# AMPC Research Agenda Report to the Board of Forestry

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# 1. Introduction

## Background

The legislature directed the Board of Forestry (Board) to set up the Adaptive Management Program in 2022. The Program helps inform rulemaking<sup>1</sup> by using the best available science to assess the effectiveness of rules to achieve the Biological Goals and Objectives (BGOs) described in the Private Lands Aquatic Habitat Conservation Plan (HCP)<sup>2</sup>.

The Adaptive Management Program includes two advisory bodies:

- 1. The Adaptive Management Program Committee (AMPC) develops the policy direction for the program, including the research questions.
- 2. The Independent Research and Science Team (IRST) oversees the research and monitoring to address the policy direction.

Every 2 years, the AMPC develops a Research Agenda that is based on the IRST's scoping proposals. This Agenda prioritizes the research projects, and specifies the budgets, key milestones, and timelines for these projects (see Appendix 1 for the relevant rule). The Board reviews this Agenda and votes on its budget. If additional funds remain available, then the AMPC may amend the Research Agenda to include additional projects<sup>3</sup> for a Board decision.

# 2. Research Agenda

The AMPC finalized this Research Agenda report at their July 7, 2025, meeting by a vote of

<sup>&</sup>lt;sup>1</sup> OAR 629-603-0000(5)

<sup>&</sup>lt;sup>2</sup> As of 07/07/2025 the private lands HCP was still in draft form, but the Adaptive Management Program and this research agenda were a negotiated requirement to meet commitments to USFW and NOAA Fisheries for the attainment of Incidental Take Permits.

<sup>&</sup>lt;sup>3</sup> Note that the AMPC sent preliminary research questions on Amphibians to the IRST. However, there was insufficient time for the IRST to complete its scoping proposal, and thus the associated research is not included in this research agenda. This research may be later added to the research agenda through an amendment.

Table 1. Summary of Research Agenda

Priority	Project	Milestone	completed (months since project start)
	Road-Stream Hydrologic Connectivity Baseline Assessment and Sediment Modeling	Award contract	2-3
		Prep for field data collection	15-18
1		Complete field data collection	27-30
1		Complete data analysis & draft	42-46
		reports	
		Complete final reports	48-50
	Eastern Oregon Steep Slopes modified Rapid Systematic Map	Award contract	2-3
2		Literature search and assessment	5-6
2		Complete draft reports	7-8
		Complete final reports	9-10
?	Amphibians/other	TBD	TBD

### Summary of Research Agenda Projects

This section outlines the AMPC decisions for the Research Agenda.

# First Priority: Road-Stream Hydrologic Connectivity Baseline Assessment and Sediment Modeling Project<sup>4</sup>

The Road-Stream Hydrologic Connectivity Project will include these components :::

- 1) Pre-survey Options 1 & 2 to save time and money by using geospatial data to identify optimal field work for the study;
- 2) Sample stratification based on differences in ownership (large vs. small landowner<sup>6</sup>) and geography (eastern vs. western Oregon<sup>7</sup>);
- 3) Baseline assessment of road-stream hydrologic connectivity soon after the start of the new Forest Practices Act (FPA) rules; and,
- 4) Sediment modeling to assess trends in sediment delivery from roads to streams.

# Knowledge Contribution:

- Assesses hydrologic connectivity between roads and streams, and models associated amounts of sediment delivery.
- Includes all the connectivity-only metrics listed in Option 1 of the scoping proposal, plus the modeled delivery of road sediment to streams.

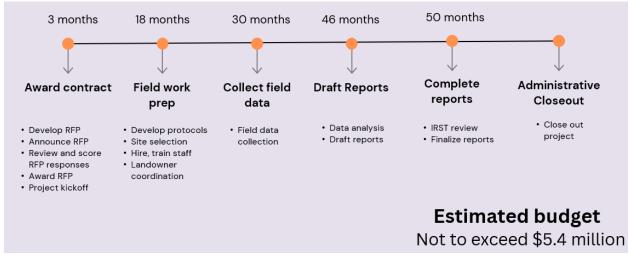
<sup>&</sup>lt;sup>4</sup> Scoping proposal found <u>here</u>.

<sup>&</sup>lt;sup>5</sup> Note: The road connectivity research questions have three components (baseline, trends, and rule effectiveness); this research agenda proposal includes only the first component.

<sup>&</sup>lt;sup>6</sup> OAR 629-600-0100(126)

<sup>&</sup>lt;sup>7</sup> Eastern and western Oregon are distinguished in OAR 629-635-0220.

 Informs the development of performance targets and the effectiveness of road rules in achieving BGOs related to hydrologic disconnection and sediment delivery.



**Figure 1.** Timeline for Road-Stream Hydrologic Connectivity Baseline & Sediment Modeling Project

# Use of Sediment Modeling Results

The AMPC believes the following quote provides important context for this work:

"It is recognized that output from any road surface erosion model is not an accurate measure of sediment production or delivery at the scales of individual delivery points or individual road segments; however, models are useful for comparing trends in sediment production through time in response to changes in road conditions (Dubé et al. in press)." (Dubé et al., 2010)

Given this information, the AMPC will not use the results of this modeling as an indication of measures of individual sediment delivery points or individual road segments. Rather, these results will only be used to indicate trends and to inform relative comparisons of sediment delivery prior to the adoption of the current FPA rules and following implementation of these rules.

# Second Priority: Eastern Oregon Steep Slopes Rapid Systematic Map Project<sup>8</sup>

The Eastern Oregon Steep Slopes Rapid Systematic Map Project is a detailed literature review to help inform the Board about hillslope processes in Eastern Oregon. The AMPC modified the original proposals by IRST in two ways:

- 1. Include a second reviewer to minimize bias; and
- 2. Extract data from the relevant studies and provide those data in a database for potential future analysis.

**Knowledge Contribution:** 

3

<sup>&</sup>lt;sup>8</sup> Scoping proposal found <u>here</u>.

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Extracts data from reviewed documents to support quantitative and narrative synthesis about the state of, and important gaps in, knowledge regarding eastern Oregon steep slopes. This may exclude some of the gray literature, especially older studies or those from other states. The search and review process would be well documented for transparency and replicability.

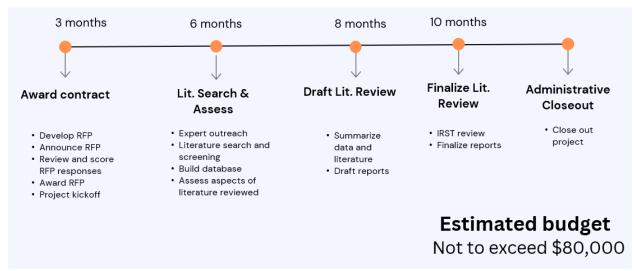


Figure 2. Timeline for Eastern Oregon Steep Slopes Rapid Systematic Map Project.

This Research Agenda provides the AMPC's direction for the IRST to implement the research. Although the details of this implementation are strictly the purview of the IRST<sup>9</sup>, they may request input from the AMPC about unforeseen policy-relevant details of implementing this Research Agenda.

#### **Project Budgets**

Project budgets are based on the associated scoping proposals and are summarized in Table 2.

Table 2. Research Agenda budget estimates

Project	Budget/year	Budget for 2025- 2027 biennium	Total budget <sup>^</sup>
Road-Stream Hydrologic Connectivity <sup>&amp;</sup>	\$ <mark>1.4</mark> million#	\$2.7 million <mark>#</mark>	\$5.4 million
Eastern Oregon Steep	\$80,000	\$80,000	\$80,000
Slopes			
Amphibians/other	TBD	TBD	TBD
Total	\$1.5 million	\$2.8 million	\$5.5 million

<sup>^</sup> Not to exceed numbers

<sup>&</sup> These budget numbers are for the baseline study per Question 1; subsequent rounds of sampling to develop the trends per Question 2 will be completed in the future.

<sup>&</sup>lt;sup>9</sup> OAR 629-603-0200(6); Section 37(7)(a) chapter 33, Oregon Laws 2022; and Section 10.3.1.1 of the PFA Report.

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# Since there is insufficient information in the scoping proposals to determine these figures, a constant-rate expenditure is assumed.

# Potential Research Agenda Amendments

The AMPC sent preliminary research questions on Amphibians to the IRST, and the AMPC anticipates coming back to the Board within 8-12 months to revise this Research Agenda. Additionally, work on an effectiveness monitoring strategy or other policy initiatives may arise that warrant amending the Research Agenda.

# 3. Conclusion & Next Steps

The AMPC requests that the Board approve the budget outlined above. Upon Board approval, the IRST will be notified they may proceed with Requests for Proposals for the research projects per this Research Agenda.

ODF, the AMPC, and the IRST will continue to provide Adaptive Management Program updates to the Board at least annually, and act upon the completed research project reports as specified in rule<sup>10</sup>.

## Reference

Dubé, K., A. Shelly, J. Black, and K. Kuzis. 2010. *Washington road sub-basin scale effectiveness monitoring first sampling event (2006-2008) report.* Cooperative Monitoring, Evaluation and Research Report CMER 08-801. Washington Department of Natural Resources. Olympia, Washington.

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<sup>&</sup>lt;sup>10</sup> OAR 629-603-0200(7, 8)

# Appendix 1. Rules regarding the Research Agenda

OAR 629-603-0200(5)

- (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.

# **Appendix 2. Finalized research questions**

Hydrologic connectivity of roads research questions:

- 1. <u>Baseline Report.</u>
  - a. What is the baseline status of hydrologic connectivity of roads prior to the implementation of the OFPA road rules effective Jan 1, 2024?
  - b. How does the status of hydrologic connectivity differ based on landowner type and East/West region?
  - c. How do particular elements of the regulatory framework (e.g. road location) or site characteristics (e.g. geology) contribute to hydrologic connectivity?
- Trend Monitoring. What are the trends in the status of hydrologic connectivity of roads over 5-year intervals? These trends should be assessed for the same variables in question 1.
- 3. <u>Determination of rule effectiveness.</u> Within 25 years, to what extent are road rules associated with hydrologic disconnection effective at achieving biological goals and objectives?

Eastern Oregon Steep Slopes research questions:

<u>Overarching Question:</u> What impact do hillslope processes have on the covered species included in the draft HCP and their habitats in Eastern Oregon?

<u>Primary Focus:</u> What does the literature say about upslope initiated shallow rapid slides and how timber harvesting may impact these in Eastern Oregon environments?

<u>Secondary Focus:</u> Are there hillslope processes other than upslope initiated shallow rapid slides that may affect covered species within the draft Habitat Conservation Plan (HCP) and are these processes changed by forest practices?

#### Appendix 3. Work leading to the Research Agenda

The materials used in this Research Agenda were developed in these steps:

- 1. The AMPC developed preliminary research questions on two topics<sup>11</sup>:
  - a. Road-stream hydrologic connectivity; and,
  - b. Eastern Oregon steep slopes.
- 2. The IRST worked with the AMPC to hone the research questions into final, researchable formats. These finalized research questions are listed in Appendix 2.
- 3. The IRST developed scoping proposals that address the two sets of questions<sup>12</sup>. These scoping proposals include:
  - a. A literature review;
  - b. A preliminary estimate of the budget, 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.

## AMPC Process to develop the Research Agenda

The AMPC Co-chairs and ODF staff developed a survey to assess the AMPC members' preferences for the Research Agenda and then used that information to focus the conversation at their June 2, 2025, meeting. During this meeting, the AMPC discussed the IRST scoping proposals with the IRST Co-chairs, and then determined where there was consensus and what needed more conversation. The AMPC also formed a workgroup to work on an initial draft of this report that was subsequently reviewed and discussed by the full AMPC.

<sup>&</sup>lt;sup>11</sup> These topics are specified in OAR 629-603-0100(8).

<sup>&</sup>lt;sup>12</sup> Note that because the Biological Goals and Objectives and the associated metrics and targets are not yet complete, and the IRST could not complete a scoping proposal to address Question 3 from the road-stream hydrologic connectivity topic.