

Washington State Department of Natural Resources Adaptive Management Program

Quarterly Staff Updates to the Forest Practices Board

Adaptive Management Team



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Summary

The **Cooperative Monitoring, Evaluation and Research Committee (CMER)** held regular monthly meetings this quarter. The committee approved or advanced to TFW Policy the following Adaptive Management Program (AMP) project deliverables:

- Approved a project charter for the Wetland Management Zone Effectiveness Monitoring project
- Approved the Eastside Forest Health Strategy guidance document
- Approved a revised charter and project management plan for the Roads Prescription-Scale Effectiveness Monitoring project
- Approved a charter and project management plan for the Riparian Characteristics and Shade Response project
- Approved project charter and implementation plan for the Unstable Slope Criteria project

CMER has one outstanding **dispute** over Smart Buffer Study Design. A science arbitration panel was formed in July, 2022. CMER expects to receive a draft initial decision in early August. Following meetings with disputing parties, the panel will then submit their final decision in late August, 2022. The Board approved dispute resolution funds for both CMER and TFW Policy at their February 2022 meeting.

One new staff joined the program this quarter. **Rachel Rubin** will serve as CMER Program Scientist and will serve as the principle investigator of the Riparian Characteristics and Shade Response Study. Rachel will also support CMER science efforts in the eastside and collaborate with Science Advisory Group Eastside on ENREP and ETHEP projects as well as on developing research strategies and new projects.

At their July, 2022 meeting, CMER also elected co-chairs. **AJ Kroll and Jenny Knoth** were both elected as CMER co-chairs. Both decided to serve a one-year term.

AMP Project Managers



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Project Updates

The **Road Prescription Scale Effectiveness Monitoring Project** examines high-traffic, near-stream forest logging roads as sources of sediment and seeks to better understand mitigating best management practices. The project is in its third year of data collection, with the main experiment and many sub-projects actively implementing. One such project, The Ditch Line Hydraulics Parameterization Experiment, is about to begin the second year of the study in May 2022. Other actively implementing sub-projects this quarter include the Short Time Scale Parameterization Experiment and the Micro-Topography Parameterization Experiment. The project team continues to review and analyze data from the main experiment such as plot discharge, rainfall, traffic counter and sediment particle size data. The Biennial Report has been completed and presented to CMER with preliminary results from the 2019-2021 biennium. The project remains a challenging but rewarding study to manage due in part to the complex nature of the study design and the need for ongoing and unforeseen levels of maintenance required for approximately 80 field data collection stations in Southwest Washington. A revised Charter and Project Management Plan that incorporate accurate deliverable due dates, roles and responsibilities, and project components were approved by CMER in June 2022.

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 in the original four basin site-pairs, and has added one additional site-pair near Mt. Spokane to increase sample size and strengthen the study. Two years of pre-harvest data have been collected at Springdale and Tripps basins and one year of pre-harvest data has been collected at Fish Creek and Coxit basins. Due to labor shortages and an active fire season in the summer of 2021, harvest was delayed at Blue Grouse basin, and was completed in February 2022. Given this delay, the data collection has captured three years of pre-harvest data. In June 2022, CMER approved the extension of monitoring at Blue Grouse through 2023 and 2024 to capture two years of post-harvest data, in accordance with the Study Design. 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 **Eastside Timber Habitat Evaluation Types (ETHEP)** project is to develop an ecologically meaningful and reliable framework for applying riparian harvest rules along Type S and Type F streams in eastern Washington. The Scoping Document was approved by SAGE and CMER, and TFW Policy Committee selected a preferred alternative. The AMP team is working to hire a contractor to complete the Study Design, with the support of the Project Team. A draft Study Design is expected in fall 2022.

The **Westside Type F Riparian Prescription Effectiveness Project** is expecting to evaluate the effectiveness of Westside riparian prescriptions for F and S streams in achieving resource objectives and performance targets. This quarter, the exploratory report was reviewed at RSAG and submitted to CMER for review and approval. This pilot study is intended to be used to develop a Study Design for a more rigorous test of the effectiveness of the Type F (fish bearing stream) rule buffers. The final report will be considered by CMER in August 2022 and is expected to be presented to Policy later in the summer of 2022. The Project Team has begun answering the 6 questions document and will soon begin work on the BACI study development.

CMER Co-Chairs



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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 is working on Project 2, Object-Based Landform Mapping with High-Resolution Topography Study report. The report has been delayed due to a recent vacancy. The contractor and Project Team will be submitting the Empirical Evaluation of Shallow Landslide Susceptibility and Frequency by Landform (Project 3) and the Empirical Evaluation of Shallow Landslide Runout (Project 4) Study Design for UPSAG, ISPR, and CMER review/approval in July/August 2022.

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.

UPSAG is currently delayed in developing a 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. **The AMPA initiated CMER's guided decision making process due to a lack of progress on the Study Design. The first informal meeting occurred on June 14th and the next informal meeting is scheduled for August 2nd.**

The **Water Temperature and Amphibian Use in Type Np Waters with Discontinuous Surface Flow** study will inform the Overall Performance Goals to meet water quality standards and support the long-term viability of covered species by evaluating the influence of intermittent stream reaches on water temperature and FP-designated amphibian use. This project is on pause until fall 2022 when Landscape and Wildlife Science Advisory Group (LWAG) will begin the project scoping. A draft scoping document is anticipated to be delivered to CMER in November 2022. Further work on this study (beyond scoping) is scheduled to begin in FY25.

The **Type N Experimental Buffer Treatment Project in Hard Rock Lithologies Amphibian Monitoring Phase III** project will collect additional data for stream-associated amphibians and other relevant covariate data (e.g., stream temperature data) to evaluate continued trends in amphibian densities. **The Phase III Amphibian Demographics project is in implementation. The PI successfully hired the field-crew lead and 6 field crew techs. And the amphibian sampling and handling began June 27th and will continue through summer 2023.**

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 are currently working on Site Selection and a verification. Site selection and verification began in May 2022 and the project will begin the first phase of implementation Fall 2022.

The **Wetland Management Zone Effectiveness Monitoring Study** 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. The WMZ project charter was approved by WetSAG and CMER in April 2022. Funding for the WMZ begins in FY26, with implementation funding slated to begin in FY28. The initial scoping will begin FY23. Funding to assist in this work was moved out 3 years on the MPS August 2020 (funding begins FY26) due to the AMP budget limitations.

The **Water Typing Strategy** projects are intended to determine possibility/advisability of combining the 'Physicals', 'PHB', and/or 'LiDAR Model' studies. The Project Team developed a Study Design to assess **Potential Habitat Breaks (PHB)**, which is currently in concurrent CMER/ISAG review. The Project Team is addressing reviewer comments, and expects to return the Study Design to CMER in July 2022. Following CMER approval of the PHB Study Design, the Project Team will begin working on the Study Design that will allow an assessment of the **Default Physical Criteria (DPC)**. A statistical consulting firm is assisting the Project Team in evaluating methods for the PHB and DPC Study Designs. 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.

The **Eastside Forest Health Strategy** workgroup developed a report this quarter that was reviewed by CMER in April 2022. The Eastside Forest Health Strategy workgroup recommends 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). This group will continue to meet.

The **Riparian Characteristics and Shade (RCS)** project will be 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 Study Design was approved by ISPR in January 2022 and approved by CMER in March 2022. RSAG proposed options for pursuing a related study or add-on to this study to look at additional treatments and potential paths forward. Policy determined that the add-on was not an AMP priority. The project team is working on implementing a field trial this summer.

Staff Introductions

Rachel Rubin joined the AMP as CMER Program Scientist in June, 2022.

Rachel (she/her) brings over 10 years of experience in applied ecological research. She joins us from Woodwell Climate Research Center in Falmouth Massachusetts, where she led several interagency collaborations, including a project with the National Corn Growers Association on leading indicators of soil health.

Before that, she worked as a postdoc at Mount Holyoke College in coastal Massachusetts, where she led community driven, EPA

supported research evaluating riparian restoration techniques on retired cranberry farms. During her PhD at Northern Arizona University in Flagstaff, her research focused on the composition and adaptive role of grassland root microbiomes under climate stress, and the effects of juniper thinning on plant communities. Rachel is passionate about place-based work, and is excited to join the Adaptive Management Program. In her free time she enjoys hiking, foraging and cooking.



AMP Vacancies:

The only remaining vacancy is a CMER Scientist position that the program plans to fill in Fiscal Year 2026. No active vacancies are reported this quarter.



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MEMORANDUM

July 25, 2022

TO: Forest Practices Board

FROM: Saboor Jawad, Adaptive Management Program Administrator (AMPA) *SJ*
Saboor.Jawad@dnr.wa.gov | 360-742-7130

SUBJECT: Oversight of CMER's Water Typing Group of Projects

TFW Policy Committee (Policy) is requesting your approval to assign oversight responsibilities of CMER's water typing group of projects to Policy.¹ These projects include: 1) Evaluation of potential habitat breaks (PHBs) for use in delineating end of fish habitat in forested landscapes in Washington State, 2) Default physical criteria assessment (DPC) project, and 3) LiDAR based water typing model.

Currently, the Board has direct oversight of these projects. Assigning oversight responsibility to Policy means that Policy would review and approve key project documents such as project charters and scoping documents as well as manage and make budget recommendations to the Board as part of the overall Master Project Schedule (MPS). Like all other projects on the MPS, Policy would also receive the findings report from CMER, determine whether the report warrants action and submit Policy recommendations and alternatives to the Board.

The Board, acting on recommendations of Water Typing System Board Committee, assigned CMER the responsibility of developing the studies and passed the following motion at the Board's November, 2019 meeting:

“Recommend the Cooperative Monitoring, Evaluation and Research Committee (CMER) to develop study designs for the PHB validation, physical characteristics, and map based Lidar model studies, and then to report on the study designs to the Board by their May, 2020 meeting.”

¹ TFW Policy Committee passed the following motion at their July, 2022 meeting: Court Stanley moved to request the Board to assign the water typing strategy group of projects to Policy and Policy to oversee the project following the AMP process.

CMER then assigned this group of projects to its Instream Science Advisory Group (ISAG). The Board has been receiving regular updates on the status of these projects from both the program administrator and from ISAG co-chairs. CMER is currently reviewing the final draft of the study design for the PHB project.



**DEPARTMENT OF
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July 22, 2022

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

Since my last report, the Small Forest Landowner Advisory Committee held one meeting on April 19, 2022 (via MS Teams). Matt Provencher, the Service Forestry Program Manager, gave an update on the new Service Forestry Program. There will be Service Foresters located within every region who will provide on-site and remote technical expertise to forest landowners (and forest landowner service providers) regarding various forest management activities, diagnosis and recommendations for forest health problems, animal damage and competing vegetation control, wildland fire risk reduction, and other resource issues and opportunities.

Dave Wischer, the Forest Regulation Division's IT Manager, also discussed the updated FPMAP tool.

SFLO Program Updates

Since my last report, The SFLO hired four Small Forest Landowner Regulation Assistance Foresters located across the state to consult and provide expert technical assistance to help small forest landowners prepare to conduct forest practices activities on their forestland. These foresters will help them 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. Additionally, a new statewide Fish & Wildlife Biologist was hired to assist small forest landowners with water typing of their streams and wetland delineation associated with a Forest Practices Application and complete Water Type Modification Forms when appropriate.

This year's State Supplemental Budget was very good to the Forestry Riparian Easement Program providing an additional \$5 million. With this increase in the FREP budget we're hiring three additional staff to process easements. Up to now, the FREP waiting list was so long that some landowners had to wait years to be compensated. This large increase in funding should allow the Program to compensate all of the small forest landowners on the waiting list in a much shorter period of time.

Long Term Applications (LTA)

In this Forest Practices Board report, the SFLO regularly shows the status of Long Term Applications. There are currently 310 approved long-term applications, which is the same number of approved applications since the end of the last reporting period (1/19/2022).

LTA Applications	LTA Phase 1	LTA Phase 2	TOTAL
Under Review	6	0	6
Approved	1	310	311
TOTAL	7	310	317

Upcoming Events

UPCOMING EDUCATION OPPORTUNITIES

Steve Stinson Legacy SW Family Forest Field Day 2022

August 13, Winlock, WA

9:00 am-3:00 pm

Puget Sound Forest Owners Field Day- Vashon Island 2022

August 27th, Vashon Island

11:30am – 4:00pm: Field Day

5:30 pm – 7:30pm: Twilight Forest Tour

For more information regarding these events, go to <http://forestry.wsu.edu/>

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

TM/



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July 22nd, 2022

MEMORANDUM

To: Forest Practices Board
From: Darric Lowery, WDFW Forest Habitats Section Manager
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 uplisted to Endangered

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), and 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)*. Following the 2017 state uplisting to 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 practices rule assessment including relevant stakeholders. WDFW established a 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. This work continues and the WWG is finalizing the draft recommendations with the intent to present them to the Board at the November 2022 meeting. A memo requesting consideration will be presented at the Board's August 2022 meeting. The most recent WWG meeting was held on July 20, 2022 with several more scheduled over the next few months.

WDFW continues to monitor Marbled Murrelet populations at-sea in the Puget Sound and Straits (monitored in 2020 and monitoring is underway for 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 (https://www.fs.fed.us/pnw/pubs/pnw_gtr996.pdf) as well as a report on trends in habitat conditions (<https://www.fs.usda.gov/treesearch/pubs/63314>). The 2020 and 2021 at-sea survey reports are now available (Lance & Pearson, 2021; Pearson et al. 2021; McIver et al. 2022) and a paper on winter trends over an 8-year period was just published that found strong non-breeding season declines in Puget Sound ([Pearson et al. 2022](#)).

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 uplisted to Endangered

With the 2017 uplisting 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.

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 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).

DNR, WDFW, and the Northern Spotted Owl Implementation Team (NSOIT) worked with DNR's consultant to develop a Programmatic Safe Harbor Agreement (SHA) that would be held by DNR. The SHA is designed to provide federal regulatory assurances to nonfederal landowners through a voluntary program regarding forest management of Spotted Owl habitat. The SHA framework, an associated Environmental Analysis (EA), and an explanation of an enrollment mechanism for landowners to voluntarily enroll in the SHA have been created. Although the supporting legislation that would allow DNR to hold the SHA did pass this legislative session, it is hoped that funding will be provided in the next session.

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.

Contact: Joe Buchanan (Joseph.Buchanan@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, 61 entities who own or manage 3,442,191 acres of non-federal forest lands are enrolled in the CCAA. WDFW is currently developing monitoring options to evaluate re-colonization success.

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 final report has been completed that summarizes results of the statewide western gray squirrel hair tube survey that concluded in 2020. A report summarizing results of a statewide habitat change assessment was recently completed as well. Results of these reports will be incorporated into the periodic status review currently underway, which we expect will be available for public review by fall 2022 and completed late 2022.

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)
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