



Columbia River Temperature Water Quality Management Plan – Local Advisory Group Meeting #2

March 31, 2026
Virtual Webinar

Zoom logistics and meeting ground rules



Raise hand to be recognized for questions or comments



Use chat to:

Ask questions

Provide informational resources

Second good ideas/issues



Mute when not speaking



If using phone: press *9 to raise hand, *6 to mute/unmute

Agenda

Time	Topic
11:00 a.m.	Welcome
11:05 a.m.	Agenda review; Zoom logistics and ground rules
11:10 a.m.	Summary of Local Advisory Group Meeting #1
11:25 a.m.	DEQ presentation
12:15 p.m.	Local Advisory Group comments & discussion
1:00 p.m.	Adjourn

Local Advisory Group Roster

Name	Position	Organization
Paula Calvert	Clean Water Act Policy Advisor	Bonneville Power Administration
Sherrie Duncan	Senior Fish Biologist	Confederated Tribes and Bands of the Yakama Nation
Keri Handaly	Environmental Policy Analyst	Confederated Tribes of Grand Ronde
Miles Johnson	Legal Director	Columbia Riverkeeper
Liz Hamilton	Policy Director	Northwest Sportfishing Industry Association
Erick Van Dyke	Technical Analyst	Oregon Dept. of Fish and Wildlife
Neil Maunu	Executive Director	Pacific Northwest Waterways Association
Dan Turner	Environmental Engineer	U.S. Army Corps of Engineers
Todd Maguire	TMDL Implementation Lead	U.S. Environmental Protection Agency [Agency Advisor Role]
Robbie O'Donnel	Large Scale TMDL Lead	Washington State Dept. of Ecology
Charles Morrill	Fisheries Biologist	Washington State Dept. of Fish and Wildlife

Local Advisory Group meeting materials

[Visit DEQ's Columbia River TMDL page](#) to view meeting materials:

- LAG Meeting #2 Agenda
- DEQ presentation slides
- November 2023 EQC Fish and Aquatic Life Use Update:
 - Item F: DEQ Presentation Slides
 - Attachment C: Water Quality Standards Revisions: Aquatic Life Use Updates Technical Support Document

Local Advisory Group purpose

Purpose of the LAG: To provide input and recommendations to DEQ on how to implement the *Columbia and Lower Snake Rivers Temperature TMDL* in Oregon's waters through the Water Quality Management Plan.

Timeline

February – March 2026

Local Advisory Group Meetings

- Two Virtual Meetings:
 - Feb. 24, 2026
 - March 31, 2026

Spring/Summer 2026

Formal Public Comment Period

- DEQ will publish response to comments with final WQMP

Summer/Fall 2026

DEQ Director Order

- Final WQMP to be signed by DEQ Director

LAG Meeting #1 summary

LAG Meeting #1: Feb. 24, 2026 (virtual meeting)

EPA Region 10 presented an overview of the TMDL

DEQ presented an overview of its proposed approach to implementing the allocated sources under the TMDL

LAG Member questions and discussion

A copy of the meeting recording can be made available upon request.

Contact: David.Gruen@deq.oregon.gov.

LAG comments

DEQ has received comments on its draft WQMP from:

- Northwest RiverPartners
- Confederated Tribes of Grand Ronde
- Oregon Dept. of Fish and Wildlife
- Columbia Riverkeeper

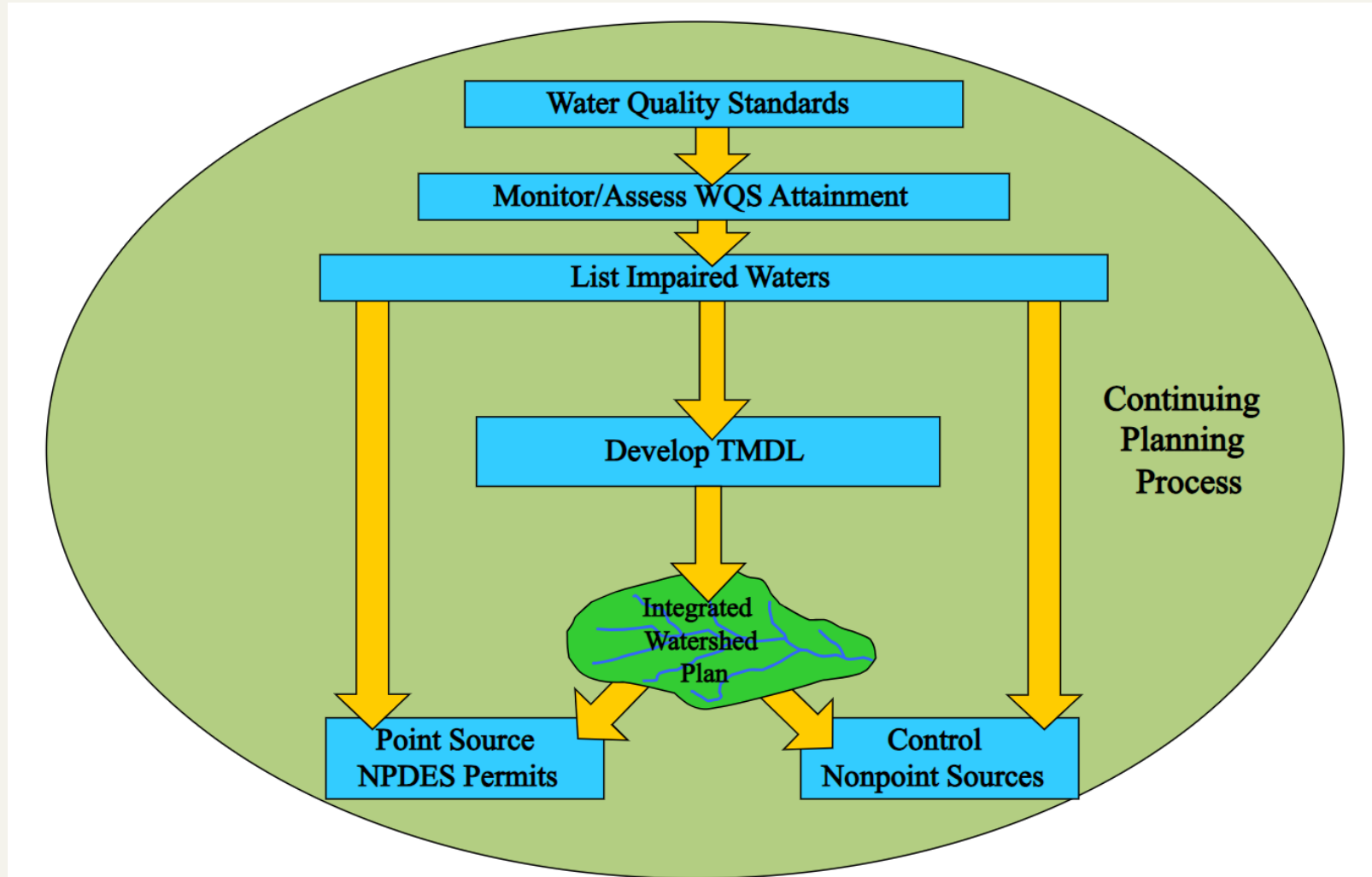
Draft LAG Meeting #1 summary

DEQ will share a draft copy of the LAG Meeting #1 with Local Advisory Group members.

LAG members will vote on approving the draft minutes.

The final meeting summary will be posted on [DEQ's Columbia River TMDL web page](#).

Clean Water Act framework



Beneficial uses of Oregon's waters

- Water quality standards are established to protect beneficial uses of the state's waters.
- Beneficial uses are designated for all waters of the state in the Oregon Administrative Rules for water quality standards (Chapter 340, Division 41).

Beneficial uses

- Beneficial uses include:
 - Fish and aquatic life
 - Water contact recreation
 - Fishing
 - Domestic water supply
 - Industrial water supply
 - Boating
 - Irrigation
 - Livestock watering
 - Aesthetic quality
 - Wildlife and hunting
 - Hydropower
 - Commercial navigation and transportation

Mainstem Columbia River: designated beneficial uses

OAR 340-041-0101 Table 101A identifies beneficial uses on the mainstem Columbia River.

For more information and to download the tables, please visit [DEQ's Beneficial Uses of Oregon's Waters web page](#).

 OAR 340-041-0101 Table 101A Designated Beneficial Uses Main stem Columbia River (November 2003)		
Beneficial Uses	Columbia River Mouth to RM 86	Columbia River RM 86 to 309
Public Domestic Water Supply ¹	X	X
Private Domestic Water Supply ¹	X	X
Industrial Water Supply	X	X
Irrigation	X	X
Livestock Watering	X	X
Fish & Aquatic Life ²	X	X
Wildlife & Hunting	X	X
Fishing ³	X	X
Boating	X	X
Water Contact Recreation ³	X	X
Aesthetic Quality	X	X
Hydro Power		X
Commercial Navigation & Transportation	X	X
¹ With adequate pretreatment and natural quality to meet drinking water standards.		
² See also Table 101B for fish use designations for this river.		
³ See also Figure 101A for coastal water contact use and shellfish harvesting designations.		

Fish use designations

OAR 340-041-0101 Table 101B identifies beneficial uses on the mainstem Columbia R.

[OAR 340-041-0028\(4\)\(a\)](#): The seven-day-average maximum temperature of a stream identified as having salmon and steelhead spawning use on subbasin maps and tables set out in OAR 340-041-0101 to 340-041-0340: Tables 101B... **may not exceed 13.0 degrees Celsius** (55.4 degrees Fahrenheit) at the times indicated on these maps and tables [emphasis added].

For more information and to download the tables, please visit [DEQ's Beneficial Uses of Oregon's Waters web page](#).

 OAR 340-041-0101 Table 101B Beneficial Use Designations – Fish Uses Main stem Columbia River (November 2003)			
Geographic Extent of Use	Salmon and Steelhead Migration Corridors (20°C)	Salmon and Steelhead Spawning through Fry Emergence	Shad and Sturgeon Spawning and Rearing
Mainstem Columbia River			
Beacon Rock to Upstream of Ives Island (RM 141,5 to RM 143.5)		October 15 – March 31	
Columbia River, mouth to WA border (RM 309)	X		
Columbia River (RM 146 to RM 203)			X

TMDL: applicable water quality criteria

Table 2-2 Water quality criteria used to evaluate water quality exceedances in the Columbia and lower Snake River TMDL (June – October)

RMs	Jurisdiction	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	WQC Applied ⁴
Columbia River														
745 – 646.5	WA	16°C 7-DADM (WA)												16°C 7-DADM
690 -545	CTCR	18°C DM (CTCR)												16°C 7-DADM WA State ⁵
646.5 - 639	Spokane Tribe (SP)	11°C 7-DADM (SP)		13.5°C 7-DADM (SP)		16.5°C 7-DADM (SP)		13.5°C 7-DADM (SP)		11°C 7-DADM (SP)		16°C 7-DADM WA State (Jun - Aug) ⁵ 13.5°C 7- DADM SP (Sept) 11°C 7-DADM SP (Oct)		
639 – 596	WA	16°C 7-DADM (WA)												16°C 7-DADM
596 – 545	WA	17.5°C 7-DADM (WA)												16°C 7-DADM ⁶
545 – 534	WA	17.5°C 7-DADM (WA)												17.5°C 7-DADM
534 – 397	WA	17.5°C 7-DADM (WA)												17.5°C 7-DADM
397 – 309	WA	20°C DM (WA)												17.5°C ⁶ DM
309 – 143.5	WA, OR	20°C DM (WA) – 20°C 7-DADM (OR)												20°C DM
143.5 – 141.5	WA, OR	20°C DM (WA)		20°C DM (WA)				20°C DM (WA)				20°C DM and 13°C 7-DADM		
		13°C 7-DADM (OR)		20°C 7-DADM (OR)				13°C 7-DADM (OR)						
								(after Oct 15th)						
141.5 – 0	WA, OR	20°C DM (WA) – 20°C 7-DADM (OR)												20°C DM
Snake River														
139 – 0	WA	20°C DM (WA)												20°C DM

Updated fish and aquatic life use WQS

DEQ conducted public process to incorporate best currently available data and GIS mapping to update fish and aquatic life use WQS for temperature and dissolved oxygen.

- Technical Advisory Group (2021-2023): 9 members, met 7 times
- Rule Advisory Committee (2022-2023): 19 members, met 6 times
- Formal public comment period

November 2023 – The Environmental Quality Commission approved amended fish and aquatic life use WQS.

- **NOTE: the amended WQS are NOT in effect for Clean Water Act purposes until they are approved by EPA**

For more information, refer to the EQC presentations and materials available on [Oregon's Record Management Solution.](#)

Amended fish use designations

Note: The amended beneficial uses designated in this rule, adopted by the Environmental Quality Commission on November 16, 2023, are not applicable for Clean Water Act purposes until approved by the U.S. EPA.

For more information and to download the tables, please visit [DEQ's Beneficial Uses of Oregon's Waters web page](#).

 OAR 340-041-0101 Table 101B Beneficial Use Designations – Year-Round and Seasonal Temperature Fish Uses Main stem Columbia River			
Geographic Extent of Use	Salmon and Steelhead Migration Corridors (20°C)	Salmon and Steelhead Spawning	Shad and Sturgeon Spawning and Rearing
Mainstem Columbia River			
Reed Island to Bonneville Dam (RM 125 to RM146)		November 1 – April 30	
Columbia River, mouth to WA border (RM 309)	X		
Columbia River (RM 146 to RM 203)			X

Table 101B – current vs. amended

Current Table 101B (November 2003)

 OAR 340-041-0101 Table 101B Beneficial Use Designations – Fish Uses Main stem Columbia River (November 2003)			
Geographic Extent of Use	Salmon and Steelhead Migration Corridors (20°C)	Salmon and Steelhead Spawning through Fry Emergence	Shad and Sturgeon Spawning and Rearing
Mainstem Columbia River			
Beacon Rock to Upstream of Ives Island (RM 141.5 to RM 143.5)		October 15 – March 31	
Columbia River, mouth to WA border (RM 309)	X		
Columbia River (RM 146 to RM 203)			X

Amended Table 101B

 OAR 340-041-0101 Table 101B Beneficial Use Designations – Year-Round and Seasonal Temperature Fish Uses Main stem Columbia River			
Geographic Extent of Use	Salmon and Steelhead Migration Corridors (20°C)	Salmon and Steelhead Spawning	Shad and Sturgeon Spawning and Rearing
Mainstem Columbia River			
Reed Island to Bonneville Dam (RM 125 to RM 146)		November 1 – April 30	
Columbia River, mouth to WA border (RM 309)	X		
Columbia River (RM 146 to RM 203)			X

[NOTE: the amended table is NOT in effect for CWA purposes]

TMDL implementation

IF EPA were to approve the amended fish and aquatic life use WQS as adopted by the EQC in November 2023...

THEN the updated designated uses would impact the Columbia and Lower Snake Rivers Temperature TMDL implementation...

BECAUSE the amended salmon and steelhead spawning use and its associated temperature criterion would start on Nov. 1 rather than Oct. 15

- Oregon's numeric biologically-based temperature criterion would be 20°C 7DADM through the end of Oct.

TMDL: applicable water quality criteria

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639 – 596	WA	16°C 7-DADM (WA)												16°C 7-DADM
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545 – 534	WA	17.5°C 7-DADM (WA)												17.5°C 7-DADM
534 – 397	WA	17.5°C 7-DADM (WA)												17.5°C 7-DADM
397 – 309	WA	20°C DM (WA)												17.5°C ⁶ DM
309 – 143.5	WA, OR	20°C DM (WA) – 20°C 7-DADM (OR)												20°C DM
143.5 – 141.5	WA, OR	20°C DM (WA)			20°C DM (WA)					20°C DM (WA)				20°C DM and 13°C 7-DADM
		13°C 7-DADM (OR)			20°C 7-DADM (OR)					13°C 7-DADM (OR)				
										(after Oct 15th)				
141.5 – 0	WA, OR	20°C DM (WA) – 20°C 7-DADM (OR)												20°C DM
Snake River														
139 – 0	WA	20°C DM (WA)												20°C DM

Questions and discussion

System-wide approach

The TMDL loading capacity and load allocations were evaluated on a systemwide scale – the allocations are cumulative.

DEQ believes a system-wide approach is required to attain and maintain WQS on the mainstem Columbia River.

System-wide water quality modeling is an important decision-making tool for informing the selection and prioritization of management strategies and to evaluate TMDL implementation effectiveness.

Water quality modeling

River Basin Model 10 – applied by EPA Region 10 to develop the TMDL

Other water quality models, including CE-QUAL-W2 and HEC-RAS models, may also be a valuable tool for understanding temperature impacts.

What is RBM10?

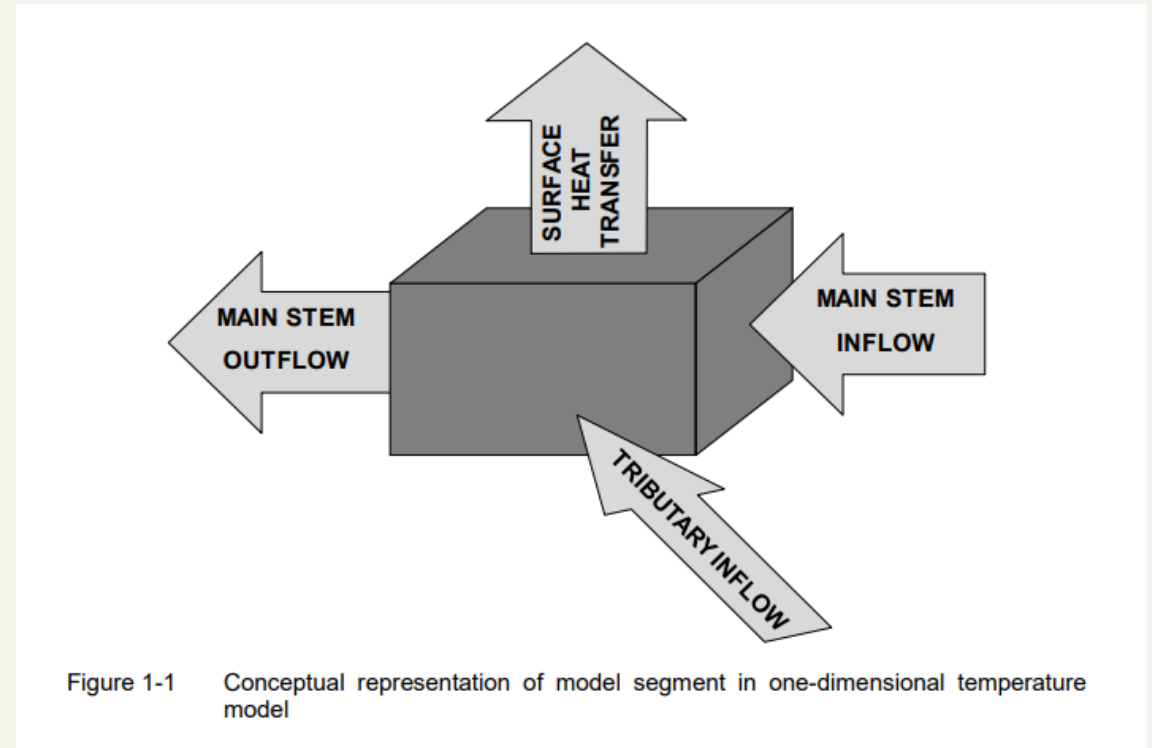
RBM10 is a one-dimensional water quality model used to calculate heat flux throughout a river system.

The RBM10 model has been peer reviewed, documented, and applied in the U.S. and internationally since 2001.

EPA selected RBM10 model to conduct the TMDL analysis.

Model variables include:

- Temperature/flow inputs
- Meteorological data
- River geometry
- Boundary conditions



TMDL Appendix C: RBM10 Model Development Report

RBM10 advantages vs. disadvantages

Advantages

- Model outputs align with the TMDL analysis
- Speed and precision at scale
- Suited for large river systems with minimal shading and stratification
- Peer-reviewed and proven track record in other projects
- Ease of use and adaptability
- Power of iteration

Disadvantages

- Lacks finer detail compared to a two-dimensional model
- Limited in model adjustments (temperature, flow, river geometry, boundary conditions)
- Not well suited for simulation/evaluation of small-scale, dam-specific operations to stratification or flow routing

Monitoring and evaluation

Monitoring:

- DEQ plans to use the fixed monitoring stations in the TMDL domain published to the University of Washington's Data Access in Real Time (DART) database

Evaluation:

- DEQ plans to use water quality models including RBM10 to evaluate progress towards meeting the TMDLs wasteload and load allocations

Table 3-1 DART data locations

Monitoring Station	DART ID	RM
Columbia River		
Canadian Border	CIBW	745
Grand Coulee Dam tailrace (6 miles downstream)	GCGW	591
Chief Joseph Dam tailrace	CHQW	544
Wells Dam forebay (no tailrace data)	WEL	512
Rocky Reach Dam tailrace	RRDW	472
Rock Island Dam tailrace	RIGW	453
Wanapum Dam tailrace	WANW	413
Priest Rapids Dam tailrace	PRXW	396
Pasco, WA	PAQW	329
McNary Dam tailrace	MCPW	291
John Day Dam tailrace	JHAW	214
The Dalles Dam tailrace	TDDO	190
Bonneville (Warrendale; 6 miles downstream)	WRNO	140
Snake River		
Anatone, WA	ANQW	168
Lower Granite Dam tailrace	LGNW	107
Little Goose Dam tailrace	LGSW	70
Lower Monumental Dam tailrace	LMNW	40
Ice Harbor Dam tailrace	IDSW	6

Discussion question #1

What recommendations, comments, or questions do you have about DEQ's proposed approach to monitoring and evaluation of implementation progress?

Discussion question #2

[OAR 340-042-0080\(4\)\(a\)\(A\)-\(E\)](#) requires implementation plans submitted by DMAs include certain elements, including:

- management strategies
- timeline for strategy implementation and schedule for completing milestones
- performance monitoring, etc.

In the draft WQMP, DEQ proposes requiring reporting on the coordination with upstream contributing dams in the TMDL extent on actions to attain the cumulative dam load allocation.

Are there other analyses or information that you feel DEQ should require DMAs include in their implementation plans?

Discussion question #3

What does successful TMDL implementation look like to you in 5 years? 10 years? 20 years?

Next steps

Submit written comments to DEQ by Friday, May 1, 2026.

DEQ will consider the input but will not provide responses to individual comments.

Formal public comment period: DEQ plans to release a draft WQMP for public comment in spring/summer.

[Visit DEQ's Columbia River TMDL page](#) for meeting details

Sign up to receive GovDelivery notifications [online](#).



Columbia River Temperature WQMP contacts

WQMP Development

- Steve Mrazik, Manager
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- David Gruen, Columbia River Coordinator
David.Gruen@deq.oregon.gov

Sign up to receive GovDelivery notifications [online](#).



Title VI and alternate formats

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