



Institute for Natural Resources

Oregon State University, 234 Strand Agricultural Hall | Corvallis, Oregon 97331

Phone 541-737-9918 | Fax 541-737-1887 | <http://inr.oregonstate.edu>

IRST Orientation Meeting

Date and Time: 16 November 2023, 1:00-3:00 PM

Online Meeting Link: <https://oregonstate.zoom.us/j/97618346277?pwd=SzFpeUZubUxGUmINNWIPLOJ1NVIEUT09>

Meeting Purpose: High-level orientation to the work of the IRST

Background Materials

IRST Bio-sketches

Ellen Morris Bishop

Ellen Bishop holds both M.S. and Ph.D. degrees in Geology from Oregon State University (1977, 1983). Her research interests include the petrology and tectonic history of the older rocks (terranes) of Northeast Oregon's Blue Mountains and the process of accretion of these terranes to North America. This work led her to explore regional forests, mountains, and canyons, pursuing a life-long interest in ecosystems, forest processes, compositions and health issues. She taught geology and environmental studies at the University of Arkansas, Sul Ross State University (Alpine, Texas) and Whitman College.

In 1987 she turned her interests toward engaging the public with science. This included hands-on involvement with eastern Oregon's landscape when she married David Bishop and worked with him, managing ranches and forests in Union, Baker, Wheeler, and Jefferson Counties. She also worked for the Pacific Rivers Council in restoring salmonid habitat, providing outreach to Union, Baker and Wallowa County communities, and serving as conservation representative and initial co-chair of Oregon's first watershed collaborative (Grande Ronde Model Watershed.)

She continued in public engagement with science, publishing *In Search of Ancient Oregon: A Geologic and Ecologic History* in 2006. The book won the Oregon Book Award for non-fiction. In 2015 Oregon State University Press published her book "Living with Thunder: The Past, Present and Future of Pacific Northwest Geology and Ecosystems." This volume included recognition of Indigenous stories and understanding of regional landscape histories.

Bishop has served as reporter, photographer and editor of the Wallowa County Chieftain, winning Oregon Newspaper Assoc. and Society of Professional Journalists awards for photojournalism, feature reporting, editorials and best Oregon small newspaper. She is presently continuing her work in public outreach on the Eastern Oregon Climate Change Coalition board. She lives on and manages forest and grassland near Halfway, Oregon.

Kelly Burnett

Dr. Burnett holds a Ph.D. degree in Fisheries Science from Oregon State University and has over 35 years of experience in conducting collaborative policy-relevant studies and communicating findings to decision makers. She has authored numerous refereed peer-reviewed journal articles, book chapters, and reports addressing how stream habitats are distributed and used by fish, how watershed processes and human uses influence aquatic ecosystems, and how complex systems can be best characterized to plan for and evaluate the effects of land management. Dr.

Burnett was a member of the Forest Ecosystem Management and Assessment Team and continued in the role of science liaison to help translate the FEMAT Report through the NEPA process that resulted in the Northwest Forest Plan. She served as the acting National Fish and Aquatic Program Leader (USDA Forest Service, Washington Office Research and Development) and was awarded the National Rise to the Future Award by the Chief of the US Forest Service for professional excellence in research. Before and since retiring as a Research Fish Biologist with the Pacific Northwest Research Station, Dr. Burnett regularly consulted on regional and national issues, including stream habitat restoration, climate change vulnerability, and systematic review techniques for natural resources. Most recently, she provided science support in the development of, and subsequent processes related to, Oregon's Private Forest Accord. Dr. Burnett is a trained mediator (University of Oregon School of Law), on the graduate faculty at Oregon State University, and is a certified yoga teacher.

Rebecca Flitcroft

Dr. Rebecca Flitcroft is a Research Fish Biologist with the United States Forest Service at the Pacific Northwest Research Station, Oregon, USA. She completed a B.S. at Willamette University double majoring in Environmental Science and Economics and at Oregon State University, completed an M.S. in Natural Resource Geography, and Ph.D. in Fisheries Science. She has worked with the USFS since completing her doctorate in 2008.

Rebecca has always loved water and is fascinated by the creatures that live within it. Her family has always lived near water, and she grew up paddling her toes in the Singapore Strait, as well as the North Atlantic, and the Pacific Oceans. As a fish research biologist, Rebecca seeks to better understand how people, forests, and riverscapes can better be understood in order to support the diverse and imperiled freshwater fishes and other biota that occupy them. As part of her work, she is interested in facilitating the development of science, and translation of science, into information that supports applied conservation, protection, and understanding of freshwater habitats.

Jessica Homyack

Dr. Jessica Homyack is the Director of Environmental Research and Operational Support for Weyerhaeuser. In this role, she serves as the scientific advisor and environmental research program lead for more than ten million acres of managed forest lands in the United States. She values an inclusive and collaborative approach to science that effectively engages stakeholders throughout the process. Dr. Homyack is an accomplished researcher who has published more than 50 peer-reviewed scientific articles and book chapters. Her expertise covers the intersection of forest management, sustainability, and conservation of aquatic and terrestrial species. Dr. Homyack received her Ph.D. from Virginia Tech, a M.S. from the University of Maine, and a B.S. from West Virginia University. She is an alumnus of the National Conservation Leadership Institute and was selected as a Fellow of The Wildlife Society in 2023.

Jeff Light

Jeff Light is a biologist with more than 30 years of experience in salmonid ecology and watershed science. He has a B.S. in biology from the University of Colorado and a M.S. in Fisheries from the University of Washington. His primary focus has been salmonid ecology and related sciences that describe watershed structure and function and the ways land management, principally commercial forestry, can affect fish habitat and water quality.

For more than 12 years, as part of Washington state's Timber, Fish and Wildlife agreement, he worked with technical experts, resource managers, and policy representatives from the timber industry, Native American Tribes, environmental groups, and state natural resource agencies to develop a watershed analysis method of evaluating, anticipating, and avoiding potential cumulative effects of forest management. In Oregon, Jeff has collaborated with researchers and administrators from Oregon State University, state and federal agencies, and industry scientists to study the effectiveness of forest practices on fish and water quality (e.g., the Watersheds Research Cooperative,

OSU's Fish and Wildlife in Working Forests research program, the Institute for Working Forests, and the timber industry's National Council of Air and Stream Improvement's Forested Watershed Science Task Group). Beyond his professional life, Jeff has worked collaboratively with individuals in his community to complete numerous successful downtown improvement projects as president of the Philomath Downtown Association.

Adaptive Management Program: Background Information in the Rules

For the full rules see: Oregon Secretary of State. Department of Forestry, Chapter 629, Division 603 ADAPTIVE MANAGEMENT. <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=7324>

Relevant parts of the rules (upholding original rule numbering) are noted here for easy reference.

Adaptive Management Program Purpose

- (1) The purpose of the adaptive management program rules is to provide science-based recommendations and technical information to assist the Board of Forestry in determining when it is necessary or advisable to adjust rules, guidance, and training programs to achieve the biological goals and objectives.
- (5) The purpose of the adaptive management program is to:
 - (a) Ensure timely and effective change as needed to meet biological goals and objectives.
 - (b) Provide predictability and stability of the process of changing regulation so landowners, regulators, and interested members of the public can understand and anticipate change.
 - (c) Apply best available science to decision-making.
 - (d) Effectively meet biological goals and objectives with less operationally expensive prescriptions when feasible.

Adaptive Management Program Overview

- (1) The adaptive management program must:
 - (a) Conduct effectiveness monitoring by assessing the degree to which the rules facilitating particular forest conditions and ecological processes achieve the biological goals and objectives. This assessment may include evaluation of cumulative effects.
 - (b) Conduct research inquiry and validation monitoring to:
 - (A) Determine if additional scientific inquiry is needed to fill knowledge gaps related to biological goals and objectives; and
 - (B) Test and improve existing and new models and methodologies used to design and implement forest practice rules intended to meet the biological goals and objectives.
- (6) Adaptive management program studies will focus on issues related to the biological goals and objectives. However, studies may address issues that are not related to the biological goals and objectives only if the studies do not impair research and monitoring on issues related to the biological goals and objectives.
- (7) Adaptive management program research may test whether:
 - (a) Operationally less expensive prescriptions can effectively meet biological goals and objectives; and,

- (b) More risk averse prescriptions are necessary to meet biological goals and objectives.
- (8) The following topics shall be prioritized in the initial phase of the adaptive management program:
 - (a) Literature review for eastern Oregon steep slopes;
 - (b) Requirements of baseline and trend monitoring of road rules; and
 - (c) Amphibians.
- (9) The AMPC may determine when section (8) of this rule is satisfied and therefore those topics are no longer priorities. In the event the AMPC makes these findings, the department shall present the AMPC findings to the board.

Independent Research and Science Team

- (1) The purpose of the Independent Research and Science Team (IRST) is to complete work described in division 603 of OAR chapter 629 and section 38(8), chapter 33, Oregon Laws 2022.
- (2) **The IRST shall develop its operating procedures through a charter approved by the IRST.** The charter shall include:
 - (a) A values statement on the purpose of the IRST, including the need for ongoing good relationships;
 - (b) Ground rules for IRST member interactions;
 - (c) Measures to obtain research expertise or review from outside the IRST;
 - (d) Determination of what constitutes a substantial decision per section 38(9)(b), chapter 33, Oregon Laws 2022;
 - (e) Process for selecting chairperson(s). The chairperson shall have the usual duties and powers of a presiding officer;
 - (f) Process for nominating new members to fill vacancies and add new disciplinary expertise pursuant to section 38(6), chapter 33, Oregon Laws 2022;
 - (g) Role, expectations, and representation on subcommittees; and
 - (h) Measures to maintain and improve the long-term effectiveness of the IRST, including:
 - (A) Succession management procedures;
 - (B) Onboarding of new IRST members; and
 - (C) Regular review and updating of the IRST charter.
- (3) An IRST member's term may be renewed upon a two-thirds vote of the rest of the IRST and then ratification by the board. A two-thirds vote of the other IRST members, or a majority vote of the board, may remove an IRST member before the end of their term.
- (4) **The IRST shall develop standards for best available science for the adaptive management program that include:**
 - (a) Types of sources of best available science;

- (b) Process for determining what is best available science based on criteria set by the IRST, including an assessment of study quality and relevance;
 - (c) Testable hypotheses as a crucial element for successful research;
 - (d) A peer review process that is transparent and addresses both study designs and study reports. The IRST shall not grant anonymity to authors, handling editors, or peer-reviewers before January 1, 2028. After January 1, 2028, the IRST may modify the anonymity requirements to peer reviewers by a substantial decision of the IRST; and
 - (e) Other elements the IRST determines are necessary.
- (5) The IRST may update the best available science standards developed pursuant to section (4) of this rule.
- (6) The IRST shall conduct their meetings per the IRST charter, and all IRST meetings shall be conducted as public meetings consistent with Oregon Public Meetings Law. The IRST will provide for public testimony at meetings unless the chairperson determines that doing so would be detrimental to the conduct of the IRST's business.
- (7) The IRST may pursue scientific inquiry via various avenues, including:
- (a) Literature review;
 - (b) Field monitoring;
 - (c) Original research;
 - (d) Commissioned studies; and,
 - (e) Other means of scientific inquiry.

Adaptive Management Program Process Steps

- (1) This rule specifies communications between the Board of Forestry, the AMPC, and the IRST to implement the adaptive management program. To the extent there needs to be communications not identified in this rule for adaptive management program success, the Adaptive Management Program Coordinator will facilitate these communications.
- (2) **By January 31, 2024:**
- (a) The AMPC shall:
 - (A) Complete their charter per OAR 629-603-0300(2); and
 - (B) Develop the initial list of research topics including the priorities in OAR 629-603-0100(8). Following completion of this list, the AMPC shall integrate the list into a Research Agenda developed via sections (3) through (5) of this rule.
 - (b) **The IRST shall complete their charter** per OAR 629-603-0400(2) and determine best available science per OAR 629-603-0400(4).
- (3) **Step 1:** The AMPC shall develop preliminary research question(s).
- (a) The AMPC shall succinctly specify preliminary research questions that include the following:
 - (A) The type of research and monitoring per OAR 629-603-0100(1)(a) or (b);
 - (B) The rule, biological goals and objectives, or other issue being studied;

(C) The objective of the research;

(D) A brief description of the context of the research question; and

(E) Other information the AMPC deems necessary for the IRST's work per section (4) of this rule.

(b) The board may direct the AMPC to develop additional preliminary research questions.

(c) The AMPC shall send the preliminary research questions to the IRST annually on a date specified in the AMPC charter developed pursuant to OAR 629-603-0300(2).

(4) Step 2: The IRST shall prepare a proposal for each preliminary research question.

(a) **Within 45 days of receiving a preliminary research question** from the AMPC per subsection (3)(c) of this rule, **the IRST shall inform the AMPC of the timeframe to complete a research proposal** described in subsection (4)(c) of this rule.

(b) **The IRST shall hone each preliminary research question into a final research question.** The IRST shall communicate with the AMPC via the Adaptive Management Program Coordinator to allow the AMPC an opportunity to provide input to ensure that the AMPC's original intent is maintained in the final research question. Following this communication, the IRST shall finalize the research question.

(c) **The IRST shall develop, or direct through a third party the development of, a research proposal for each finalized research question.** Each research proposal shall include:

(A) A literature review that specifies the need for or the type of monitoring, research, commissioned studies, or other means of scientific inquiry necessary to answer the finalized research question described in subsection (4)(b) of this rule;

(B) A preliminary estimate of the budget for each year of the research, and a timeline to complete the research project with specific deliverables; and,

(C) A preliminary description of research project requirements, scope of work including an estimate of the timeline and key milestones, and an estimate of the degree to which knowledge may be improved if the research proposal is implemented.

(d) **The IRST may develop multiple research proposals to address each research question.** Each proposal must include all the elements of subsection (4)(c) of this rule. If multiple research proposals are developed, the IRST shall compare their costs versus the knowledge benefits of the research proposals.

(e) **The IRST shall send proposal(s) from subsections (4)(c) and (4)(d) of this rule to the AMPC within the timeframe communicated from the IRST to the AMPC** pursuant to subsection (4)(a) of this rule.

(5) Step 3: The AMPC shall develop a research agenda.

(a) The AMPC shall develop a multi-year research agenda that includes:

(A) Prioritized research projects;

(B) Key milestones for each research project;

(C) A timeline for progress on research projects; and,

(D) A comprehensive IRST budget, including annual budget for each year of each project.

(b) In prioritizing the research projects, the AMPC shall consider:

- (A) Biennial appropriations from the legislature;
- (B) Priorities outlined in OAR 629-603-0100(8);
- (C) Research proposals received from the IRST per subsection (4)(e) of this rule;
- (D) Board direction;
- (E) Requirements for continuity of research projects under agreement or out for RFP review; and,
- (F) Other information as appropriate.

(c) The AMPC shall send the research agenda to the board no later than July 15 of odd-numbered years.

(d) The department shall present the budget in the research agenda developed pursuant to subsection (5)(a) of this rule to the board for a vote at the September board meeting of odd-numbered years.

(e) The AMPC may request the department to hire a third party to complete analyses per OAR 629-603-0100(7).

(6) **Step 4: The IRST shall implement the research agenda approved by the board** pursuant to subsection (5)(d) of this rule.

(a) **No later than November 1 of odd-numbered years, the IRST shall develop an annual work plan to implement the research agenda** approved by the board in subsection (5)(d) of this rule.

(b) **The IRST shall develop request for proposals (RFP) in an open, competitive process** for research projects in the research agenda. The RFP shall include:

- (A) Research project objectives, deliverables, and deadlines;
- (B) A statement of work;
- (C) The level of rigor needed for successful research project completion;
- (D) The required expertise and capacity of proposers;
- (E) The data as a deliverable;
- (F) The expectations for a detailed final report;
- (G) An after-action review meeting between the IRST and the contractor and other cooperators; and,
- (H) Other RFP elements required by the IRST Housing Agency specified in OAR 629-603-0450.

(c) RFPs may include requirements for:

- (A) Contractor and other cooperator presentations to the AMPC, the board, or other entities as appropriate.
- (B) A summary report. If the contractor and other cooperators are required to produce a summary report for the agreement, it must contain the elements listed in section (6)(g) of this rule.

(d) **The RFP announcement and award process shall follow procedures of the IRST Housing Agency**, with the IRST selecting the RFP successful proposer.

(e) If an IRST member applies for an RFP, the IRST shall ensure RFP selections follow conflict of interest standards as established by the Oregon Government Ethics Commission.

(f) The IRST shall develop and manage agreements for RFP successful proposer.

(g) If the agreement in subsection (6)(f) of this rule did not require development of a summary report, **the IRST shall complete the summary report within 90 days of receiving the contractor and other cooperators' detailed final report** in paragraph (6)(b)(F) of this rule. The summary report shall be written for a lay audience and include:

(A) Methods sufficient to allow others to understand what was done and to evaluate the results and conclusions;

(B) A detailed description of the results; and

(C) Discussion and conclusions about:

(i) Effectiveness: In studies examining alternative prescriptions, the likely effectiveness of each prescription shall be reported.

(ii) Causal links: An assessment of how the results of relevant new research findings developed by the IRST or through outside research clarify or support causal links between forest practices and aquatic resources, and implications regarding how well forest practice rules or rule sets are likely to address these linkages.

(iii) Magnitude of impact: An assessment of the magnitude of impact on covered species or biological goals and objectives on a sliding scale.

(iv) Timescale of effects observed, and the immediacy of likely changes in the environment.

(v) Scope of inference.

(vi) Scientific uncertainty versus confidence: An assessment of the scientific uncertainty and confidence in the results.

(7) **Step 5: Within 30 days of completion of the last of the reports** described in paragraphs (6)(b)(F) and (6)(c)(B) and subsection (6)(g) of this rule, **the IRST shall send both reports to the AMPC and the board.**

(8) **Step 6:** The AMPC and the board shall assess the IRST reports described in section (7) of this rule and determine next steps per the following process.

(a) The AMPC shall consider reports described in paragraphs (6)(b)(F) and (6)(c)(B) and subsection (6)(g) of this rule from the IRST. Within 90 days of receipt of these reports from the IRST, the AMPC shall send its report to the board. This AMPC report shall include:

(A) Alternative actions, including a no action alternative, to address research findings identified in the IRST reports.

(B) The AMPC may recommend one or more of the alternatives. Recommendations shall include:

(i) Reasoning for the recommendation.

(ii) If a recommendation for a rule change, a clear description of the proposed rule change.

(iii) If a recommendation for additional scientific inquiry, a clear description of the preliminary research question.

(iv) If a recommendation for any other policy action, including rule guidance and training, a clear description of the proposed policy action.

(C) Minority reports may be included in reports to the board.

(b) By the second regular board meeting after receipt of the AMPC report, the AMPC shall present their recommendations to the board for a vote.

Future Meetings

Current AMPC 2024 Meeting Schedule

The current plans for AMPC meetings in 2024 (all on 4th Mondays, except December):

- January 22 (joint with IRST)
- March 25
- June 24
- August 26
- October 28
- Early December