

## WSR 23-05-089

PREPROPOSAL STATEMENT OF INQUIRY  
FOREST PRACTICES BOARD

[Filed February 14, 2023, 3:29 p.m.]

Subject of Possible Rule Making: Experimental research treatments.

Statutes Authorizing the Agency to Adopt Rules on this Subject: The forest practices board's authority to adopt forest practices rules is granted under RCW 76.09.040, [76.09].050, and [76.09].370. The pilot project process is authorized by RCW 34.05.313.

Reasons Why Rules on this Subject may be Needed and What They Might Accomplish: This rule is necessary to authorize the implementation of experimental harvest treatments on approximately 10 sites in western Washington in excess of what is currently permitted in the forest practices rules (WAC 222-30-021, 222-30-040(2), and 222-30-050) as part of the riparian characteristics and shade response (RCS) experimental research study. The purpose of this study is to evaluate how stream shade responds to a range of riparian harvest treatments of varying intensity within multiple environments common to commercial forestlands covered under the forest practices habitat conservation plan (FPHCP 2005). The RCS study requires 20 sites in total (including east side and west side) to be implemented over six years; this pilot rule pertains to the five study sites in western Washington. These sites will be winnowed down with upcoming stakeholder and landowner feedback from the list of western Washington sites provided in Figure 1, with target implementation dates to occur in summer 2023 and summer 2024. Estimated total length of impacted stream is 1.5 km (0.93 miles) for the eventual five sites that would be selected for the application of this pilot rule.

Washington's forest practices regulations include riparian prescriptions that incorporate stream-adjacent no-harvest buffers of varying widths. The rules include no-harvest riparian buffers that can be applied alone, or in some cases, applied in combination with adjacent riparian buffers of varying width, within which some amount of harvest (thinning) is allowed within the riparian management zone (RMZ). Field research is particularly limited when examining the combined effects of no-harvest zones and different thinning intensities on stream shade within RMZs. This study will address a key question about how shade could be affected by using forest thinning as a riparian management tool (e.g. to promote old growth characteristics).

In order to answer this question, we are applying for permission to allow for additional timber harvest within forest practices RMZs under three scenarios: Clearcut to riparian buffer width of 25', heavy thin (Curtis's relative density of 20) to riparian buffer width of 25', and moderate thin (Curtis's relative density of 40) to riparian buffer width of 25'. Treatments will be applied in three 325' by 100' segments (plots), which will be thoughtfully placed throughout the length of the stream. Thinning will be "from below," meaning that the largest trees in the plot will be painted as leave trees first, followed by the next largest trees, and so on, until the target relative density is reached. Curtis's relative density is an integrated measure of basal area and trees per acre, and varies with species composition, but can be easily converted back to more commonly used metrics such as trees per acre or basal area.

Other Federal and State Agencies that Regulate this Subject and the Process Coordinating the Rule with These Agencies: The state for-

est practices board is the oversight agency with the authority to approve this pilot activity. The pilot rule is being requested as part of the formal state forest practices board's adaptive management program, which includes representatives from state agencies, including the departments of fish and wildlife, ecology, and natural resources; federal agencies, including National Marine Fisheries Service, United States Fish and Wildlife Service, and the Environmental Protection Agency; forest landowners; the environmental community; county governments; and tribal governments.

Process for Developing New Rule: Pilot rule making.

Interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication by contacting Patricia Anderson, Rules Coordinator, Department of Natural Resources, Forest Practices Division, 1111 Washington Street [S.E], 3rd Floor, P.O. Box 47012, Olympia, WA 98504-7012, phone 360-902-1400, fax 360-902-1428, email forest.practicesboard@dnr.wa.gov.

Additional comments: The RCS study has a peer-reviewed study design and is supported by the forest practices adaptive management program. An initial field trial has been conducted, and full study implementation is underway. The timber fish and wildlife policy committee has approved the scoping document and has recommended funds for this study. This proposed pilot rule is needed to implement the study in western Washington which will evaluate stream shade response to a range of riparian harvest treatments. Pilot rules have been used in prior studies developed by CMER to allow cooperating landowners to selectively deviate from specific elements of the forest practices rules in order to test rule-alternatives or to ensure consistent harvest intensities across test sites.

The full study design proposes implementation at 20 study sites across the state (10 in eastern Washington, 10 in western Washington) in riparian forests growing on Site Classes II and III ground, adjacent to Type Np and F streams with bankfull widths from 5' to 25'. Because forest practices applications (FPA) expire in three years, this pilot rule seeks permission for the implementation of the study for the 10 western Washington sites beginning with five sites located in the Northwest coast ecoregion. The following criteria were applied so far to constrain the FPA screening process in the Northwest coast ecoregion:

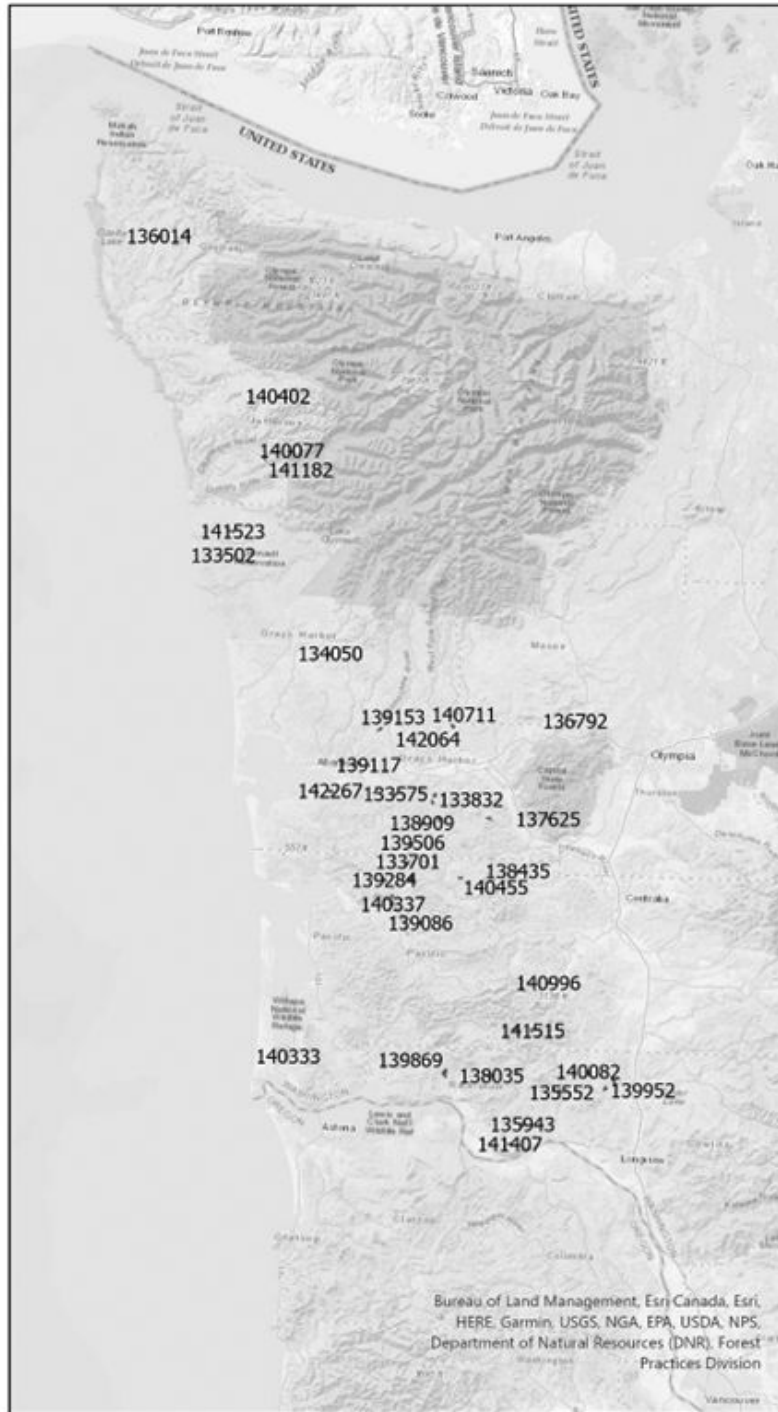
1. Riparian stands between 40-70 years old (harvest age).
2. Site Class II or III.
3. Type Np or F stream with a harvest unit directly adjacent.
4. Streams [Streams] have a bankfull width of 5' to 25'.

Additionally, we excluded sites with desired future condition harvest plans because we anticipate challenges in implementing the study on top of existing thinning plans. We also excluded sites that had hydraulic control panels due to their unique harvest prescriptions. Under this pilot rule, the five sites in western Washington will be winnowed down from the list of 40 potential sites (FPAs displayed on the map below), for implementation in 2023 or 2024 (**Fig 1**). Having pilot rule approval on a constrained set of sites will give us the leeway we need to move forward with planning the RCS study, which is time and resource intensive.

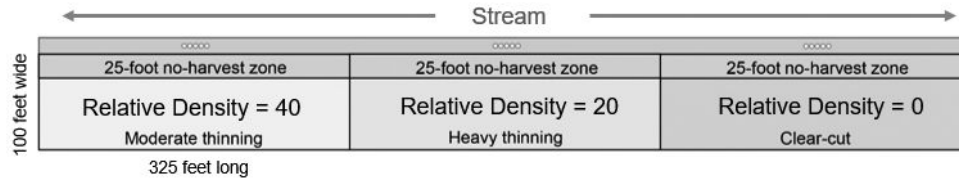
For western Washington, each study site will contain three plots with different harvest treatments. Each plot will measure 325' long by 100' wide (**Fig 2**). The most intensive treatment will include an RMZ clearcut harvest to a riparian buffer width of 25'. The mid-level treatment will include heavy thin (Curtis's relative density of 20) to

25'. The least intensive treatment will include moderate thin (Curtis's relative density of 40) to 25'. Relative density increases with basal area and tree size, and therefore provides a more integrated density metric to ensure similar treatment effects across a range of forest types and tree species across Washington. Within this pilot rule, we are proposing thinning in areas that do not meet minimum basal area requirements in the western Washington rules (WAC 222-30-021) that allow for thinning in the RMZ.

Outside of the three 325' by 100' plots, all applicable forest practices rules will be applied at all treatment sites. For instance, in western Washington, the outer zone rules (leave tree requirements) would still be applied at Site Class III sites. When applying thinning treatments, all best practices will be adhered to as described in WAC 222-30-021 and 222-30-050.



**Fig 1:** Map depicting 40 potential sites for implementation during the 2023 or 2024 field seasons. FPAs were screened using site selection criteria in the approved study design, along with ArcGIS for potential site suitability based on stream orientation and local topography. We are in the process of contacting landowners to confirm harvest schedules and their interest in working on the project, and we will also consult with tribes to ascertain resource impacts once the sites are narrowed down to a short list.



**Fig 2:** Experimental design for each of the 20 sites for the RCS study. A study site consists of three plots revised to have a 25-foot no harvest core zone, measured from the stream edge (outer edge of bankfull width), which deviates from WAC 222-30-021 (western Washington; 50-foot core zone). Riparian forest thinning from 100 to 25 feet will be performed to a relative density of 0 (clear cut), 20, and 40, for each of the plots, irrespective of basal area requirements detailed in WAC. This pilot rule application only applies to RMZ rule exceptions to the core zone, inner zone, and outer zone where it overlaps the three plots. Outside of the plots, existing rules in WAC 222-30-021 would still apply; for instance, the RMZ widths to be applied for Site Class II (RMZ width of 170 feet) and III streams (RMZ width 140 feet).

February 8, 2023  
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Chair