Item A: Total Maximum Daily Loads Replacements for Temperature

Willamette Subbasins and Lower Columbia-Sandy Subbasin

Oregon DEQ Water Quality

Environmental Quality Commission meeting
August 6, 2024

Agenda

Total Maximum Daily Loads (TMDL), temperature replacements

Background	Jennifer Wigal, Water Quality Administrator
TMDL framework	Steve Mrazik, Water Quality Manager
Willamette Subbasins, TMDL and Water Quality Management Plan	Erin Costello, Analyst Grace Goldrich-Middaugh, Basin Coordinator Steve Mrazik, Water Quality Manager
Lower Columbia-Sandy Subbasin, TMDL and Water Quality Management Plan	David Fairbairn, Analyst Andrea Matzke, Basin Coordinator Steve Mrazik, Water Quality Manager

Context for proposed rule

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) and the Services' "no jeopardy" BiOp.
- Judge found “the EPA was unable to articulate a rationale [sic] basis for its approval of the NCC.” Resulted in EPA’s disapproval of the Natural Conditions Criteria.

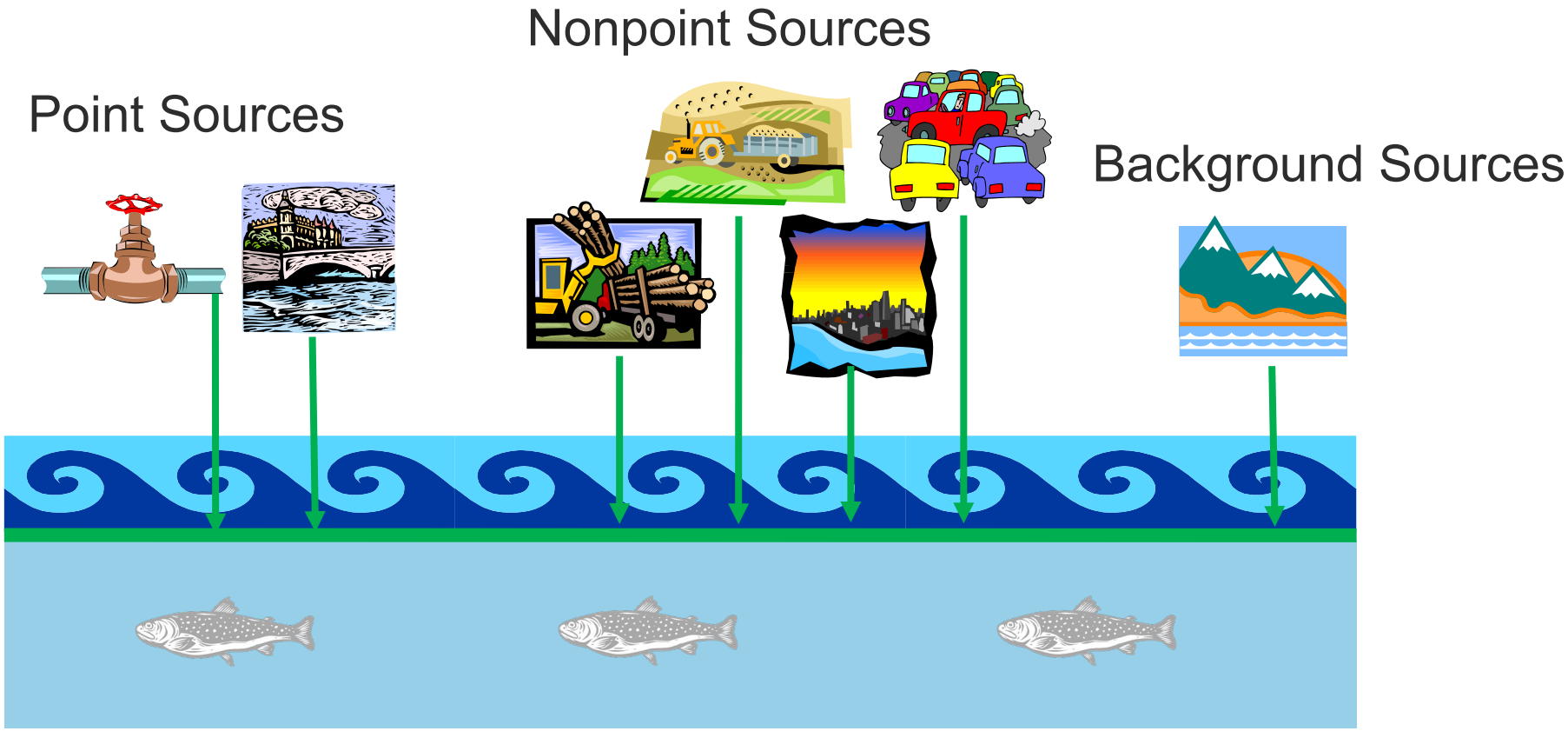
2019: NWEA vs. USEPA

- Lawsuit asserted the EPA unlawfully approved TMDLs that were based on the now disapproved Natural Conditions Criteria.
- The court issued a judgment in 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.

TMDL purpose

- An approach to restore and maintain water quality
  - Pollutant: Heat
  - Standard for the most sensitive beneficial uses: Aquatic life
- Establishes an allowable limit for pollutants of concern
  - Point sources (wasteloads)
  - Nonpoint sources (loads)
- Water Quality Management Plan (WQMP) identifies possible sources of pollutants that can be managed

TMDL elements



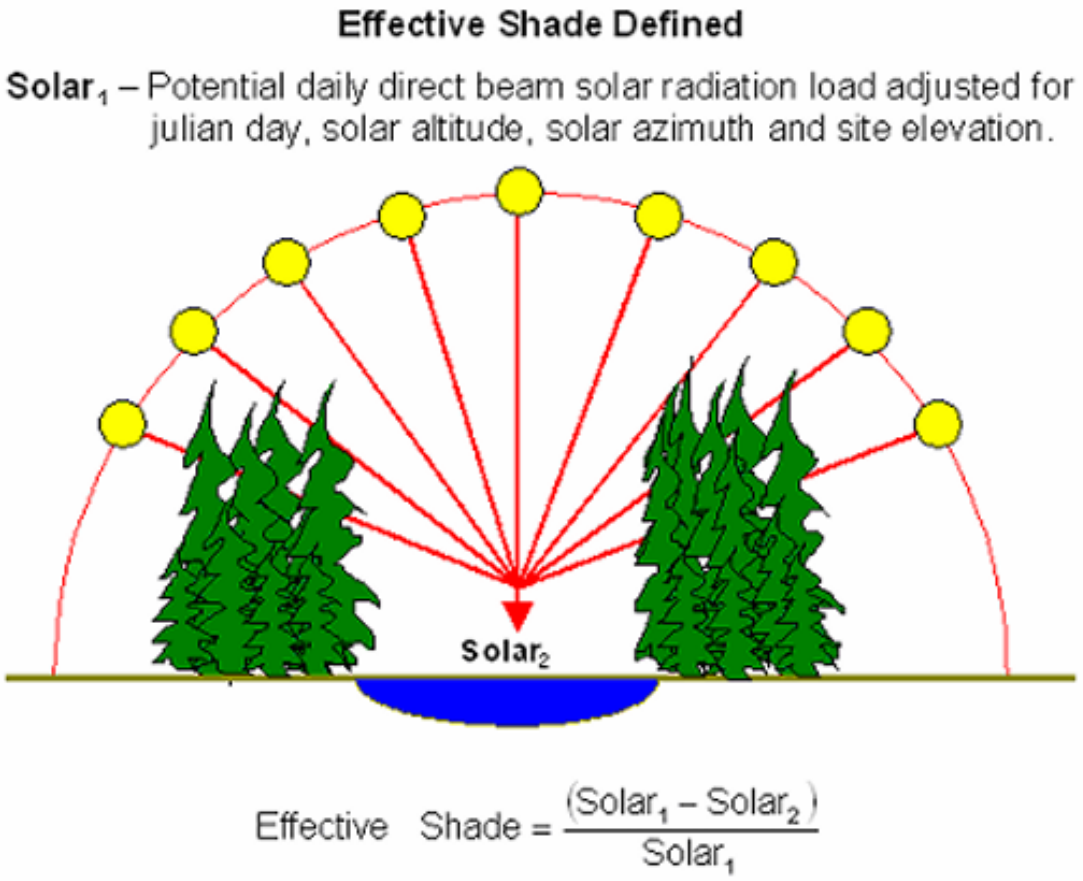
$$TMDL = WLA_{ps} + LA_{nps} + LA_{bg} + MOS + RC$$

- WLA_{ps}: Wasteload Allocation: point sources
- LA_{nps}: Load Allocation: nonpoint sources
- LA_{bg}: Load Allocation: background sources
- MOS: Margin of Safety
- RC: Reserve Capacity

Implementing TMDL allocations

1. Point sources
   - NPDES permits

2. Nonpoint sources
   - Designated management agencies (DMAs)
   - Surrogate measures



TMDL Water Quality Management Plans (WQMP)

- DEQ framework to implement and gage progress of TMDLs
- Guides development and tracking of implementation plans by:
    - Designated Management Agencies (DMAs)

WQMP accountability framework

- WQMP requires:
  - Permit limits for point sources
  - Implementation plans and reporting for nonpoint sources
- WQMP provides: Strategies and funding sources
- Submitted plans may include:
  - Assessment of current conditions
  - Monitoring methods
  - Timelines

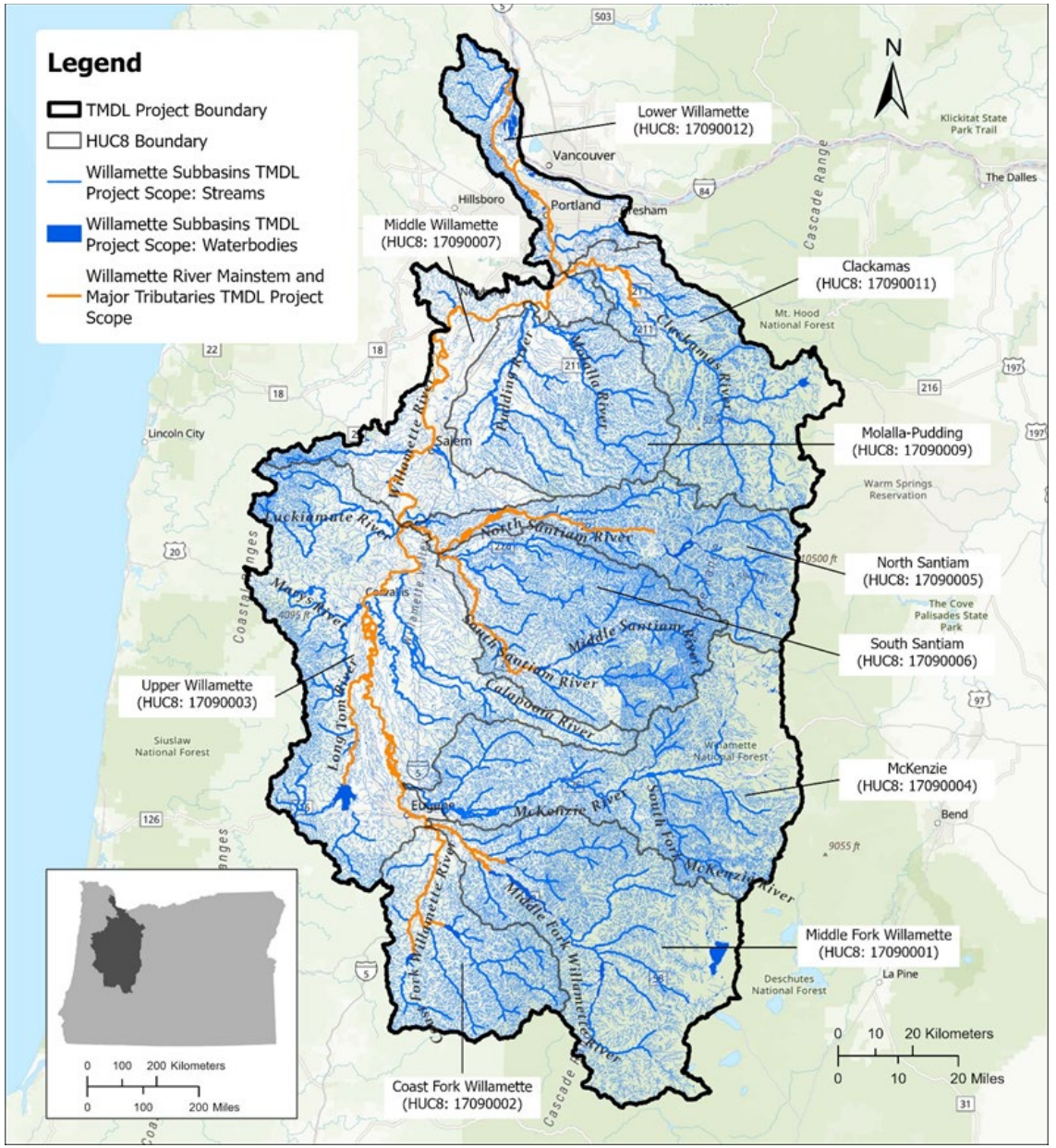
Rulemaking Advisory Committees and webinars

DEQ led two separate rulemakings for the Lower Columbia-Sandy Subbasin TMDL, and the Willamette Subbasins TMDL.

Date	Event
January 31, 2023	Project overview webinar
February and April 2023	Rule advisory committee meetings
March 2023	Technical webinars
January through February 2024	Public notices
February 2024	Public hearings

Additional meetings were held with Designated Management Agencies and permittees.

Willamette Subbasins temperature TMDL replacement



TMDL: Summary of Willamette Subbasins

1. Most sensitive beneficial uses and applicable water quality standards
    - Cold water species
    - Cool water species in Rickreall Creek
2. Sources of warming
    - Over 90 point source dischargers
    - Over 100 nonpoint source entities
3. Effective shade targets

TMDL: Changes to proposed rule based on public comments

1. Wasteload allocations to point source dischargers
2. Clarifications regarding stormwater dischargers
3. Critical periods and allocation periods

Water Quality Management Plan (WQMP): Summary of Willamette Subbasins

1. Timelines for implementation plan submission and specific requirements
2. Streamside evaluation
    a) DMAs required to assess current conditions to prioritize restoration
    b) Utilize DEQ shade gap analysis where available
3. Implementation requirements for large reservoir operators
4. Monitoring and shade gap analysis requirements for ODF, ODA, USFS, and BLM—shade gap analysis not needed in areas with a 120 ft. streamside buffer

WQMP: Summary changes to proposed rule based on public comments

1. Clarified requirements and provided additional time to complete the streamside evaluation.
2. Provided additional details for reservoir operator requirements.
3. Updated sufficiency evaluation of ODF, USFS and BLM applicable riparian rules in meeting shade targets.
4. Clarified that shade targets are regulatory and can be used to assess implementation progress.
5. Water quality trading acknowledged as a compliance tool.

TMDL implementation

- Implementation plan development
  - Implementation deadlines begin after adoption of the Willamette Subbasins TMDL *amendment* to include the Willamette Mainstem and Major Tributaries project area.
  - DEQ anticipates additional Designated Management Agency engagement and technical assistance in advance of implementation deadlines.

- DEQ will collaborate with state and federal agencies including ODA, ODF, USFS, BLM and other agencies to develop a monitoring strategy.

Fiscal impact analysis: Willamette Subbasins TMDL

Summary: Point and nonpoint sources named in the TMDL may incur potential costs and costs will vary. The Rule Advisory Committee expressed that small businesses may incur additional costs.

Point sources: The fiscal impact of the new or revised waste load allocations (WLAs) on point source discharge will be variable. In the event the WLA is more stringent, the point source may incur additional capital improvement or other costs necessary to achieve compliance with the new WLA.

Nonpoint sources: Costs of compliance with this TMDL rule can include administrative and implementation costs. DEQ did not receive specific information for potentially affected operations within the watershed to quantify economic impacts to landowners or business operators.

Racial Equity and Environmental Justice considerations

DEQ expects the proposed rule to have the following results:

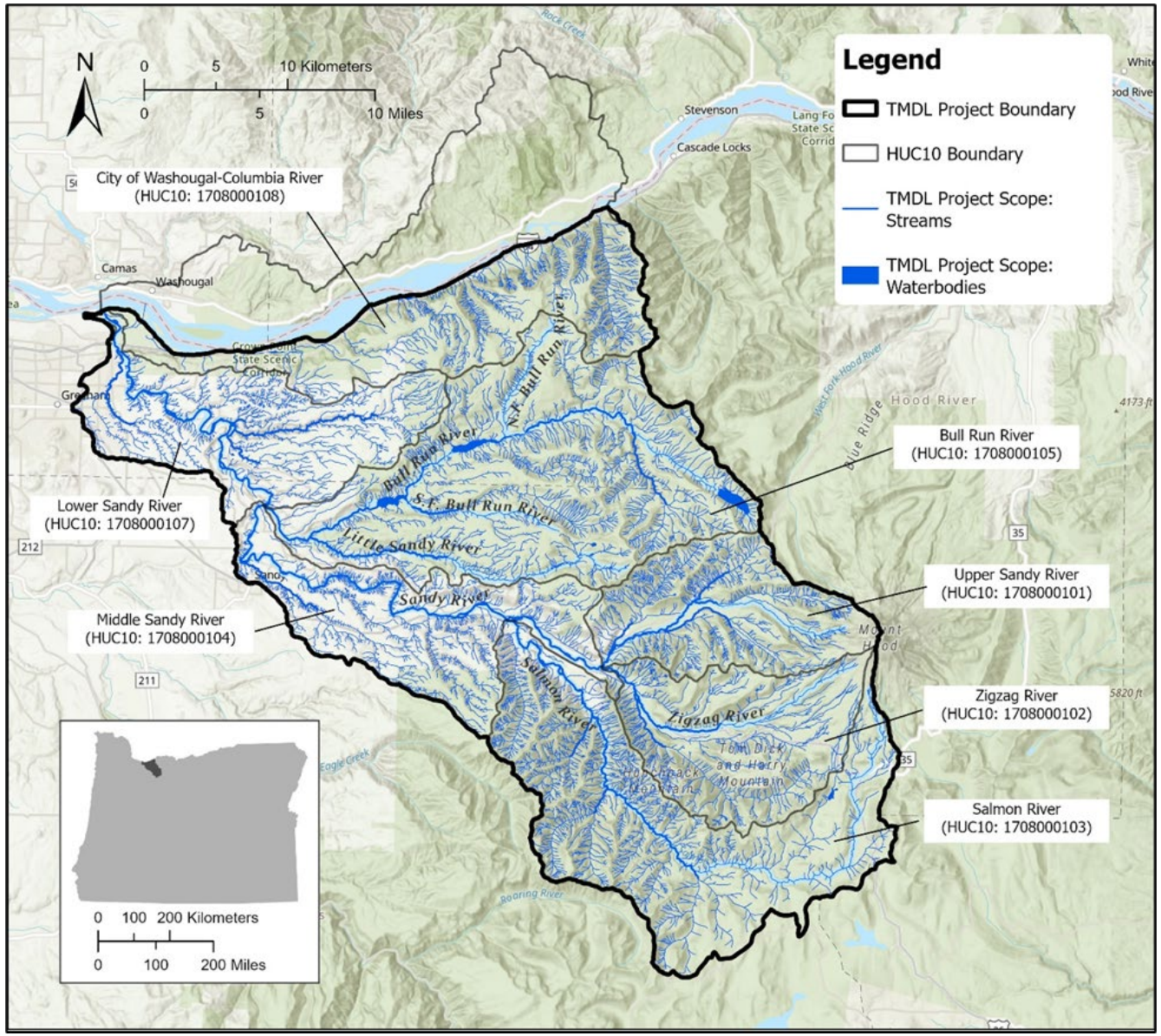
- A positive impact on Oregonians, including promotion of racial equity by helping to maintain healthy and abundant fisheries including subsistence salmonid fisheries, and will help to minimize treatment costs of providing fresh, clean, and healthy water supplies to disadvantaged communities.

- Indigenous, rural, minority and poor communities may use salmon as a subsistence food source. Abundant fish would also restore and protect beneficial uses including recreation. The proposed temperature TMDL rule will help address the localized impacts of stream temperature impairments, and potentially improve other related water quality parameters, such as dissolved oxygen.

Proposed motion language: Willamette Subbasins TMDL for temperature

"I move that the Environmental Quality Commission adopt the proposed rules as seen in Attachment A as part of Chapter 340, Division 42 of the Oregon Administrative Rules and to incorporate, by reference, the Total Maximum Daily Loads Willamette Subbasins, Temperature (Attachment B) and Water Quality Management Plan (Attachment C) for temperature."

Lower Columbia-Sandy Subbasin temperature TMDL replacement



TMDL: Summary of Lower Columbia-Sandy

- Identified sources of heat
- Shade gap analysis and shade target assignments
- Wasteload allocation for NPDES general permittee: ODFW fish hatchery
- Enhanced models and results

Photo credit: Hassen Bassagic, Portland Water Bureau

TMDL: Changes to proposed rule based on public comments

- Reserve Capacity and upstream tributaries
- Distribution of thermal allocations
  - Wasteload allocations
  - Load allocations
- No shade gaps for existing infrastructure
- Improved public understanding of proposed rule
  - Summary tables
  - Clarification of TMDL requirements and applicability

Photo credit: Hassen Bassagic, Portland Water Bureau

Water Quality Management Plan (WQMP): Summary of Lower Columbia-Sandy

- WQMP requirements and timelines to submit TMDL implementation plans are the same as the Willamette Subbasins WQMP.
- Percent consumptive use flow surrogate measure established on Sandy River downstream of the Bull Run.
- Bacteria management strategies and DMAs carried forward from the 2005 Sandy TMDL — no changes made.
- DEQ will collaborate with federal and state agencies including ODA, ODF, USFS, BLM and other Designated Management Agencies to develop a temperature monitoring strategy.

WQMP: Summary of changes to proposed rule based on public comments

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Title VI and alternative formats

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