

Temperature Total Maximum Daily Loads (TMDLs): replacement project **Snake River**

Jan. 14, 2026
Informational 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
10:00 a.m.	Welcome
10:05 a.m.	Agenda review, Zoom logistics and ground rules
10:10 a.m.	Project overview
10:30 a.m.	Total Maximum Daily Load (TMDL)
11:00 a.m.	Water Quality Management Plan (WQMP)
11:30 a.m.	Question and Answers
12:00 p.m.	Adjourn

Temperature TMDL replacement project background

2012: NWEA vs. USEPA, NMFS, USFWS

- Lawsuit was seeking judicial review of the EPA's decision to approve Oregon's revised water quality standards, including the Natural Conditions Criteria.
- Judge found "the EPA was unable to articulate a rationale [sic] basis for its approval of the NCC".
- Court's judgment resulted in EPA's disapproval of the Natural Conditions Criteria.

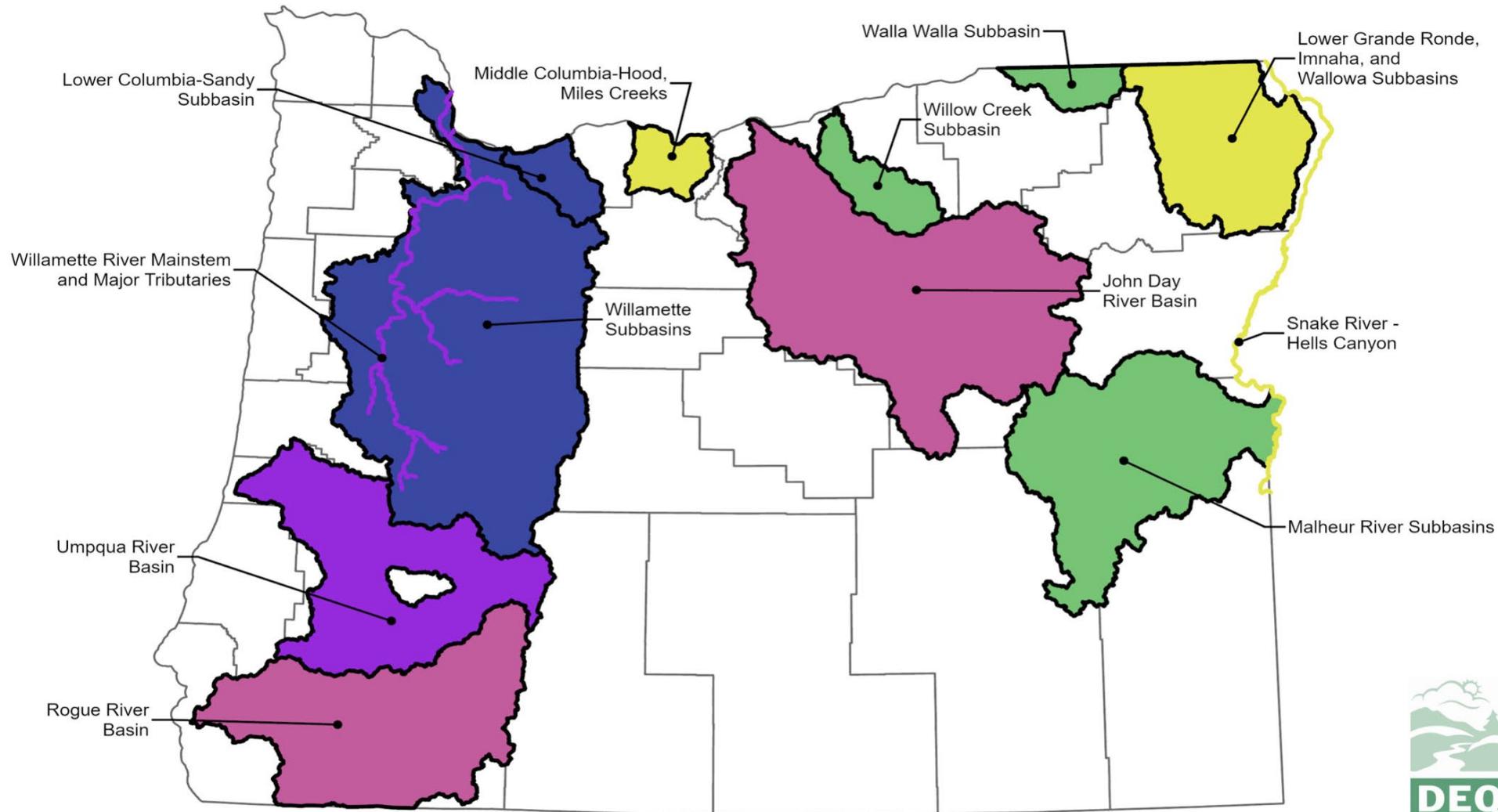
2019: NWEA vs. USEPA

- Lawsuit asserted the EPA unlawfully approved TMDLs that were based on the now disapproved Natural Conditions Criteria.
- The court issued a judgment on Oct. 4, 2019, requiring DEQ and EPA to replace 15 Oregon temperature TMDLs that were based on the Natural Conditions Criterion and to reissue the temperature TMDLs based on the remaining elements of the temperature criteria.
- [DEQ temperature TMDL replacement project page](#)

Key dates for EPA approval or disapproval of Temperature TMDLs

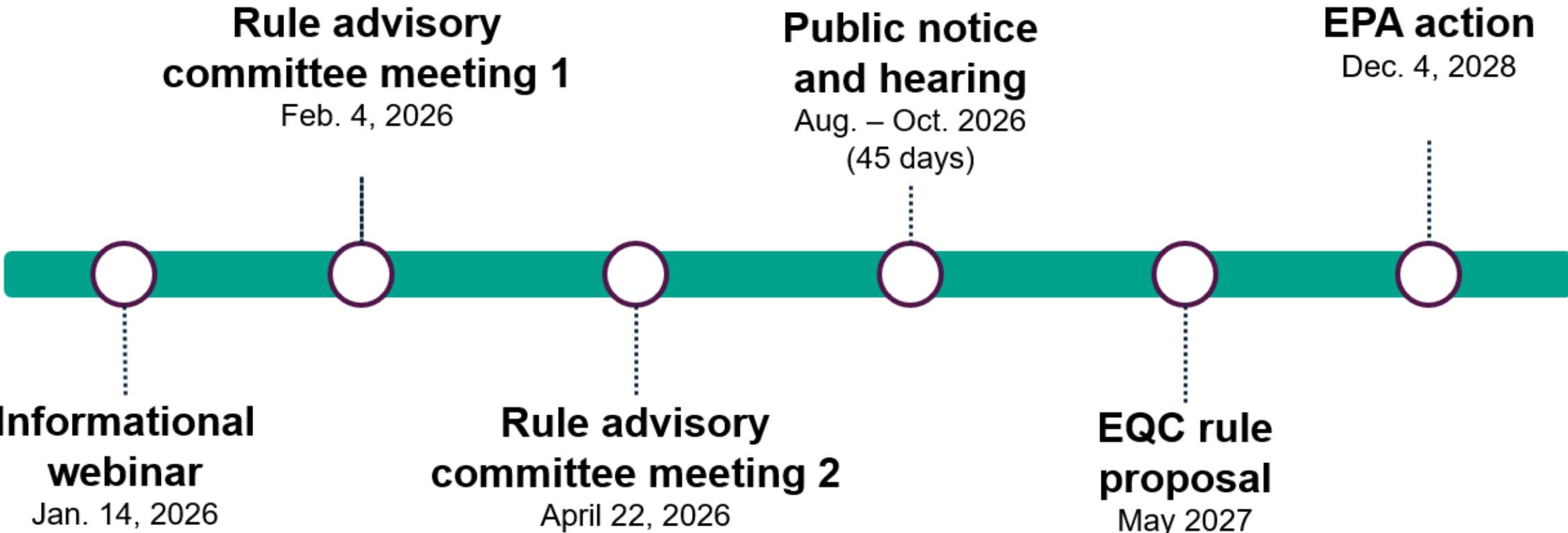
Sept. 15, 2024	June 28, 2025	Oct. 18, 2027	Dec. 4, 2028	Nov. 29, 2029
<ul style="list-style-type: none">✓ Willamette Subbasins✓ Lower Columbia-Sandy Subbasin	<ul style="list-style-type: none">✓ Willamette River Mainstem and Major Tributaries✓ Umpqua River Basin	<ul style="list-style-type: none">• Rogue River Basin• John Day River Basin	<ul style="list-style-type: none">• Snake River - Hell's Canyon• Lower Grande Ronde, Imnaha, and Wallowa Subbasins• Middle Columbia-Hood, Miles Creeks	<ul style="list-style-type: none">• Walla Walla Subbasin• Willow Creek Subbasin• Malheur River Subbasins

Temperature TMDL replacement project areas



[Project website](#)

Project milestones



DEQ meets with EPA early and frequently during TMDL development to ensure collaboration throughout the process.

Total Maximum Daily Loads



A TMDL, or clean water plan, is a science-based approach to cleaning up polluted water so that it meets state water quality standards.



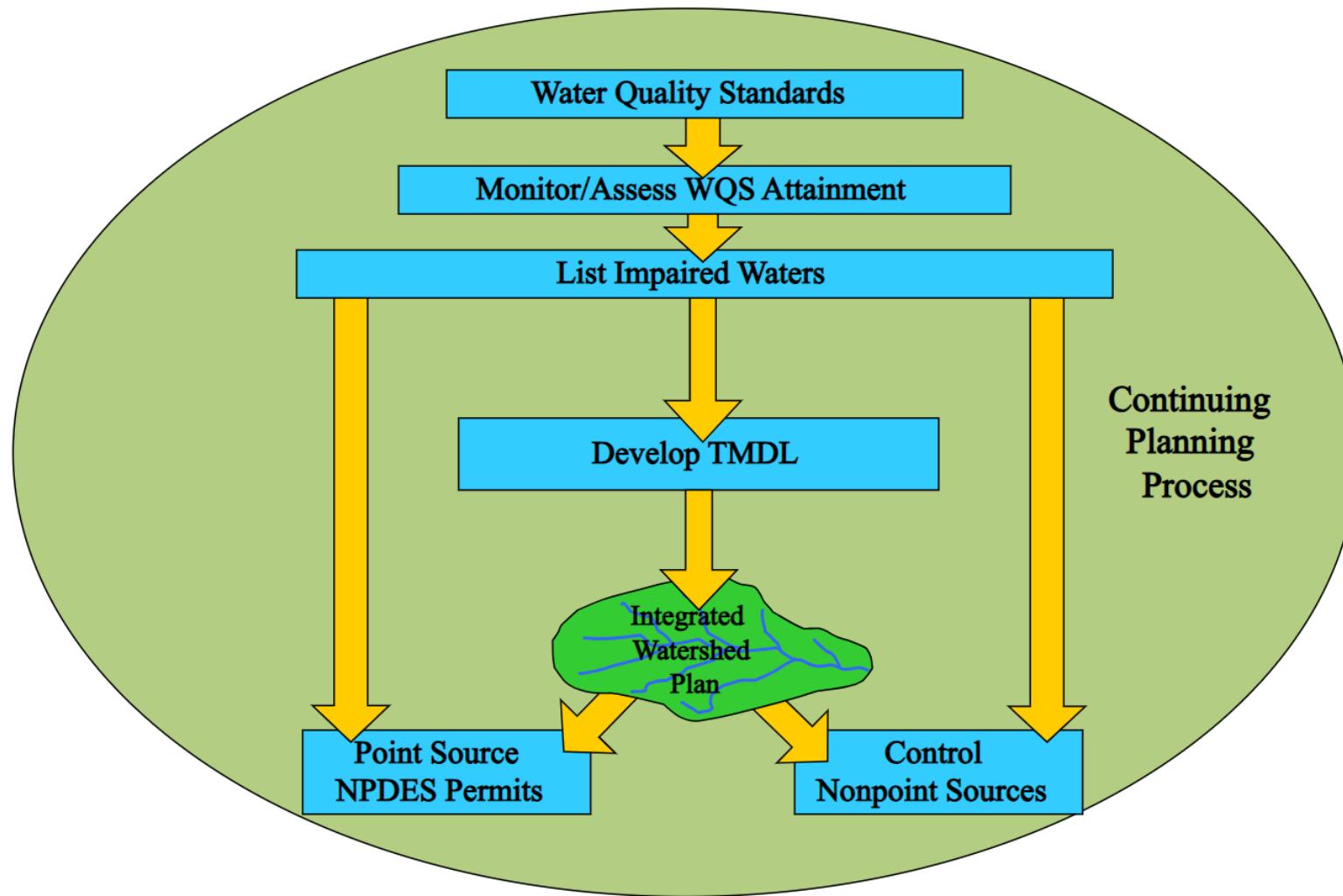
A TMDL is also a numeric value that represents the highest amount of a pollutant a surface water body can receive and still meet the standards.

[DEQ TMDL program webpage](#)



Snake River at river mile 345

Clean Water Act framework



Oregon's Snake River temperature standard

Biologically Based Numeric Criteria (BBNC) 7-day average daily maximum

- 20°C (68.0°F) – Redband or Lahontan cutthroat trout - upstream of Hells Canyon Dam
- 20°C (68.0°F) – Salmon and Steelhead migration corridor - downstream of Hells Canyon Dam
 - Natural seasonal thermal pattern
 - Cold water refugia
- 13°C (55.4°F) - Salmon and steelhead spawning October 23 – April 15

Human Use Allowance (when temps > BBNC)

- 0.3°C (0.5°F) increase above the applicable standard

Reference: [Oregon Administrative Rule 340-041-0028](#)

TMDLs include the following elements:

- Waterbody Name and Location
- Pollutant
- Water quality standard and beneficial uses
- Loading Capacity
- Excess Load / Load Reduction
- Sources or Source categories
- Allocations
 - Wasteload Allocations (WLA)
 - Load Allocations (LA)
 - Surrogate Measures
 - Reserve Capacity (RC)
 - Margin of Safety (MOS)
- Seasonal Variation
- Water Quality Management Plan

References: [OAR 340-042-0040\(4\)](#) and [40 CFR 130.2 and 40 CFR 130.7](#)

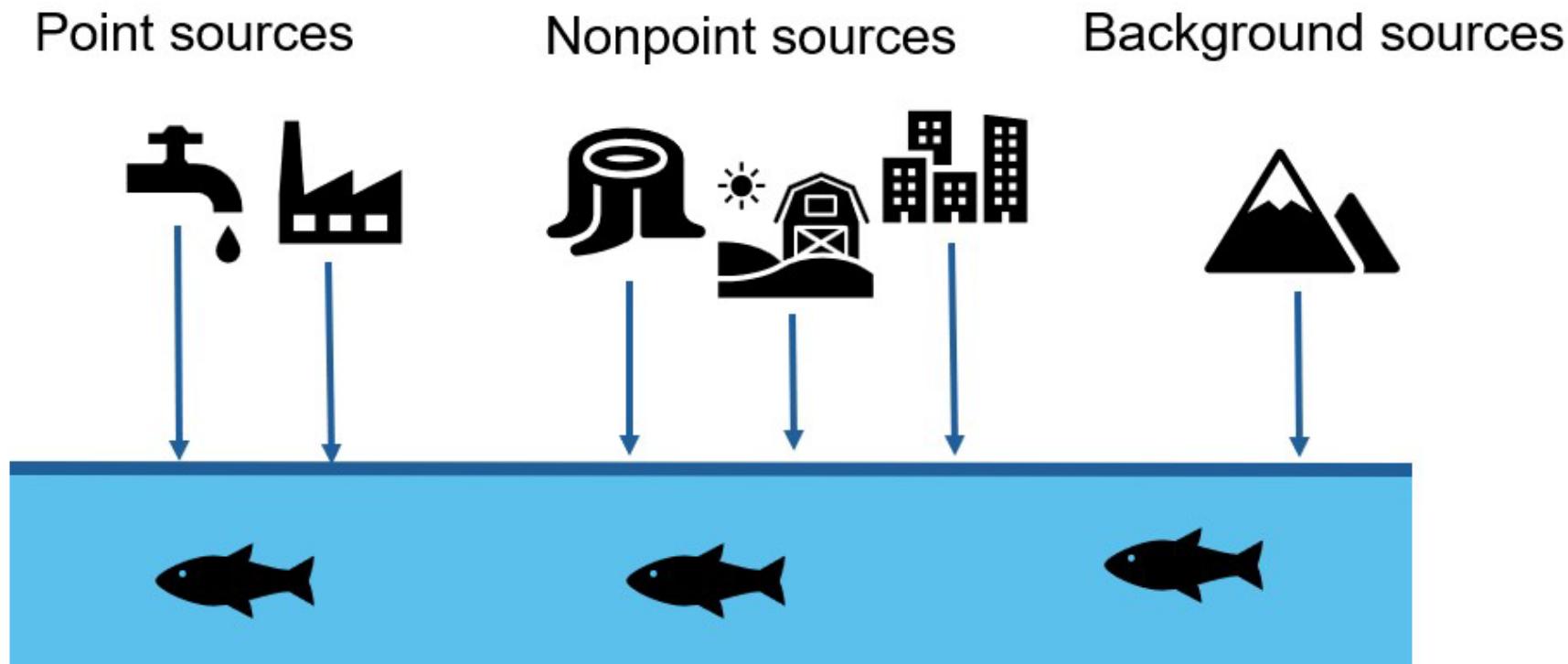
TMDL process

1. Identify water quality concerns
2. Identify pollutant sources
3. Link pollutant sources to water body conditions
4. Calculate the pollutant reduction needed to restore water quality



Brownlee Reservoir

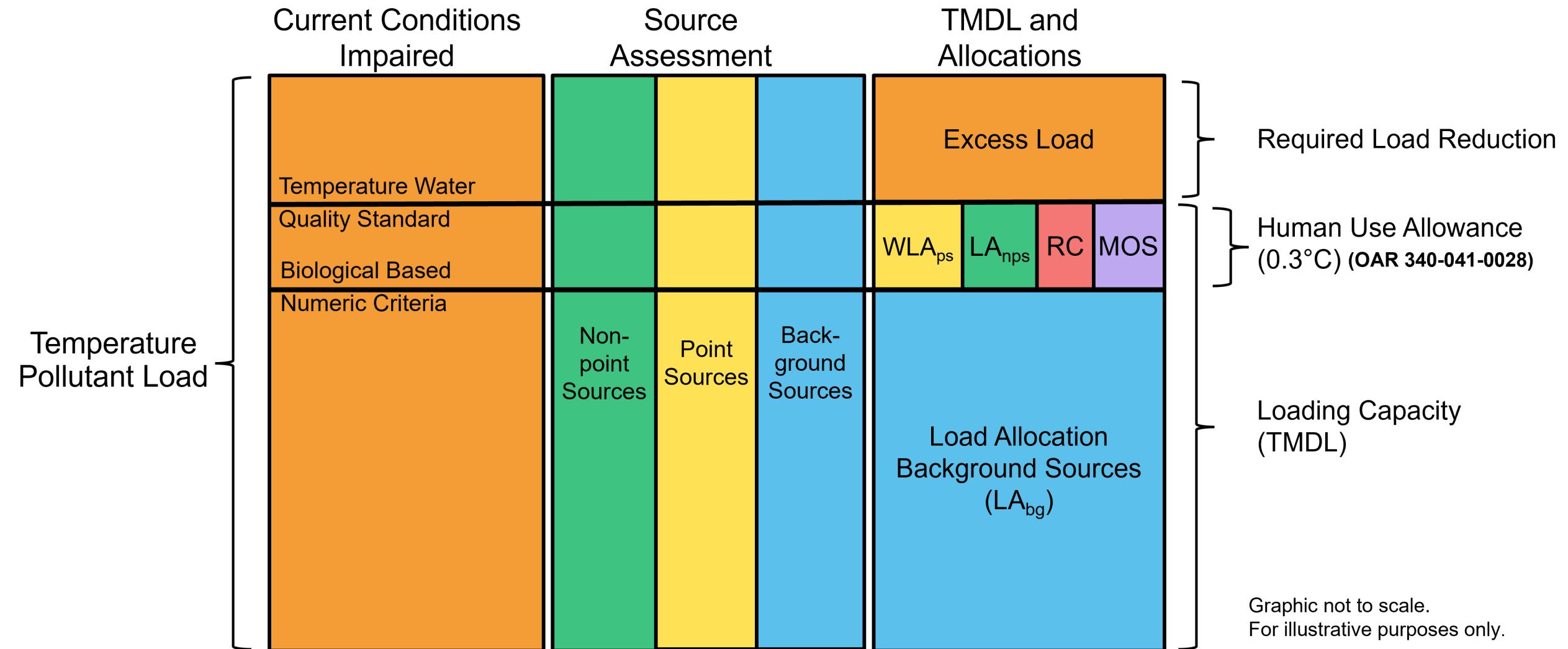
TMDL source assessment and calculation



$$\text{TMDL} = \underline{\text{WLA}}_{\text{ps}} + \underline{\text{LA}}_{\text{nps}} + \underline{\text{LA}}_{\text{bg}} + \text{MOS} + \text{RC}$$

Waste Load Allocation:
point sources Load Allocation:
nonpoint sources Load Allocation:
background sources Margin of
Safety Reserve
Capacity

$$\text{TMDL} = \text{WLA}_{\text{ps}} + \text{LA}_{\text{nps}} + \text{LA}_{\text{bg}} + \text{MOS} + \text{RC}$$

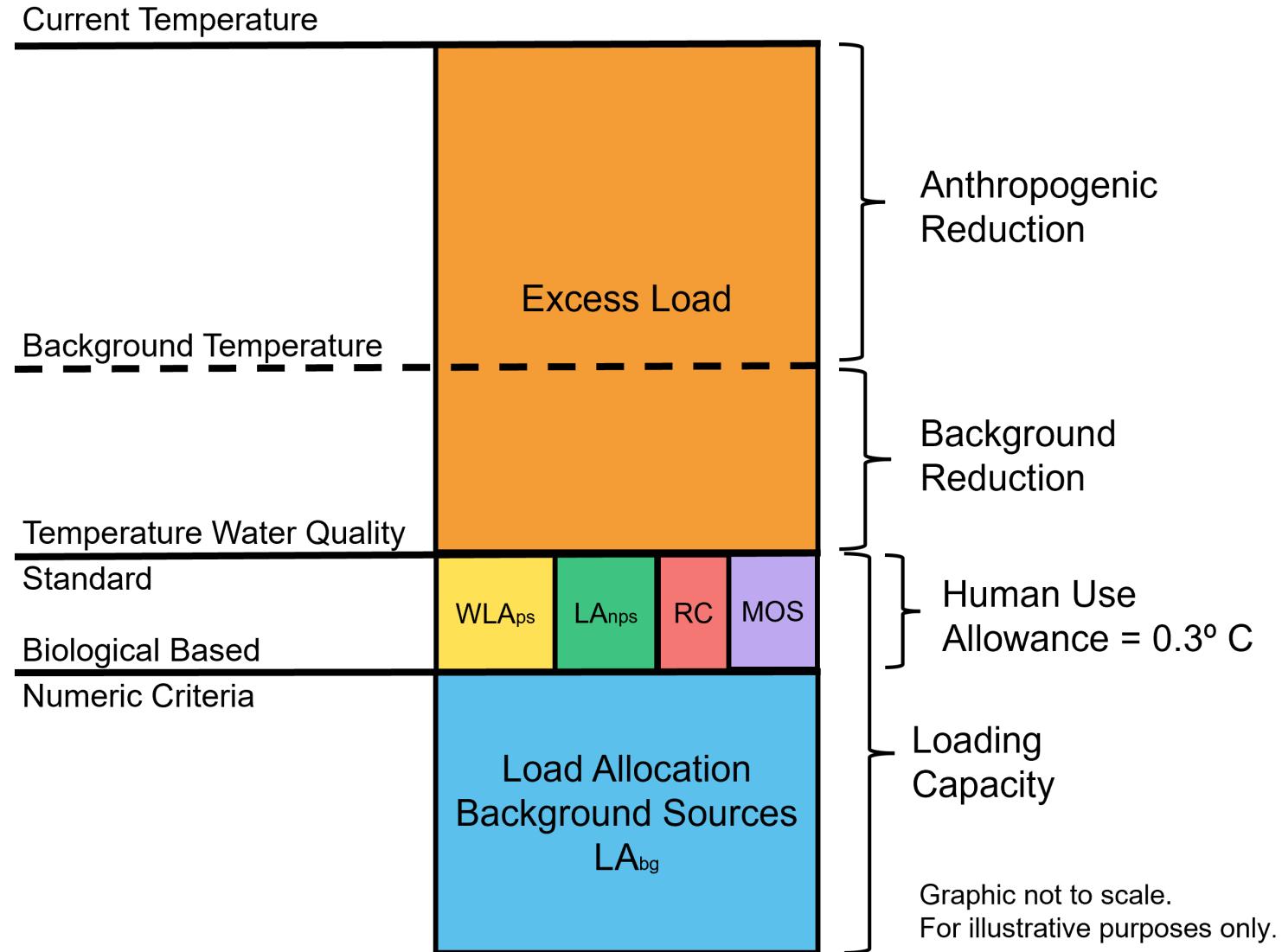


Background temperature

Minimum duties rule

- Anthropogenic sources are only responsible for the warming they contribute.
- There is no duty for anthropogenic sources to reduce heating of waters below the natural condition.

OAR 340-041-0028(12)(a)



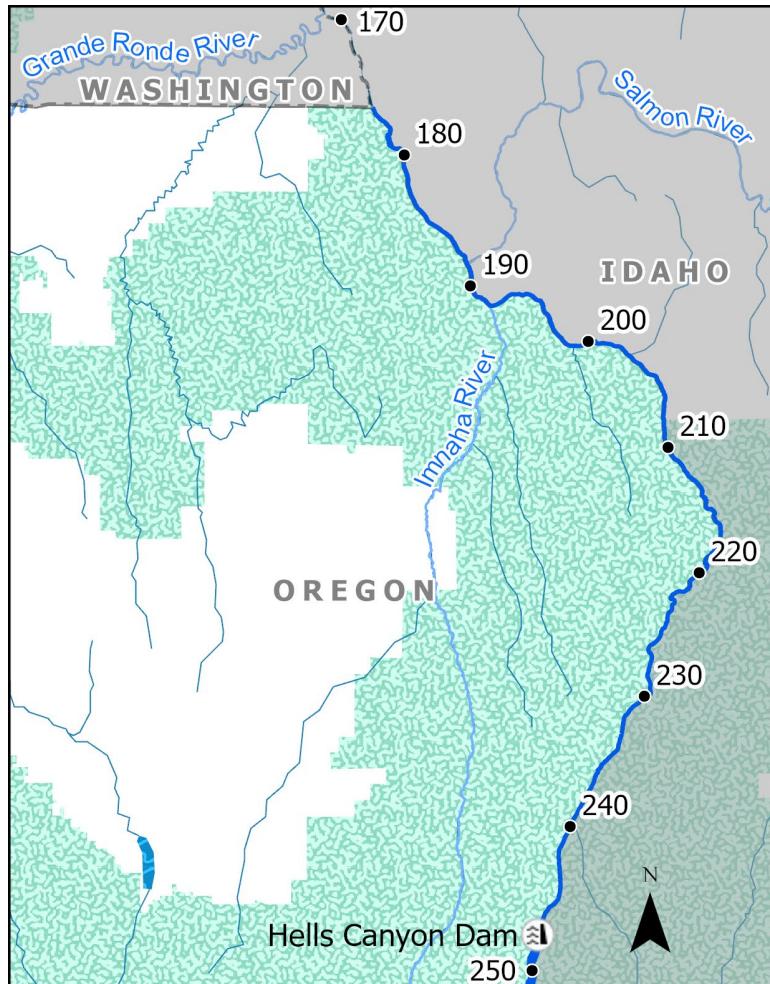
Questions?



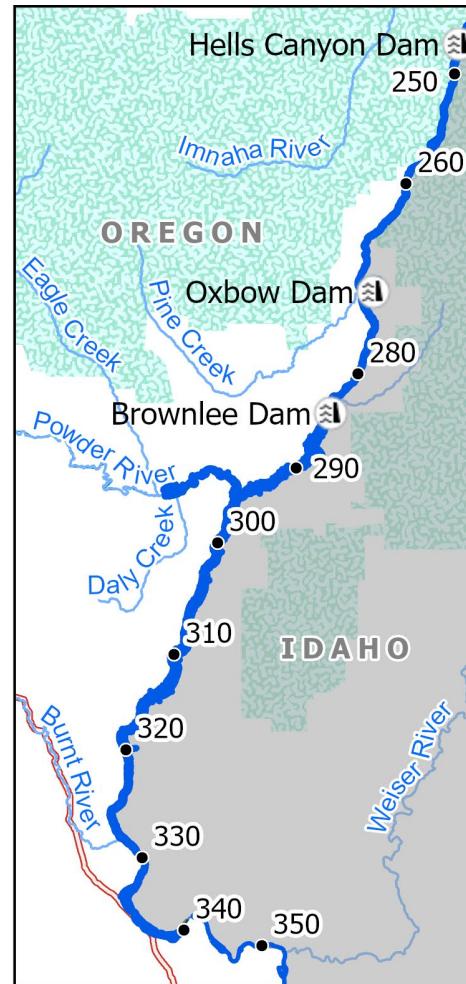
Snake River at mile 220 at Kirkwood Creek

Snake River TMDL project area

River Mile 170 - 250



River Mile 250 - 350

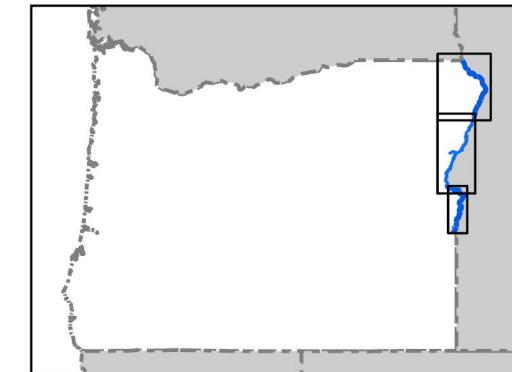


River Mile 350 - 409



Legend

- Dams
- River Miles
- Reservoirs
- Snake River
- Major Tributaries
- State Boundaries
- State of Oregon
- Other States



Temperature replacement TMDL development tasks

2019- 2025 technical tasks for TMDL preparation

- Project planning
- Data gathering and organization (data solicitation)
- Development of modeling Quality Assurance Project Plans (QAPPs),
 - QAPPs guide the technical work
- Implementation of modeling QAPPs (modeling and TMDL analysis)
- TMDL document drafting

[Snake River Temperature TMDL project page](#)

TMDL elements reviewed and updated

- Applicable temperature criteria
- Loading capacity and excess load
- Human use allowance assignments
- Allocations
- Model scenarios
- Seasonal Variation
- Water Quality Management Plan



Snake River at mile 220 downstream of Kirkwood Creek

Sources of temperature warming

- NPDES point source discharges
- Snake River tributaries
- Dam and reservoir operations
- Vegetation removal or disturbance
- Background warming

Allocation framework

- Allocations assigned to Oregon sources activities only.
- All individual NPDES permitted sources will receive a Wasteload Allocation (WLA)
- Nonpoint source sectors, entities, or activities that have potential to contribute to stream warming will receive a Load Allocation (LA)
- Surrogate measures will be used for some Load Allocations

Questions about the TMDL?



Snake River

Water Quality Management Plan

“Water Quality Management Plan (WQMP)” means the required element of a TMDL describing strategies to achieve allocations identified in the TMDL to attain water quality standards.

The elements of a WQMP are described in [OAR 340-042-0040\(4\)\(I\)](#)

TMDL Water Quality Management Plan

Oregon Administrative Rule [340-042-0040\(4\)\(l\)](#)

Designated Management Agency - means a federal, state or local governmental agency that has legal authority over a sector or source contributing pollutants and is identified as such by the Department of Environmental Quality in a TMDL.

- The WQMP is part of the TMDL document - it's the plan of action for implementing the TMDL pollutant allocations.
- The WQMP includes specific implementation information, including:
 - Identify responsible persons, including Designated Management Agencies that must implement strategies to meet TMDL allocations.
 - Propose management strategies designed to meet the TMDL allocations.
 - Describe reasonable assurance that management strategies and sector-specific or source-specific implementation plans will be carried out through regulatory or voluntary actions.

WQMP elements

- Proposed management strategies
- Timelines for implementing strategies
- Attaining water quality standards
- Implementation responsibilities, schedule, required elements
- Monitoring and evaluation of progress
- Reasonable assurance of implementation
- Legal authorities

Snake River Temperature WQMP

Elements that will not change for nonpoint source implementation plans

- Snake River TMDL will cover temperature impairments for mainstem Snake
- Same management strategies/BMPs as previous TMDLs within the basin
- Existing implementation plans will be evaluated and revised, as needed
- Most existing DMAs/RPs will continue to be responsible for implementing strategies
- DMAs/RPs will continue developing 5-year Implementation Plans, submitting annual reports, and submitting Year-Five updates

Note: For permitted sources TMDL temperature wasteload allocations and other management strategies may be changing and will be incorporated into permit requirements

Proposed implementation strategies

Examples: WQMP

- Riparian tree and shrub planting (increase site effective shade); vegetation management and invasive weed control, riparian protection
- Riparian and tributary restoration to restore altered bank and channel morphology
- Dam management strategies
- Protection and restoration of cold-water refuges
- Stream flow protection measures
- Use of regulatory programs and voluntary activities, including incentive-based projects, outreach and education

Snake River WQMP

Summary of expectations:

- Update existing plan or develop plan as a DMA/RP
- Incorporate strategies in preceding slides or other appropriate actions
- Contain specifics on priorities and where strategies and practices will be applied based on identified tools
- Include measurable objectives and milestones for documenting implementation and gaging effectiveness
- Education, outreach, partnerships
- Temperature monitoring for identified DMAs
- Submit annual reports on progress, and conduct year-five reviews

Interstate coordination

- 2004 TMDL jointly written between Oregon DEQ & Idaho DEQ
 - Idaho portion of the 2004 TMDL still in place
- Oregon WQMP implementation only can address water quality concerns across our jurisdiction
- Continued implementation of the Idaho 2004 WQMP by the State of Idaho, and further coordination with EPA to assist both states to work within our respective jurisdictions will be required to collaboratively improve water quality and meet attainment goals in the Snake River
- These efforts will help us reach the 50-70 year target set in 2004 by the Public Action Team (group of interested parties convened to provide expertise on the Snake River in 2004)

Snake River development timeline

Dates	Task
2024-2025	TMDL, TSD, WQMP development
Today	General public information webinar
February 4 th 2026	RAC 1
April 22 nd 2026	RAC 2
August- September 2026	Public comment (45 -65 days)
Spring 2027	Issue TMDL rule
Winter 2028	EPA decision

Snake River Implementation Process

- After this process:
 - DEQ convenes DMA implementation workgroup
 - Begin drafting implementation plans
 - DEQ Rulemaking for Mercury/Methylmercury TMDL
 - 18 months post mercury TMDL issuance
 - Implementation plans will be due
 - These plans will include management strategies to reach attainment of both rules

Questions?



Snake River

Rule advisory committees

- Meetings are open to non-committee members to listen
- Meeting materials are online at least two weeks prior to the meeting
- Committee members will provide input on the following:
 - Economic and fiscal impacts of the proposed rules for entities impacted by the proposed TMDL
 - Revision of required TMDL elements with a focus on the TMDL allocations to be updated based on the current temperature criteria for the project area
 - Revisions to the Water Quality Management Plans
- Committee members are provided five days after each meeting to submit feedback that may be considered for the next committee meeting or prior to posting documents for public comment

Rule Advisory Committee (RAC) meetings

Meeting 1: Feb. 4, 2026, 10 a.m. to 12:00 p.m. Pacific Time

[Join Zoom Meeting](#)

Meeting ID: 899 6167 3219

Meeting 2: Apr. 22, 2026, 10 a.m. to 12:00 p.m. Pacific Time

[Join Zoom Meeting](#)

Meeting ID: 883 9445 1814

Find additional details on our [rulemaking page](#)

Contacts

TMDL Development

- Steve Mrazik, Manager steve.mrazik@deq.oregon.gov
- Ryan Michie, Analyst ryan.michie@deq.oregon.gov

WQMP Development

- Sara Slater, Manager Sara.SLATER@deq.oregon.gov
- Tyler Dearman, Basin Coordinator tyler.dearman@deq.oregon.gov
- Mandy Ondrick, Basin Cooridnator amanda.ondrick@deq.oregon.gov

Sign up to receive GovDelivery notifications about the rulemakings [online](#)

[Project webpage](#) – includes project overview, Quality Assurance Project Plan, public engagement meeting materials and meeting dates and times.

Title VI and alternate formats

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