Water Quality: Total Maximum Daily Loads (TMDLs) Temperature TMDL Replacement project

Willamette Subbasins temperature TMDL rule amendment to add Willamette River Mainstem and Major Tributaries

Item I: informational update to the Environmental Quality Commission

Presenting:
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Brian Creutzburg, Basin Coordinator
November 22, 2024

Agenda

Topic
TMDL temperature replacement project background
Willamette Subbasins temperature TMDL amendment to add Willamette River Mainstem and Major Tributaries
Wrap up, next steps

Temperature TMDL Replacement project litigation 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) and the Services' "no jeopardy" BiOp.
- 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.

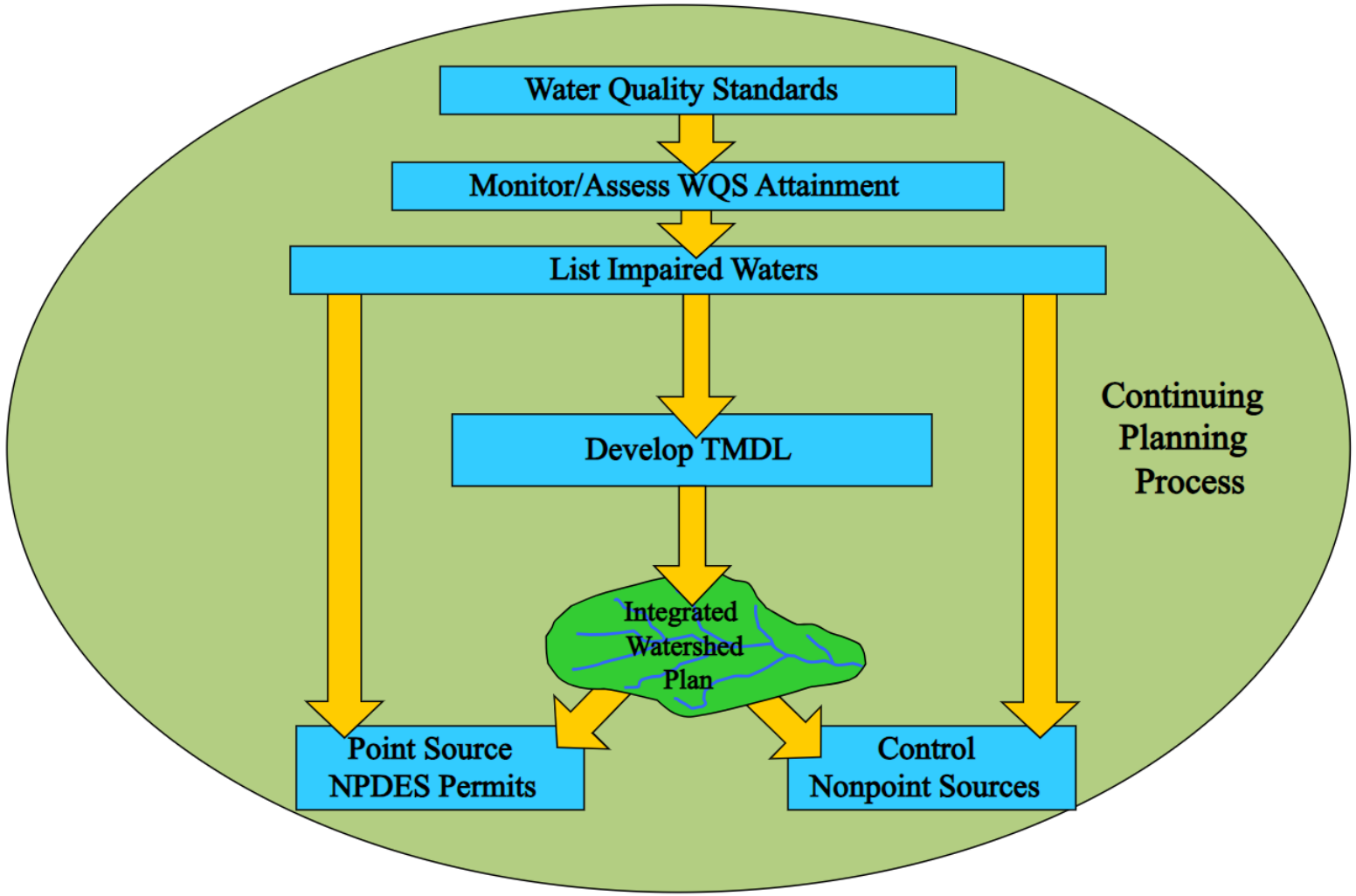
Total Maximum Daily Loads

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

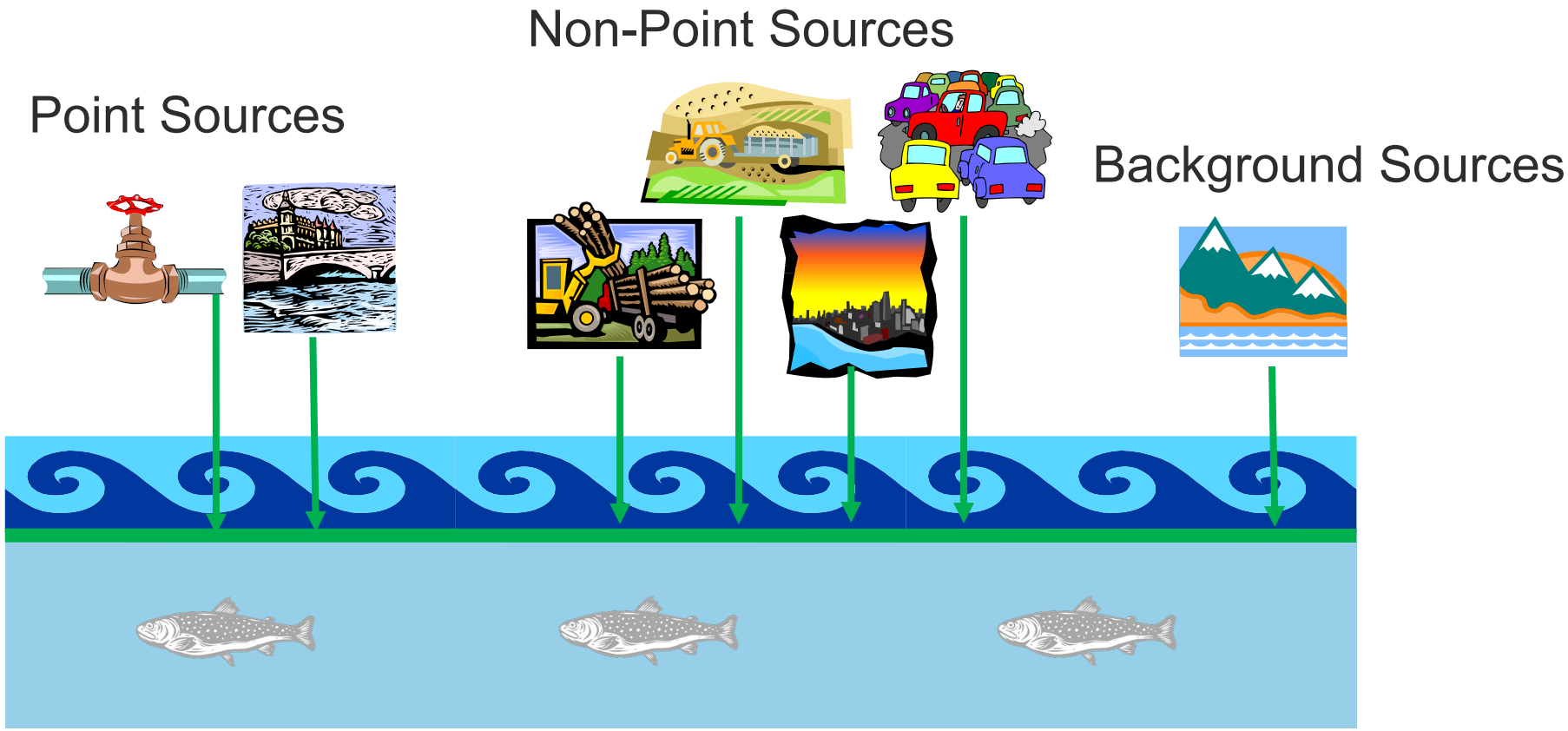
A TMDL is also a numerical value that represents the highest amount of a pollutant a surface water body can receive and still meet the standards. *The numerical value TMDL is also known as a loading capacity.*

TMDL webpage: https://www.oregon.gov/deq/wq/tmdls/Pages/default.aspx

Clean Water Act framework



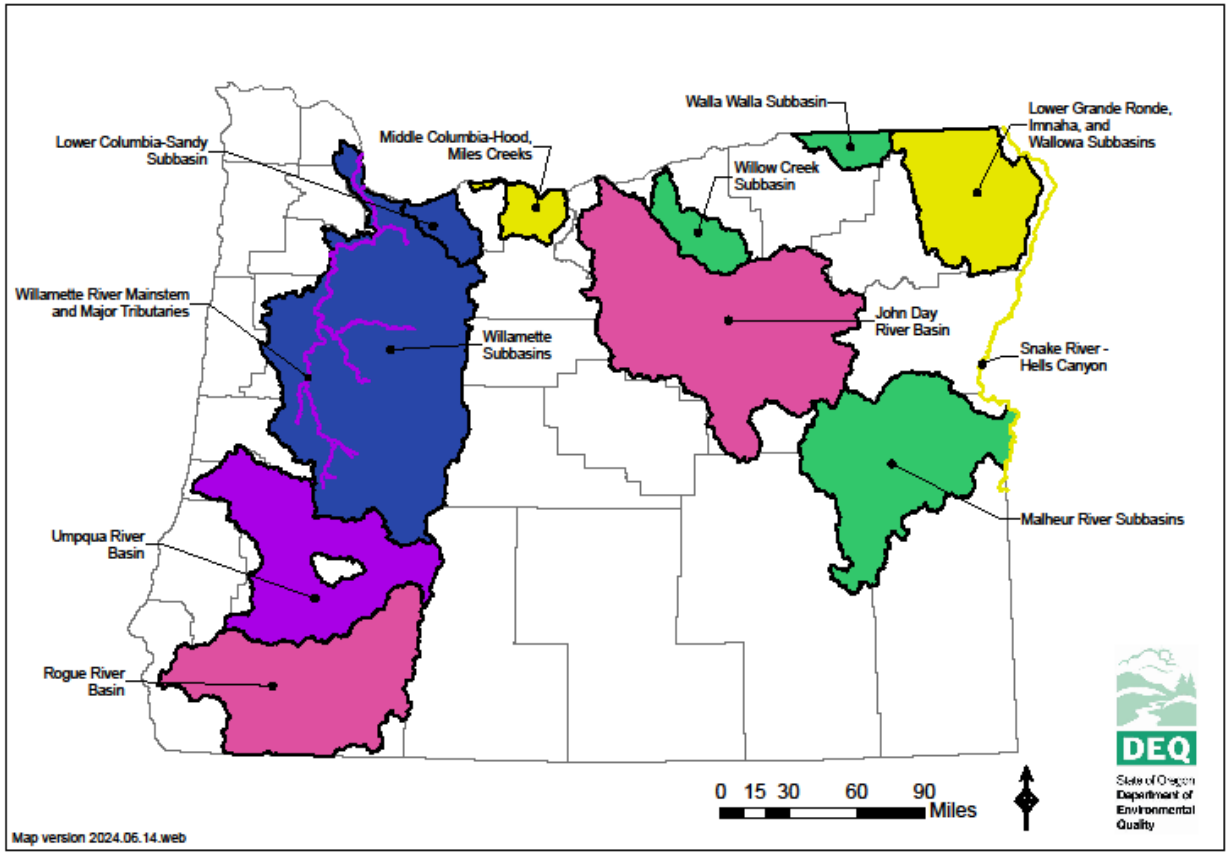
TMDL source assessment and calculation



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

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

Temperature TMDL Replacement project areas



Project website: https://www.oregon.gov/deq/wq/tmdls/Pages/tmdlreplacement.aspx

Key dates for **EPA approval or disapproval** of Temperature TMDLs (court ordered schedule)

January 15, 2024
- Willamette Subbasins*
- Lower Columbia-Sandy Subbasin

February 28, 2025
- Willamette River Mainstem and Major Tributaries amendment*
- Umpqua River Basin

April 17, 2026
- Rogue River Basin
- John Day River Basin

June 4, 2027
- Snake River - Hell's Canyon
- Lower Grande Ronde, Imnaha, and Wallowa Subbasins
- Middle Columbia-Hood, Miles Creeks

May 29, 2028
- Walla Walla Subbasin
- Willow Creek Subbasin
- Malheur River Subbasins

*The Willamette Subbasins temperature TMDL rule proposed amendment to add Willamette Mainstem and Major Tributaries

Willamette Subbasins amendment to include the Willamette Mainstem and Major Tributaries, schedule

Willamette Subbasins TMDL was adopted by the EQC Aug. 6, 2024 - EPA approval Sept.12, 2024

Mar. 2024	May 2024	July 2024	Aug. – Oct. 2024	Jan. 2025	Feb. 2025
RAC 1 **March 14, 2024**	RAC 2 **May 16, 2024**	RAC 3 **July 30, 2024**	Public Notice and hearing **Aug. 8 – Oct. 14, 2024** 66 days (Comment period extended)	EQC action **January 2025** Pending court response to extension request March or May 2025	EPA action **Feb. 28, 2025** Date TBD pending court response to extension request

Willamette Subbasins rulemaking https://www.oregon.gov/deq/rulemaking/Pages/willamettetempTMDL.aspx
Willamette Mainstem and Major Tributaries rulemaking https://www.oregon.gov/deq/rulemaking/Pages/tmdlrwillmainstem.aspx

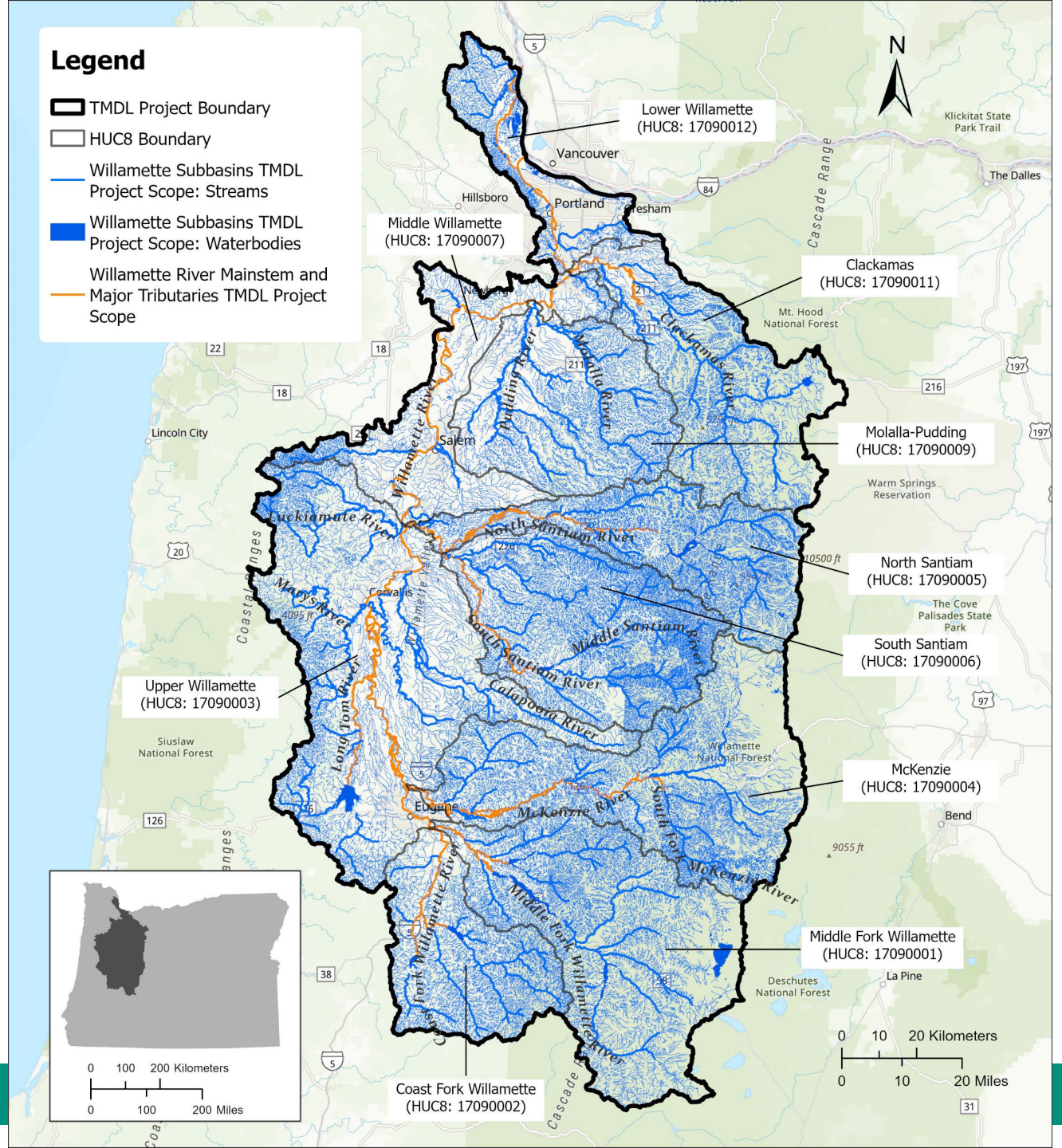
Public engagement

- Three advisory committee meetings
- Draft documents discussed:
  - Fiscal and economic impact analysis
  - Environmental Justice and Racial Equity statements
  - TMDLs, WQMPs, Technical Support Documents, rule language
- Public notice August – October 2024

Willamette River, Independence Oregon

Willamette Subbasins (blue) Willamette Mainstem (orange)

- Incorporates approx. 530 miles of water and 45 assessment units in the Willamette basin
- Assigns thermal wasteload allocations to an additional 53 individual NPDES permitted facilities, and additional general permits
- Establishes numeric temperature targets that implement the narrative cool water species temperature standard on the Long Tom River



TMDL sources of water temperature warming

The TMDL concluded that major sources of temperature warming include:

- Disturbance or removal of streamside vegetation
- Dam and reservoir management
- Activities that modify flow rate or volume
- Channel modification and widening
- Point source discharges
- Climate change
- Background sources (includes natural sources)

Willamette River at Willamette Falls, Oregon

Allocation framework

- NPDES **permitted sources** that may contribute to temperature exceedances 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)
- Shade and other surrogate measures may be allocated

Willamette River, Oregon

Water Quality Management Plan

A **W**ater **Q**uality **M**anagement **P**lan (**WQMP**) is **the required element of a TMDL that describes strategies to achieve allocations** identified in the TMDL to attain water quality standards.

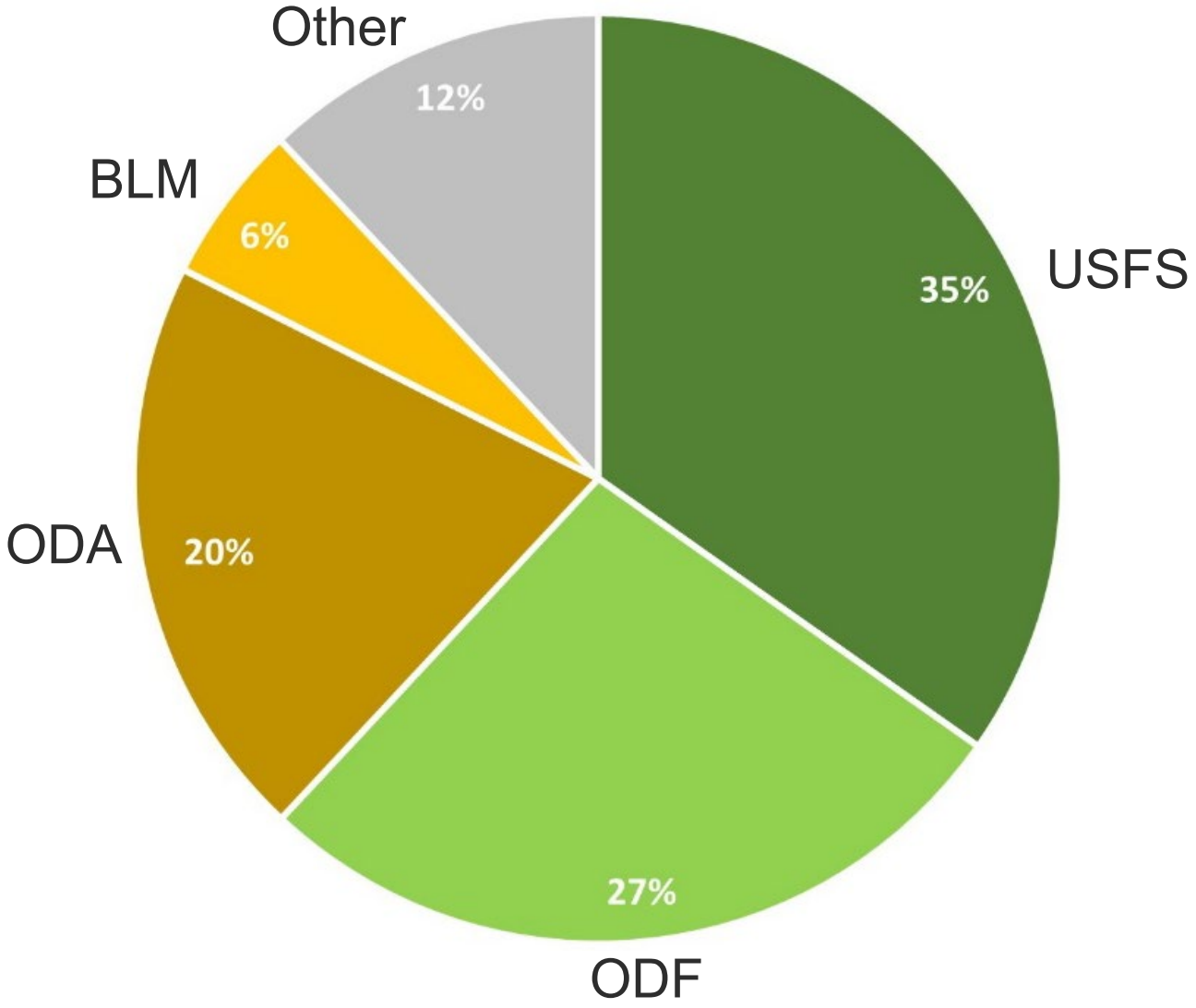
- Identify **D**esignated **M**anagement **A**gencies (**DMA**s)
- Management Strategies
- Reasonable Assurance

Elements of a WQMP are described in OAR 340-042-0040(4)(l)

Willamette Cove, Portland, Oregon

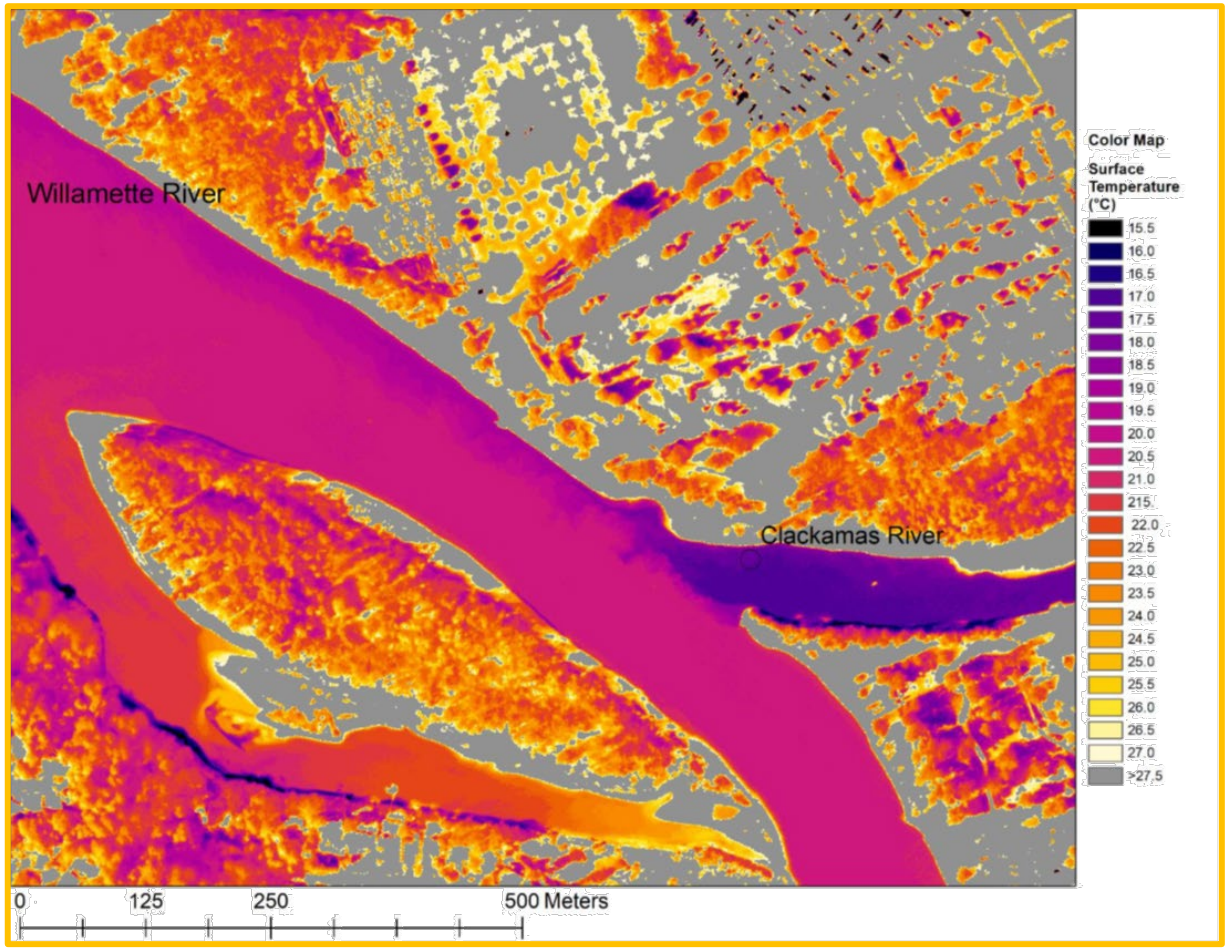
Willamette Basin jurisdictional area

- U.S. Forest Service (USFS)
- Oregon Department of Forestry (ODF)
- Oregon Department of Agriculture (ODA)
- Bureau of Land Management (BLM)



Rule amendment changes

- Cold Water Refuge requirements were added for DMAs with jurisdiction along the lower 50 river miles of the Willamette Mainstem and Major Tributaries
- No other changes were made to the implementation requirements outlined in the Willamette Subbasins WQMP
- Jurisdictional acres were updated to include the Willamette Mainstem and Major Tributaries



Water Quality Management Plan requirements

- Timelines for implementation plan submission and specific requirements
- Streamside evaluation
  - DMAs required to assess current conditions to prioritize restoration
  - Use DEQ shade gap analysis where available
- Monitoring and implementation requirements for large reservoir operators
  - Lebanon Dam was added to the list of large reservoirs
- 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

Water Quality Management Plan implementation

- Implementation plan development
  - Implementation deadlines begin after adoption of the amendment to the Willamette Subbasins TMDL, which includes 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.

Riparian Restoration, University of Portland Campus

Willamette Subbasins amendment to include the Willamette Mainstem and Major Tributaries, next steps

1. Proposal to EQC: January 2025
2. EPA submittal: January 2025
3. EPA approval/disapproval: Feb. 28, 2025

Schedule subject to changes pending outcome of extension request

Clackamas River, Oregon

Resources

Willamette Subbasins amendment to include the Willamette Mainstem and Major Tributaries:

- Project page: https://www.oregon.gov/deq/wq/tmdls/Pages/tmdlRwillmainstem.aspx
- Rulemaking page: https://www.oregon.gov/deq/rulemaking/Pages/tmdlrwillmainstem.aspx

Santiam River, Oregon

Title VI and alternative formats

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