



Western Oregon Streamside Protections Review: Systematic review and data analyses

Oregon Department of Forestry

Private Forests Division

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Key Messages

- The ODF study “RipStream” was initiated in 2002 to provide a coordinated monitoring effort to evaluate the effectiveness of the Forest Practices Act (FPA) in protecting stream temperature and promoting streamside forest structure that provides necessary functions for fish and wildlife habitat.
 - Previous work (e.g., reports, analysis, and peer-reviewed publications) focused on harvesting effects on stream temperature and shade, as well as meeting state water quality standards.
- The Oregon Board of Forestry (“Board”) directed ODF to address whether rules are effective in achieving streamside forest goals¹ and large wood in the Coast Range, South Coast, Interior and Western Cascade regions (“Other Western Oregon regions”).
 - Streamside forest goals refers to growing and retaining vegetation similar to mature streamside forests which is based on unmanaged streamside stands around 120 years old.
 - Important attributes of mature streamside forests include, but are not limited to: live trees of various species and size classes, abundant large wood for snags and downed wood in streams.
- Work products will include:
 - Science reviews of current literature addressing a) streamside forest goals, and b) in-stream large wood.
 - Data analysis of pre-/post-harvest field data on streamside vegetation and large wood from RipStream study.
- The department is exploring modeling the RipStream forest stands into the future.

Next Steps

2018-2019 - Deliver an update on the progress of the science reviews and data analyses at the September 2018 Board of Forestry meeting.

- Develop a rigorous protocol for reviewing science relating to streamside forest goals and large wood recruitment
- Refine research questions and approaches for guiding large wood and streamside forest data analyses and, potentially, forest stand modeling
- Develop timeline for work products, including stakeholder and Tribal engagement at defined steps in the process

Questions or comments?

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¹ Streamside forest goals refers to “desired future conditions” discussed in OAR 629-642-0000

Background

The Board and ODF are committed to using adaptive management in reviewing (and revising, if necessary) the FPA using available science, monitoring and research.

Previous work leading up to current analyses include:

- RipStream measurements were taken at 33 sites in NW Oregon (Small and Medium fish bearing streams): stream temperature and flow measures, shade and channel characteristics, aquatic and streamside large wood, and forest stand characteristics prior to, and following, harvesting.
- Products from previous RipStream analysis (e.g., reports, analysis, and peer-reviewed publications) focused on harvesting effects on stream temperature and shade, as well as meeting state water quality standards.
- From 2012 to 2015, the department conducted a riparian rule analysis of FPA streamside protections for most of western Oregon based on findings of degradation from RipStream study results.
- In November 2015, the Board of Forestry voted to change FPA rules on small and medium streams with Salmon, Steelhead, and Bull Trout in most of western Oregon (the Coast Range, South Coast, Interior and Western Cascade regions), but excluded the Siskiyou georegion. The revised rules went into effect in July 2017.
- The department is exploring modeling approaches for streamside forest goals, and large wood recruitment.

What Does This Mean?

- The science reviews and data analyses are the first steps in reviewing protection standards of streamside forest condition and large wood in western Oregon (i.e., considering existing data).
- The results of this work can lead to a range of outcomes: no change, targeted education and outreach programs, voluntary measures, incentive programs, rule increases or decreases, or more study is warranted.
- For the Board to change rules that increase protection standards on the ground, they must first decide if a resource is being harmed [Oregon Revised Statutes (ORS) 527.714].
- State law also requires the Board to consider information about economic impacts to forest landowners, the timber industry generally, and effects on fish and wildlife.

Timeline for the Western Oregon Streamside Protections Review

This document outlines the steps to develop materials for the Board’s eventual decision regarding sufficiency of riparian protections in western Oregon, emphasizing opportunities for input from stakeholders and Tribes to the process. The area of western Oregon addressed herein is the South Coast, Coast Range, Interior, and Western Cascade geographic regions.

The ODF Monitoring Unit will evaluate the effectiveness of the Forest Practices Act (FPA) in achieving desired future conditions (DFC) and large wood in western Oregon. To assess effectiveness, we will use: 1) science reviews of literature on DFC and large wood, 2) data analysis of field data from the RipStream study. Additionally, we are exploring modeling RipStream forest stand data into the future, and thereby assess effects of current rules on DFC and large wood recruitment. Modeling is not included in the timeline below due to uncertainty about who and how this work will be accomplished.

During this process, the Monitoring Unit will provide opportunities for input from stakeholders and Tribes in order to help guide the project work. The following table outlines stakeholder and tribal engagement as well as a timeline for work products.

Table 1. Timeline for development of Board materials for western Oregon. Note that tasks for input from stakeholders and Tribes are in **bold**. *Note that modeling efforts will be added to this table once we have a plan in place.*

Task	Date	Milestone/Deliverable	Form of Communication
<i>Phase 1 – Lit Review Protocol & Methods with Proposed Analysis</i>			
Initial outreach with stakeholders and tribes	Spring-Summer 2018	Summary of project for stakeholders and Tribes	Meetings
Write overview of RipStream field data methods and proposed analysis	Summer 2018	Report with background, research questions, overview of methods, proposed analysis, and next steps	
Stakeholder and Tribal input on field methods overview and review protocol	Summer/Fall 2018	Record of stakeholder and Tribal feedback on methods of RipStream analysis and review protocol	Email/electronic review
Present Monitoring Unit update to Board	9/5/2018	Presentation on progress of projects	Board written materials & oral presentation
Develop literature review protocols	Fall 2018	Protocols for literature reviews	
Stakeholder and Tribal input on review protocol	Fall 2018	Record of stakeholder and Tribal feedback on review protocol	Email/electronic review
Determine inclusion of literature in review	Fall 2018	Literature selected for inclusion based on criteria	

Task	Date	Milestone/Deliverable	Form of Communication
Stakeholder and Tribal input on inclusion-exclusion of literature to review	Fall 2018-Winter 2019	Stakeholder and Tribal feedback on literature to include in reviews	Email/electronic review
<i>Phase 2 – Review of Lit. Reviews and Field Data Analysis</i>			
Data extraction, analysis, and writing of literature review	Fall 2018-Winter 2019	Draft report of literature review	
Complete methods and continue data analysis, creating graphs/figures, and writing	Fall 2018-Winter 2019	Draft of methods and preliminary figures for internal review	
Stakeholder and Tribal input on (1) draft literature review, and (2) field data analysis report	Fall 2018-Winter 2019	Stakeholder and Tribal input on (1) draft review and (2) field data analysis	Meetings, email/electronic review
Address Stakeholder and Tribal input on (1) draft review, and (2) field data analysis report	Winter-Spring 2019	Final drafts of (1) literature review, (2) field data analysis	
Forest stand modeling; aquatic large wood recruitment	TBD		
Present subset of completed work to Board	Spring 2019	Updates to BOF	Board written materials & oral presentation
Present completed work to Board for sufficiency decision of streamside protections	Fall 2019??	Project complete	Board written materials & oral presentation