, Fish, and Wildlife (TFW) agreement is effective at improving water quality in the short term and meeting water quality standards in the longer term. For Ecology to continue to uphold the assurances, we must determine that the AMP is functioning as originally envisioned in order to meet these objectives.

As a result of Forests and Fish, we have seen improvements across lands covered by the Forest Practices Act. Through the Road Maintenance and Abandonment Planning (RMAP) requirement, nearly all RMAP plans were completed by the October 31, 2021, deadline, resulting in more than 8,300¹ fish passage barriers corrected, opening more than 5,100 miles of fish habitat. The Washington Department of Natural Resources (DNR) is working with landowners to make sure the few remaining obligations are completed. The Cooperative Monitoring, Evaluation, and Research Committee has completed many studies. The Policy Committee and the Board have implemented and refined the Desired Future Conditions as well as provided two template alternate plans for small forest landowners.

Washington's AMP serves as a model for others. Stakeholders in Oregon have recently committed to a similar process to address regulatory practices within the forestry industry. The Board's motion to direct staff to file a CR-101, to notify the public of their intent to amend existing rules related to non-fish bearing perennial streams (Type Np riparian buffers) in Western Washington, is an encouraging signal to me that the TFW stakeholders are committed to water quality, TFW, and the AMP.

However, there is still much work that remains to be done. The TFW parties must consider process improvements to ensure that the AMP functions effectively and efficiently into the future. It is also imperative that the parties move expeditiously to develop a proposal for Type Np buffer prescriptions. Because I believe the parties are committed to accomplishing both things, Ecology has concluded that it

¹ 2020 Forest Practices Habitat Conservation Plan Annual Report, Chapter 11

is appropriate to allow time for the adaptive management process to demonstrate measurable progress over the next year.

Documented Problems with the Adaptive Management Program

On October 9, 2009, Ecology conditionally extended the Clean Water Act Assurances for a ten-year period. The extension was conditioned on the AMP meeting a scheduled set of milestones for program improvements and research development.

A detailed set of findings accompanied the 2009 extension decision. Those findings identified a number of existing problems with the adaptive management process:

The CWA assurances were established on the condition that an effective adaptive management process (AMP) would be established and maintained. A healthy and effective AMP is central to the ability of Ecology to offer the CWA assurances. The AMP needs to provide a scientific framework for testing whether the forest practices rules are effective in protecting water quality, and for identifying any changes needed to rules not found effective. Substantial progress has been made through establishing the structure and formal operational procedures of the AMP. An AMP board manual was developed to further outline how the program should operate, and significant funding and effort has occurred to get scientific studies underway to test various portions of the rules and guidelines governing forest practices.

In spite of these substantial efforts, the AMP has not completed any studies that directly test the effectiveness of the rules in protecting water quality. The science arm of the AMP has also been largely unsuccessful in providing research findings the Forest and Fish Policy Committee (Policy) and the Forest Practices Board (Board) will reliably use to validate or to revise the forest practices regulations and guidance. There are significant problems with the ability of the policy and science arms of the AMP to work together to test and revise the rules in a timely and effective manner. Part of the problem is simply inherent in a program that seeks to develop consensus among stakeholders with competing interests. But the problems also seem rooted in the foundation of the AMP itself. AMP participants frequently disagree about the appropriate roles of science and policy, as well as what role the initial negotiated forests and fish rules should play in evaluating the acceptability of future changes. These disagreements appear in part to stem from a lack of clarity in the underlying rules and guidance. Combined with poor communication between the science and policy arms of the program, this is compromising the AMP's effectiveness. To the credit of its participants, strategic planning efforts are underway with the intention of identifying and correcting the shortcomings of the program. The Policy committee has developed a strategic plan...with five broad goals supported by multiple objectives and specific tasks designed to revitalize the adaptive management program. There is also general understanding that testing the effectiveness of the rules for protecting water quality must be a top priority if Ecology is to continue the assurances.

The state legislature (RCW 76.09.370) directed that forest practices rules covering aquatic resources only be adopted or changed by the Board where those changes are consistent with recommendations resulting from a scientifically based adaptive management process. The stated purpose of having the adaptive management process is to make adjustments as quickly as possible to portions of the forest practices rules that are not achieving resource objectives. Both as a participant and a reviewer, Ecology has concluded that fundamental improvements are needed to ensure the rules and associated programs will be tested and revised in a timely

manner based on scientific inquiry, as intended by the legislature and consistent with CWA assurances.

On February 23, 2021, the State Auditor issued a performance audit report describing the significant issues that continue to plague the AMP. The Auditor's Office concluded that the program is not "operating as intended" and that, without needed changes, the "program would continue to languish." The Auditor's Office recognized that, while the program was "designed to allow nimble changes to forest practices rules," the program has in fact only resulted in two science-based rule revisions since 2006. The Audit Report contains a number of recommendations designed to get the program on track so that it can perform its functions as intended.

Ecology is aware that the Forest Practices Board has submitted a budget request to address some of the recommendations contained in the Audit Report, and Ecology commends the Board's clear commitment to doing so. In addition, Ecology is grateful that the Public Lands Commissioner is convening a meeting of TFW principals so that we can address these issues at the highest levels of accountability within our respective organizations. Of course, the TFW stakeholders themselves must also commit to program improvement. This will necessarily entail an openness to changing current aspects of the program, such as revisiting the unanimous voting requirement and/or streamlining the dispute resolution process. Because fixing problems with the AMP is so integrally tied to the Clean Water Act Assurances, making clear and measurable progress toward addressing the Auditor's recommendations is necessary to provide Assurances that the forest industry is making progress towards protecting water quality.

Rulemaking for Type Np Streams

The maintenance of forested buffers is critical to protect water quality. Under current rules, non-fish bearing perennial streams (Type Np) receive less forested buffers than fish bearing streams. As a result, the 2009 findings recognized that "the prescriptions associated with the Type Np rules have the greatest potential risk of violating the water quality standards."

On December 2, 2019, Ecology issued another conditional extension of the Clean Water Act Assurances. In doing so, Ecology concluded that the Type Np Hard Rock study² clearly demonstrates the need to strengthen the Type Np riparian rules to protect water quality. Ecology noted that the TFW Policy Committee and the Forest Practices Board "recently agreed to a workgroup process aimed at developing new rule prescriptions."³ In light of this commitment to rulemaking by TFW stakeholders, Ecology extended the Assurances for an additional two years so that the Board would have ample time "to reach an agreement on the Type N rules." As evidence that the Adaptive Management Program was working, Ecology noted that there would need to be a CR101 filing in the summer of 2021 and a draft CR102 distributed for public review by the end of November 2021.

While we are pleased that the Board directed staff to issue a CR101 at its November 2021 meeting, Washington Department of Natural Resources (DNR) staff have not distributed a draft CR102, and there is no feasible pathway for them to distribute a draft by the end of this year. It is clear that the Board did not meet the conditions included in Ecology's 2019 extension of the Assurances insofar as DNR has not issued a draft CR102. Nevertheless, I have spoken with representatives of the TFW stakeholders and perceive a genuine commitment to moving this rulemaking forward. Despite this commitment, it is

² "Effectiveness of Experimental Riparian Buffers on Perennial Non-fish-bearing Streams on Competent Lithologies in Western Washington", McIntyre et al, September 2018, CMER #18-100

³ Timber Fish and Wildlife Policy Technical Type N Prescriptions Charter – March 7, 2019

Forest Practices Board Members
December 3, 2021
Page 4

evident that we cannot make progress without meaningfully addressing the issues identified in the 2021 Audit Report. Achievement of our objectives will require a concerted effort by all TFW stakeholders in the TFW process over the next several months.

Clean Water Act Assurances

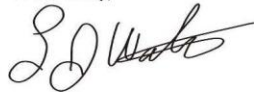
Ecology has determined that it is appropriate to allow time for the AMP to make measurable progress implementing the 2021 Audit Report recommendations and for Policy to make a final recommendation on Type Np buffer prescriptions to the Board, with the Board directing Board staff and DNR to develop a rule package and prepare the CR102. Achievement of these objectives during this extension of the assurances for an additional year will help all of us continue to meet the obligations we committed to when we signed onto the groundbreaking Forests and Fish Agreement.

By December 31, 2022, Ecology must submit to EPA and the National Marine Fisheries Service/United States Fish and Wildlife Service (Services) an updated statewide non-point source pollution management plan under Section 319 of the Clean Water Act. EPA and the Services will review the non-point plan under both the Clean Water Act and Endangered Species Act following its submittal at the end of 2022.

The performance of the Forests and Fish Agreement and associated Forest Practices Rules are key components of the non-point plan regarding the protection of water quality on forest lands. Therefore, the achievements over the next year will help us evaluate the effectiveness of the AMP as we complete the plan. In the plan, Ecology must document whether the rules are effective in protecting Washington's waters, and this determination is key to the Clean Water Act Assurances. If the rules are not achieving the resource objectives, Ecology must document the steps it will take instead to address the protection of water quality.

My sincere hope is that the TFW stakeholders will use the next year to demonstrate that we can work together to improve the Adaptive Management Program so that forest lands are managed in a way that protects water quality now and into the future. I look forward to working with all TFW stakeholders to accomplish our important shared mission of providing regulatory certainty for the industry while protecting our cherished natural resources.

Yours truly,



Laura Watson
Director

cc: Hilary Franz, Commissioner of Public Lands, DNR
Michelle Pirzadeh, Acting Regional Administrator/Deputy 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	0.453
California/Lower Rock	0.055
Camano Island	0.327
Camas Valley	0.039
Carbon	0.121
Carpenter	0.358
Cathlapotl	0.487
Cedar Creek	0.152
Cedar Creek/Chelatchie Creek	0.994
Chamokane Creek	0.068
Chehalis	0.324
Chehalis Headwaters	0.023
Chehalis Slough	0.102

Chico Creek	0.111
Chimakum	0.099
Chinook	0.027
Chumstick	0.143
Church Creek	0.704
Cloquallum	0.142
Coal Creek	0.684
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	0.235
Delameter	0.150
Delezene Creek	0.165
Deming	0.063
Diobsud Creek	2.100
Discovery Bay	0.053
Dragoon Creek	0.115
Drayton	0.780
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
Elk Creek	0.017
Elk River	0.088
Everett	0.040

Ferndale	0.428
French-Boulder	0.098
Friday Creek	1.115
Garrard Creek	0.046
Germany	0.119
Gibson Creek	0.203
Gilligan	0.239
Grays Bay	0.050
Great Bend	0.052
Haller Creek	0.178
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	0.925
Huckleberry Creek	0.023
Hutchinson Creek	0.149
Independence Creek	0.227
Jim Creek	0.087
Johns River	0.058
Jordan	0.067
Jordan Boulder	0.102
Kennedy Creek	0.009
Key Peninsula	0.408
Kiona Creek	0.152
Lacamas	0.289
Lacamas Lake	0.429
Lake Cavanaugh	0.026
Lake Crescent	0.209
Lake Merwin	0.511
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	0.175
Lower Coweeman	0.359
Lower Cowlitz	0.681
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	0.074
Lower Middle Snoqualmie	0.028
Lower Naselle	0.102
Lower Newaukum	0.815
Lower North Fork Skykomish	0.214
Lower North Fork Stillaquamish	0.173
Lower Pilchuck Creek	0.338
Lower Pilchuck River	0.362
Lower Quinault River	0.173
Lower Riffe Lake	0.109
Lower Salmon Creek	0.171
Lower Skookumchuck	0.010
Lower Skokomish	0.162
Lower Snoqualmie River/Cherry Creek	0.137
Lower Stilloquamish River	0.026
Lower Willapa	0.370
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	0.049
Middle Sauk	0.014
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	0.034
North Fork Newaukum	0.048
North Headwaters	0.048
North-Middle Forks Deer Creek	0.095
Ohop	0.044
Ohop Creek	.019
Olequa	0.363
Onion Creek	0.150
Orcus Island	.024
Ostrander	0.479
Otter Creek	0.077
Packwood Lake	0.383
Palix	0.007
Patit Creek	0.046
Pend Oreille/Cedar Creek	0.032
Pend Oreille/Deer Creek	0.031
Pilchuck Mountain	0.013
Pinston Creek	0.172
Port Angeles	0.172
Porter Canyon	0.091
Possession Sound-N. Elliot Creek	0.120
Quilceda Creek	0.396

Quilliascut Creek	0.517
Quinault Lake	0.208
Raging River	0.041
Reese Creek	0.056
Rock Creek	0.227
Salmon Creek	0.086
Salt Creek	0.393
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
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	0.085
South Sinclair Inlet	0.099
Spring Creek	0.071
Squalicum Creek	0.472
St. Peter-Lambert	0.074
Stahley Mountain	0.214
Stensgar Creek	0.037
Stillaguamish Flats	0.121
Stillman Creek	0.007
Stillwater	0.044
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	0.376
Trout Creek	2.049
Tululip Creek	0.584
Upper Chehalis/Cedar Creek	0.047
Upper Chehalis/Rock Creek	0.099
Upper Coweeman	0.069
Upper Little Pend Oreille River	1.192
Upper Little Roosevelt/Deep Crk	0.066
Upper North Fork Stillaguamish	0.095
Upper Wallace River	0.045
Vancouver	0.766
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	0.073
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	0.884

Yelm Creek	0.930
Young Cove	0.223

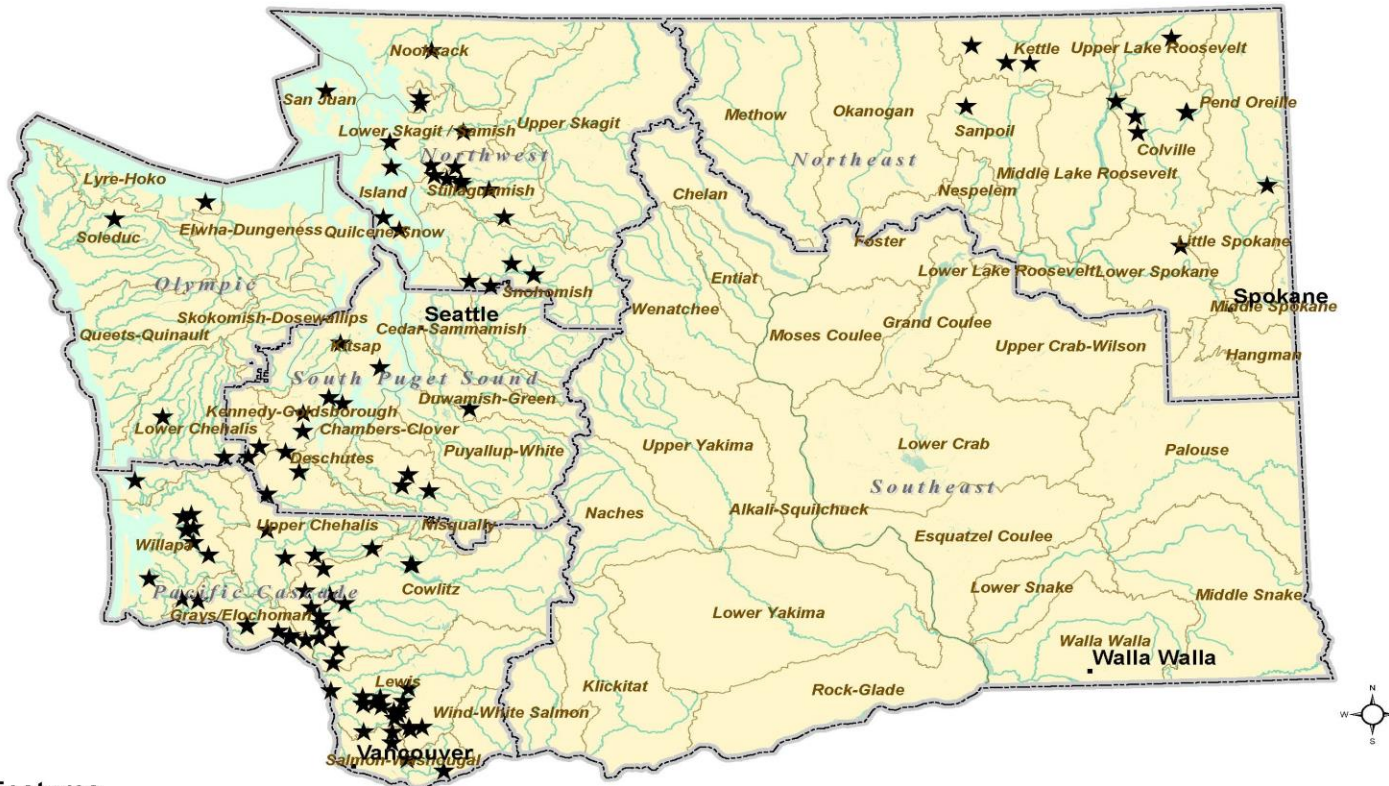
NOTE: Table includes a 2016 recalculation of fish-bearing stream length by WAU on Forest Practices HCP-covered lands to align report calculations with current GIS data.

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 16-year period of the Incidental Take Permits. There are 846 WAUs in the state, of which 263 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 nine WAUs affected by 20-Acre Exempt applications have less than 1% potential cumulative reduction in function relative to standard Forest Practices prescriptions. The nine WAUs including 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 nine WAUs with potential reduction in function over 1% is near the ITP maximum 10% threshold ([explained in Appendix 3](#)). There are 127 WAUs indicating a potential of reduction in function between 0.1 and 0.9%, and the remaining 127 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 7/1/21 – 6/30/22

Approved 20 Acre Exempt Forest Practices Applications
Near S or F Waters Between July 1, 2021 - June 30, 2022



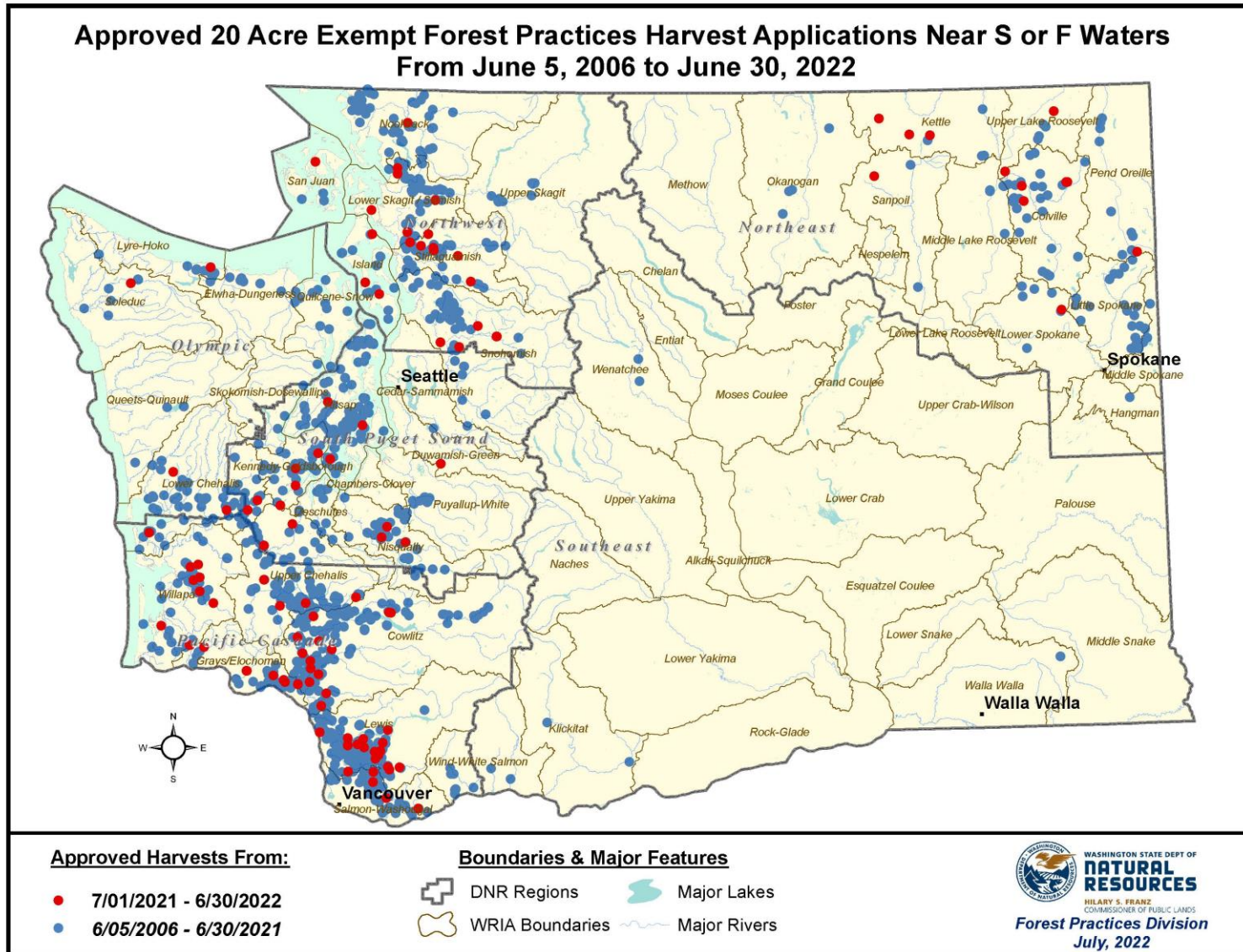
Major Features

- ★ Approved Harvests: 7/01/21 - 6/30/22
- ▭ DNR Regions
- ▭ WRIA Boundaries/Names
- ~ Major Rivers / Fresh Water Lakes



WASHINGTON STATE DEPT OF
NATURAL RESOURCES
HILARY S. FRANZ
COMMISSIONER OF PUBLIC LANDS
Forest Practices Division
July, 2022

Appendix 2c: Approved 20-Acre Exempt FPAs near S or F Waters 6/5/06 – 6/30/22



Appendix 2d Bull Trout Population of Concern Areas FPA Processing -DRAFT



**DEPARTMENT OF
NATURAL RESOURCES**
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July 27, 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 FPHCP 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) list⁹. 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.

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.

⁹ 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.

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 were:

- 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 as harass, harm pursue, hunt, shoot, wound, kill, etc.) 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)). However, both WDFW and Ecology have dedicated office and field staff time to support 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 following:
 - 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

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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, 2022, was:

- 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
- Jeff Davis, Department of Fish and Wildlife designee
- Vicki 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
- Brent Davies, general public member

Forest practices is a dynamic environment with continual change in knowledge and understanding of natural forest systems and science that can lead to 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 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 element recommendations for inclusion in the new rule. The Board requested the AMP Administrator to convene an expert scientific 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 easily analyzed to identify PHBs as well as identify 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 define 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. This analysis is necessary in order to inform both the economic and environmental analyses. Additionally, 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 amongst DNR and stakeholders to resolve the outstanding concerns and issues and then bring recommended rule elements forward 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 options¹⁰.

In November 2019, the Board approved:

¹⁰ The Board approved three PHB options (A-Westside tribes, B-eastside tribes, and C-landowners) for analysis in February 2018.

- 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).

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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 allocation for the implementation of the Program. AMP includes TFW Policy Committee, Cooperative Monitoring and Research Committee (a science 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 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.”

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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. Staff shares guidance affecting cooperating agencies, organizations, and landowners with those organizations.

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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 (FFFP), 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.

During the 2021 supplemental legislative session, funding was specifically provided to fund an additional regulation assistance forester. This position was filled in March 2021 and was funded until June 30, 2021.

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.

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.**
 - $(0.17 \times 1.0) + (0.62 \times 1.0) + (0.18 \times 0.7) + (0.03 \times 0.3) = 0.925$
- **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 = $0.60 \times 1.15 = 0.69$

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 = $0.67 \times 1.15 = 0.77$

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.

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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 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.

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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 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. A progressive approach to enforcement is used which begins with consultation and voluntary efforts to achieve compliance while reserving civil penalties (monetary fines) 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 rule or have resulted in damage to a public resource. Non-violations are situations where damage to a public resource has not occurred but the forest practices forester has determined damage is imminent if the activity or condition is not 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 rules successfully to protect public resources.

Staff do not issue Notices of Intent to Disapprove or civil penalties often because the majority of violations do not rise to the level of repeat violation penalties. The majority of 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 a number of 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?
- What is the extent of damage to the public resource?
- Is there a history of similar violation by the same landowner or operator?

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Compliance Monitoring Program

The 1999 [Forests and Fish Report](#) first formally proposed CMP 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 CMP design and implemented a pilot sampling effort with the funding allocated by the Legislature. The CMP 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.

CMP 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 CMP (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 CMP 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 CMP 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 CMP currently evaluates compliance with those rules considered to have the greatest impact on the protection of aquatic and riparian species and their habitat.

The CMP 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 CMP 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 CMP 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 CMP 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 CMP 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 CMP 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 CMP 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 CMP 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 CMP biennial report, and subsequent compliance monitoring reports.

2017 – It was determined that an interim annual report would no longer be provided by the CMP 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 CMP 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.

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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.

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RMAP for Large Landowners

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-cast¹¹ 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

¹¹ Extra material (dirt and debris) generated from clearing for a road. The debris can be put to the side.

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.

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 16, 17, 18, and 19 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, 58 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.

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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)

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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 will begin 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. However, it is a work in progress. Not all points have been entered or updated. They represent the information that has been compiled to date from landowner annual reports.

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. This year creating documentation in the Survey123 app is also being tested.

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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
FPAN	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