State of Oregon
DEQ Department of Environmental Quality

Snake River rule advisory committee meeting #2 summary

April 22, 2026 – Virtual Meeting (Zoom)

The RAC met virtually to review the Snake River Temperature TMDL update, including project history, modeling approach, draft allocations, and Water Quality Management Plan strategies. Key discussions focused on cold water refuge identification and changes made to the documents since RAC1. Request video recording with SnakeHells.TemperatureTMDL@DEQ.oregon.gov.

Attendees

Rule advisory committee members

Maria Snodgress	Oregon Department of Agriculture
Rebecca Anthony	Oregon Department of Fish and Wildlife
Rebecca McCoun	Oregon Department of Forestry
Marshall Pierce	City of Ontario
Doni Bruland	Baker County
Katy Nesbitt	Wallowa County
Jesse Naymik	Idaho Power Company
Ellie Hanson	Malheur Watershed Council
Doug Maag	Private landowner
Don Elder	Pacific Rivers
Stephen Pfeiffer	Idaho Rivers United
Thomas Starkey-Owens (alternate)	Washington State Department of Ecology
Mike Brown	United States Bureau of Land Management
Ciara Cusak	United States Fish and Wildlife Service
Chelsie Dugan	United States Forest Service
Scott Hauser	Upper Snake River Tribes

ODEQ staff

Ryan Michie	Senior Water Quality Analyst
Tyler Dearman	TMDL Basin Coordinator
Mandy Ondrick	Interim Project Manager/ TMDL Basin Coordinator
Trina Mayberry	Water Quality Administrative Specialist
Sara Slater	Eastern Region Watersheds manager
Steve Mrazik	DEQ Head Quarters Water Quality manager

Agenda

10 a.m.	Welcome, introductions, meeting agenda
10:10 a.m.	Project background
10:15 am.	Document overview
10:20 a.m.	Total Maximum Daily Load
11:10 a.m.	Water Quality Management Plan
11:30 a.m.	Fiscal Impact Statement
11:50 a.m.	Wrap up, next steps
12 p.m.	Adjourn

Meeting Summary

Mandy Ondrick, ODEQ: Mandy started the meeting with staff introductions, followed by the agenda covering meeting materials that DEQ posted on April 7, 2026, in advance of the meeting. She then reviewed logistics and ground rules, and the rule advisory committee charter. Next, she performed a roll call of rule advisory committee members. Mandy continued with the project history, scope, and schedule. Mandy also reviewed the various documents that are available (TMDL, TSD, WQMP, FIS) and what type of information can be found in each.

Ryan Michie, ODEQ: Ryan began his presentation by reviewing the major changes that were made to the TMDL document since the first draft that was available prior to RAC 1. These changes include adding a provision to adjust the allocation period if the critical period shifts, updated Tributary B model, updated analysis on cold water refugia, corrections to water quality standards, and grammar, spelling and clarity edits. Ryan then proceeded to go into more detail regarding each change that was made.

Ryan began discussing the natural thermal pattern narrative criteria and explained that this criteria is included in the temperature standard and applies to the designated migration corridor. This criteria is intended to shift the temperatures back to the natural profile. Ryan provided an example of the natural seasonal thermal pattern and the shift that has occurred at Hells Canyon Dam. The modeling has shown that as the temperature shifts back to the natural thermal pattern this may affect when the standards are exceeded, a provision was added to section 5 to account for this.

Ryan asked for questions regarding the natural seasonal thermal pattern and received none, so he proceeded.

Ryan continued to discuss the changes that were made to the Tributary B model scenario, the purpose of which is to determine if Snake River tributaries are a source of temperature warming to the Snake River. After consulting with EPA and Idaho it was decided to adjust the Idaho tributary temperatures to attain Oregon Snake River criteria. Ryan then discussed some of the results that occurred after those adjustments were made. Temperature criteria exceedances on Oregon tributaries increase Snake River 7DADM temperatures above the applicable criteria by as much as 0.37°C in the summer and 0.01°C during the spawning period. Temperature criteria exceedances on Oregon and Idaho tributaries; and on the Snake River upstream of the model boundary increase Snake River 7DADM temperatures above the applicable criteria by as much as 6.9°C in the summer and 0.10°C during the spawning period. . The Snake River boundary is the largest thermal input and is predicted to have the largest temperature decreases with cooler temperatures at the boundary.

Ryan paused for question, there were none, so he proceeded.

Ryan began discussing cold water refugia narrative criteria that applies to the salmon and steelhead migration corridor downstream of Hells Canyon Dam. The criteria states that the migration corridor must have sufficient cold water refugia to allow migration without adverse effects from high water temperatures. Cold water refugia are the portions of a waterbody that are at least 2 °C colder than the daily maximum of the adjacent water body.

Ryan explained that the narrative criteria needs to be interpreted into a numeric benchmark. The approach taken in this TMDL is similar to previous methods used by EPA and DEQ in past TMDLs. Ryan discussed the types of cold water refugia which include tributary plumes, inflowing groundwater or hyporheic flow, and diurnal swings.

Ryan let the group know that he currently does not have any data related to groundwater or hyporheic flows and would like to hear from anyone who may have ideas on where to find this type of data.

Ryan discussed the data that was available for the Snake River tributaries and the calculations that were completed to determine where areas of sufficient cold water refugia were located. The daily maximum on the Snake River for all the available days was calculated and the same was done on the closest tributary to each Snake River site. Of the days that exceeded 20 °C the difference between the Snake River daily maximum and tributary daily maximum were calculated and then the distribution is summarized with boxplots.

Ryan continued to explain the screening approach for determining cold water refugia which consists of two tiers. In order to be considered cold water refugia the tributary must be 2°C or greater than the snake River and the mean August flow must be 7 cfs or greater. There are 6 tributaries that meet this criteria. The tributaries that were designated cold water refugia are well distributed (less than 12 miles) along the corridor with one 38 mile gap.

Ryan explained that the daily diel differences of the Snake River were analyzed, and it was determined that the diel swing generally does not exceed the 2°C threshold needed to be considered cold water refugia.

Next steps include gathering information on migration patterns and refugia use and estimating mean migration rate.

Ryan asked for questions from the group

Lily Conrad, IDEQ: The Salmon River is one of the primary tributaries that warms the Snake River (based on the Tributary B scenario) but is also classified as a Tier 2 cold water refuge. Is that kind of contradictory? If so, is that okay for how all of this fits into this TMDL revision?

Ryan Michie, ODEQ: Temperatures aren't static, they vary based on the environment and thermal inputs from other sources. A tributary can both heat up the Snake and provide cold water refugia at different times.

Pete McHugh, CRITFC: Have you considered using a flow threshold lower than 7 cfs, given the sizeable difference in mainstem river flows between the lower Columbia and Snake in Hells Canyon?

Ryan Michie, ODEQ: No, but we are open to considering this. EPA developed this threshold using modeling that was done to look at plumes of point source discharge and they used a similar approach with the tributaries. It was determined that the 7-10 cfs threshold would be the minimum flow rate that would generate a plume in the Columbia. The Snake is different than the Columbia but the dynamics would be somewhat similar.

Jesse Naymik, IPC: Agree with the question regarding the flow rate, I will look to see if there's any additional tributary flow data. Another thing to consider would be the number of tributaries. If the flow rate is 7cfs per tributary and there are 7 tributaries in close proximity, would the effect be the same?

Thomas Starkey- Owens, WDE: can you provide the citation for the study that used temperature sensors in tagged fish?

Ryan Michie, ODEQ: Keefer and Caudill 2017

Tyler Dearman, ODEQ: Tyler provided a quick overview of what a Water Quality Management Plan (WQMP) is and what it does. Tyler then proceeded to give an overview of the changes that have been made since RAC 1. These changes include clarification of the TMDL extent, strategies applicable to mainstem vs. tributaries, reasonable assurance for monitoring, timeline for implementation, and funding opportunities.

Tyler showed maps of the TMDL extent by county and highlighted priority implementation areas.

Tyler clarified that existing monitoring may be sufficient to achieve the goals of the monitoring requirement in the WQMP and that any necessary expansion of existing programs will be discussed and developed during implementation workgroups after the adoption of the TMDL. Applicable monitoring includes activities performed and/or or funded by DMAs.

Tyler discussed the new management strategy that was added to the WQMP after RAC 1. That strategy is to protect and enhance cold water inputs, including groundwater recharge zones and springs. Tyler requested that the group submit suggestions for any management strategies that aren't currently included but should be.

Tyler detailed the current TMDL implementation timeline and highlighted the backstop date of December 31, 2030 that was added to the WQMP after RAC 1. This means that if there is a delay in the development and approval of the mercury TMDL, implementation plans for the temperature TMDL would be due no later than December 31, 2030.

Tyler discussed the removal of the funding table that was included in the RAC 1 version of the WQMP. This table was removed due to the varying nature of funding opportunities from year to year; opportunities that are available now may not be in the future. Alternatively, a list of suggested funding agencies was provided.

Tyler asked the group for any questions

Lily Conrad, IDEQ: It looks like the recommended implementation zones extend into Idaho. Will Idaho be included in this Water Quality Management Plan? If so, are you able to summarize what that might look like and if Idaho will be involved in related discussions?

Tyler Dearman, ODEQ: This TMDL only covers the Oregon side of the border. We hope to work with Idaho and collaborate on possible implementation. Implementation of Idaho's temperature TMDL is under the jurisdiction of Idaho DEQ.

Mandy Ondrick, ODEQ: Mandy explained the purpose of the Fiscal Impact Statement and revisited the questions that were posed at the RAC 1 meeting. The questions were

- Will the draft rule have a significant adverse impact on small businesses?
- If a significant impact is identified, how could DEQ reduce the fiscal impact on small business?
- Will the proposed rule impact racial equity?
- What are additional considerations for environmental justice for this draft rule?
- What types of entities will be impacted by the proposed rule?
- How and to what extent will the proposed rule have a positive, negative, or no impact on these entities?

There were no responses to the questions.

Mandy reviewed the next steps for the process which include a public comment period, EQC consideration, and EPA action.

Mandy opened the discussion for questions

Jesse Naymik, IPC: What is the intent of the tributary B scenario. How does this roll into setting surrogate targets?

Ryan Michie, ODEQ: Tributary B is like a sensitivity analysis. The purpose of that scenario is to answer the question of how tributaries of the Snake influence temperatures on the Snake directly. A required element of a TMDL is to identify potential sources and quantify those sources as possible. This scenario roughly estimates the impact of tributaries on the Snake River. This scenario does not set allocations for surrogate measures.

Jesse Naymik, IPC: Can you describe the surrogate targets? How were they developed? How were the 12°C and 19°C targets developed and why are those not considered numeric criteria?

Ryan Michie, ODEQ: The surrogate measure implements the Human Use Allowance (HUA) and load allocation assigned to the Hells Canyon Complex. Attaining the target temperature means that the allocation assigned to the complex is being attained. The purpose of the target is to not have any downstream warming by the complex. The surrogate measure uses a regression equation, based upon the no dams scenario, and uses the temperatures coming into the reservoir at Brownlee to estimate what the temperature would be without the influence of the reservoirs, that number then becomes the target at the downstream end of Hells Canyon Dam. 12°C and 19°C are trigger points, not targets. The reservoir can warm up the temperatures above what they are upstream when they are below those trigger points but when they are at or above the trigger points there is no warming. If the reservoir warms above the trigger points this will cause downstream waters to exceed the criteria due to the natural warming patterns of the system. If the dam and reservoir

weren't there, or if the management replicates these conditions, then we wouldn't want warming above the criteria downstream to occur as this would be considered cumulative warming.

Ryan Michie, ODEQ: For clarity on this subject, we may add a section to the TMDL that describes the regression that was developed and provide details regarding how it was developed and what data was used.

Jesse Naymik, IPC: The tributary B sensitivities demonstrate how much background can be changed by attainment in the tributaries but then the only comparison of that is to the no dams scenario, so there is no way to know if the complex outflow would meet criteria if the background changes. It's unknown how much of not meeting targets with the dams is due to background conditions. There are a lot of comparisons of background to the criteria but not a lot of information to parse out the effects of the Dam complex alone.

Ryan Michie, ODEQ: The target isn't for background, it's for no warming above inflowing temperatures. The way the surrogate measure works is that the temperatures coming out of the reservoir must not exceed the temperatures coming into the complex. There is no requirement for the complex to cool the water down to background. As future actions upstream or in the tributaries cool the inflowing temperatures the target for the reservoirs will accommodate that.

Thomas Starkey- Owens, WDE: is there any work that needs to go into this to update the 401 certification of the Hells Canyon Dam complex? Will the updated allocations in the TMDL be included in the 401?

Ryan Michie, ODEQ: At this time, we don't know what the implications of the TMDL will be on the 401 certification. Our 401 program at DEQ is closely involved in this process and will decide how to proceed once the TMDL is final.

Mandy closed the meeting at approximately 11:45 a.m.

Non-discrimination statement

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