

DRAFT

6 May 2024

Dear Members of the IRST,

Thank you for sending clarifying questions about the roads question package we sent to you on February 8, 2024. This letter provides the AMPC's responses to these questions.

We look forward to working with you on this and in the long term. If you have any questions, please reach out to the Adaptive Management Program Coordinator Terry Frueh at Terry.Frueh@ODF.Oregon.gov.

Sincerely,
Members of the AMPC

Questions from the IRST to the AMPC about the roads questions package.

AMPC members: please ignore the highlighted section since you have already addressed these questions.

The “IRST questions” were submitted by individual IRST members for each of the roads research questions.

1. Baseline Report.

a. What are the baseline levels of hydrologic connectivity of roads prior to the implementation of the Oregon Forest Practices Act (OFPA) road rules¹⁰ effective Jan 1, 2024?

IRST questions and comments (AMPC responses (in green) per their April 8, 2024 meeting):

1. The first field sampling of roads will likely not occur for several years after the PFA road rules become effective. There may be ways to identify and account for road segments that were updated per the rules before first sampling, but if not, is the AMPC satisfied that the first sampling results may best be useful for a “baseline” status evaluation, against which future trends will be measured? Note that the first visit by Dube et al. (2010) occurred 5-7 years after rule implementation, and no effort was used to account for updates between implementation and first sampling.

The AMPC recognizes this limitation. The AMPC would encourage use of road segments that have not been changed since PFA implementation, and if not possible, changes following PFA implementation to be accounted for. The AMPC would be interested in how the IRST navigates this research consideration. One possible approach: A record is being kept of road work that is being done under the PFA road rules so it should be possible to oversample and exclude sites where work has been done before sampling.

2. Does the IRST have the latitude to use what we deem is best available science in developing the monitoring methods and strategy? For example, can the IRST replace the WARSEM model reported in methods used by Dube et al. (2010) with another model or approach that the IRST determines to be more scientifically appropriate or efficient for the specific monitoring questions to be answered?”

Yes to both questions. Decisions regarding methods are the purview of the IRST.

3. Will a report containing information like that found in Dube et al. (2010) be sufficient to meet the AMPC’s expectations on hydrologic connectivity status?

Yes, with the caveat that the IRST needs to oversee development of a second, summary report written for the lay person per OAR 629-603-0200(6)(g).

b. How do these levels vary based on landowner type and East/West region?

IRST questions and comments:

1. Please identify the land ownership categories that you would like to be considered here.

This is clarified in the original document sent to the IRST, section B.5:

“Landowner classifications in the FPA (of which there are two, each with a different regulatory framework for roads) – 1) small forestland owners (RCA); 2) large forestland owners (FRIA).”

2. There may be other strata, such as parent geology, within the East and West georegions that may be important for discerning differences in status and trends of hydrologic connectivity. Would the AMPC like the IRST to explore these strata? Note that the difficulty of obtaining an adequate sample size and the cost of sampling may

increase with more strata.

The core question relates to the FPA-based landownership types and east/west geography and so these factors must be prioritized. The AMPC would caution against additional strata that would detract from the ability to address those factors with available capacity.

(Note: the AMPC is scheduled to finalize responses to the remaining questions in early May, 2024)

c. What other factors or variables within the regulatory framework of the FPA might be relevant?

IRST questions and comments:

1. Presence of undersized culverts, particularly below areas identified as having high potential to result in landslides, would likely be useful to document.

Note: I received conflicting input, so putting both here:

A. If other variables are included, they must relate directly to hydrologic connectivity. It is unclear how undersized culverts would have an impact on hydrologic connectivity.

A.B. Given that this is a water quality and habitat risk (but not necessarily a study variable), the data may be worth collecting if the IRST thinks it is relevant to hydrologic connectivity. If it would better be assessed as part of an episodic delivery study (e.g. as part of steep slope effectiveness monitoring), then it should not be a priority unless collecting in the hydrologic connection monitoring would aid future episodic delivery studies.

2. For the work in Washington, annual road use (traffic level) is an important variable in the sediment delivery estimates. Are landowners in Oregon required to report traffic levels broadly as part of the new rules, or are they expected to do so in areas sampled for this status and trends assessment?

The rules do not require such reporting from landowners. Nothing has been determined for the status and trends assessment, and it is the IRST's purview to determine whether or not to ask landowners participating in studies to include such data collection. Note that there are many instances where a landowner who owns a given segment of a road does not have full control over the traffic it receives, and thus collecting the data could be very challenging, and highlights that determining responsibility for damage would be difficult in a regulatory setting.

2. Trend Monitoring.

What are the trends in these levels of hydrologic connectivity of roads over 5-year intervals? These trends should be assessed for the same variables in question 1.

IRST questions and comments:

The potential for hydrologic connectivity of roads may be fairly static because the location of the roads, characteristics of underlying lithology, hillslope angle, etc., are unlikely to change. Condition of the roads (surface, drainage, culvert flow passage) are likely conditions that can change in response to management action and have an effect on hydrologic connectivity. Please further clarify what the specific characteristics about roads that should be part of the baseline inventory described in question 1.

The AMPC is looking for the scientific experts on the IRST to advise on what characteristics should be assessed, perhaps in a prioritized manner so as to inform funding decisions. If hydrologic connection exists it could be useful to know whether management action could address it or if conditions are constrained by immutable characteristics (if it is not too consumptive of resources to determine this).

3. Determination of Rule Effectiveness.

In the long term, to what extent are road rules associated with hydrologic disconnection effective at achieving biological goals and objectives?

IRST questions and comments:

1. The Washington status and trends monitoring effort uses specific road hydrology and road sediment performance measures to describe status and ultimately trends. Importantly, specific targets are used to evaluate performance. Is the IRST free to select alternative targets or performance measures based on our assessment of best available science for determining rule effectiveness at achieving the HCP BGOs? **The HCP that ODF will submit to the federal Services in June 2024 will have some of these metrics and targets, but it is unclear the extent to which the HCP will specify e.g., performance measures or targets, nor the federal Services' response to this information. Therefore, this question will be better addressed after the HCP is submitted to the Services, and the Services have provided initial feedback (likely in the fall of 2024).**

Other questions or comments the IRST has about the roads question package

1. The status and trends monitoring described in Dube et al. (2010) is not likely to inform the AMPC on effectiveness of road rules in meeting HCP Biological Goal "Clean", Objective 1.4 – "Roads are not a significant source of episodic sediment delivery to streams". Given the OAR definition of hydrologic disconnection, we assume that the AMPC understands that a question related to "hydrologic connectivity of roads" will not also address episodic sediment delivery. Please advise us if this is not the case. ~~(I suggest the AMPC concur with removing Objective 1.4 from the focus of this work so that the work is both focused and easier to complete, but I'm not convinced I've got the correct understanding of what the AMPC wants)~~
Note: I received very different input on this, so including summaries of them:
 - a. The IRST should assess whether new road rules are effective at lessening the extent to which roads are a cause of landslides and debris torrents.**
 - a.b. The hydrologic disconnection rules focus on normal wet weather and Oregon conditions. Therefore, the AMPC concurs that episodic delivery from roads requires a different study design.**