

Upper Yaquina River Watershed Total Maximum Daily Loads – Rule Advisory Committee Meeting #2

Watershed Management

Oct. 19, 2022

9 a.m. – 11:30 a.m.

Virtual meeting



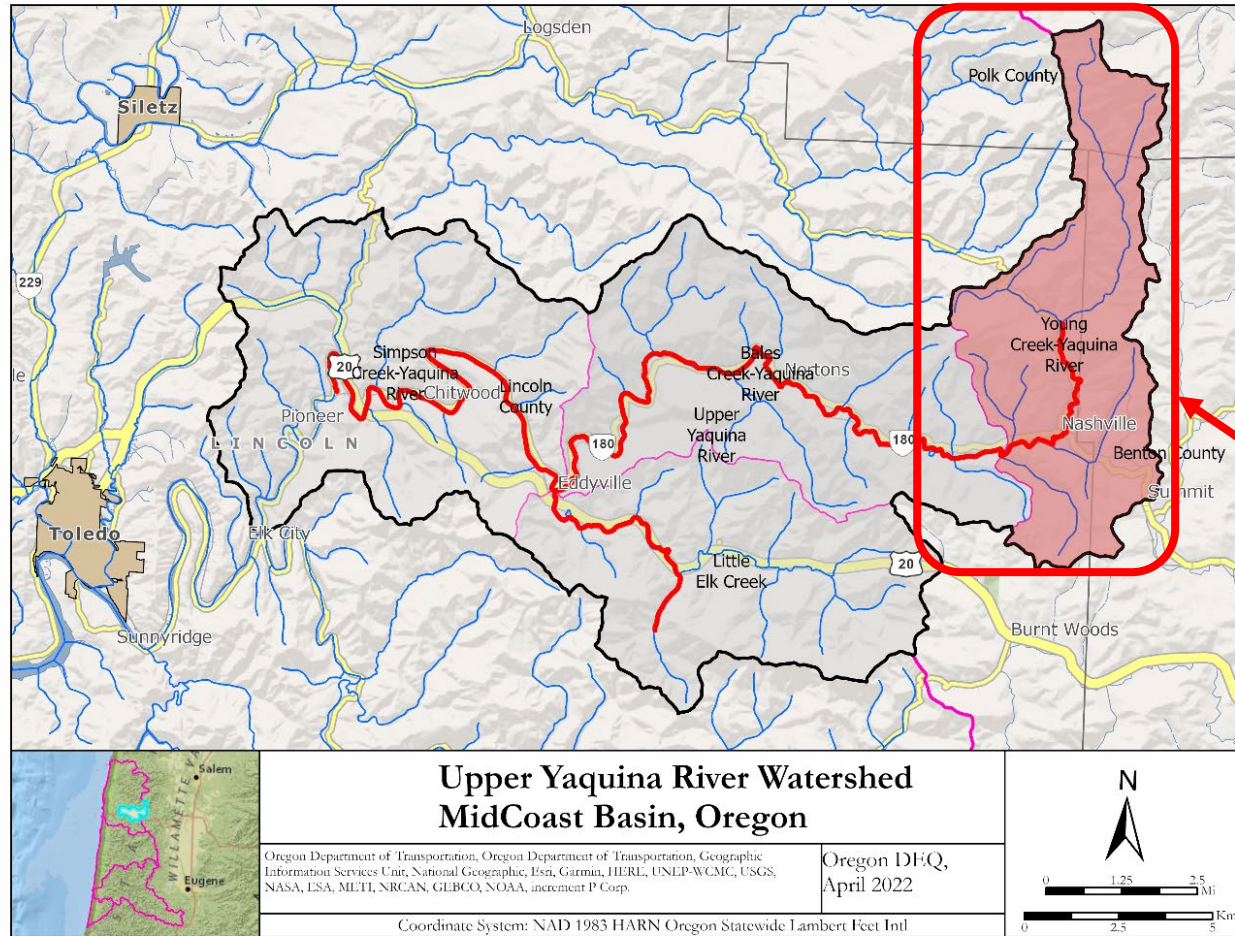
Meeting agenda summary

1. Welcome, introductions, agenda review and Zoom logistics
2. Upper Yaquina River TMDLs updates
3. Draft fiscal impact statement
 - Rule Advisory Committee input summary
 - Revisions discussion
4. Rulemaking schedule review
5. Next steps, wrap-up and adjourn meeting

Upper Yaquina River TMDLs updates since first RAC meeting

1. Oregon's 2022 Integrated Report approved by EPA on Sep. 1, 2022
 - Primary change: Watershed AU determined to be “unassessed” and removed from 303d list (see map)
2. Riparian zone DMA/RP mapping & effective shade assessment tools - refined for implementation planning

Yaquina River (freshwater) 2020 Integrated Report/303(d) List – dissolved oxygen



Upper Yaquina watershed (freshwater) - 2018/2020 IR Category 5 Dissolved Oxygen impairments

- OR_SR_1710020401_02_105951_DO_303d
- OR_SR_1710020401_02_105953_DO_303d
- OR_SR_1710020401_02_105950_DO_303d
- OR_WS_171002040101_02_106126_DO_303d
- OR_county
- citylimit_2019
- NHDplus_1710020401

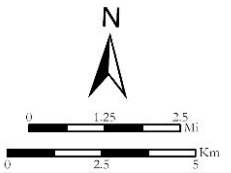
Watershed AU (HUC 12) (Stream orders 1 - 4)

Upper Yaquina River Watershed MidCoast Basin, Oregon

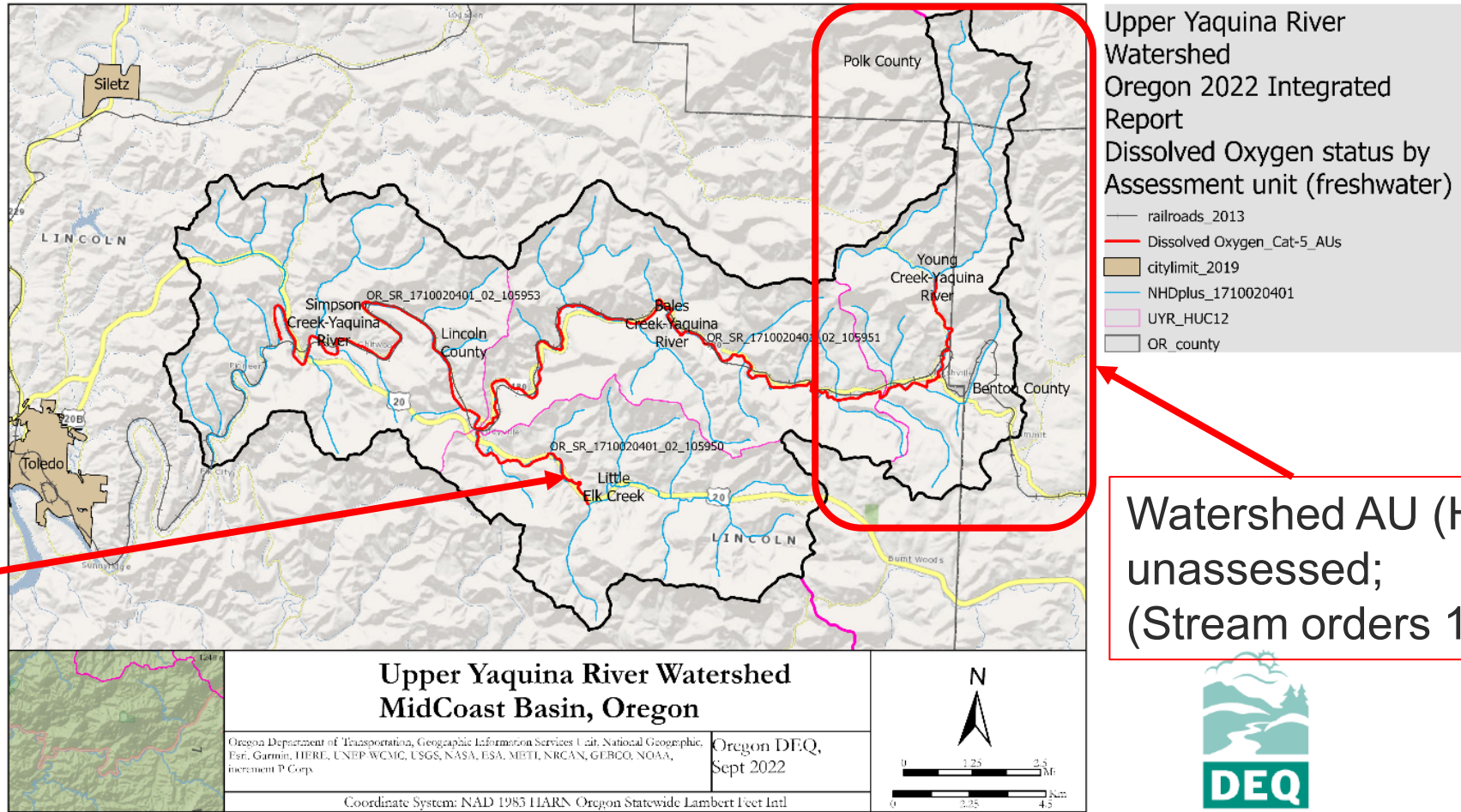
Oregon Department of Transportation, Oregon Department of Transportation, Geographic Information Services Unit, National Geographic, Irsa, Garmin, HERE, UNLW-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Oregon DEQ,
April 2022

Coordinate System: NAD 1983 HARN Oregon Statewide Lambert Feet Intl



Yaquina River (freshwater) 2022 Integrated Report/303(d) List – dissolved oxygen

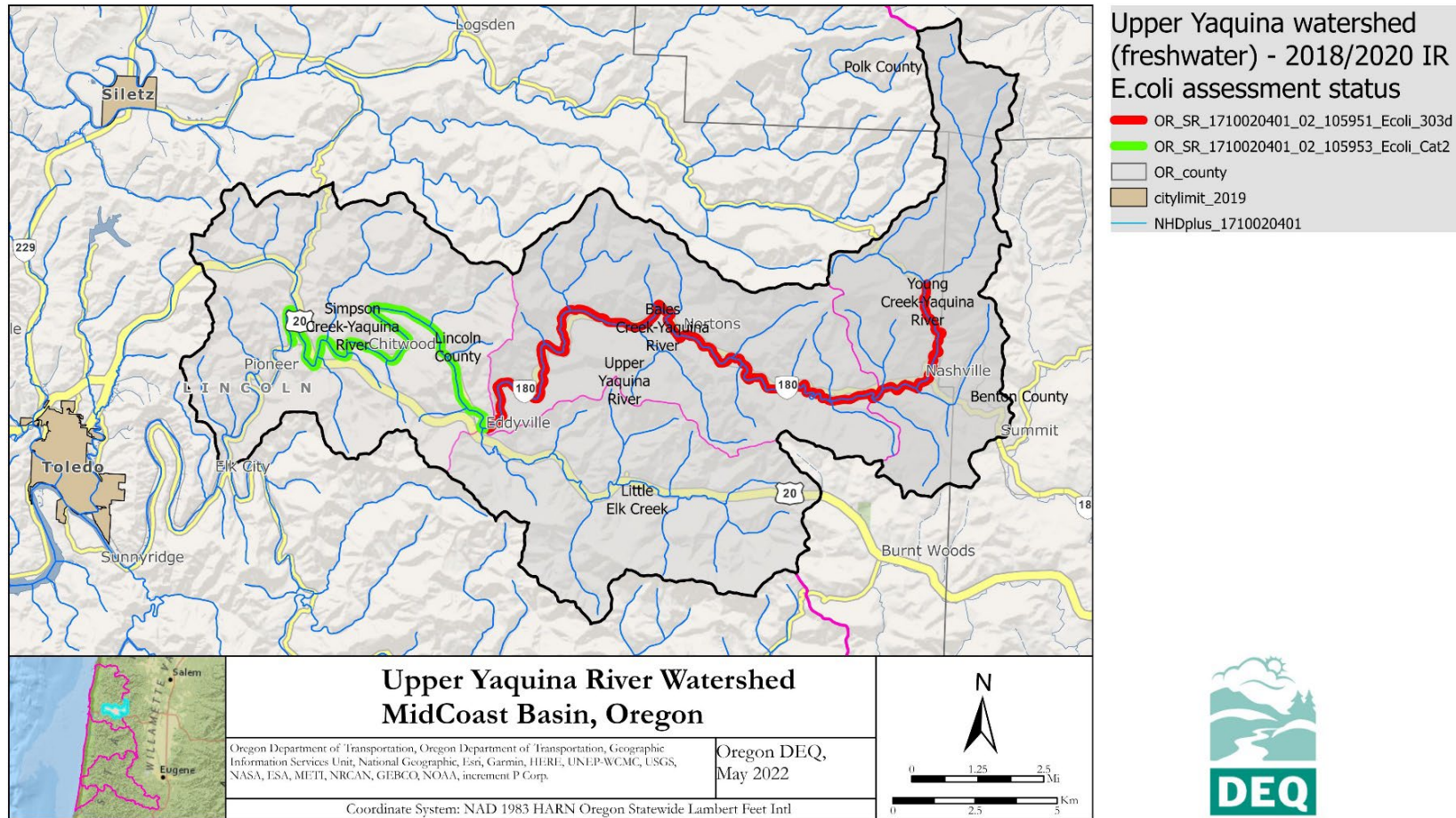


Corrected
streamline

Watershed AU (HUC 12)
unassessed;
(Stream orders 1 - 4)



Yaquina River (freshwater) 2022 Integrated Report/303(d) List - *E.coli* (same as 2020 IR)



IR 2022: Revised scope of Dissolved Oxygen TMDL

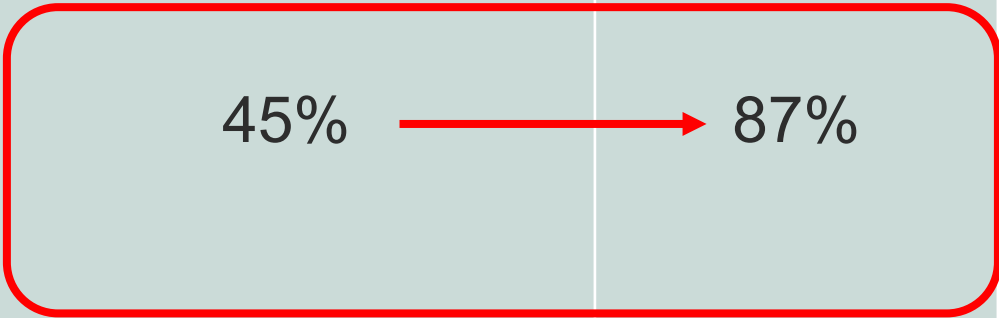
1. Spatial scale adjusted to align with Integrated Report
2. Effective shade allocations will apply to the Category 5 (303d) Assessment Units (freshwater):
 - Yaquina River mainstem (25.5 miles)
 - Little Elk Creek (3.4 miles)
3. No shade allocations for unassessed tributaries (stream orders 1 – 4)

IR 2022: Impact on Upper Yaquina TMDLs (cont.)

- **Conclusion of TMDL analysis:** DO impairments will be addressed by effective shade allocations for mainstem Yaquina River and Little Elk Creek combined with watershed-scale phosphorus reductions.
- Bacteria (*E. coli*) TMDL: no changes in spatial scale, load allocations or percent reductions needed to meet criteria

Yaquina River solar radiation loading capacity for effective shade – riparian zone width correction

Pollutant	Surrogate Measure	Current conditions	Loading capacity
Solar Radiation	Effective shade from approx. 100-foot distance on both banks	45%	87%

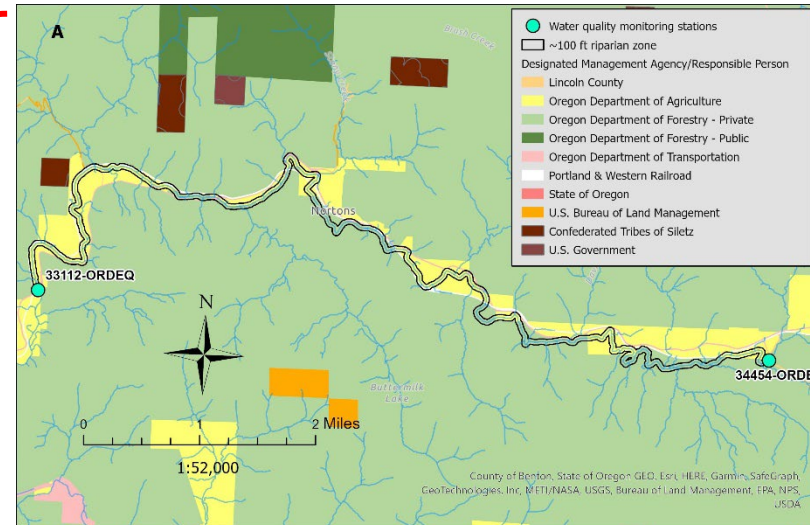


TMDL Implementation Recap

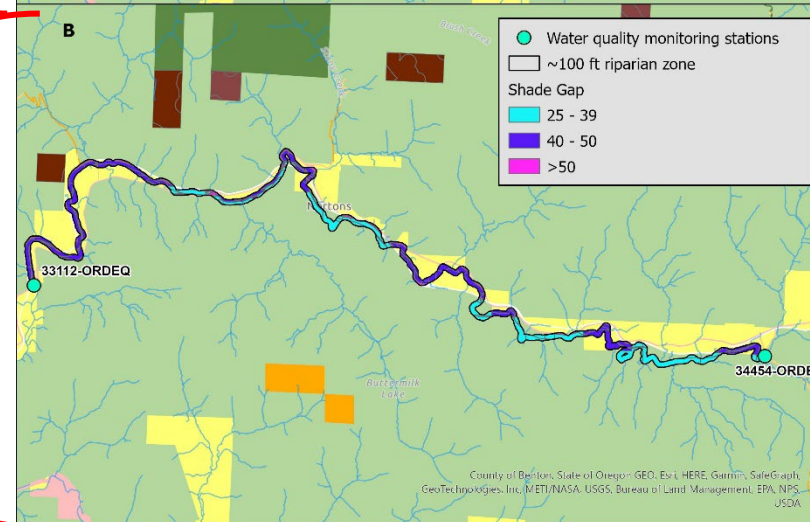
- DEQ identifies TMDL components (loading capacity, load reductions, load allocations) to meet WQS
- DEQ identifies DMAs/RPs and proposed management strategies in WQMP
- DMAs/RPs are responsible for ensuring allocations are attained within their jurisdiction through existing programs and implementation plans
- Site-specific assessment, BMPs, restoration and protection strategies are responsibility of DMA/RPs.

Implementation Tools - Shade gap range (%) maps by DMA/RP

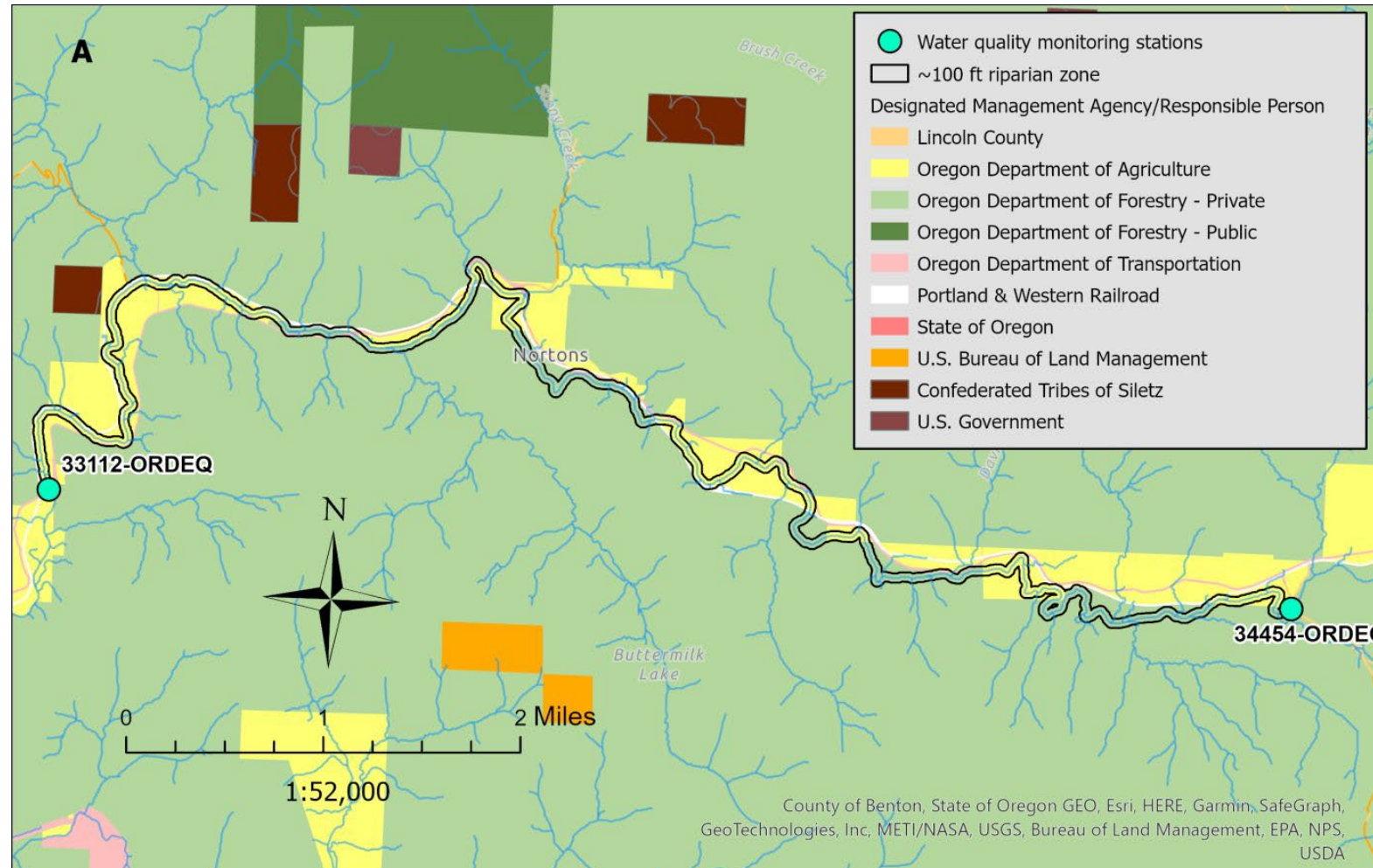
DMA Panel



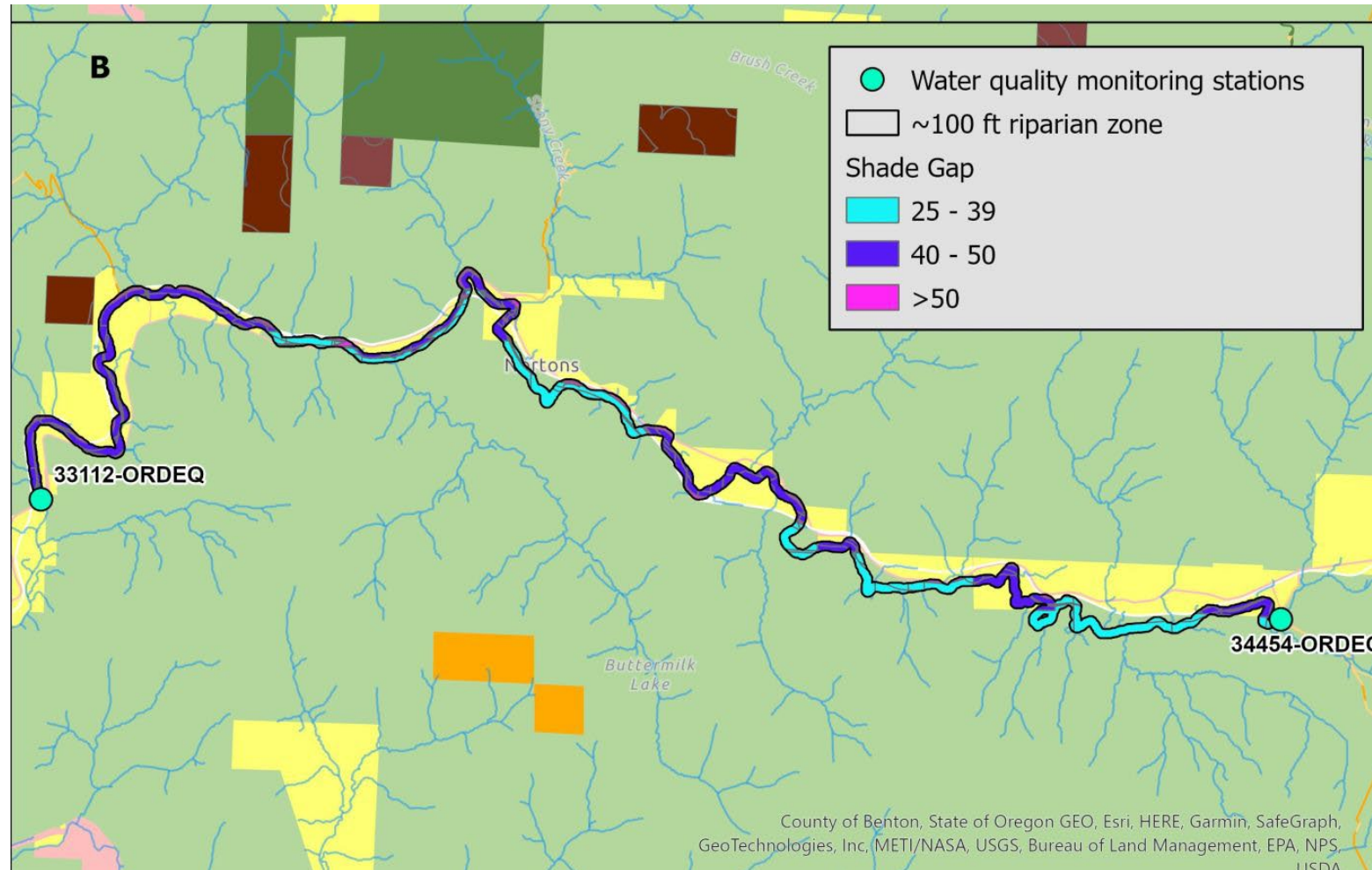
Shade Gap Panel



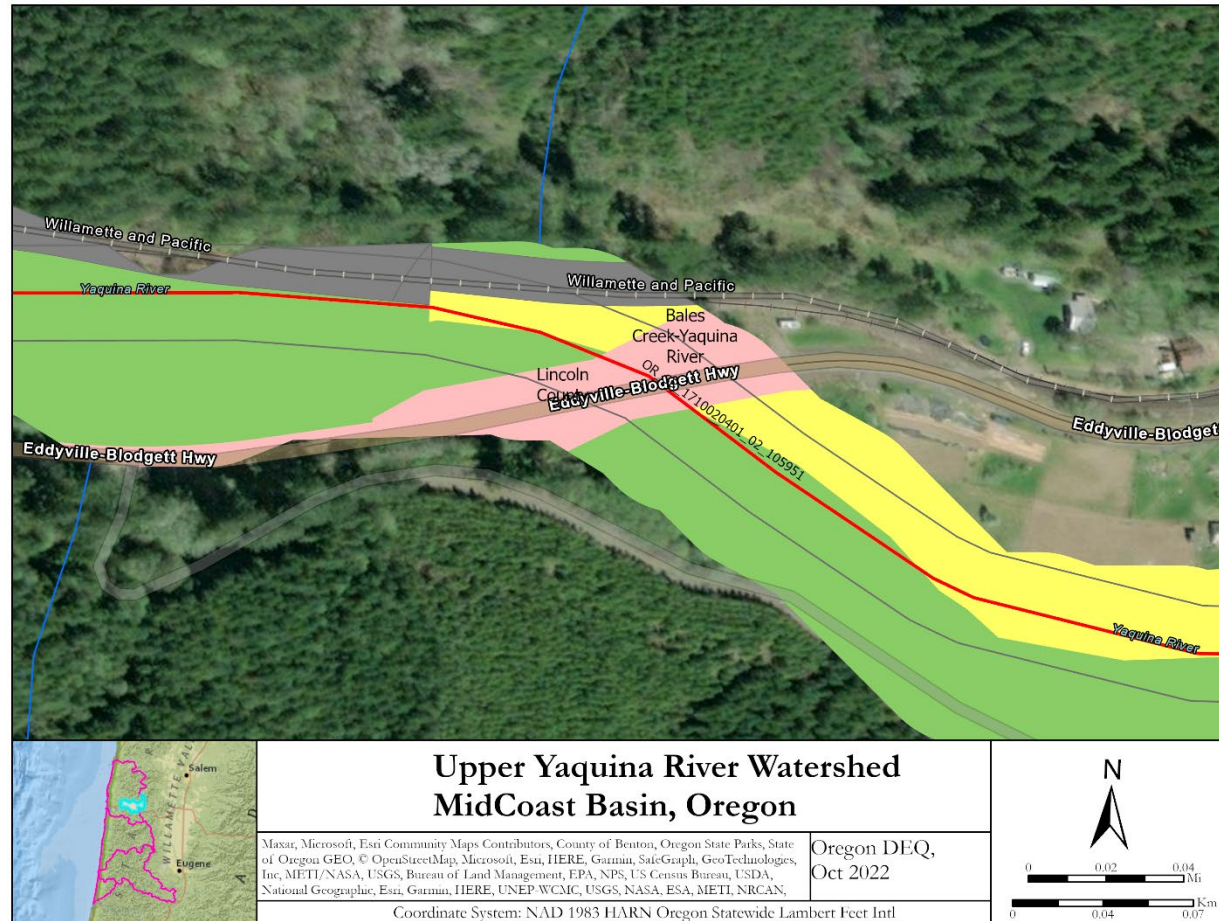
Riparian Zone responsibility (~100 ft) by DMA/RP



Riparian Zone (~100 ft) – Effective shade gap (%)



Zoom in on Riparian Zone (~100 ft) by DMA/RP



Yaquina River - DMA jurisdiction within 130 ft buffer from stream centerline (example)

- Dissolved Oxygen_Cat-5_AUs
- DO_Cat5_AUs_Buffer_65ft
- Oregon Department of Agriculture
- Oregon Department of Forestry - Private
- Oregon Department of Transportation
- U.S. Bureau of Land Management
- <all other values>
- railroads_2013
- County_Rds
- UYR_Fish_Presence_Stream_Clip2022
- UYR_state-own-managed
- UYR_HUC12
- OR_county



Results of Analysis: Acres and Stream miles of Riparian Vegetation Height ≤ 3 ft within approx. 100 ft of the Yaquina River (from Clem Rd to Trapp Ck Rd) classified by DMA/RP

DMA/RP	Acres of vegetation height ≤ 3 ft	Stream miles adjacent to vegetation height ≤ 3 ft
Oregon Department of Agriculture	121.0	10.2
Oregon Department of Forestry - Private Forestland	63.0	6.1
Portland & Western Railroad	14.9	1.0
Oregon Department of Transportation	6.9	0.3
U.S. Bureau of Land Management	2.8	<0.1
Lincoln County	39.4	2.8
Total	247.9	20.4

Upper Yaquina TMDL Updates

- Questions?



BREAK (10 min)



Yaquina River above Chitwood

Draft fiscal impact statement - overview

- Purpose of the rule is to address bacteria and dissolved oxygen water quality impairments, as required by the federal Clean Water Act program
- No fees or housing costs are involved
- On-going costs of water quality impairment are not quantified
- Economic impacts are anticipated for some farms/ranches, forestlands, railroad and road rights-of-way and county, state and federal lands that contribute to impaired DO and bacteria
- Costs vary widely by sources, but are not different for the TMDL issued by rule or order

Rulemaking focus of Fiscal Impact Statement

1. Determine if the rule imposes a **significant, adverse economic impact on small business**
2. If so, how can the rule be adjusted to reduce that impact and still meet the rule's purpose
3. How will the rule affect racial equity in OR?

First request for RAC input on FIS

- Are the sources and sectors accounted for in the TMDLs?
- Are the factors considered for the allocations clear?
- Are additional management strategies/practices needed?
- Do you have specific economic information or comments for consideration in the draft fiscal impact statement?
 - Specifically on:
 - Whether the proposed rules would have a fiscal impact,
 - The extent of the impact, and
 - Whether the proposed rules would have a significant adverse impact on small businesses; if so, then how to reduce that impact.
- Is there any additional information you need in order to provide input?

Input during first RAC meeting

- Both costs and benefits of restoration should be considered
- ODA and ODF rules requirements defray costs due to TMDL
- Operator losses for riparian protection are a cost:
\$1000/acre to not cut timber, \$1000/5-acres to not pasture cow/calf, \$300/acre to not hay
- Administrative costs for planning and reporting affect all organizations responsible for sources
- Large wood and beavers are additional strategies

Summary of written input received so far

- Reductions (83% E. coli, 76% solar radiation, 50% phosphorus) are ambitious and will require considerable investment (\$1.56 million to \$12.19 million for riparian restoration/fencing on ~ 240-acres);
- Many grant-funded restoration projects over past 20 years & one landowner enrolled 60 acres in CREP;
- Topographic shade not included so need for shade overstated; modeling overestimates perennial streams; only bioavailable phosphorus should be considered; watershed specific sediment info should be used in phosphorus modeling; a mix of existing forest practices and incentivized voluntary measures would benefit the watershed;
- ODA and ODF program language clarifications needed

Discussion of FIS revisions

- Most small businesses in watershed not registered
 - farm and woodlot operations
 - Investment land and land lease/management agreements
- ODA and ODF rules/costs apply, regardless of TMDL
- Cumulative cost projections of riparian restoration/fencing
- Administrative costs acknowledged for all relevant sources
- Agency program language tweaks
- References:
 - DEQ's 2010 Willamette riparian restoration cost estimate report
 - BLM Resource Management Plans
 - USDA Agriculture Census and Statistics

Second request for RAC input on FIS

As ORS 183.33 requires, DEQ is asking for the committee's recommendations on:

- Whether the proposed rules would have a fiscal or economic impact,
 - The extent of the impact, and
 - Whether the proposed rules would have a significant adverse impact on small businesses;
1. Does the RAC find these TMDLs **will** or **will not** have a significant adverse impact on small businesses in Oregon?

Second request for RAC input on FIS (*cont.*)

If a significant impact is identified by the committee, as ORS 183.333 and 183.540 requires, the committee will consider:

2. How could DEQ reduce the rules' fiscal impact on small business?

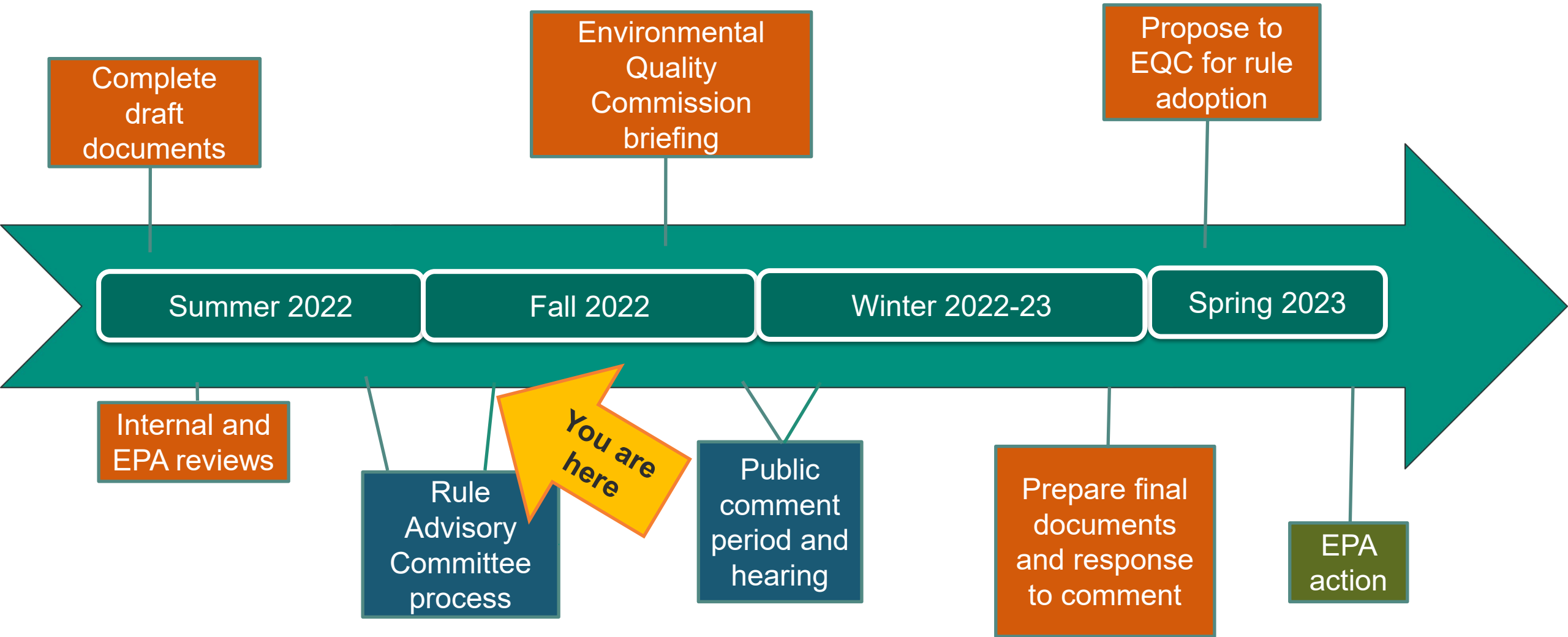
For example, by:

- Improving awareness of funding opportunities
- Establishing less intrusive or less costly alternatives applicable to small business
- RAC member ideas?

Second request for RAC input on FIS (*cont.*)

3. Input on how the rule will affect racial equity in Oregon?
(racial equity section included in revised draft FIS)
4. Input on Environmental Justice considerations in the watershed?

Upper Yaquina Watershed TMDLs process



Next steps

- Requested input should be provided within two weeks of the meeting (by Nov. 2nd)
- DEQ will consider all input from the RAC for incorporation into the fiscal impact statement and draft TMDL documents
- DEQ will brief the EQC on the process
- DEQ will publish draft TMDL documents for public comment

DEQ contacts

- Upper Yaquina TMDLs Rulemaking webpage:
<https://www.oregon.gov/deq/rulemaking/Pages/upperyaquinaTMDL.aspx>

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Adjourn



Yaquina River at bridge on HWY 180 upstream of Eddyville