Powder River Basin TMDL

Status of rulemaking for the Powder River Basin bacteria Total Maximum Daily Load

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State of Oregon
DEQ Department of Environmental Quality

Presentation outline

- TMDL process refresher
- Powder River Basin bacteria TMDL
  - Rulemaking process steps and status
  - Watershed setting, land uses, bacteria impairments
  - Overview of DEQ's analyses and consideration of local input
- Active discussions of input and policy considerations
- Next steps - rule advisory committee and public engagement

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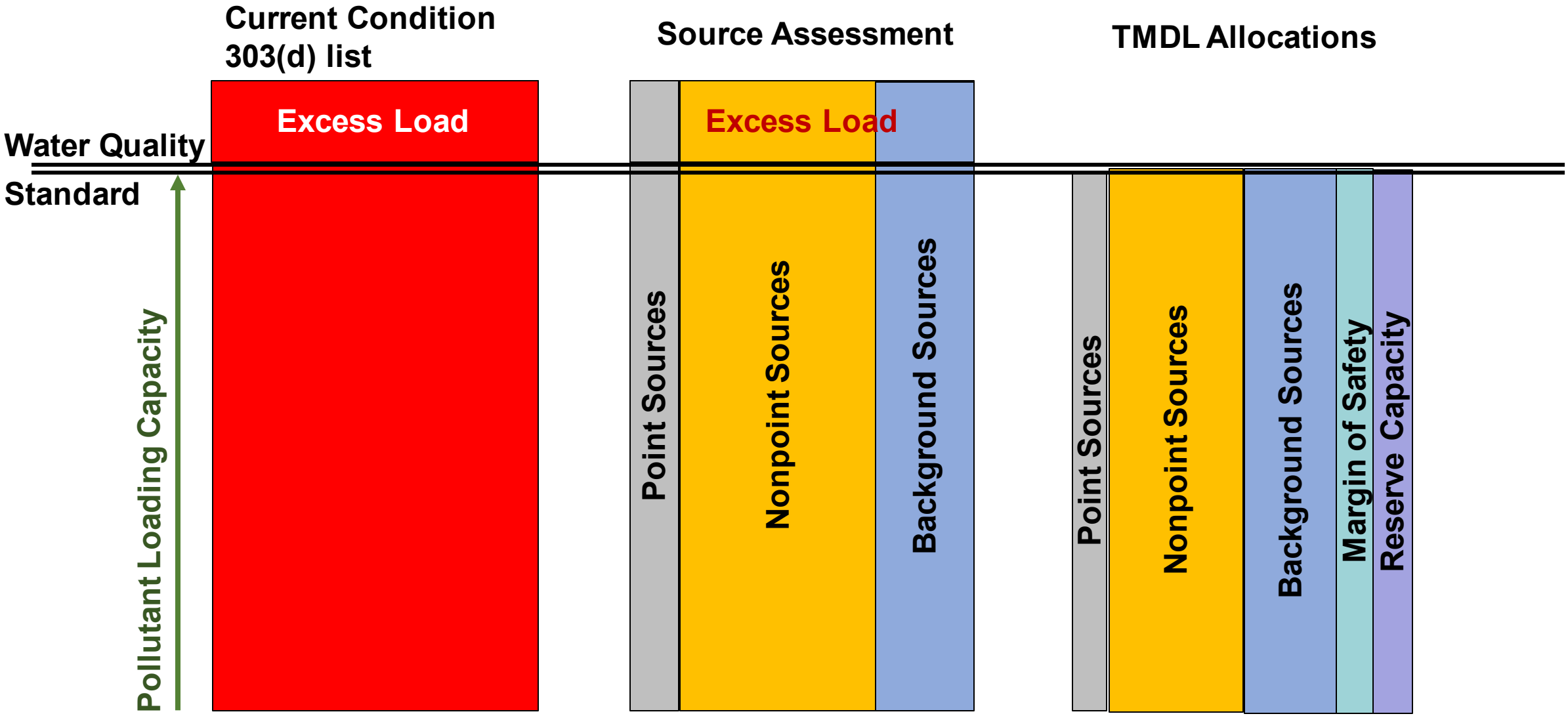
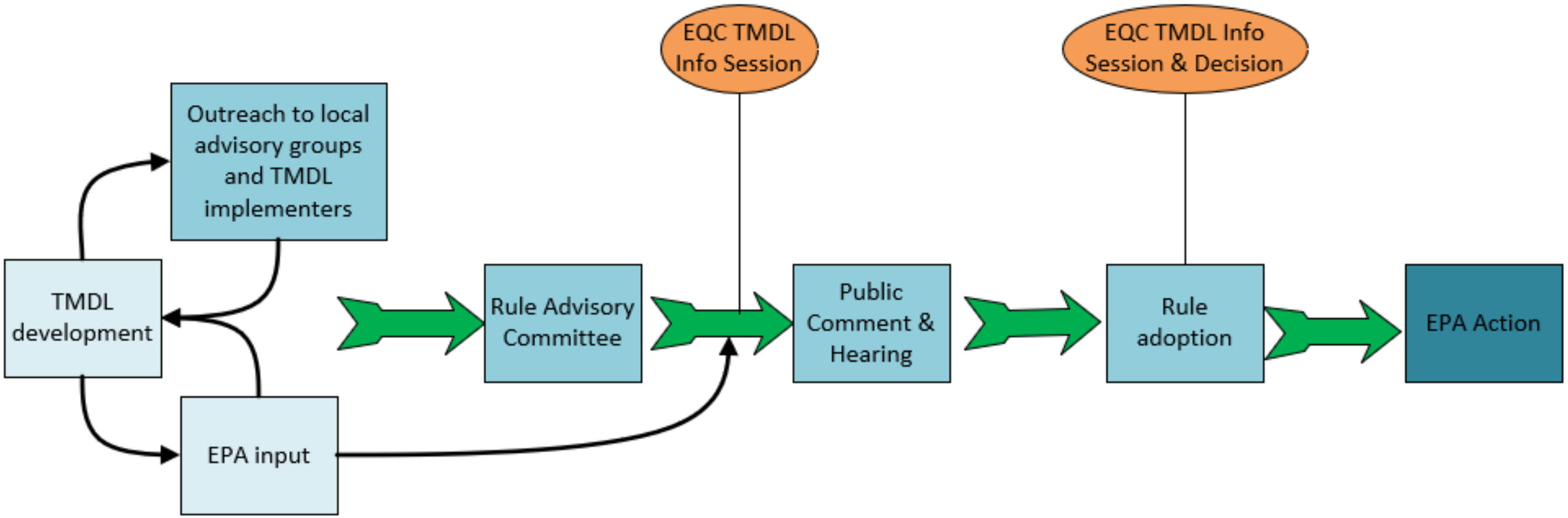
TMDL Approach

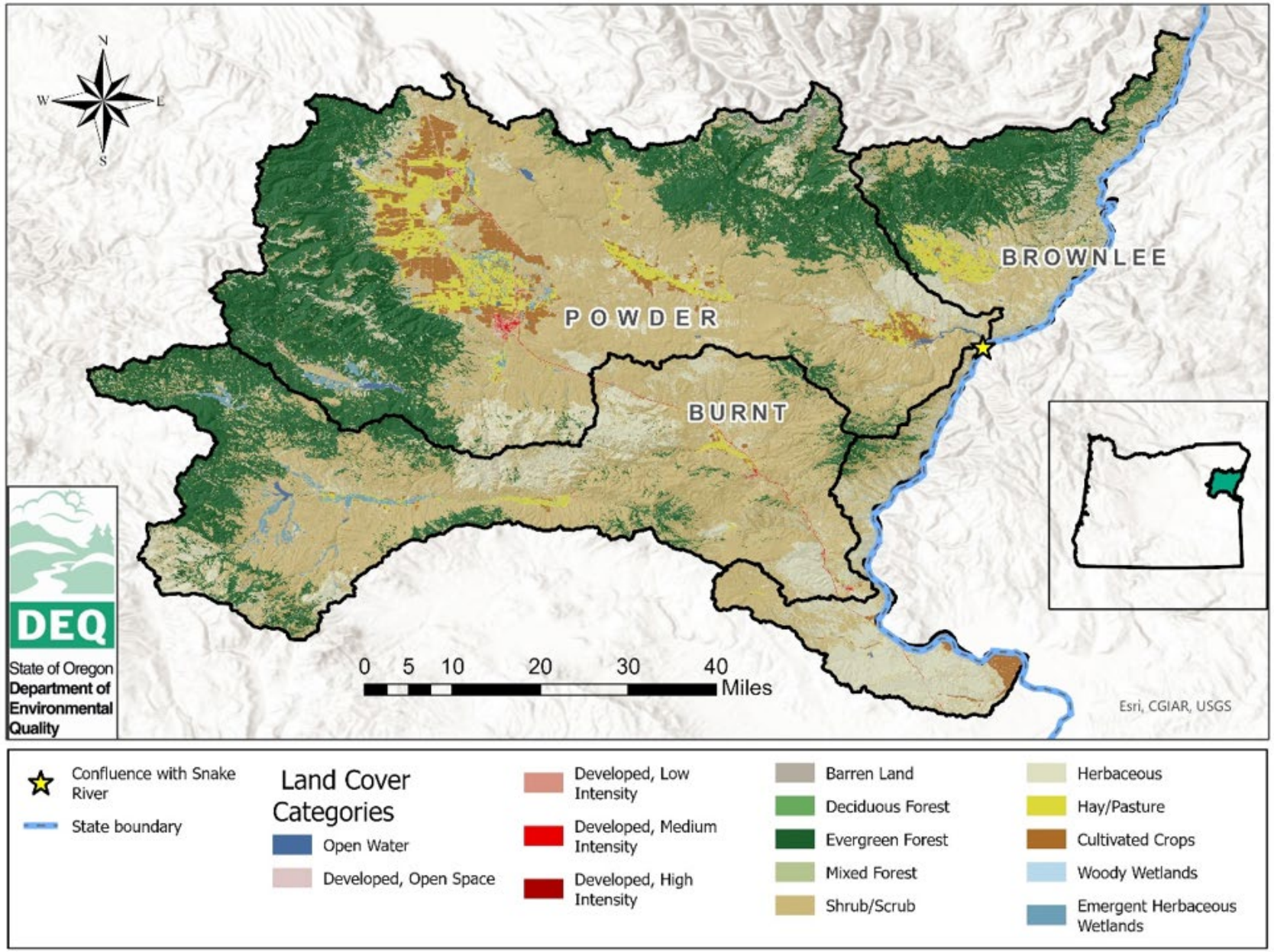


TMDL rulemaking process

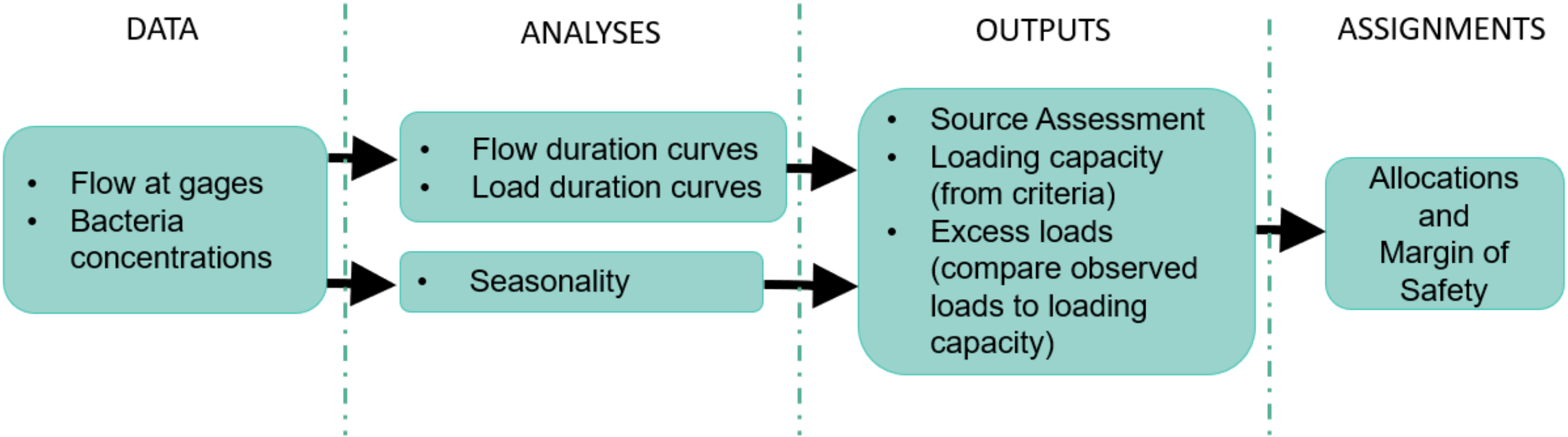


Powder River Basin

Geographic setting and land use

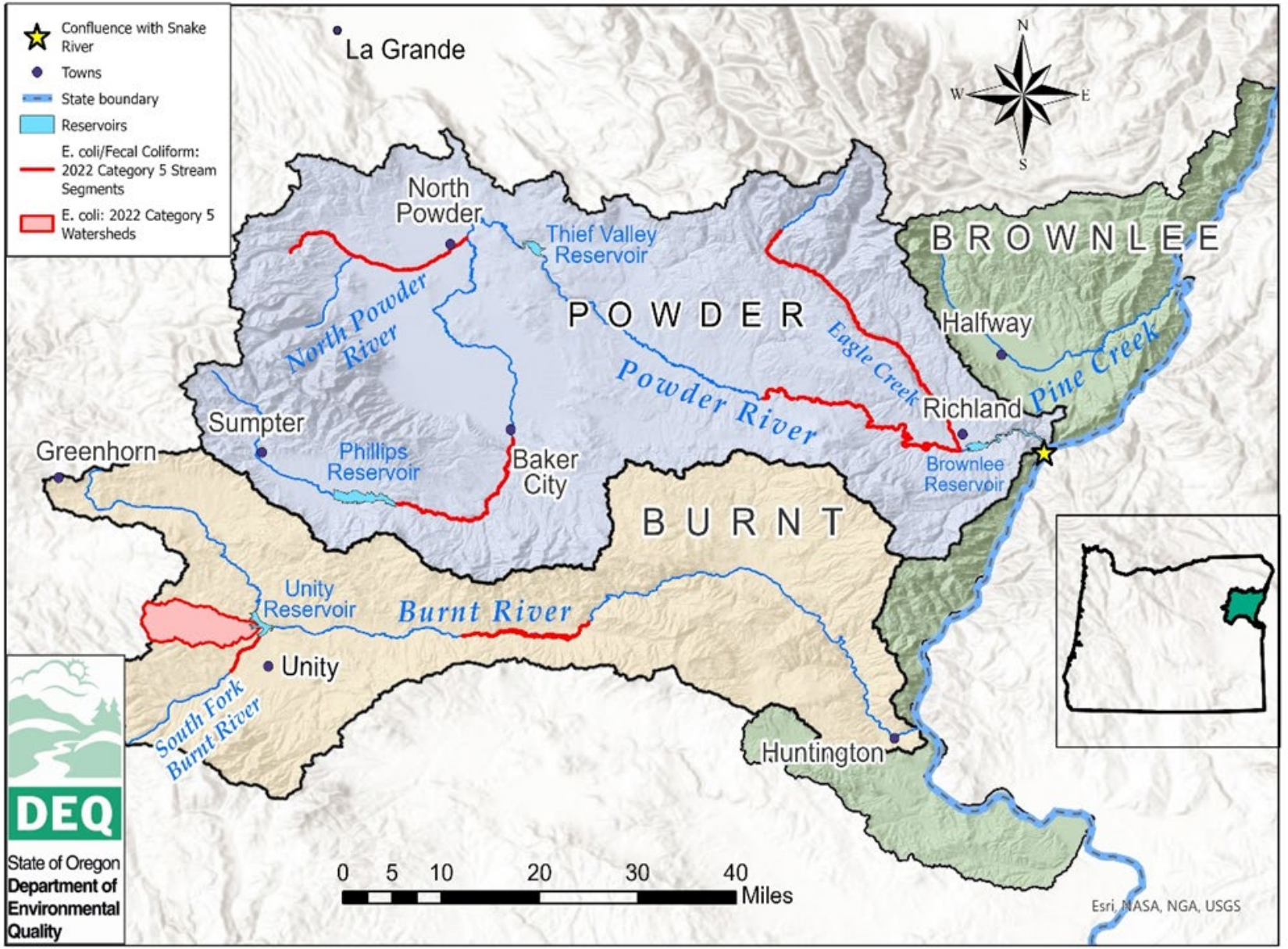


Bacteria analyses overview



Powder River Basin

Hydrology and bacteria impairments



Hydrology and bacteria source assessment

Photos courtesy of John Dadoly, DEQ Powder Basin Coordinator (retired)

Flood irrigation return water

Photo courtesy of John Dadoly, DEQ Powder Basin Coordinator (retired)

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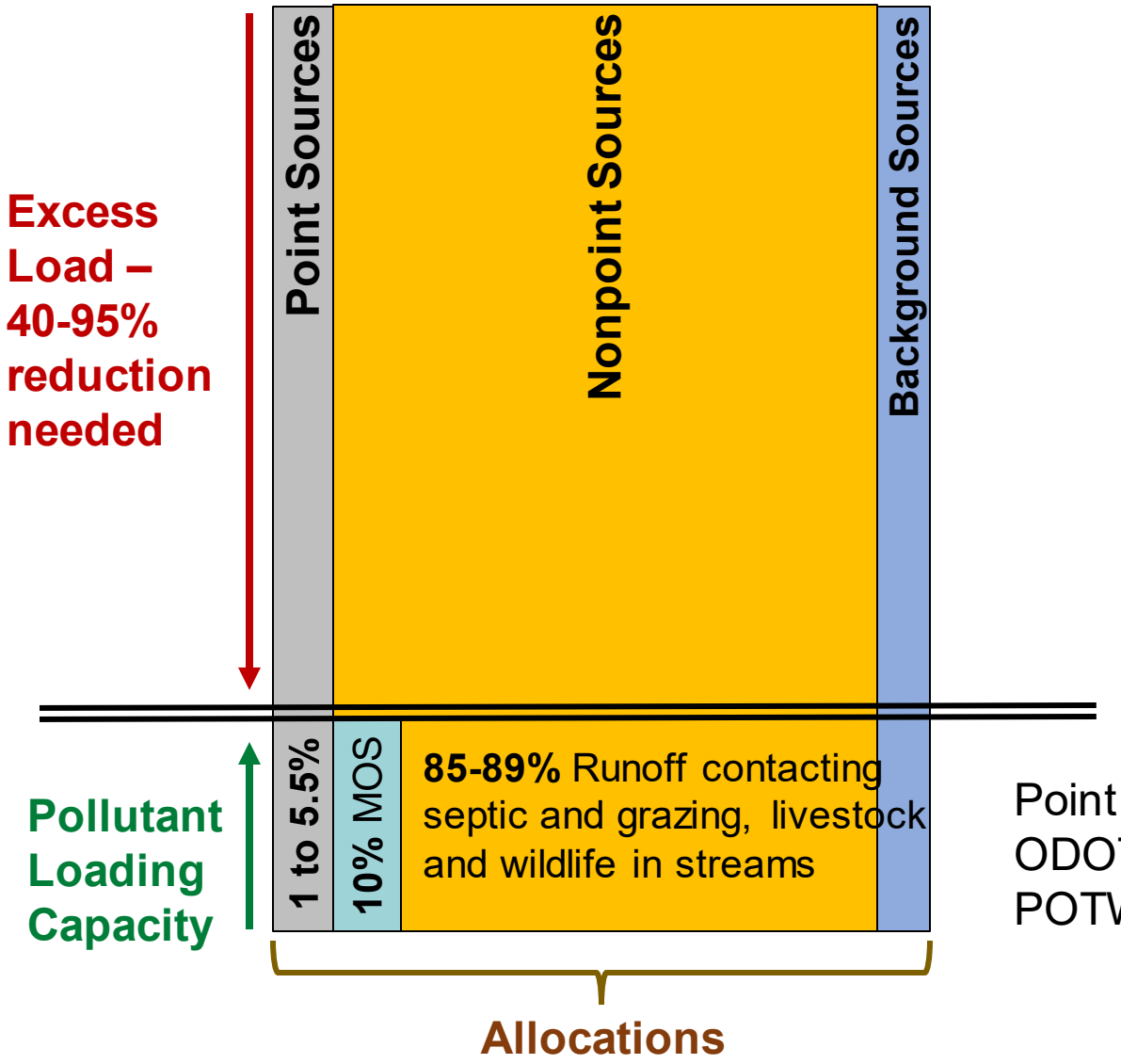
Flood irrigation return water discharge

Photo courtesy of John Dadoly, DEQ Powder Basin Coordinator (retired)

Bacteria allocations and contributions



Point source wasteload allocations:
ODOT MS4 1%
POTWs 0% to 4.5%

Implementation tools – Proven strategies

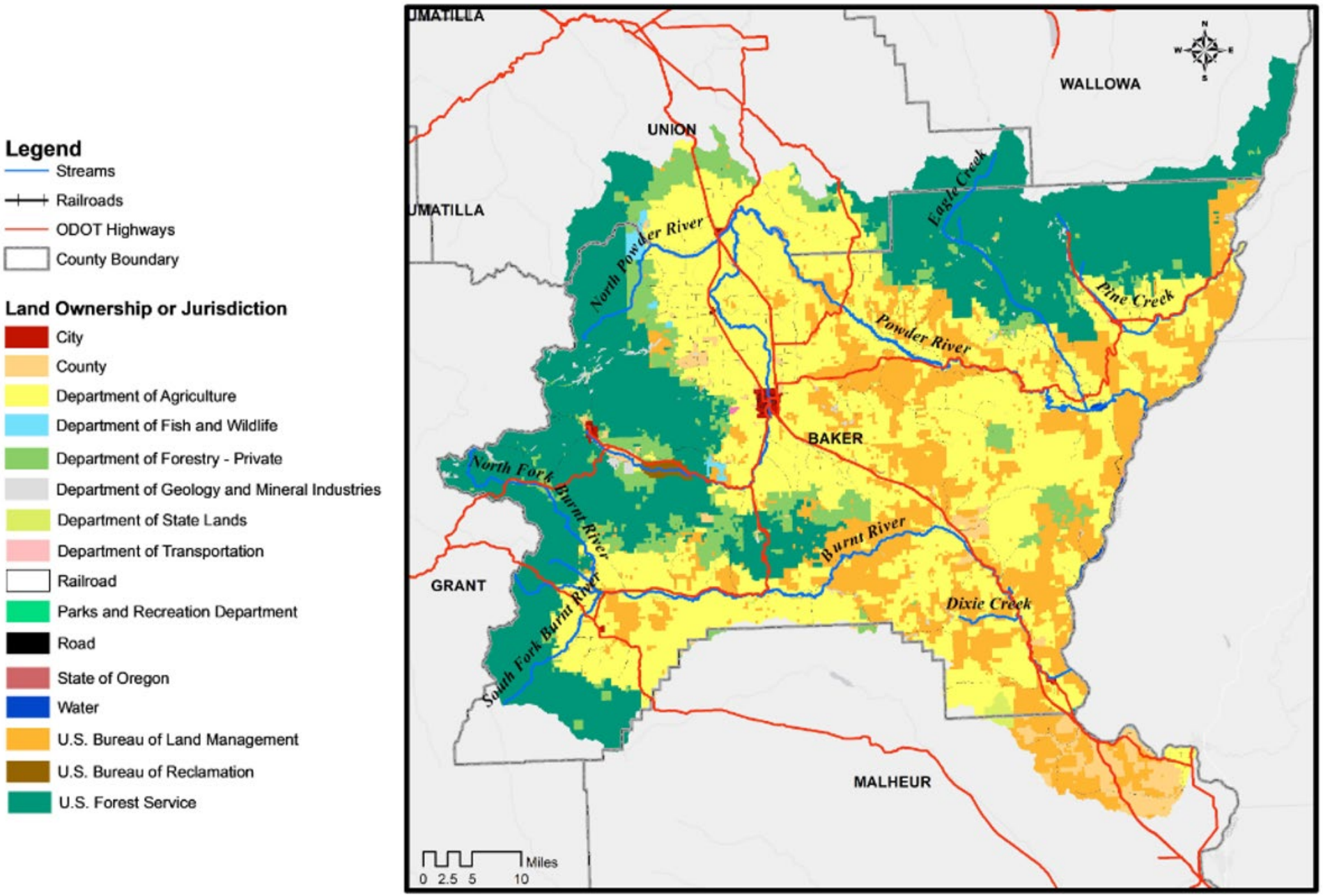
Sources		Percent Reductions Needed	Management Strategies
Nonpoint and background	Irrigation return water and stormwater runoff in contact with livestock grazing areas and roadways	40% - 95%	Irrigation system improvement to reduce runoff • irrigation pipeline • microirrigation • sprinkler irrigation • irrigation tailwater recovery • surface drainage improvement
	Livestock and wildlife in and around streams (including reservoirs during dry down)		Livestock management and erosion control techniques • riparian fencing (or other livestock exclusion) • livestock access/crossing improvements • water gap development • livestock off channel watering/shade

Implementation tools – Priority identification

Table 2.0c: Priority locations for implementation of bacteria reduction strategies

River reaches	Designated Management Agency
North Powder River from USFS Boundary to confluence with Powder River	Oregon Department of Agriculture
Burnt River from Unity Reservoir to Clarks Creek Rd	Oregon Department of Agriculture, US Bureau of Land Management
South Fork Burnt River	Oregon Department of Agriculture, US Bureau of Land Management
Powder River from Thief Valley Reservoir to Richland	Oregon Department of Agriculture, US Bureau of Land Management
Eagle Creek from New Bridge to Brownlee Reservoir	Oregon Department of Agriculture, US Bureau of Land Management, US Forest Service
Thief Valley Reservoir, due to trespass cattle during the dry season	US Bureau of Reclamation, Oregon Department of Agriculture, US Bureau of Land Management

Implementation tools – Jurisdiction map



Issues and policy discussions

- Land management agencies responsibilities
- Evaluation of fiscal impacts
- Environmental justice and racial equity

Land management agency responsibilities

- Analytical methods and policy approaches to improve the pace and scale of water quality restoration
- Determinations of adequacy of existing programs to achieve TMDL load allocations and requiring TMDL implementation plans

Fiscal impacts analysis

- On-going costs of water quality impairment (without TMDL implementation) cannot be quantified
- Economic impacts are anticipated for some farms/ranches, and county, state and federal lands that contribute to impaired bacteria
- Identifying technical and financial assistance for TMDL implementation
- DEQ asked the RAC to make a finding on significant, adverse impacts to small businesses

Environmental justice and racial equity

- Communities with potential disadvantages related to age and low income are present in the basin, but will not be disproportionately impacted by TMDL implementation
- DEQ engaged extensively with agricultural and forestry communities and local, state and federal governments through ODA's local advisory committees and DEQ's Rule Advisory Committee
- Improvements to water quality as a result of TMDL implementation will improve opportunities for recreation and livestock watering, which may have increased economic and health benefits

Next steps in Powder TMDL process

- Public comment period and hearing – anticipated for June through July
- Summarize comments/responses and final documents for EQC and request rule adoption – Sep. or Nov. 2023
- Submit TMDL to EPA – Sep. to Nov. - for EPA action – by Oct. to Dec. 2023

2023 Schedule for EQC TMDL items

July 2023	EQC Informational Item	**Willamette Subbasins and Sandy Subbasin Temperature TMDL Replacements** briefings on technical work, EPA input, rule advisory committee process and public process
Sep 2023	EQC Informational Item and Decision	**Upper Yaquina Bacteria and DO TMDLs** briefing on EPA and public process input and proposal for adoption by rule
	EQC Informational Item and Decision	**Powder bacteria TMDL** briefing on EPA and public process input and proposal for adoption by rule
Nov 2023	EQC Informational Item and Decision	**Willamette Subbasins and Sandy Subbasin Temperature TMDL Replacements** proposal for adoption by rule ***[EPA action court deadline Jan 2024]***
	EQC Informational Item	**Coquille Subbasin Bacteria, DO, Temperature, pH TMDLs** briefing on technical work, local outreach and rule advisory committee input

Questions and discussion…

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