

Meeting Summary

Temperature Total Maximum Daily Load Replacement: Lower Columbia-Sandy Subbasin



Rule advisory committee meeting #2

Apr. 5, 2023, virtual meeting (Zoom)

The video recording of this meeting is available from DEQ upon request. Email Sandy.SubbasinTMDL@DEQ.oregon.gov with your request for the video.

List of attendees

Rule advisory committee members:

April Snell	Oregon Water Resources Congress
Becky Anthony	Oregon Department of Fish and Wildlife
Christina Davenport	Leeway Engineering Solutions for City of Sandy
Rebecca McCoun	Oregon Department of Forestry
Rob Hibbs	Oregon Department of Agriculture
Lauren Poor	Oregon Farm Bureau
Liane Davis	City of Portland Water Bureau
Mark Rogers	Oregon Council for Trout Unlimited
Rich Wildman	Geosyntec for Oregon Forest & Industries Council and Oregon Farm Bureau
Roy Iwai	Multnomah County
Ryan Largura	City of Troutdale
Sharla Moffett	Oregon Business and Industry
Todd Reinwald	U.S. Forest Service, Mt Hood National Forest

DEQ staff

Ryan Michie, Evan Haas, Gene Foster, Michele Martin, Rob Burkhart

EPA staff

Rebecca Veiga Nascimento

Agenda

Time	Topic
10 a.m.	Welcome, introductions, meeting agenda
10:10 a.m.	Draft Total Maximum Daily Load rule, changes from meeting #1
11 a.m.	Draft Water Quality Management Plan, changes from meeting #1
11:50 a.m.	Break (5 min.)
11:55 a.m.	Draft Fiscal and Economic Impact Statement
12:25 p.m.	Wrap up, next steps
12:30 p.m.	Adjourn meeting

Meeting summary

Michele Martin started the meeting introductions and roll call of rule advisory committee members, reviewed logistics and ground rules for the meeting and discussed meeting materials that were posted on Mar. 27, 2023, in advance of the meeting. Michele continued with the project history and schedule. The meeting was opened for questions and there were no questions.

Ryan Michie: Presentation slide 11 provides the changes to the TMDL from the rule advisory committee meeting #1. Ryan reviewed some the significant and minor changes including the following:

1. Overview of temperature water quality data evaluation (Section 6)
2. Identification of rivers requiring background reductions (Section 7.3)
3. Clarification of allocation equation conversion factor when using flow rates
4. Clarification that human use allowance includes existing buildings and existing utility infrastructure
5. Correction of 7Q10 and WLA for City of Sandy WWTP (Section 9.1.1)
6. Correction to the date the TMDL allocation period starts from June 1 to May 1 (Section 9.1.1 and Section 9.1.2)
7. Addition of language in City Portland surrogate measure on designated use updates (Section 9.1.2.1.1)
8. Addition of equation to allow recalculation of site-specific effective shade targets (Section 9.1.2.1.2)
9. Addition of site-specific effective shade targets for Little Sandy River and Zigzag River (Table 9.11)
10. Margin of safety narrative (Section 9.2)
11. Addition of effective shade tables (Section 13)

Ryan mentioned that DEQ did receive some requests for other TMDL changes that the agency is still looking into and those changes may or may not be in the TMDL for public comment.

Rich Wildman: Change #8, that is right after a paragraph if new content that describes the effective shade surrogate. Can you unpack some of those sentences? Specifically, changes in the target effective shade, which is the shade gap may result in redistribution of the sector or source responsible for excess load reduction if the shade target increases the equivalent portion of the excess load is reassigned to background sources to nonpoint sources and the reverse is true in the next sentence.

Ryan Michie: The purpose of the TMDL is to achieve the temperature water quality standard and human use allowance. The HUA is a fixed amount and redistributed to other sources. Background sources are the natural warming that would occur in the environment or warming that is beyond the regulation of the state that might include climate change. All of this is defined in rule. Background sources are allocated the portion of the TMDL loading capacity that is not part of the HUA.

A surrogate measure is an approach to achieve the allocations and loading capacity that is not calculating a thermal load. We do this because it's easier to measure. Measuring an effective shade is simpler than measuring a thermal load that various nonpoint sources may be contributing. In places where we identified a target shade value for different entities, e.g., 80 percent, that means achieving the HUA for a specific sector would mean achieving the 80 percent effective shade. We are trying to reduce the temperature, some of it is anthropogenic and some is background. The portion that is anthropogenic, would be the part that once you have achieved the effective shade, which is all that anthropogenic sources can do, then the remainder may be attributed to the background sources. When you change the shade reduction e.g., we mapped it wrong or something wasn't right – if the shade target has changed to something else, the temperature still needs to be reduced and it's now a question of who is responsible for that temperature reduction. If the amount from anthropogenic sources responsible goes down, then the part that needs to make up the reduction is attributed to background load reduction. We are trying to clarify that in the TMDL. The changes in the way the equation would work is not going to change the overall loading capacity of the TMDL and it's not going to change the HUA or the load allocations. Those are fixed. It's the entity that responsible for excess load reduction that would be switching around.

Rich Wildman: You are referring to the change in the shade target from a previous value of the shade target if there was some need to make an update. Got it. You are not referring to the shade gap which is the difference between the current shade and the TMDL target.

Ryan Michie: Yes. The target value is what constitutes achievement of the load allocation.

Rich Wildman: That makes sense.

Mark Rogers: Can you remind me how long the current TMDL is meant to be used?

Ryan Michie: The TMDL will become a regulatory requirement until it is rescinded from rule.

Mark Rogers: Many TMDLs run for decades before they are changed. There needs to be something in the TMDL that accounts for climate change, which is global warming. I'd like to see some reference to climate change and how that can be considered in the future.

Ryan Michie: Thank you. Those are good comments, and the department shares the concerns about climate change and impacts from climate change. DEQ included content about the effects of climate change in the technical support document. Is your comment that you want to have the TMDL rule acknowledge there are impacts from climate change?

Mark Rogers: Yes.

Ryan Michie: I can provide a partial answer to that. In any TMDL, we are writing the TMDL and allocations are set to the water quality standards, and so it's sort of a fixed target. If temperatures increase due to climate change, that doesn't change the standard and that also means that and the allocations don't change. Sources with excess load or target allocations, must meet the allocations according the TMDL. That puts more imperative reasons to meet the TMDL. For now, the TMDL has to meet what is on the books. Acknowledging the effects of climate change is not something we currently have in the TMDL; we plan to add additional information for sources of warming - that is one of the tasks we have on our list of things to add. That is the idea of the technical support document – to include the information for this sort of topic and then put the summary in the TMDL rule.

Michele Martin: I'd like to further clarify that the technical support document is a support document for the TMDL that is not in rule. The TMDL is the rule.

Christina Davenport: WE are not current on the advisory committee for the discharge to the Willamette Subbasin and we have a zero wasteload allocation currently and knowing that this allocation is for a proposed permit, a permit we are applying for and trying to understand how those are going to interact with each other. I have concerns about permitting and if dates don't overlap and what are the shade requirements and shade requirements for zero allocation. How are these two different permits interacting. Maybe talk offline – concerned about how we implement zero wasteload allocations. How this new permit is going to evolve with the existing discharge.

Ryan Michie: In the Willamette Subbasins, we put in a zero allocation if the permit requires no discharge. A zero wasteload allocation means there cannot be a 7 day average daily maximum temperature increase above the numeric criteria at the point of discharge.

Rob Burkhart: We will look into that allocation in the Clackamas Basin and make sure it's appropriate.

Rebecca McCoun: In response to the climate change question, I noticed that in the TMDL plan, it didn't mention anything about climate change. As a DMA, in five years, we do everything we can within our authority and still can't meet the allocations, because temperatures continue to increase, it makes it look like our effort was for nothing.

Ryan Michie: Sources that contribute thermal load are only responsible for their own contribution. Generally, agencies that manage streamside vegetation are only responsible for the warming that the activities that occur

at that location. In the framework of the TMDL, if the shade targets are met then you have completed your contribution to meeting the load allocations in the TMDL.

Rebecca McCoun: Will the shade targets be increased [from climate change]?

Ryan Michie: No.

Ryan continued with presentation slides 12-13 about how effective shade curves work.

Rich Wildman: What if the trees are not the correct height or the buffer is not 120 feet.

Ryan Michie: The effective shade target is still the same. If there can be a different buffer configuration and tree heights in meeting the target, the 120-foot is a suggested buffer width. If entities already manage to a 120 feet or greater buffer, you've met the shade target. But if entities can meet the shade target in less than 120 feet, a demonstration using data is needed to show that the buffer will meet the shade targets.

Christina Davenport: Where did the 120-foot buffer come from? A lot of people don't have jurisdiction further than 60 feet.

Ryan Michie: It was based on a review of the literature.

Ryan continued presentation slides 14 – 17 regarding the analysis and literature research for the 120-foot buffer. The literature review demonstrated that a lot of factors influence this. The buffer treatment, and temperature and shade responses were extracted from the literature reviewed. There are a number of nonpoint source sectors that have a 0 HUA; there can't be an increase in temperature from the activities. We looked at what buffer treatment produces no increase in stream temperature. The results of the literature review show that at about 120 feet there is no increase in temperature or reduction in shade.

Michele Martin: Asked for questions about the TMDL. There were None. Michele introduced Evan Haas, Basin Coordinator to discuss the Water Quality Management Plan.

Evan Haas: Overall, the Water Quality Management Plan description is on presentation slide 20. The changes to the WQMP from rule advisory committee meeting #1 are on presentation slide 21. Some entities will be named in the WQMP that are not required to provide an implementation plan at this time. The reasons vary due to limited acres of jurisdiction or unclear about what measures they need to and can implement to address the TMDL. Note that these entities could be responsible for an implementation plan if new information is evaluated and DEQ determines that an implementation plan is required. In that case, DEQ has content in the WQMP that allows them to require those entities to have an implementation plan. Reminder that the WQMP includes the bacteria information from the 2005 WQMP, but no additional DMAs are named for that section. In the updated version of the WQMP, DEQ added to table 2 the protection of cold-water refuges that was supposed to be added previously. There were no changes to the shade gap or the comparing current vegetation characteristics to restored riparian condition. The shade assessment methodology has not changed from the WQMP provided at committee meeting #1. The timeline for doing a shade assessment now includes a timeline for federal and state agencies and all other DMAs. The Oregon Watershed Restoration Inventory (OWRI) requirement changed from committee meeting #1 to propose requiring DMAs to enter temperature related restoration activities into OWRI or other DEQ approved publicly accessible databases.

Rebecca McCoun: Would OWEB provide a different way for entities to submit data into OWRI to address the issue of privacy?

Evan Haas: I did not get the sense there would be a new platform to provide privacy. I did get the impression from hearing from OWEB that it would be possible to have privacy of some information.

Andrea Matzke: OWEB did mention in our conversation that there are certain data fields required to fill out, but those fields could be either entered differently or otherwise. OWEB did say they would work with entities in terms of fill out data fields and concerns of privacy.

Evan Haas: Continued presentation slide 28 with the timeline for attaining water quality standards. Presentation slide 29 shows a change from committee meeting #1 to propose that five, named entities identified in the Sandy basin that will work with DEQ to develop a temperature monitoring plan. This will be developed outside of the rulemaking process. Presentation slide 30 shows a change from committee meeting #1 that changes the schedule for implementation plan submittal. DEQ proposes that the plans are due 18 months after EQC adoption (not EPA) of the Willamette mainstem temperature TMDL.

Liane Davis: Expand on what would be included in the temperature monitoring plan; would that be from each individual DMAs listed, or more basin-wide collaborative across all of those entities?

Evan Haas: We are in the early stages of working with those entities on the monitoring plan. We would like it to be collaborative. Many of them are already doing monitoring and we don't want to cause redundancies for those already doing monitoring.

Liane Davis: To follow-up, is the timing following the development of the implementation plans?

Evan Haas: It's not tied to the rulemaking. I suspect that we will start working on the monitoring plan soon. It may not need to be tied to the implementation plan due dates. The implementation plans do have some level of monitoring required. The broader monitoring plan is a more holistic plan in addition to any required monitoring in the implementation plans.

Alex Liverman, DEQ: The intent is to have this monitoring plan outside of the implementation plan is to be able to adjust the monitoring and effective in supporting the implementation plans.

Ryan Michie: When you are asking about the monitoring, are you asking specifically about the monitoring requirements in the WQMP specific to the Bull Run dam and reservoir operations?

Liane Davis: Yes.

Ryan Michie: There is the monitoring necessary for the surrogate measure that is explicit in the WQMP. Beyond that, the additional monitoring we are discussing with the five DMAs is a collaborative effort and the details of that would be worked out.

Rich Wildman: In Section 5.3.2 the preferred shade assessment is to measure the shade gap (describes the related content in the WQMP). Is that the same as the target shade? Or do we need to understand the different between target shade and restored condition?

Ryan Michie: The intention is for an entity that has established a 120-foot buffer, there is not assessment required. If there is something less than that, and an entity wants to establish they are meeting the shade target, monitoring would be required e.g., actual field requirements, modeling, or some combination. The target would be derived from the TMDL that would either be the shade curve or if it's on one of the reaches with a model a site-specific value which represents the mean for the entity's jurisdictional area. Through the proposal in the implementation plan the approach to do the assessment. There are lots of details about how that assessment would be completed, but it would be in the implementation plan or a deliverable in the implementation plan and the assessment results would be compared to the shade targets in the TMDL. It defines the additional shade that's needed for that specific entity.

Rich Wildman: You are saying that the restored condition is equivalent to the target shade in the TMDL.

Ryan Michie: Yes. It's the shade target. We can work on how we word that.

Rich Wildman: That would be nice to have the terminology, or the equivalence explained in the WQMP. My second question is that if there is a guidance document or methodology that describes how this would be

measured in the field and the answer is “no” and it would be specific to each implementation plan per each DMA?

Ryan Michie: Yes.

Evan Haas: I agree we can add some clarity there in that section. Thank you.

Ryan Largura: In WQMP Section 5.3.2 – it mentioned 150 foot – is that supposed to be 120 feet?

Evan Haas: I think the 150-foot reference is for specific water bodies that DEQ could model, and we did use 150-feet for those specific modeled waterbodies. The default buffer width - and we assume you met your allocation – we are using the 120-foot buffer width.

Ryan Michie: We may want to look at that language. Thank you for pointing that out.

Ryan Largura: Why are construction site monitoring called out specific to bacteria?

Evan Haas: The bacteria management strategies were lifted from the 2005 WQMP. I'd have to review that for why – I don't know that existing 2005 plan will explain specifically, but I think that as the WQMP relates to bacteria, you have been implementing the strategies for a long time now and it should be covered. I'll look at the 2005 plan and see if there is more information.

Alex Liverman: The source assessment in the 2005 found that the sources were urban stormwater and those were regulated and permitted and that is why construction is called out specifically.

Ryan Largura: I have concerns with Section 5 on the proposed shade assessment requirement and the costs involved and the time, as a general comment.

Mark Rogers: Who, when, and where will actual temperature measurements be done going forward once the plan is implemented and will DEQ do spot-checking in the Sandy?

Evan Haas: Regarding actual compliance and temperature – point sources have permits they are required to meet. The City of Portland has a compliance point for the Bull Run operations downstream of the dam. Regarding the rest of the nonpoint source compliance points, we have to work on those. DEQ has some standard monitoring spots, but regarding achieving compliance with the allocations, we have some work to do. A lot of the nonpoint source targets are tied to the shade allocations; effective shade, so it's not as much tied to a specific discharge point because it's diffuse. That is why we are using those shade targets to determine compliance for the majority of the nonpoint source targets. Our goal is that the long-term monitoring strategy of those five entities will also provide feedback about how things are progressing over time. Point sources have compliance points, nonpoint sources have effective shade targets.

Ryan Michie: DEQ has a process that we do every year and rotates every two years; the Integrated Report and we also do the Water Quality Status and Trends Report. Both efforts are similar, but essentially, they are evaluating water quality data and looking at status to meeting the standards. In the case of the Status and Trends Report we are looking at meeting targets over time. They are both posted on the website and are both statewide. In terms of tracking progress and meeting standards, those are some of the tools we will use to collect, organize, and report information. In terms of who does the collection is the point of the monitoring strategy. It takes resources to do monitoring. The idea with the monitoring plan is that it will identify the key sites that need to be monitored and the key elements to monitor and it makes it easy for folks to sign up to do the monitoring work. DEQ does some of it, but we also rely on partners to do some of the monitoring. We don't have the resources to do all of the statewide monitoring. We are also working on doing a reoccurring shade assessment based on remote sensing data to track on how changes in shade occur throughout different areas. It's been in the works for a long time. The results would be included in the Water Quality Status and Trends Report so that over time we could track that through time.

Mark Rogers: The City of Sandy is applying to DEQ for a permit to discharge effluent into the Sandy. What would be the requirements for the City of Sandy to measure temperature?

Evan Haas: Regarding the new discharge point, if that goes forward, the city would have a wasteload allocation for temperature and they would have to meet that at the discharge point where we establish that. They would report on that in their monthly reporting.

Rob Burkhardt: It's regimented in the permit. The wasteload allocation is an excess thermal load limit. To measure compliance with that, they need effluent flow and effluent temperature and are required to meet that and report to DEQ through a public database. The calculations in the TMDL for the wasteload allocations provide the allowable allocations.

Liane Davis: Can you define Cold Water Refugia and why is specific to solar radiation for protection of those. Are there other ways to protect those in an implementation plan?

Evan Haas: We added this to the WQMP as one of many overall management strategies. If there is already cold water, we want to protect those areas. We can add it to the heat section of Table 2 as well as the solar radiation.

Ryan Michie: We have a definition in rule for Cold Water Refugia, see definitions in OAR 340-041-0002(10). It's more than just about riparian. One reason it's in the solar radiation management strategy is that we consider cold water streams and tributaries to be cold water refugia because aquatic life takes refuge there during the warmer periods. By keeping those from heating up, we consider them Cold Water Refugia. That is more in reference to the idea of the tributary being the refuge, not necessarily a small pocket of water in a much larger waterbody.

Michele Martin: Back from a five-minute break and will cover the committee input on the fiscal impact analysis and statement. Michele presented some of the changes to the fiscal impact statement from committee meeting #1 on presentation slide 35. Michele asked the following questions to the committee for input:

1. Will the draft rule have a significant adverse impact on small businesses?
2. If a significant impact is identified, how could DEQ reduce the fiscal impact on small business (ORS 183.333 and 183.450)
3. Will the proposed rule impact racial equity?
4. What are additional considerations for environmental justice for this draft rule?
5. What types of entities will be impacted by the proposed rule?
6. How and to what extent will the proposed rule have a positive, negative, or no impact on these entities?

Rob Hibbs: ODA is with DEQ on this effort. Excited and scared going down this road at the same time. There are a lot of landowners that ODA does not control that will be substantially impacted. Just by land easements, or what they may be called in certain circumstances, ag land, it would be nice if society would come along with directed program with financial incentives; not sure what shape for form that would be, but I think that would be good to acknowledge that is an issue and this is an additional path being developed as a community to go down, might take some steam out of conflict resolution phase that ODA sees as happening. ODA is willing to help in those efforts. Not sure what those would be. ODA currently doesn't have the staffing to do a lot of this, and they will, but there will be a lot of prioritization to do this; how far ODA will go and how far landowners will go and prioritization will be very big. The priorities will depend on how much funding will be available. Those are the challenges we face and we are actively looking at them. We will be honest with what we need to meet those challenges with the powers that be.

Sharla Moffett: What is the extent of small business impact: was there a look at minority-owned businesses that ties together the racial equity and environmental justice?

Evan Haas: DEQ did not explicitly identify small businesses in that way for this analysis. We took the industry classification codes (NAICS) and filtered by business size, less than 50 employees for small businesses and filtered them for Clackamas and Multnomah counties and zip codes for Sandy Subbasin. We can try to look into that for this analysis.

Alex Liverman: Do you know where that data would be available? It's why we did the analysis that we did. Oregon Employment Dept. from what we know does not have data on minority-owned businesses. Could you help us get information on minority-owned small businesses?

Sharla Moffett: I don't know. It's surprising if that information is not available. I can look into that.

Michele Martin: We use available information to us, and we can look into that data if is available and parceled out that way.

No additional comments.

Rebecca Veiga Nascimento, EPA: (Becky) Everything we are doing is making sure we have a defensible TMDL. It's important to DEQ and EPA because we are partners in this. Going back to the QAPP that is guiding the modeling effort and the modeling to arriving at the point where we are at now, I think we are on our way. Once it's approved by the EQC and then EPA, we may be on solid ground, but someone can sue us no matter what.

Michele Martin: Thanked Becky from EPA for providing insight into the EPA process. Michele reviewed next steps on presentation slide 38.

Michele Martin: Adjourn at 12:30 p.m.

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