



3-Year Beaver Action Plan Update

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Oregon Fish & Wildlife Commission Meeting
September 13, 2024





Landscape scale restoration of beaver habitat and beaver modified habitat



Action Plan Progress Report

ODFW's 3-Year Action Plan for Beaver-Modified Landscapes

August 2022 - 2025

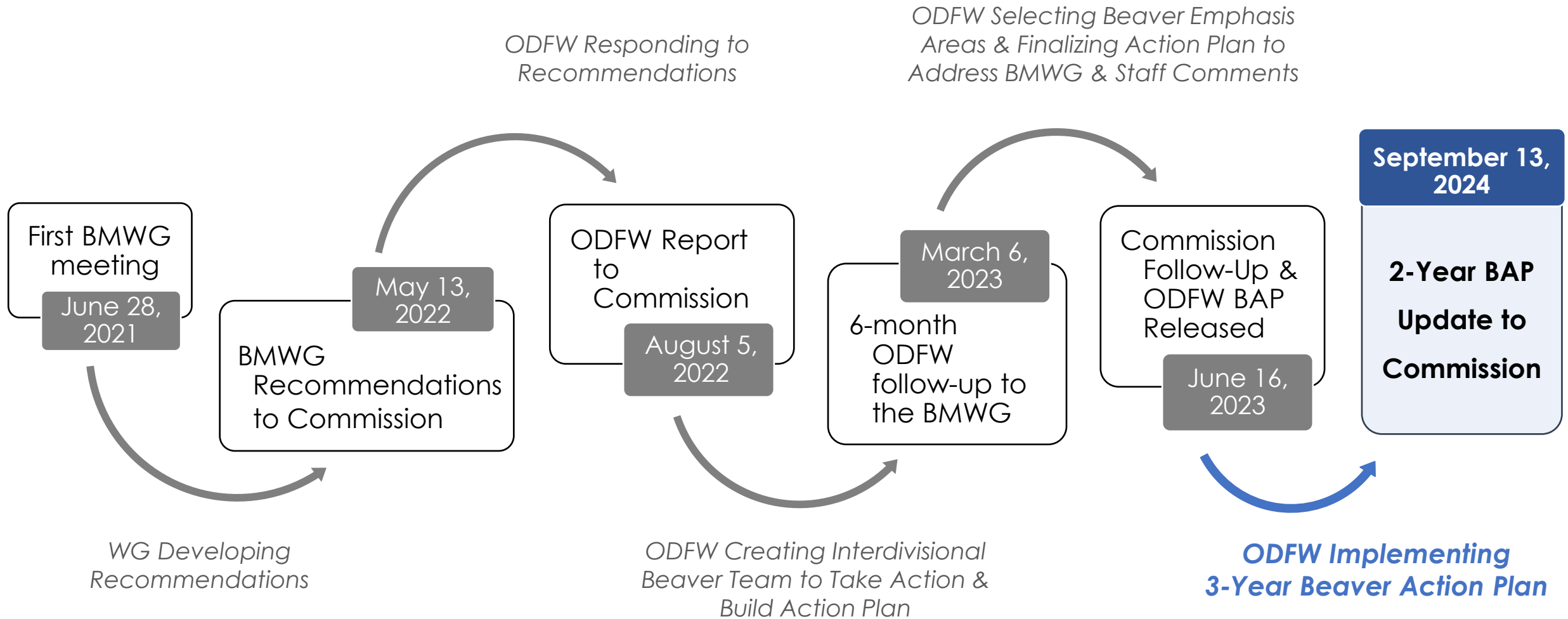


Oregon Department of Fish and Wildlife



June 16, 2023

Timeline



Pillars of Action

Goal

Improve understanding of current beaver presence, constraints on beaver distribution, and the habitat needs of beavers in Oregon

Goal

Improve beaver management



Goal

Advance prioritized beaver habitat and beaver-modified habitat restoration in Oregon

Goal

Increase awareness of the benefits of beaver-modified habitat & implementation of human-beaver coexistence strategies across Oregon

Pillars of Action



Pillar
Goal



Strategic
Actions



Staff
Leads

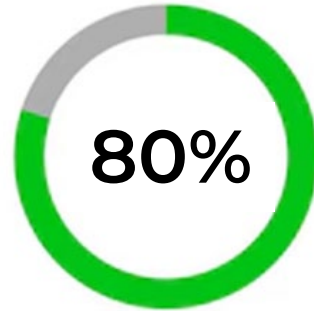


Action
Timelines

Capacity = Existing Staff & Resources + 100% Voluntary Partnerships

Pillar 1: Data & Science

SNAPSHOT



Actions

- 1A Review Existing ODFW Datasets
- 1B Test & Adopt Beaver Survey Protocol
- 1C Select Beaver Emphasis Areas (BEA)
- 1D Conduct BEA Beaver Activity Surveys
- 1E Increase beaver-related monitoring

Progress



HIGHLIGHTS

10 Beaver Emphasis Areas established

329K Funding secured for BEA actions

1 Standardized survey protocol adopted

3 Survey methodology workshops held

Pillar 1: Existing Data



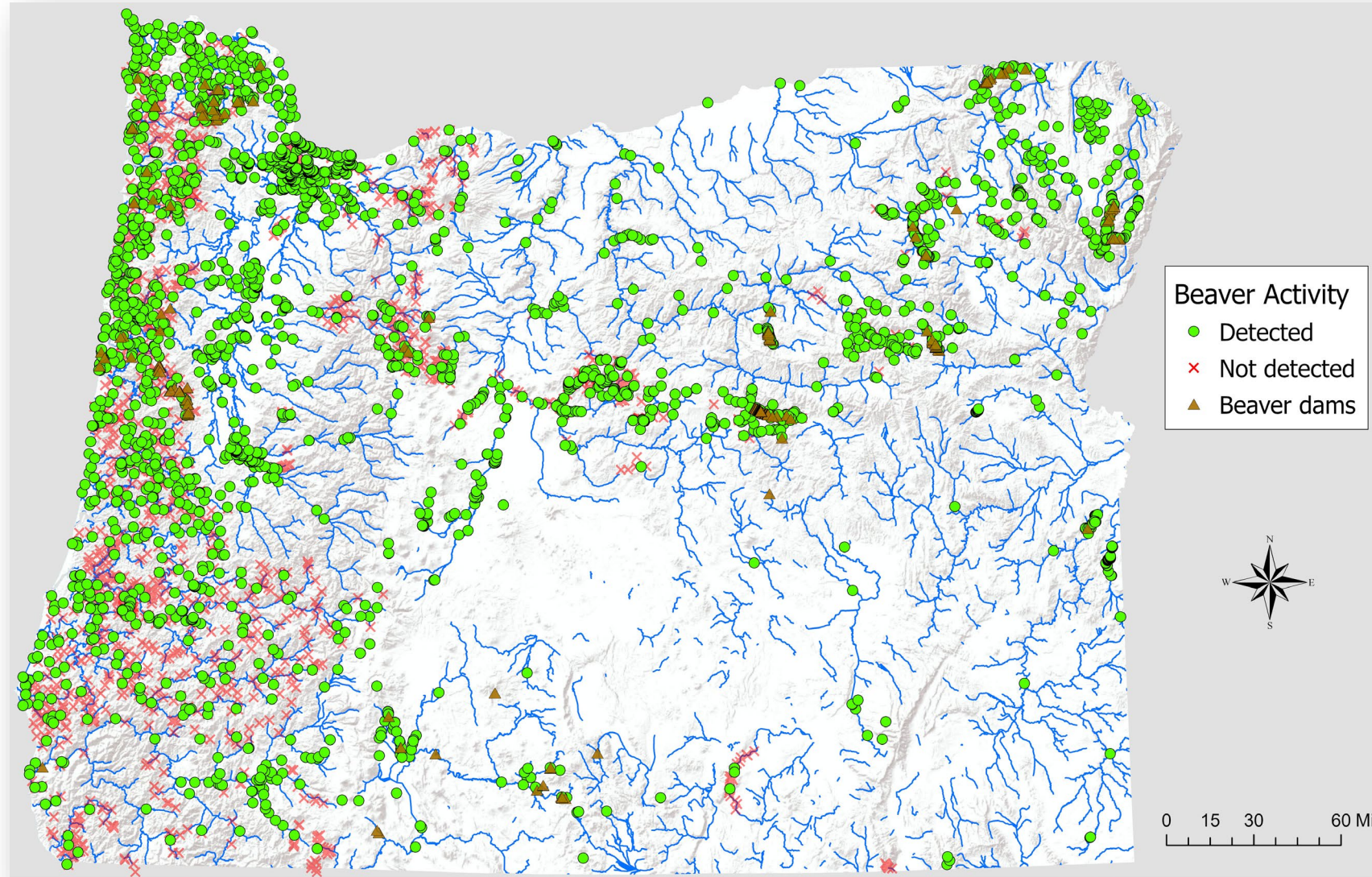
Very widely distributed



Vast majority of observations not associated with dams



Data gaps = future survey opportunities



Pillar 1: Beaver Activity Protocol

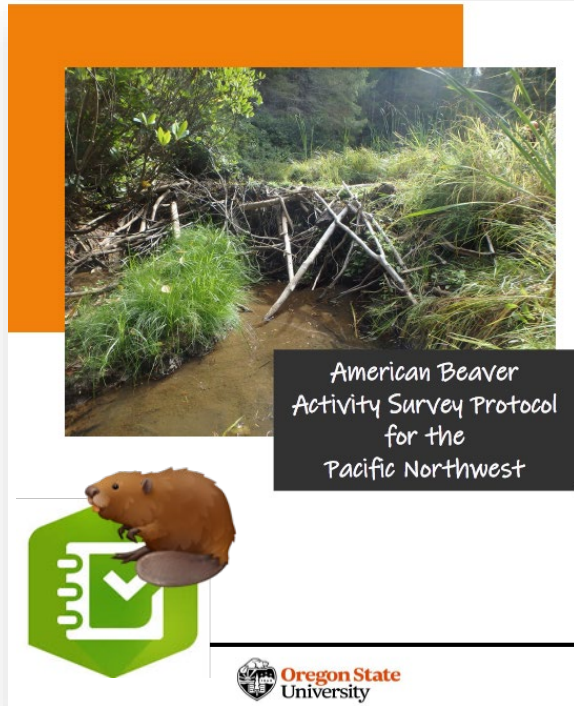


Photo Credit: E. Bailey (ODFW)

Standardized Protocol
& Survey123 Form

Staff Training
Workshops



Beaver Emphasis Areas

- Key Cities
 - Major Roads
 - Watershed Districts
 - ▨ Beaver Emphasis Areas
- Land Ownership
- Federal
 - State
 - Private
 - Tribal
 - Other



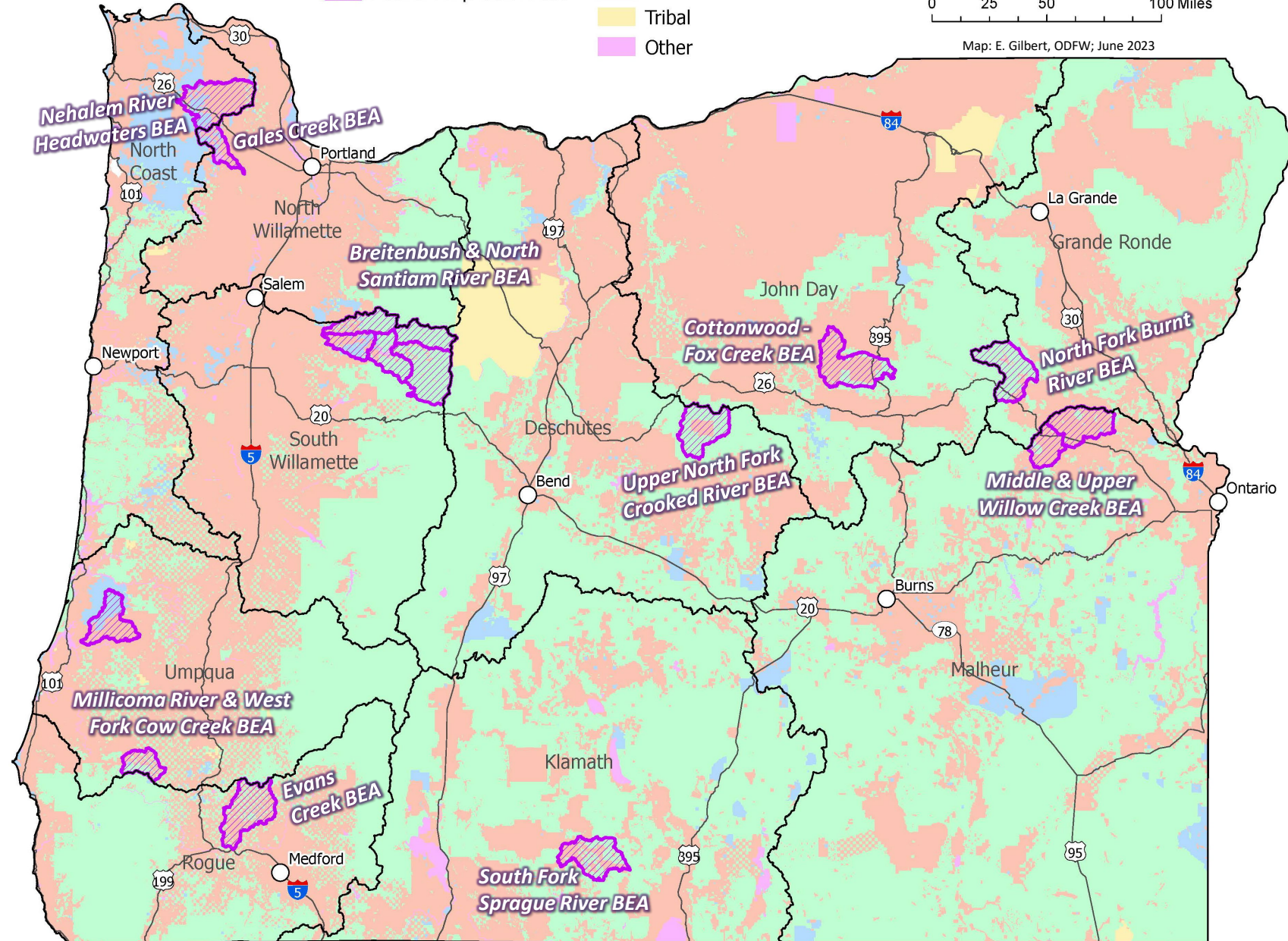
0 25 50 100 Miles

Map: E. Gilbert, ODFW; June 2023

Plan Actions 1C, 1D, 2B, 3B

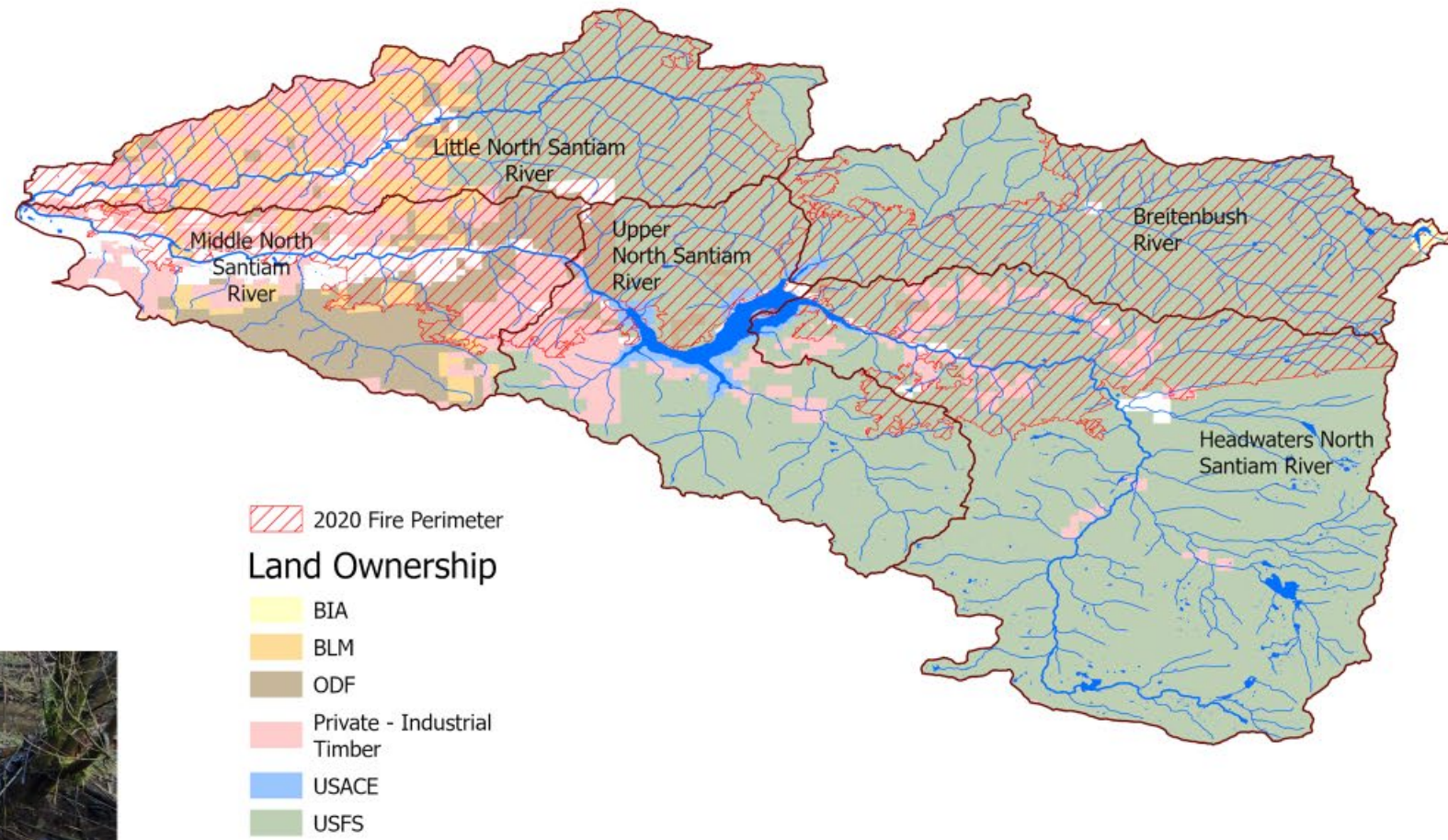


\$329K



Breitenbush & North Santiam BEA

Partners



Mid-Willamette Beaver Partnership

A row of logos for the Mid-Willamette Beaver Partnership partners. From left to right: beaver (beaver), Luckiamute, North Santiam, Marys River Watershed Council, and Clatsop Watershed Council.

Surveying for Beaver

2023 results



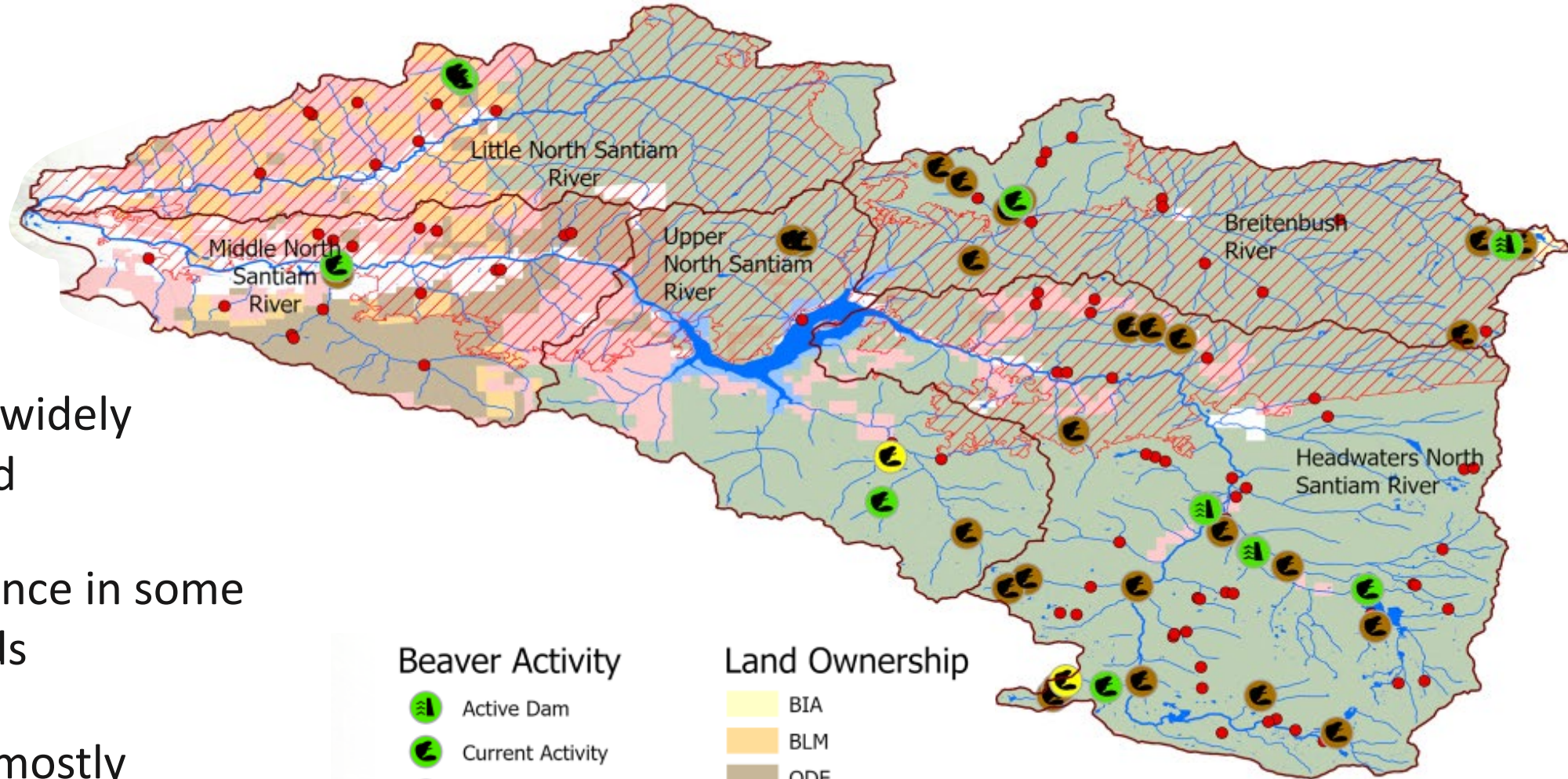
Generally widely distributed



Low presence in some watersheds



Presence mostly without active dams



Beaver Activity

- Active Dam
- Current Activity
- Recent Activity
- Past Activity
- No Activity
- 2020 Fire Perimeter

Land Ownership

- BIA
- BLM
- ODF
- Private - Industrial Timber
- USACE
- USFS

Breitenbush & North Santiam BEA

Next Steps

- Conduct a second year of beaver activity surveys
- Analyze data to improve understanding of beaver habitat needs and constraints
- Develop list of potential restoration sites
- Work with partners on implementation plan for restoration

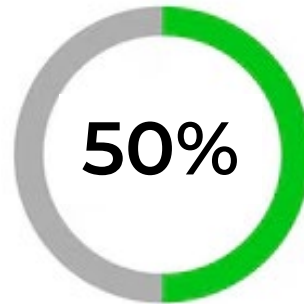


Pillar 2: Habitat Restoration

SNAPSHOT

Actions

- 2A Develop Beaver Habitat Guidance
- 2B Restore Beaver Habitat in BEAs
- 2C Revise Fish Passage Rules to Include Beaver Flow Devices
- 2D Emphasize Beaver & Their Habitats in Oregon Conservation Strategy Revision



Progress



HIGHLIGHTS

60K Funding secured to develop guidance manual

329K Funding secured for BEA actions

1 More flexible fish Passage rules adopted



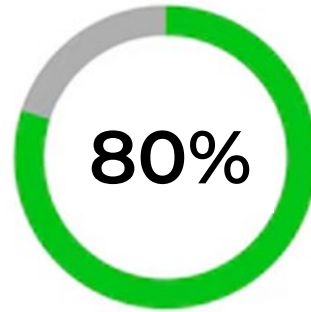
Habitat **for Beaver → Habitat **by** Beaver**

Pillar 3: Beaver Management

SNAPSHOT

Actions

- 3A Improve Damage Complaint System
- 3B Identify Coexistence Opportunities in BEAs
- 3C Identify Coexistence Opportunities on Private and Public Lands
- 3D Implement New Harvest Reporting Requirements & Track/Report Data



Progress



HIGHLIGHTS

1

Implemented damage complaint system to support co-existence outreach

1

Adopted rules to promote non-lethal, conflict solutions

1

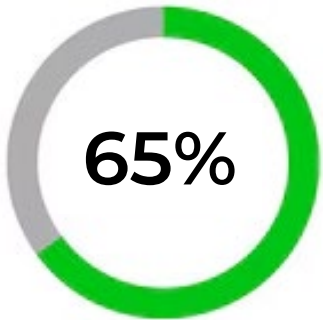
Adopted harvest reporting to improve understanding of impacts

Coexistence Success



Pillar 4: Communication

SNAPSHOT



Actions

- 4A Partner with OSU on Beaver Coexistence Communication Science Study
- 4B Provide technical/financial support for tools & resources
- 4C Update Living with Beaver Website Materials
- 4D Reestablish a Forum for Information Sharing & Collaboration

Progress



HIGHLIGHTS

511K OCRF funding awarded to partners to develop tools, resources, & capacity (2022 – 24)

1 Beaver Action Plan Partnership Launched

1 Training workshop held for fisheries professionals (bonus)

Communication Research to Inform Human-Beaver Coexistence

Megan S. Jones, PhD

Brian Erickson, PhD

USGS Oregon Cooperative Fish and
Wildlife Research Unit at OSU

Fisheries, Wildlife and Conservation
Sciences Department at OSU

ODFW Commission Meeting – September 2024



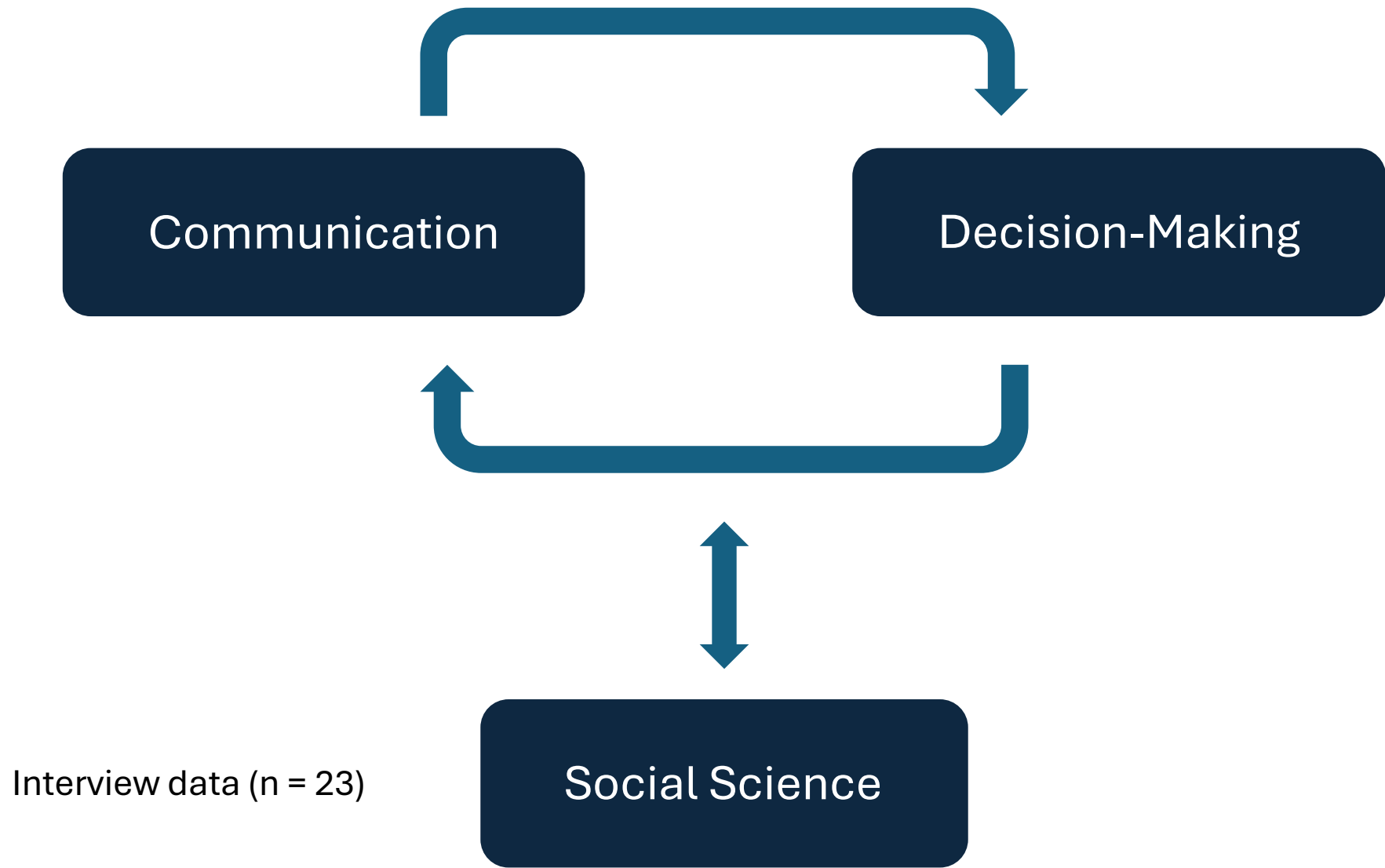
Today's goal

Share preliminary Study 1 findings with implications for landscape-scale restoration

Guiding research question:

How can private landowners be supported to take coexistence actions that are mutually beneficial for their needs and beaver populations in Oregon?

Coexistence as restoration + conflict management



1) Communication occurs at different times

Finding: In-depth communication occurs prior to habitat restoration, whereas conflict communication typically occurs in the moment of beaver damage

Implication: Opportunity for creativity around reaching new audiences before there's a problem

2) Beaver benefits aren't universal

Finding: Beaver restoration is easier to pitch to ranchers and others on the dry, fire-prone east side than to farmers and others on the flood and drought-prone west side

Implication: Farmers and other landowners in places like the Willamette Valley may need additional support (technical, financial, motivational, social) to be able to live with beavers on their land

3) Many practitioners are already trust experts

Finding: Earning landowners' trust is foundational to practitioners' beaver coexistence work. They strive to be honest and sincere, understand landowner needs, respect landowner expertise, keep their promises, and improve their own abilities

Implication: Landscape-scale restoration may depend on scaling up long-term relationships of mutual trust

Next steps

Study 2: Can investing in a **peer learning network** help practitioners better communicate about beavers with private landowners?

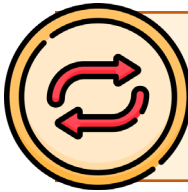
...and if so, how?

References

- Abrahms, B., Carter, N. H., Clark-Wolf, T. J., Gaynor, K. M., Johansson, E., McInturff, A., Nisi, A. C., Rafiq, K., & West, L. (2023). Climate change as a global amplifier of human–wildlife conflict. *Nature Climate Change*, 13(3), 224–234. <https://doi.org/10.1038/s41558-023-01608-5>
- Auster, R. E., Barr, S. W., & Brazier, R. E. (2021). Improving engagement in managing reintroduction conflicts: Learning from beaver reintroduction. *Journal of Environmental Planning and Management*, 64(10), 1713–1734. <https://doi.org/10.1080/09640568.2020.1837089>
- Bamzai-Dodson, A., Cravens, A. E., Wade, A. A., & McPherson, R. A. (2021). Engaging with Stakeholders to Produce Actionable Science: A Framework and Guidance. *Weather, Climate, and Society*, 13(4), 1027–1041. <https://doi.org/10.1175/WCAS-D-21-0046.1>
- Bennett, N. J., Roth, R., Klain, S. C., Chan, K., Christie, P., Clark, D. A., Cullman, G., Curran, D., Durbin, T. J., Epstein, G., Greenberg, A., Nelson, M. P., Sandlos, J., Stedman, R., Teel, T. L., Thomas, R., Veríssimo, D., & Wyborn, C. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. *Biological Conservation*, 205, 93–108. <https://doi.org/10.1016/j.biocon.2016.10.006>
- Bennett, N. J., Roth, R., Klain, S. C., Chan, K. M. A., Clark, D. A., Cullman, G., Epstein, G., Nelson, M. P., Stedman, R., Teel, T. L., Thomas, R. E. W., Wyborn, C., Curran, D., Greenberg, A., Sandlos, J., & Veríssimo, D. (2017). Mainstreaming the social sciences in conservation. *Conservation Biology*, 31(1), 56–66. <https://doi.org/10.1111/cobi.12788>
- Carr Kelman, C., Barton, C. J., Whitman, K., Lhoest, S., Anderson, D. M., & Gerber, L. R. (2023). Five approaches to producing actionable science in conservation. *Conservation Biology*, 37, e14039. <https://doi.org/10.1111/cobi.14039>
- Nelson, S.-M., Ira, G., & Merenlender, A. M. (2022). Adult Climate Change Education Advances Learning, Self-Efficacy, and Agency for Community-Scale Stewardship. *Sustainability*, 14(3), Article 3. <https://doi.org/10.3390/su14031804>
- Walton, G. M. (2014). The New Science of Wise Psychological Interventions. *Current Directions in Psychological Science*, 23(1), 73–82. <https://doi.org/10.1177/0963721413512856>
- Walton, G. M., & Wilson, T. D. (2018). Wise interventions: Psychological remedies for social and personal problems. *Psychological Review*, 125(5), 617–655. <https://doi.org/10.1037/rev0000115>

Beaver Action Plan: Next Steps

Fall/Winter 2024-25	Spring 2025	Summer 2025	Fall/Winter 2025	2026
1D BEA Surveys 2C Fish Passage – Beaver Device Guidance 4A OSU Study Phase 2 starts 4D BAPP Meetings (#3, 4)	2C Staff Training Workshops 4D BAPP Meeting (#5)	2A Beaver Habitat Guidance Complete 4A OSU Study Phase 3 starts	2D Revised OCS submitted to USFWS 4C ODFW Beaver Website Complete 4D BAPP Meeting (#6)	4A OSU Study Complete



Ongoing Actions

1B, 3A, 3C, 3D, 4C, 4D



Capacity Dependent

1D, 1E, 2B, 3B, 4B

**Thank
You!**



Photo Credit: K.Munsel (ODFW)