

Washington State Department of Natural Resources

Adaptive Management Program



Quarterly Updates to the Forest Practices Board

Summary



TFW Policy Committee (TFW) and Cooperative Monitoring, Evaluation, and Research Committee (CMER) made progress on the State Auditor's Office (SAO) Implementation Plan (see pages 9-13 for update).

August 2023

CMER held regular monthly meetings this quarter. CMER hosted the 2023 CMER Science Conference on May 11th. CMER approved or advanced to TFW Policy the following Adaptive Management Program (AMP) project deliverables:

- Approved the ISPR approved Potential Habitat Breaks (PHBs) Study Design,
- Approved the Eastside Timber Habitat Evaluation Project (ETHEP) Study Design, and
- Approved edits to the Protocols and Standards Manual (PSM) Sections 1-3 & 5.

TFW Policy Committee attended an Interest-Based Negotiation follow-up training on May 3, 2023, to continue conversations regarding their interests, resolving differences of opinion, collaboration versus competition, how each caucus interests are being served, and the challenges they face in the AMP. This was the third training that TFW Policy Committee members have attended with the intent to improve conflict resolution and collaboration.

The TFW Policy Committee held regular monthly, in-person meetings this quarter. The committee approved or advanced to TFW Policy the following Adaptive Management Program (AMP) project deliverables:

- Approved the Wetland Management Zone Effectiveness Monitoring Program (WMZ) Charter, and
- 2023-2025 Master Project Schedule (MPS).

TABLE OF CONTEXTS

Summary.....	1
Project Updates.....	2
AMP Site Visits.....	8
SAO Implementation Update	9

ADAPTIVE
MANAGEMENT TEAM



LORI CLARK
Adaptive
Management Program
Administrator
lori.clark@dnr.wa.gov



NATALIE CHURCH
CMER Coordinator
Natalie.church@dnr.wa.gov



RACHEL RUBIN
CMER Scientist
rachel.rubin@dnr.wa.gov

PROJECT UPDATES

ROADS PRESCRIPTION SCALE EFFECTIVENESS MONITORING PROJECT

The [Roads Prescription Scale Effectiveness Monitoring Project](#) examines high-traffic, near-stream forest logging roads as sources of sediment and seeks to better understand and evaluate mitigating best management practices. The project team has completed the fourth year of main experiment data collection, with two subsequent additional years of data collection planned. In this last quarter, the project team has worked hard preparing for the annual road maintenance completed at the end of spring each year. This annual work involves draining, measuring, weighing, and sampling the sediment tanks across our 78 western Washington study segment apparatuses. Additionally, the road segments themselves are re-rocked, graded, with ditch-line BMPs installed or maintained. The project team successfully completed and released the Cost vs. Maintenance Survey, in which road engineers and forest managers were surveyed about the BMPs they utilize on forest roads and the costs and benefits they experience. The early results of this survey have informed the rocking and ditch-line BMPs applied to each study segment. In the next quarter, the project team will be completing additional study segment maintenance, such as repairing degraded traffic counters and planning parameterization experiment fieldwork for the fall.

EXTENSIVE RIPARIAN STATUS AND TRENDS MONITORING – RIPARIAN VEGETATION AND STREAM TEMPERATURE, TYPE F/N WESTSIDE AND EASTSIDE PROJECT

The [Extensive Riparian Status and Trends Monitoring Program – Riparian Vegetation and Stream Temperature](#) purpose is to evaluate the current status of key watershed input processes and habitat condition indicators, such as stream temperature and riparian functions, across Forest Practices Habitat Conservation Lands, and document trends in these indicators over time as the Forest Practices prescriptions are applied across the landscape. This project is in an early stage of development in which the project team is considering how to scope and design the long-term study as well as how to tackle the development of specific critical questions and objectives. The project team has been prioritizing the development and approval of a project charter before starting the scoping process. Additionally, a contractor was hired in May 2023 to complete a data assessment of existing extensive monitoring programs, the results of which will support the project team as they look forward to the scoping phase.

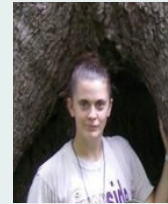
WESTSIDE TYPE F RIPARIAN PRESCRIPTION EFFECTIVENESS- EXPLORATORY FIELD STUDY

The **Westside Type F Riparian Prescription Effectiveness- Exploratory Field Study** evaluates the effectiveness of westside riparian prescriptions for F and S streams in achieving resource objectives and performance targets. This exploratory study is intended to reduce uncertainties associated with the relative sensitivity of post-harvest riparian stand conditions and riparian functions to harvest prescriptions and to potential harvest-associated disturbances as well as to be used to focus and refine the development of a future Study Design for a more rigorous test of the effectiveness of the Type F rule buffers. At the November 5, 2022, Cooperative Monitoring, Evaluation, and Research Committee (CMER) meeting two relevant motions were passed, one that approved the final draft of the “Westside Type F Exploratory Report” and another which moved to forward the approved report to ISPR. Department of Natural Resources Adaptive Management Program (DNR AMP) staff subsequently submitted the Westside Type F Riparian Management Zone Exploratory Study Report to Independent Scientific Peer Review (ISPR). The ISPR response document package was received in January 2023. Since then, the author has been responding to the ISPR comments and making the requested revisions in an effort to develop a response document package (comprised of a comment matrix, revised report, and memo) to be sent back to ISPR. This effort has required the author to undertake significant and extensive revisions to not only the report itself, but also the underlying data analytics, upon which many sections of the report are based on. A complete response to ISPR is expected in the summer of 2023.

EASTSIDE TYPE N RIPARIAN EFFECTIVENESS PROJECT (ENREP)

The **Eastside Type N Riparian Effectiveness Project (ENREP)** will help inform if, and to what extent, the prescriptions found in the Type N Riparian Prescriptions Rule Group are effective in protecting water quality and some riparian functions, particularly as they apply to sediment and stream temperature in eastern Washington. The project is currently in full implementation and data collection is underway for the 2023 field season. Springdale and Tripps basins were harvested in 2021. Two years of pre-harvest data, harvest year, and one year of post-harvest data have been collected at these basins. Blue Grouse basin harvest was completed in 2022. Three years of pre-harvest data and harvest year data have been collected here. Fish Creek and Coxit basins are scheduled to begin harvest in summer 2023. Two years of pre-harvest data have been collected in these basins. The Fish Creek harvest is anticipated to span two seasons. Data collection includes: biophysical variables, including streamflow, wetted channel extent, suspended sediment concentrations, stream shade, riparian forest mensuration, large wood, temperature, and stream cross sections, aquatic life (benthic macroinvertebrates), and habitat. The project team is planning a joint Policy/CMER field trip to the Blue Grouse and Tripps basins on September 27, 2023.

AMP PROJECT MANAGERS



THERYN HENKEL
Supervisory
Project Manager

Theryn.Henkel@dnr.wa.gov



ANNA TOLEDO

ANNA.TOLEDO@DNR.WA.GOV



ALEXANDER
PRESCOTT

alexander.prescott@dnr.wa.gov



JENNY SCHOFIELD

JENNY.SCHOFIELD@DNR.WA.GOV

CMER CO-CHAIRS



AIMEE MCINTYRE

AIMEE.MCINTYRE@DFW.WA.GOV



A.J. KROLL

AJ.KROLL@WEYERHAEUSER.COM

CMER SCIENTISTS



JENELLE BLACK

BLACK@NWIFC.ORG



TANNER WILLIAMSON

TWILLIAMSON@NWIFC.ORG

EASTSIDE TIMBER HABITAT EVALUATION TYPES (ETHEP)

The **Eastside Timber Habitat Evaluation Project (ETHEP)** is designed to develop a framework for applying riparian harvest rules along Type S and Type F streams in eastern Washington based on the Forest Practices Habitat Conservation Plan (FPHCP) functional objectives and performance targets. The Study Design was approved by CMER and sent to ISPR in June 2023. The Project Team is planning to do a landscape assessment in summer 2023 to help prepare the field manual and protocols.

WATER TYPING STRATEGY

The **Water Typing Strategy** projects are intended to determine the possibility/advisability of combining the 'Potential Habitat Breaks (PHB),' 'Default Physical Criteria (DPC),' 'LiDAR Model,' and/or 'eDNA' studies. The **Potential Habitat Breaks (PHB)** Study Design was approved by ISPR and received final CMER approval in May 2023. Desktop site selection is anticipated to begin in summer 2023. The **Default Physical Criteria (DPC)** Project Team has initiated work on the DPC Study Design that will allow an assessment of the default physical criteria. That Study Design is expected to be delivered to CMER to initiate a concurrent CMER/ISAG review in summer 2023. A statistical consulting firm is assisting the Project Team in evaluating methods for the DPC Study Design. Once these two projects are complete, the results would then be used in the development of a study to try and create an effective LiDAR-based water typing model.

RIPARIAN CHARACTERISTICS AND SHADE (RCS)

The **Riparian Characteristics and Shade (RCS)** project is a field research project intended to evaluate the combined effect of stream-adjacent no-harvest zone width and adjacent-stand harvest intensity (i.e., thinning density) on stream shade. The Project Team worked hard to identify sites for implementation in summer 2023, but was ultimately unsuccessful in finding suitable sites. The Project Team has shifted focus to identifying sites for implementation in summer 2024 and will visit potential sites to check for suitability in summer and fall 2023.

RIPARIAN FUNCTION LITERATURE SYNTHESIS

The [Riparian Function Literature Synthesis](#) is a stand-alone literature synthesis that will address questions regarding the effects of timber harvest on riparian functions. The literature synthesis was delivered to RSAG in June 2023. It is expected to go through RSAG, CMER, and ISPR review and approval in FY24.

FORESTED WETLANDS EFFECTIVENESS PROJECT (FWEP)

The [Forested Wetlands Effectiveness Project \(FWEP\)](#) projects will look at the effectiveness of forest practices prescriptions to protect, maintain, and restore aquatic resources, namely water quality and wetland hydrologic and ecological functions. It will be evaluated to determine if they achieve the FPHCP goal of no-net-loss of functions of those wetlands by half of a timber rotation cycle while meeting water quality standards (FPHCP). FWEP has an approved Study Design. Tanner Williamson, CMER Wetland Scientist, along with the Project Team completed the instrumentation of 4 pilot sites and have collected preliminary data. Preliminary data was used to verify instrumentation methods and plan for additional site implementation. After a successful winter of data collection at the four pilot sites and completing site selection and validation for the remaining sites, the project team completed full instrumentation of the remaining twenty field sites in Spring 2023.

WETLAND MANAGEMENT ZONE EFFECTIVENESS MONITORING PROJECT (WMZ)

The [Wetland Management Zone Effectiveness Monitoring Project \(WMZ\)](#) will evaluate wetland functions to determine if the target of no-net-loss of hydrologic function, CWA assurance targets, and hydrologic connectivity are being achieved. Following the April 2022 CMER approval of the project charter, the project team has begun to plan out the scoping process. The development of scoping documents such as the Best Available Science Document and Prospective Six Questions Document are have begun, and an initial draft to be completed in late Fall 2023. Funding for the WMZ begins in FY26, with implementation funding slated to begin in FY28. Funding to assist in this work was moved out 3 years on the MPS, approved in August 2020 (funding begins FY26) due to the AMP budget limitations.



ELISE FREEMAN

EFREEMAN@NWIFC.ORG



ROB PAVLIK
NATURAL RESOURCE
TECHNICIAN

RPAVLIK@NWIFC.ORG

EASTSIDE FOREST HEALTH STRATEGY

The **Eastside Forest Health Strategy** workgroup developed a report that was reviewed by CMER in April 2022. The Eastside Forest Health Strategy workgroup recommended the development of a research and monitoring strategy investigating active RMZ management approaches that build on current RMZ prescriptions and are designed to balance disturbance resiliency and resource protection objectives outlined in the FP HCP (Schedule L-1 functional objectives and performance targets, Appendix N). SAGE will soon begin working on further developing the Eastside Forest Health Strategy based on the Policy-approved 23-25 CMER Work Plan. They will begin with Charter development which is slated to begin this summer.

TYPE N EXPERIMENTAL BUFFER TREATMENT PROJECT IN HARD ROCK LITHOLOGIES AMPHIBIAN MONITORING PHASE III

The **Type N Experimental Buffer Treatment Project in Hard Rock Lithologies Amphibian Monitoring Phase III** project is in implementation, collecting additional data for stream-associated amphibians and other relevant covariate data (e.g., stream temperature data) to evaluate continued trends in amphibian densities. Amphibian demographics sampling began June 2022 and continued through early October. The team have QA/QCed the data and some preliminary summaries have been developed. Field work has begun for the final sampling period, which will be followed by data analysis and report writing extending into FY25.

UNSTABLE SLOPES CRITERIA PROJECT

The **Unstable Slopes Criteria project** will evaluate the degree to which the landforms described in the unstable slopes rules identify potentially unstable areas with a high probability of impacting public resources and public safety. This quarter, the Project Team made progress on Project 2, Object-Based Landform Mapping with High-Resolution Topography Study report. The Object-Based Landform Mapping with High-Resolution Topography Study report is undergoing edits and revisions by the Criteria Project Team. The report should be delivered to CMER for review by September, 2023.

The Study Design for the Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform (Project 3) and the Empirical Evaluation of Shallow Landslide Runout (Project 4) was finalized and approved by UPSAG and the Project Team and then presented to CMER for approval on March 28th, 2023. The study design was then advanced to ISPR. The study design author is currently working on ISPR response.

DEEP-SEATED LANDSLIDE RESEARCH STRATEGY

The **Deep-Seated Landslide Research Strategy** utilizes the results of the literature reviews for forest harvest effects on glacial and bedrock deep-seated landslides to address key knowledge gaps identified during the literature reviews and to address questions from the Forest Practices Board and Policy regarding the potential effects of forest practices on deep-seated landslides.

A consultant was hired to assist UPSAG in the development of the DSL Study Design based on the Policy-approved Scoping Document for the Landslide Mapping and Classification Project (4.5 and 4.6) under the Deep-Seated Landslide Research Strategy. BGC Engineering delivered a draft Study Design which underwent CMER review in Spring, 2023 and the Project Teams is currently working on revisions based on CMER review and comments. The Study Design will be submitted for CMER approval and movement into ISPR early next quarter.

**FORESTED WETLANDS EFFECTIVENESS PROJECT
CHRONOSEQUENCE AND RIPARIAN SCIENCE
ADVISORY GROUP SITE VISITS**

Adaptive Management Program participants attended site visits in Forks over two days in July to tour Forested Wetlands Effectiveness Project (FWEP) Chronosequence sites and the [Olympic Experimental State Forest \(OESF\)](#).

The FWEP site visits were hosted by the Wetland Science Advisory Group (WetSAG). Tanner Willimason, CMER Scientist and Principal Investigator for WetSAG projects, lead the field tour and provided an overview of two instrumented sites for the FWEP - Chronosequence Study. Both sites were located on the south side of the Hoh River and included a 40+ year old site near Owl Creek and a 20 year old site near Maple Creek. These sites were chosen for the field trip as they represent variable landforms (steeper vs. slightly sloped gradients) and hydrology (perennially wetted vs. seasonally drier). Despite variable topography and hydrology, both sites share direct surface flow connection to an Np stream, an important element of the study design. There were 20 attendees present, with representatives from DNR, CMER science staff, large landowners, WDFW, Ecology, and Westside Tribes. Productive conversation among stakeholders included discussion of site inclusion / exclusion criteria, the influence of topography and hydrology on post-harvest stand development, and how roads and adjacent harvest unit activities might influence hydrology.

The Riparian Scientific Advisory Group (RSAG) hosted the field trip to the OESF to observe and talk about riparian treatments in the ongoing [Type 3 \(T3\) Watershed Experiment](#) and an older riparian forest thinning. There were 23 attendees present, with representatives from DNR, CMER science staff, large landowners, WDFW, Ecology, the University of Washington, and the Westside Tribes. Dr. Teodora Minkova and Dr. Bernard Bormann briefed the group on the [T3 Watershed Experiment](#) and the three field trip sites located in OESF: an old riparian thinning (not part of the T3 Watershed Experiment); a riparian stand planned for a harvest featuring light thinning with clear cut gaps; and a planned variable-width riparian buffer. The group discussed the expected ecological effects, operational feasibility, implementation costs and pre- and post-harvest monitoring at the T3 experimental sites.



**Adaptive Management Program Efficiency and Effectiveness Improvement
State Auditors Report (SAO) Recommendations Implementation Update**

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 Jun 30, 2023.

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

Focus	Action Item	SAO Rec	Status	Update
Decision-making process	1. Review decision making model. 2. Require participation by caucus principals.	1 and 2	Delayed Expected to be completed next biennium.	The status of these two recommendations is delayed because any changes to the decision-making model would require a rule-change. Two rounds of TFW Principals meetings have been held.

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

Focus	Action Item	SAO Rec	Status	Update
Decision-making process	Adopt decision criteria for determining actions that will occur depending on project results before those results have been found.	6	Delayed Progress is being made, although this recommendation will take more time than expected to complete.	TFW Policy SAO Workgroup has had a joint session with a CMER workgroup to discuss developing decision criteria for projects in the program to make progress on this recommendation. The group drafted a recommendation on a process for opening Schedule L-1 for revisions.

**Adaptive Management Program Efficiency and Effectiveness Improvement
State Auditors Report (SAO) Recommendations Implementation Update (cont.)**

Table 2, continued

Focus	Action Item	SAO Rec	Status	Update
Decision - making process	Implement a “net gains” approach to each proposal, project, and decision that benefits more than one caucus by considering packages of projects instead of individual projects.	5	On-Track	FPB approved the TFW Policy’s recommendation on the net gains options.
				Net Gains Option 1 - Adopt Multi-Criteria Decision Making/Structured Decision-Making. Est. due to FPB Feb 2024
				Net Gains Option 2 - Clarify Process for Outside (Non-CMER) Science (PI) Est. due to FPB Nov 2023
				Net Gains Option 3 - Set Clear AMP Priorities •Synchronize CMER Work Plan and MPS •List AMP Priorities •MPS Contingency Plan - complete
				Net Gains Option 4 - CMER Reform -Policy is expected to have a recommendation for the FPB meeting Nov 2023
Net Gains Option 5 - Develop Manual for TFW Policy. During this reporting period a consultant worked with Policy to draft a manual.				

**Adaptive Management Program Efficiency and Effectiveness Improvement
State Auditors Report (SAO) Recommendations Implementation Update (cont.)**

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	Action Item	SAO	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	<p>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:</p> <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 	4	<p>2 through 5 are complete</p> <p>1 is on hold</p>	<p>MPS was approved with a line item for dispute resolution, and an on-call contract is established for dispute resolution for TFW Policy.</p> <p>On-call contracts for CMER technical arbitration panel and statistical assistance were completed this reporting period.</p> <p>Board approved revisions to Board Manual Section 22.</p>

**Adaptive Management Program Efficiency and Effectiveness Improvement
State Auditors Report (SAO) Recommendations Implementation Update (cont.)**

Table 3, continued

Focus Area	Action Item	SAO	Status	Update
Transparency and Accountability	1.Tracking system for life cycle of projects 2.Public-facing dashboard	10,11	On track Significant progress made since last update.	<p>AMP staff have completed work on project tracking system and with cost and schedule metrics for continuous monitoring of projects.</p> <p>A DNR-supported SharePoint Online platform was created and will make this information available to the public with the launch of the Dashboard.</p> <p>CMER and TFW Policy members have received access and training on the SharePoint Online platform for increased transparency and access to TWF files, reports, and meeting materials.</p> <p>DNR worked with a consultant to build the AMP Dashboard this quarter. It is expected to be completed and launched by September 2023.</p>
Transparency and accountability	Complete biennial fiscal and performance audits of the AMP every two years	9	Completed	Options and staff recommendations were developed and then approved by the Board at the November 2022 meeting.

**Adaptive Management Program Efficiency and Effectiveness Improvement
State Auditors Report (SAO) Recommendations Implementation Update (cont.)**

Table 3, continued

Focus Area	Action Item	SAO	Status	Update
Transparency and accountability	Peer review science program every five years	7	Completed	<p>Board approved language requiring five-year review for part 6.1 of Board Manual Section 22 completed and approved.</p> <p>The rule-required science review of the program will be fulfilled this biennium through a separate project lead by Washington Department of Fish and Wildlife. There is funding in the FY2027 MPS to fund the next 5-year AMP Science Review.</p>
Decision-making process	Onboarding and training for new members	8	Delayed	<p>Board approved language for Board Manual Section 22 that would require training for new AMP participants.</p> <p>This task is on hold due to MPS shortfall.</p>



**DEPARTMENT OF
NATURAL RESOURCES**

Forest Regulation Division
1111 Washington St SE
Olympia, WA 98504

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

July 19, 2023

TO: Forest Practices Board

FROM: Tami Miketa, Manager, Small Forest Landowner Office

SUBJECT: Small Forest Landowner Office and Advisory Committee

Small Forest Landowner Advisory Committee

The Small Forest Landowner Advisory Committee met on July 18th. The Forest Regulation Operations staff presented a new Forest Practices Minimum Canopy Cover Layer/Shade Tool for the public to use to help determine shade within the RMZ. The Operations staff also presented updates to the Forest Practices forms. The SFLAC Charter was also discussed along with a discussion on riparian restoration.

SFLO Program Updates

For the FY23-25 biennium the Small Forest Landowner Office received the following allotments for the Capital Programs:

Forestry Riparian Easement Program

The Forestry Riparian Easement Program received \$20 million for the FY23-25 biennium. This budget will aid in buying down the current waiting list of 98 applications.

Family Forest Fish Passage Program

The Family Forest Fish Passage Program received \$7.78 million for the FY23-25 biennium.

Rivers and Habitat Open Space Program

The Rivers and Habitat Open Space Program received \$5.014 million for the FY23-25 biennium. It is estimated this budget will fund all four projects on the RHOSP priority list.

The SFLO is currently working on Spending Plans for each of these programs.

FY21-23 Biennial Accomplishments

The Forestry Riparian Easement Program purchased 47 easements encompassing 451 acres.

The Family Forest Fish Passage Program corrected 27 fish barriers opening 182 miles of habitat.

The Rivers and Habitat Open Space Program purchased two easements containing 68 acres of critical habitat for state listed threatened or endangered species.

The Small Forest Landowner Regulation Assistance Program staff responded to 848 requests for assistance from small forest landowners.

The SFLO Community Outreach and Environmental Education Specialist was hired in January 2022 and attended over 40 outreach and educational events reaching thousands of landowners.

Long-Term Applications (LTA)

In this Forest Practices Board report, the SFLO regularly shows the status of Long-Term Applications. There are currently 314 approved long-term applications, which is one more approved LTA since the end of the last reporting period (04/21/2023).

LTA Applications	LTA Phase 1	LTA Phase 2	TOTAL
Under Review	5	0	5
Approved	1	313	314
TOTAL	5	313	318

Upcoming Events

[2023 Forest Stewardship Coached Planning Course](#)

September 5th – October 31st,
Tuesday 6:00 PM – 8:30 PM
Preston, WA

[Forest Stewardship University](#)

Online, register for free, on-demand, self-paced learning modules

[WSU Forestry Extension Forest Stewardship University Modules](#)

On-demand, self-paced, online learning on forest stewardship topics.

PODCAST SERIES

[The Forest Overstory Podcast- WSU extension forestry](#)

Please contact me at (360) 902-1415 or tamara.miketa@dnr.wa.gov if you have questions.
TM/



State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: P.O. Box 43200, Olympia, WA 98504-3200 • (360) 902-2200 • TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia, WA

July 21, 2023

MEMORANDUM

To: Forest Practices Board
From: Darrin Masters, WDFW Senior Forest Habitat Biologist, Forest Habitat Section
Subject: Upland Wildlife Update

The following provides a brief status update for ongoing or pending actions pertaining to priority wildlife species in forested habitats:

Marbled Murrelet

1992: Federally listed as Threatened
1993: State listed as Threatened,
1996: Federal critical habitat designated
1997: FPB enacted State Forest Practices Rules
2017: State up-listed to Endangered
2023: Proposed expedited rule making for recommended changes to WAC 222.

The species' status has not improved since state listing in 1993. State-wide, Washington's Murrelet population has declined by 4.1% annually (2001-2020) overall. It has declined by 3.3% annually along the Washington coast (2001-2021) and 5.0% in the U.S. portion of the Salish Sea (2001-2020) (Pearson et al. 2022). To put these numbers in perspective, in the Salish Sea during the breeding season in 2001 for example, there were an estimated 5,740 birds. In 2020, there were approximately 3,140 birds in this same area. There has been nearly a 50% decline in the regional population over those 20 years. Following the 2017 state uplisting to state Endangered status, the Washington Department of Natural Resources (WDNR), in consultation with the Washington Department of Fish and Wildlife (WDFW), recommended that the Forest Practices Board (Board) support a forest practice rule assessment including relevant stakeholders. WDFW established a Murrelet Wildlife Working Group (WWG) to evaluate efficacy of the rules, identify potential rule modifications to improve clarity and implementation, and provide recommendations to the Board.

The WWG materials were finalized and submitted to WDNR on April 20. WDFW presented the recommendations and the supporting material at the May 2023 Board meeting. The Board accepted the proposed changes and approved the WWG's recommendation to utilize the expedited rule-making process. The comment period for proposed expedited rule-making will close on July 25. If there are no objections, the expedited process will be finalized in November with the new rules projected to take effect on January 1, 2024.

WDFW continues to monitor Marbled Murrelet populations at-sea in the Puget Sound and Straits (most recently monitored in 2022) and the Washington coast (monitored in 2021) every other year during the nesting season. These are the only data available to assess Murrelet abundance and trends. The NW

Forest Plan Effectiveness Monitoring team's 25-year report has been published (McIver et al. 2021) as well as a report on trends in habitat conditions (Lorenz et al 2021). The 2020 and 2021 at-sea survey reports are now available (Lance & Pearson, 2021; McIver et al. 2021) and a paper on winter trends over an eight-year period was recently published that found strong non-breeding season declines in Puget Sound (Pearson et al. 2022). Research in collaboration with Dr. Beth Gardner and PhD Student Sierra Gillman at the University of Washington is ongoing. They are developing predictive density surfaces for the murrelet and examining the factors driving changes in abundance and distribution.

Contact: Taylor Cotten (t.cotten@dfw.wa.gov)

Canada Lynx

1993: State listed as Threatened
1994: FPB enacted voluntary management approach
2000: Federally listed as Threatened
2017: State up-listed to Endangered

With the 2017 up-listing to state Endangered status, it was recommended that no action be taken to include lynx in the forest practices rule designation for critical habitat (state) and to maintain existing voluntary protections. WDFW continues to explore lynx conservation opportunities in collaboration with landowners, Canadian federal and provincial entities, US Fish & Wildlife Service (USFWS), US Forest Service (USFS), conservation organizations, tribes, and academic partners. The goal is to refine recovery actions that can be implemented in the near- and long-term to benefit lynx conservation in Washington.

Evaluation of Forest Practices Applications (FPAs) on private lands continues in order to identify potential impacts to lynx habitat. Given wildfire impacts in northcentral Washington, WDFW has pursued ongoing coordination with partners to bring awareness of the importance of balancing habitat protection with the need to address fire risk, including on federal lands.

Under DNR's Lynx Habitat Management Plan (2006), DNR and Washington State University (WSU) have begun developing a proposal to investigate the effects of different pre-commercial thinning designs on snowshoe hare use of habitat, vulnerability to predation, and sources of mortality. The information gathered may then be used to better inform forest management treatments favorable for snowshoe hares while also providing increased foraging opportunities for lynx. DNR and partners are nearly complete with the pretreatment phase of the project and are beginning planning for the treatment phase. Additionally, Colville Confederated Tribes is leading a lynx conservation project and they have released 19 lynx from 2021 to 2022 into the Washington Kettle Range.

To further lynx conservation, WDFW participates in ongoing multi-agency surveys for lynx in the North Cascades, WDFW maintains a current database of verifiable lynx detections, and WDFW is currently updating the periodic status review for the lynx (last done in 2017), and this updated version is expected to be available for public review in 2023.

Contact: Jeff Lewis (Jeffrey.Lewis@dfw.wa.gov)

Northern Spotted Owl

1988: State listed as Endangered
1990: Federally listed as Threatened
1996: FPB enacted State Forest Practices Rules
2012: USFWS designation of revised critical habitat
2016: State retention of Endangered status

The Northern Spotted Owl (NSO) population has continued to decline primarily due to ongoing competitive interactions with Barred Owls. The Barred Owl removal experiment, which included study areas in Washington, Oregon, and California, indicated, among other findings, a positive response in survival rates by Spotted Owls following Barred Owl removal (Wiens et al. 2021).

The USFWS has continued to address Barred Owl management and subsequent conservation of Spotted Owls in Washington, Oregon, and California. WDFW is an active partner in a process to develop management concepts and scenarios that will guide decision making by USFWS about the scope of Barred Owl management options that will be evaluated in an Environmental Impact Statement.

In February 2021 a bill was introduced to the legislature that, if passed, would give WDNR the authority to develop and manage a Programmatic Safe Harbor Agreement (SHA) for NSO with the US Fish and Wildlife Service. Before granting authority, the legislature desired to see a draft of the SHA and gave WDNR funding to complete that effort. WDNR, WDFW, and the Northern Spotted Owl Implementation Team (NSOIT) worked with WDNR's consultant to develop the SHA. In June 2022, the team completed drafts of the SHA, Environmental Assessment, and an explanation of an enrollment mechanism for landowners to voluntarily enroll. The SHA is designed to provide federal regulatory assurances to nonfederal landowners through a voluntary program regarding management of Spotted Owl habitat. On January 16, 2023, the bill was reintroduced to the legislature for consideration.

The Department is in the process of finalizing the 2023 NSO Periodic Status Review. The last status review was published in 2016. Following a public comment opportunity, the final document will be presented to the Washington Fish and Wildlife Commission during the summer or fall of 2023.

Contact: Emilie Kohler (Emilie.Kohler@dfw.wa.gov)

Fisher

1998: State listed as Endangered

2016: Federal status: Final decision for west coast DPS - not warranted for listing (April 2016)

2018: Ruling on 2017 withdrawal of proposed ESA listing, USFWS ordered to revisit that decision

2019: Federal revised proposed rule to list fishers, excluded fisher in Washington

Fisher reintroductions into Washington have been completed by WDFW and cooperating partners, with a total of 260 fishers, including 90 in Olympic National Park (2008-2010), and 170 in other federal lands within the Cascade Range. Non-federal landowners can continue to voluntarily enroll in the Candidate Conservation Agreement with Assurances (CCAA) and receive federal regulatory assurances if the fisher were to become listed under the ESA in the future. By enrolling in the CCAA, landowners agree to follow basic conservation measures that protect fishers that may use their lands. To date, 62 entities who own or manage 3,442,491 acres of non-federal forest lands are enrolled in the CCAA.

WDFW and project partners are continuing the long term monitoring of reintroduced fisher populations in the state, following the 2013- 2016 monitoring project on the Olympic Peninsula. WDFW and project partners, beginning October 2022, have initiated a distribution and occupancy survey (using cameras) of much of the federal lands in the South Cascades Ecosystem (between I-90 and the Columbia River). The cameras were retrieved in July and the data are now being analyzed. WDFW and partners will conduct a similar survey in the North Cascade Ecosystem (from I-90 north to the WA-BC border) from October 2023 to July 2024.

Contact: Jeff Lewis (Jeffrey.Lewis@dfw.wa.gov)

Western Gray Squirrel

1993: State listed as Threatened
2002: Petitioned for Federal listing
2003: Federal listing denied
2013: FPB enacted voluntary management approach
2016: State retention of Threatened status

A Draft Periodic Status Review incorporating results of the statewide western gray squirrel hair tube surveys and the statewide habitat change assessment was completed. The 90-day comment period closed in May with 227 comments received from the public. The recommendation to up-list western gray squirrel to Endangered status was presented to the Fish and Wildlife Commission on 23 June. Comments from the Commission and the public are being considered as the document is finalized. The Commission is expected to vote on the recommendation following submission of the final document in September 2023.

Contact: Mary Linders (mary.linders@dfw.wa.gov)

Future Updates to the Board

The forest practices rules require that when a species is listed by the Washington Fish and Wildlife Commission and/or the U.S. Secretary of the Interior or Commerce, WDNR will consult with WDFW and makes a recommendation to the Forest Practices Board as to whether protection is needed under the Critical Habitat (State) rule (WAC 222-16-080). WDFW and WDNR coordinate to anticipate federal actions and to respond to changes in the status of species addressed by the rules.

cc: Tom O'Brien (WDFW)
Hannah Anderson (WDFW)
Taylor Cotten (WDFW)
Wendy Connally (WDFW)
Saboor Jawad (DNR)
Marc Engel (DNR)
Colleen Granberg (DNR)

Literature Cited

DNR 2006. Lynx habitat management plan for DNR managed lands. Report. Washington Department of Natural Resources.

Lance, M.M., and S.F. Pearson. 2021. Washington 2020 at-sea marbled murrelet population monitoring: Research Progress Report. Washington Department of Fish and Wildlife, Wildlife Science Division

Lorenz, T.J.; Raphael, M.G.; Young, R.D.; Lynch, D.; Nelson, S.K.; McIver, W.R. 2021. Status and trend of nesting habitat for the marbled murrelet under the Northwest Forest Plan, 1993 to 2017. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

McIver, William R.; Pearson, Scott F.; Strong, Craig; Lance, Monique M.; Baldwin, Jim; Lynch, Deanna; Raphael, Martin G.; Young, Richard D.; Johnson, Nels. 2021. Status and trend of marbled murrelet populations in the Northwest Forest Plan area, 2000 to 2018. Gen. Tech. Rep. PNW-GTR-996. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Pearson SF, Keren I, Lance MM, Raphael MG (2022) Non-breeding changes in at-sea distribution and abundance of the threatened marbled murrelet (*Brachyramphus marmoratus*) in a portion of its range exhibiting long-term breeding season declines. PLoS ONE 17(4): e0267165.

Wiens, J. David; Dugger, Katie M.; Higley, J. Mark; Lesmeister, Damon B.; Franklin, Alan B.; Hamm, Keith A.; White, Gary C.; Dilione, Krista E.; Simon, David C.; Bown, Robin R.; Carlson, Peter C.; Yackulic, Charles B.; Nichols, James D.; Hines, James E.; Davis, Raymond J.; Lamphear, David W.; McCafferty, Christopher; McDonald, Trent L.; Sovern, Stan G. 2021. Invader removal triggers competitive release in a threatened avian predator. Proceedings of the National Academy of Sciences. 118(31): e2102859118