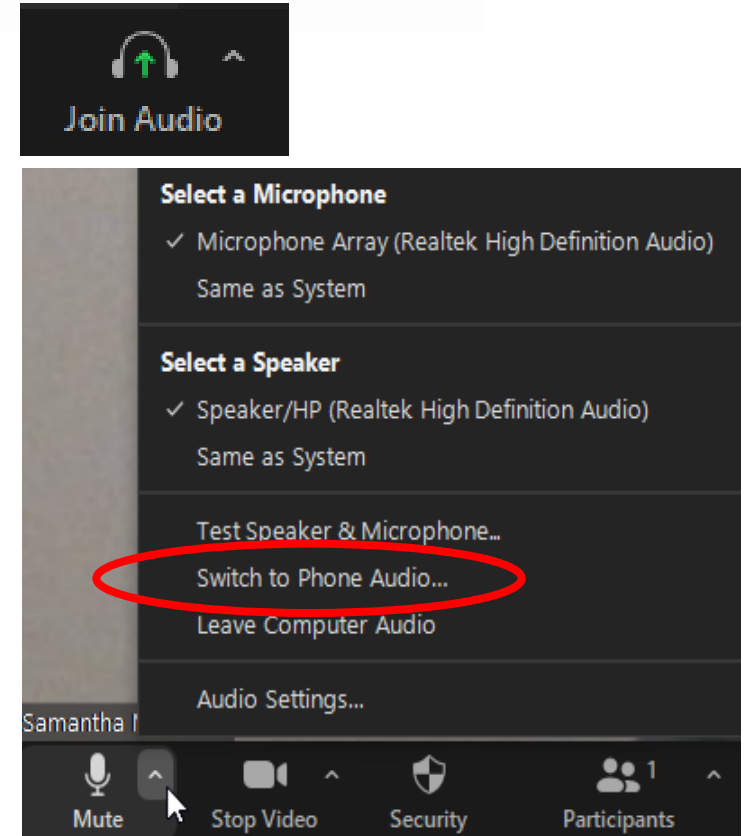


Columbia Basin Collaborative Hydropower & Blocked Areas Work Group

**May 31st, 2023
1:00pm-3:00pm PT/2:00pm-4:00pm MT**

Zoom Webinar Features

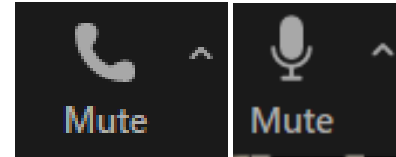
- If you have not **connected your audio**, click on the “Join Audio” at the bottom left of your screen.
- To **switch to phone**, click the arrow next to the microphone icon and select “Switch to Phone Audio”.
- If you have joined by browser, please click “Audio Settings”



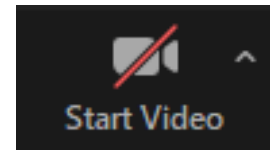
For technical support, please contact Mark Anthony

Zoom Webinar Features – Work Group Members

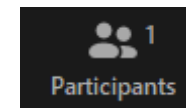
Keep yourself on mute when not speaking.



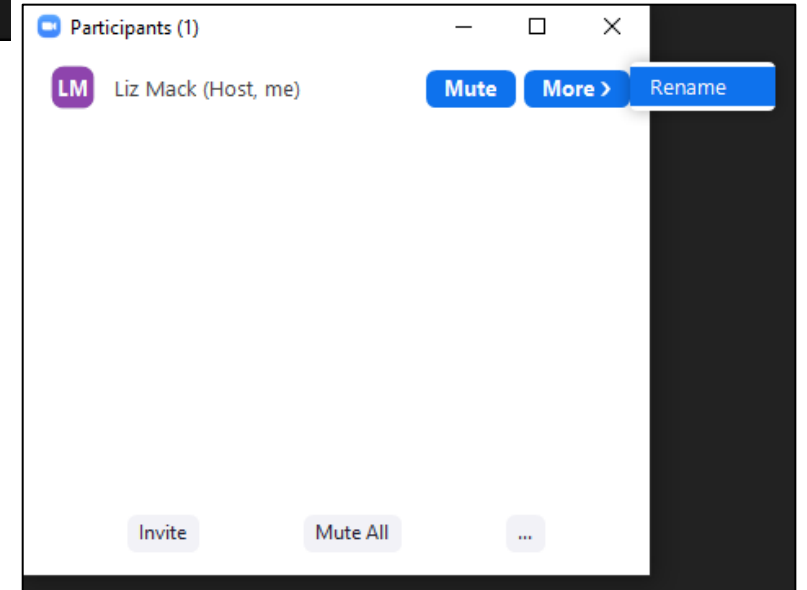
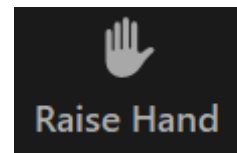
Use video, if possible, to promote face to face communication.



If needed rename yourself in the participant panel.



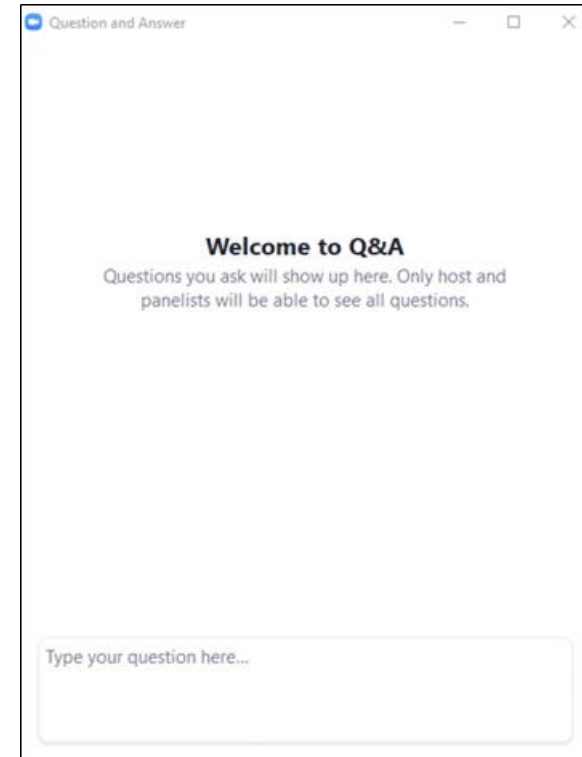
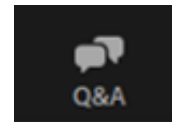
Find your raise hand function at the bottom of your screen



Zoom Webinar Features – Audience Members

Audience members will remain muted.

If you have technology issues, please use the Q&A feature to reach our team



Welcome, Meeting Guidelines, and Proposed Agenda

Meeting Guidelines

- Honor the agenda
- Listen to understand and ask questions to clarify
- Balance speaking time
- Don't pile on
- Be hard on the problems, soft on the people
- Seek alignment and common ground wherever possible
- Be present



Agenda Review

Time (PT)	Topic
1:00 – 1:10 pm	Welcome, Agenda Review, and Updates
1:10 – 2:00 pm	Hydropower – Actions to Address Needs
2:00 – 2:10 pm	Blocked Area Check-in
2:10 – 2:55 pm	Blocked Areas – Tributaries to the Columbia River survey
2:55 – 3:00 pm	Confirm Next Steps, Upcoming Meeting Topics, and Summary

Hydropower – Actions to Address Needs

Hydropower Tier 1 Needs

Columbia Basin Needs:

- *Need for federal and non-federal dam operators to shift management objectives to target Columbia Basin Partnership Task Force goals*
- *Need for more accurate data collection and monitoring*
 - *recommendation to modernize and fully fund detection work*
- **Need to understand the ways (methods, infrastructure) to improve downstream passage for juveniles and steelhead kelts and overshoots.**
- Need for urgency to achieve success in meeting fish goals
- Need for fish & wildlife managers to have more of a say in dam operations affecting fish
- Need to fund infrastructure to maintain or replace services currently provided by LSR dams or others

Internal Work Group Needs:

- Internal work group need to understand baseline conditions necessary to be able to meet CBPTF abundance goals and NPCC survival goals.
- Internal work group need to understand possible operational changes and impacts to specific projects and across systems.
- What's the current conditions and cost of doing nothing?

Hydropower – Work Plan

Meeting	Topics
#8 (May)	<ul style="list-style-type: none">• Build consensus and refine recommendation concepts – Reach Survival/SAR data and Overshoots/Kelts• Brainstorm ideas to address:<ul style="list-style-type: none">• Need for urgency to achieve success in meeting fish goals
#9 (July)	<ul style="list-style-type: none">• Build consensus and refine recommendation concepts - Overshoots/Kelts• Brainstorm ideas to address:<ul style="list-style-type: none">• Need for fish & wildlife managers to have more of a say in dam operations and/or mitigation affecting fish• Need to fund infrastructure to maintain or replace services currently provided by LSR dams or others• Identify information sources and presenters to address internal work group needs to understand current operations and possible changes.
#10 (Aug)	<ul style="list-style-type: none">• Refine recommendation concepts• Hear presentations to address these internal work group needs:<ul style="list-style-type: none">• Understand baseline conditions necessary to be able to meet CBPTF abundance goals and NPCC survival goals.• Understand possible operational changes and impacts to specific projects and across systems.• What's the current conditions and cost of doing nothing?• Look at remaining needs and identify which to address next.

Blocked Area Check-in

Blocked Areas – Tributaries to the Columbia River survey

SOCKEYE RESTORATION

YAKAMA NATION FISHERIES

MARK JOHNSTON SENIOR RESEARCH SCIENTIST

ANDREW MATALA FISH BIOLOGIST

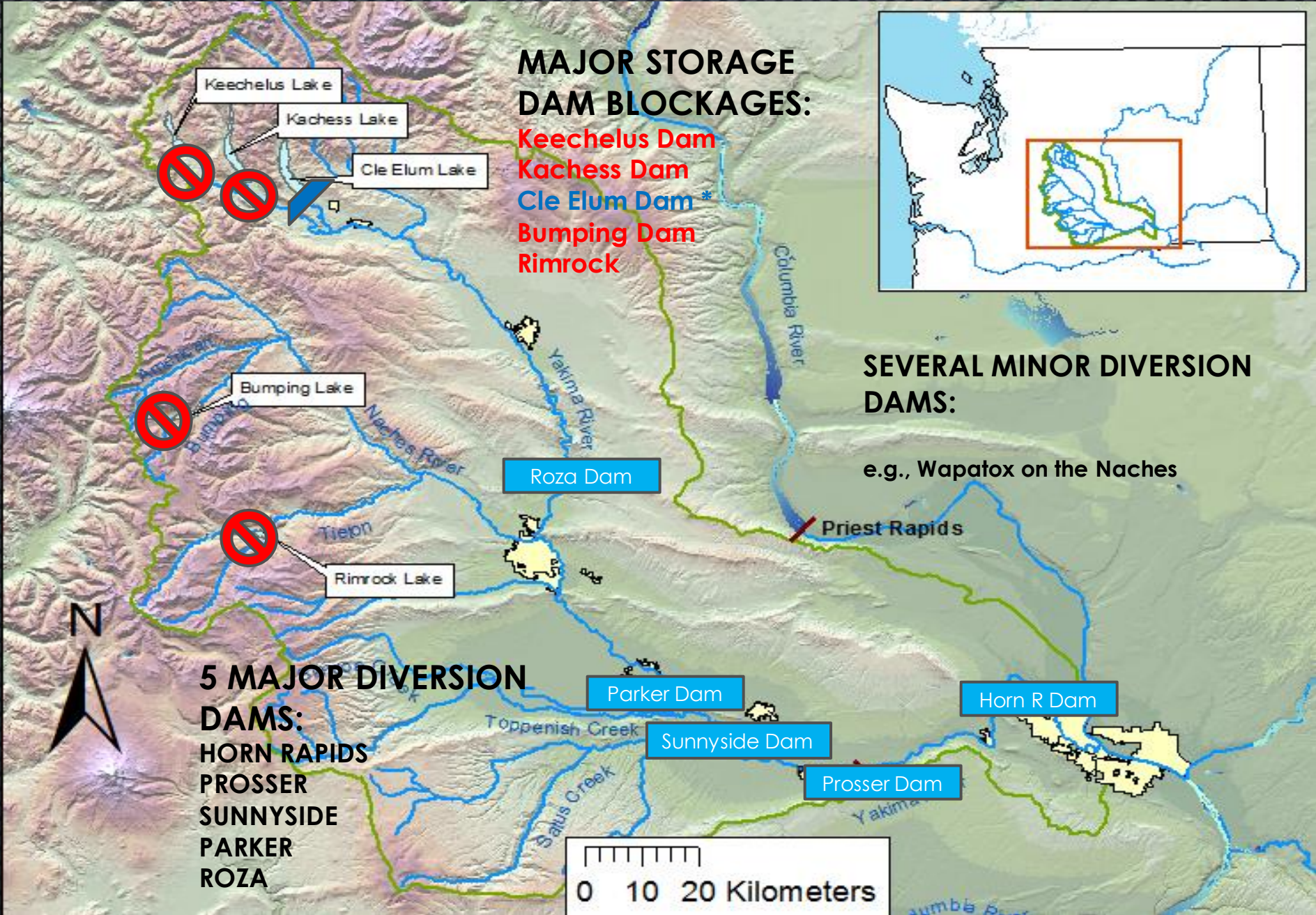
BRIAN PAUL SALUSKIN FISH PASSAGE BIOLOGIST



KÁLUX

Sockeye





Sockeye



- Historical returns of 200,000
- Early 1900's zero returns, extirpated from the Yakima Basin
- In 2009 the Yakama Nation reintroduced Sockeye
- In 2021 only 95 returned to the Yakima Basin

Summer Chinook

- Historical returns of 68,000
- 1980's zero returns, extirpated from the Yakima Basin
- In 2008 the Yakama Nation reintroduced Summer Chinook
- In 2021 only 617 returned to the Yakima Basin



Coho



- Historical returns of 110,000
- 1986 zero returns, extirpated from the Yakima Basin
- In 1994 the Yakama Nation reintroduced Coho
- 2020 Melvin R. Sampson Coho Facility began operation
- In 2021 only 14,398 returned to the Yakima Basin

Bull Trout



- 1980's 12 individual populations
- By the 1990's severe declines and loss of some populations
- 1998 listed as threatened under the Endangered Species Act

Steelhead

- Historical returns of 80,500
- 1980's returns of only 1800
- 1998 listed as threatened under the Endangered Species Act
- In 2021 only 539 returned to the Yakima Basin



Yakima Integrated Plan

- MANY PLANNING MEETINGS/WORKING TOGETHER
- YAKAMA NATION & ROZA IRRIGATION
- APPROACHING THE STATE THROUGH BOR & DEPT of ECOLOGY
- CONGRESSIONAL AUTHORIZATION

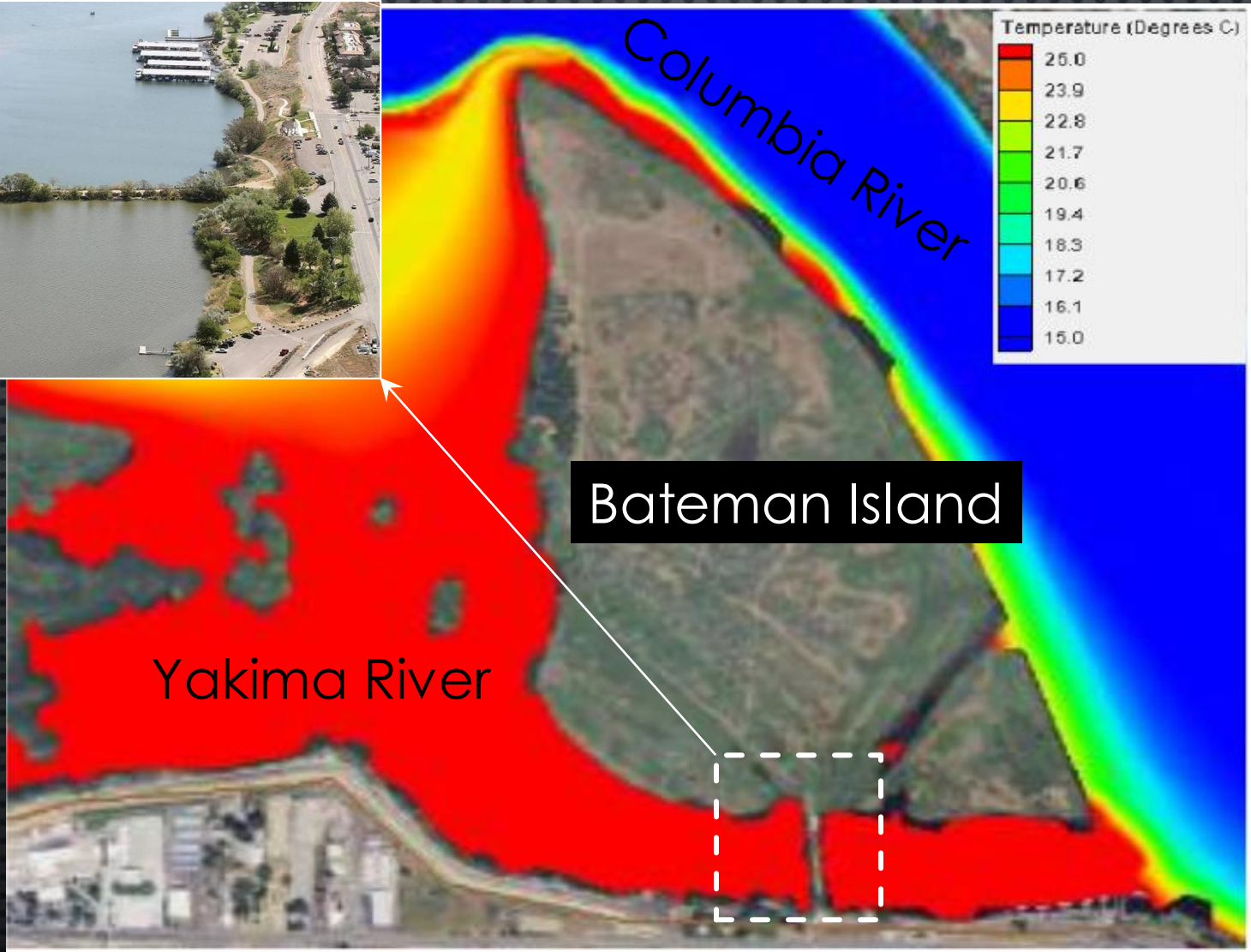
Primary Users

- AGRICULTURE
- FISH
- YAKAMA NATION WATER RIGHTS
- MUNICIPALITIES
- BENTON, YAKIMA, KITTITAS COUNTIES & IRRIGATION DISTRICTS

YRBWEP to YBIP

Understanding the Yakima Basin Integrated Plan





THE AFFECTS of WARMING WATERS-STAR GRASS CHOKES THE LOWER RIVER



Salmon Predators



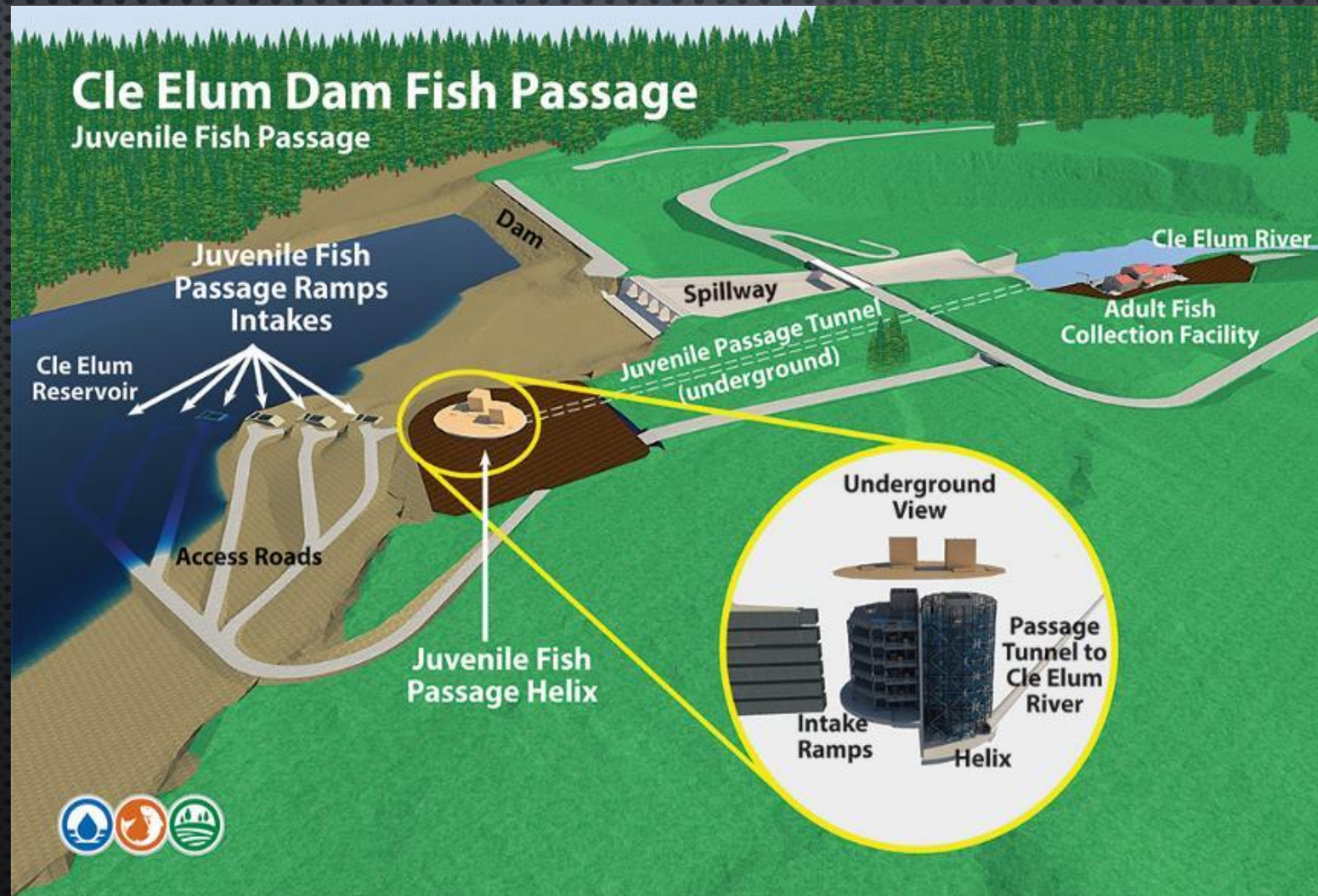
- NATIVE
- NON-NATIVE

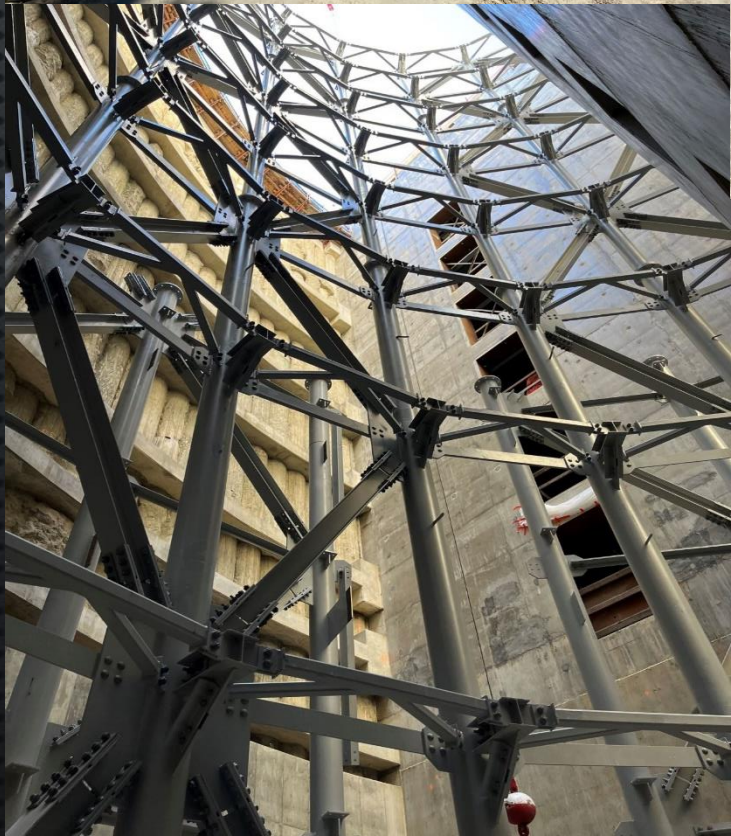


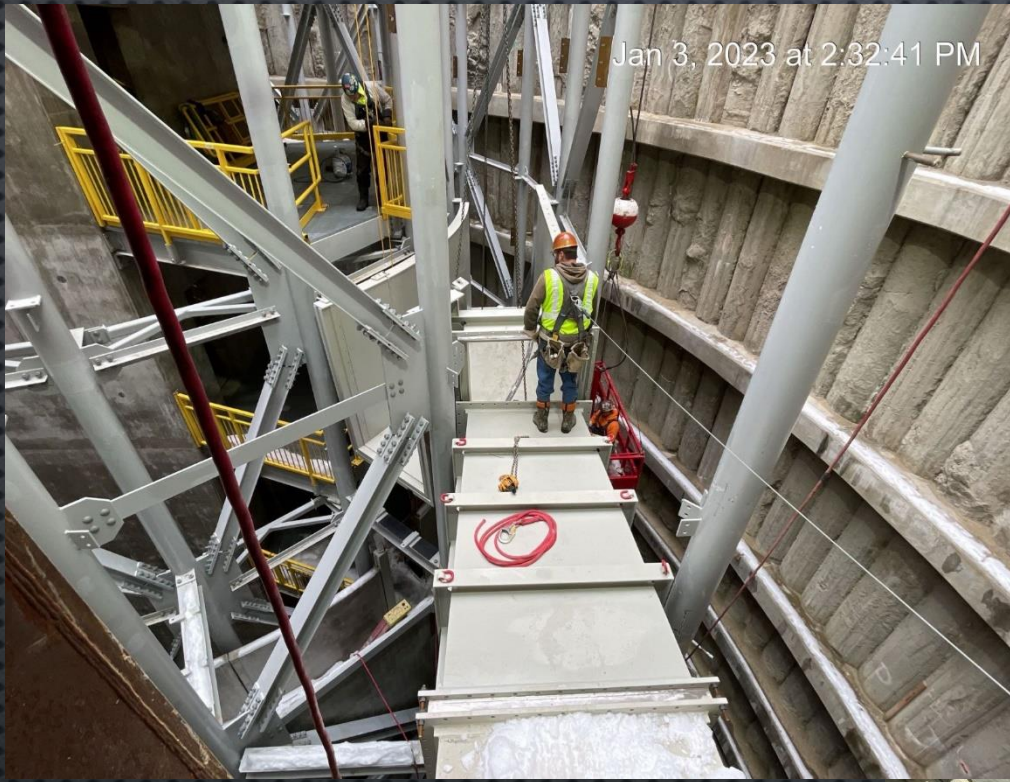
OTHER NEEDS FOR THE YAKIMA BASIN

- JUVENILE EMIGRATION SURVIVAL (ALL SPECIES)
- UPPER RIVER NEEDS IMPROVEMENT
- ROZA REACH
- LOWER YAKIMA
- PROSSER TO RIVER MOUTH
- CANAL BYPASS
- COOL WATER REFUGIA
- MORE FLOW FOR JUVIES AS NEEDED
- FACILITATE DOWNSTREAM JUVENILE PASSAGE
- UPSTREAM SOCKEYE AND SUMMER CHINOOK PASSAGE

Cle Elum Downstream Juvenile Fish Passage







Questions?

Brian Paul Saluskin
Sawyalilx

salb@yakamafish-nsn.gov
509-945-6701



HONOR. PROTECT. RESTORE.

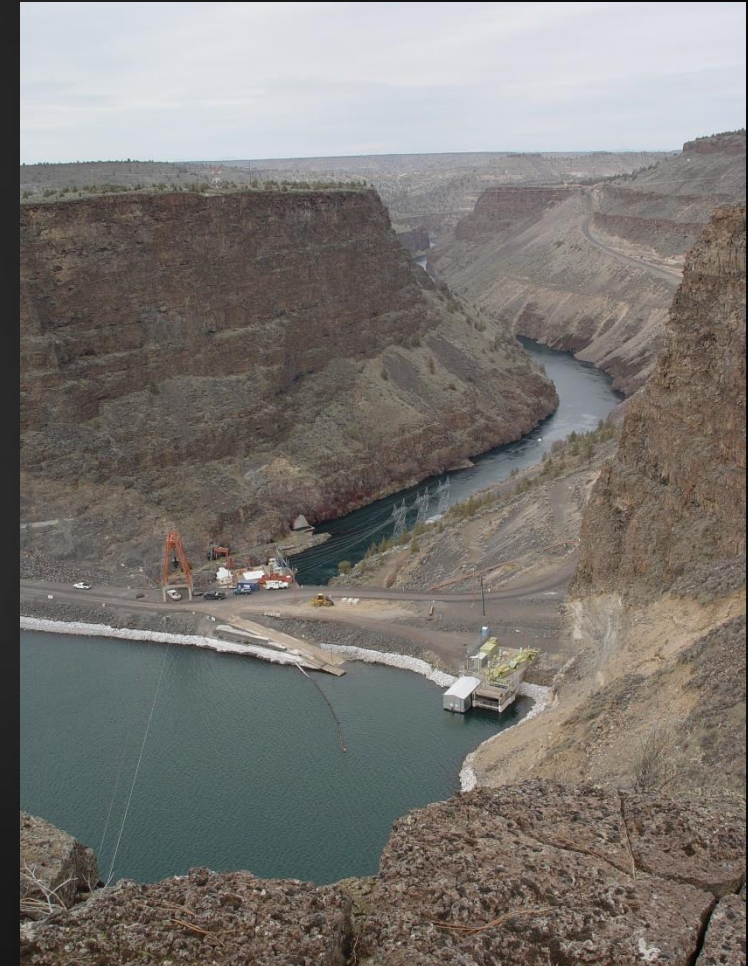
Yakama Nation Fisheries



Deschutes River Basin Fish Passage Barriers

**COLUMBIA BASIN COLLABORATIVE
HYDROPOWER/BLOCKED AREAS WORK GROUP
MAY 31, 2023**

**JERRY GEORGE
DISTRICT FISH BIOLOGIST
ODFW DESCHUTES WATERSHED OFFICE - BEND
GERALD.J.GEORGE@ODFW.OREGON.GOV**



KEY

- RIVER/CREEK/
RESEVOIR/LAKE
- PGE/CTWS DAM
- OTHER DAM
- NATURAL BARRIER
- TOWN



Sherars Falls



- RM 44
- 15 ft natural impediment
- Fishway
- Adult fish trap
- Culturally important site



Photo Credit: American Whitewater

Warm Springs River



- Warm Spring National Fish Hatchery
- Confederated Tribes of the Warm Springs Reservation
- Passage/sorting facility for wild Spring Chinook, coho, and steelhead

Pelton-Round Butte

◦ RM 104



Photo Credit: Hydropower Reform Coalition

Pelton-Round Butte

- ▶ Portland General Electric and Confederated Tribes of Warm Springs (CTWS)
- ▶ Round Butte Dam, Pelton Dam, Reregulating Dam
- ▶ 440, 204, 40 ft
- ▶ 4,000, 540, 190 Acres
- ▶ 247, 108, & 19 MW
- ▶ FERC Relicense and Settlement Agreement 2005
- ▶ Reintroduction of anadromous salmon and steelhead
- ▶ Downstream fish passage (floating surface collector) 2009
- ▶ Upstream trap-and-haul, redesign of adult trap
- ▶ Target: 1,000 returning adult spring-run Chinook Salmon and 955 Summer Steelhead, annually

KEY

- RIVER/CREEK/
RESEVOIR/LAKE
- PGE/CTWS DAM
- OTHER DAM
- NATURAL BARRIER
- TOWN

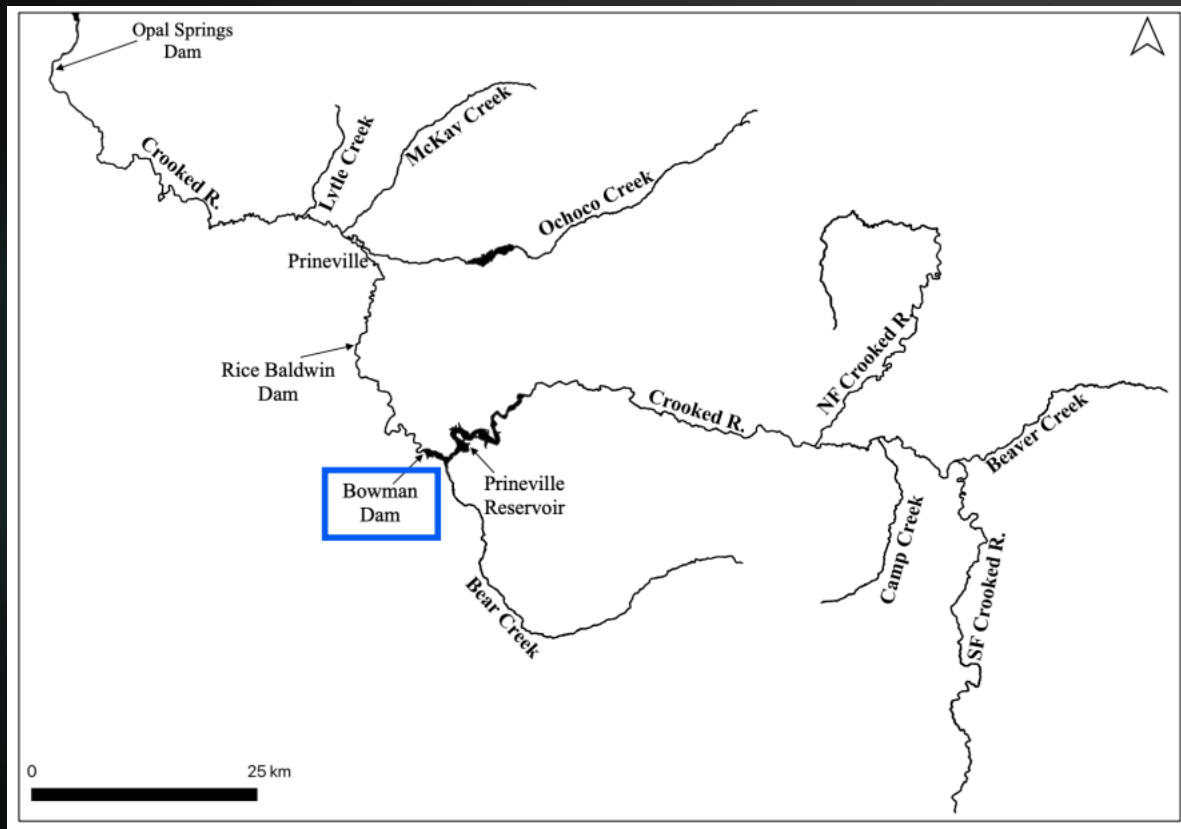


Opal Springs Dam



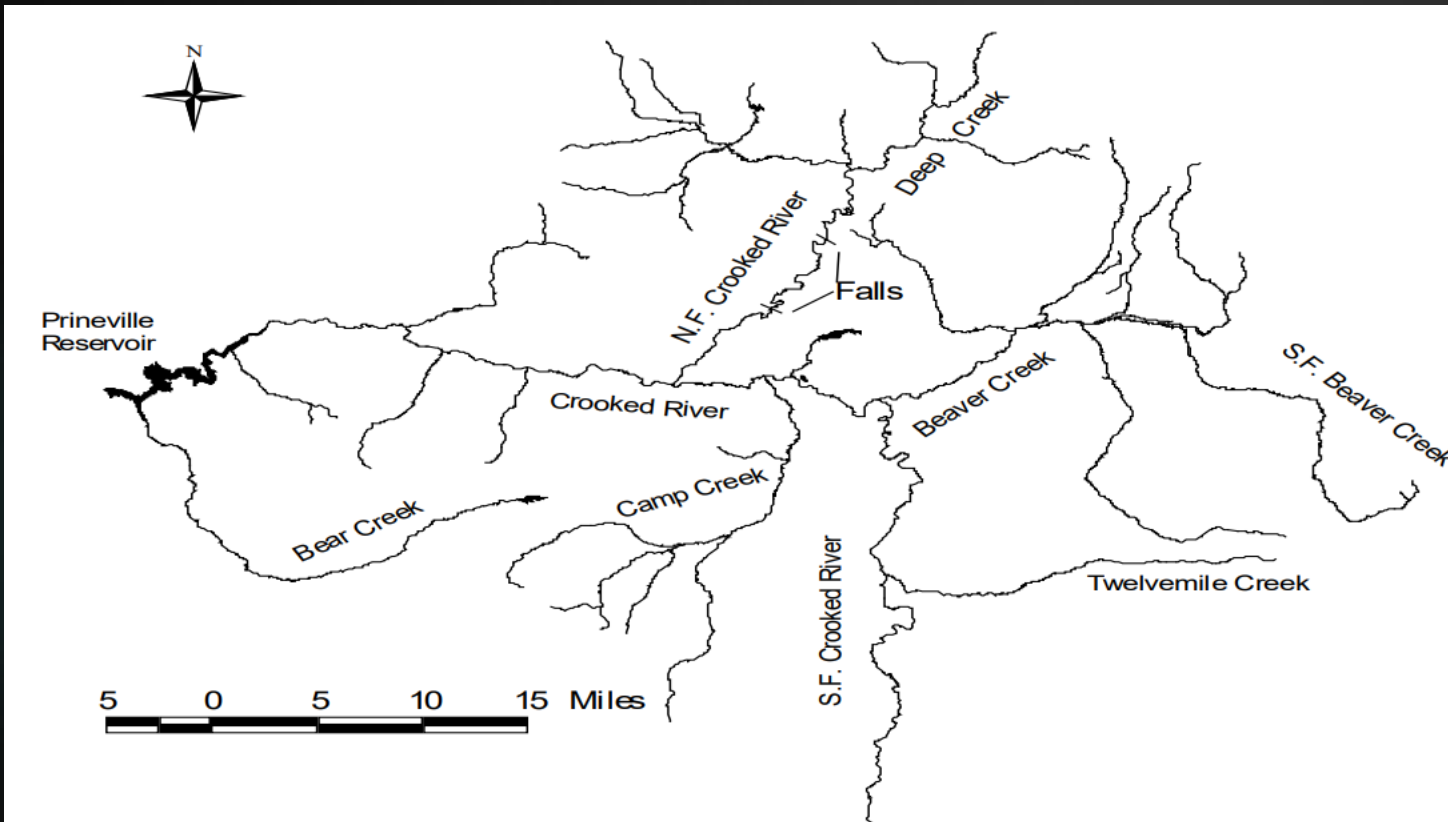
- Crooked RM 7
- Hydropower and drinking water
- 4.3 MW Project
- Fish ladder 2019

Crooked River-Bowman Dam



- Crooked RM 70
- USBOR management for irrigation districts
- Several attempts at hydropower retrofit
- Popular tailwater fishery
- No fish passage

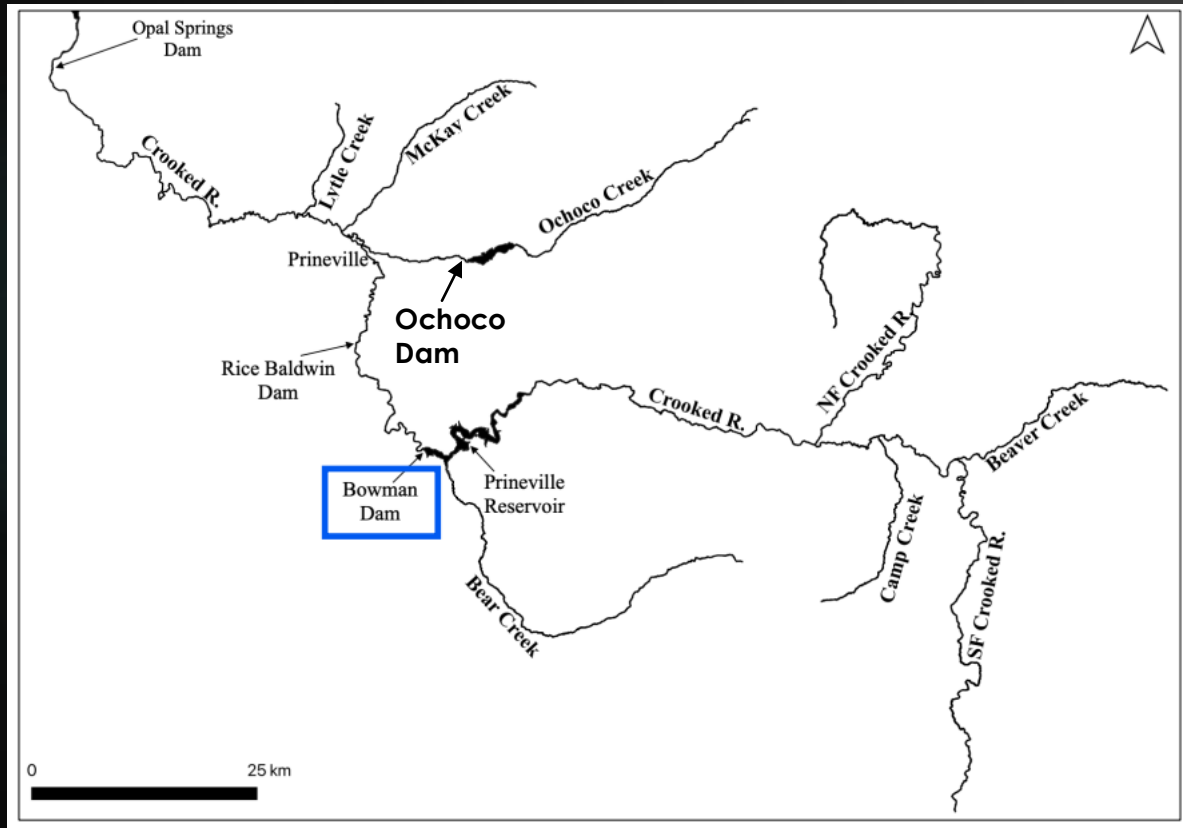
Crooked River-Bowman Dam



- 860 stream miles of redband trout habitat, 550 above Bowman and below barriers
- 290 perennial stream miles
- 60+ miles of Chinook Salmon and steelhead habitat

Crooked River- Ochoco Dam

- Ochoco Creek RM 7
- around 189 miles, 40 perennial
- No fish passage



KEY

- RIVER/CREEK/
RESEVOIR/LAKE
- PGE/CTWS DAM
- OTHER DAM
- NATURAL BARRIER
- TOWN



Deschutes River- Big Falls



- Considered upstream extent of anadromy in the Deschutes River
- Primary tributary for
- Barriers on Whychus Creek have been addressed in last 10-15 years
- Flow and habitat restoration ongoing

Metolius River- Lake Creek- Suttle Lake



- No significant fish passage barriers, some small impediment and fishways that do not meet current criteria

What are the blockages in this area (including non-hydro dams/ da
with less than 5MW)?

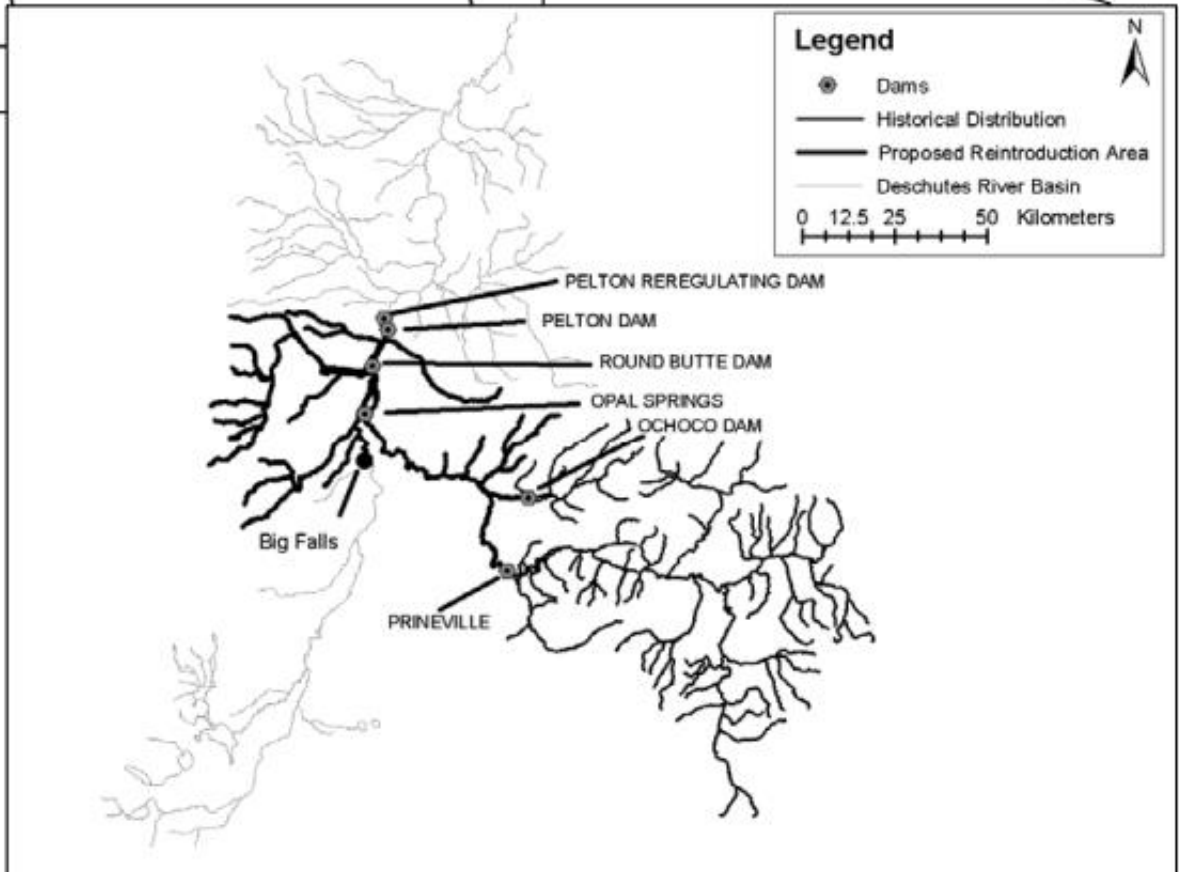
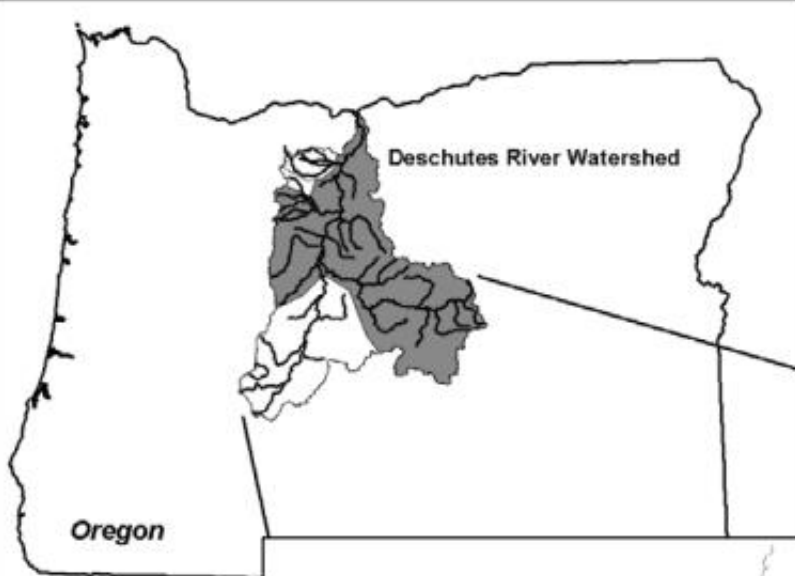


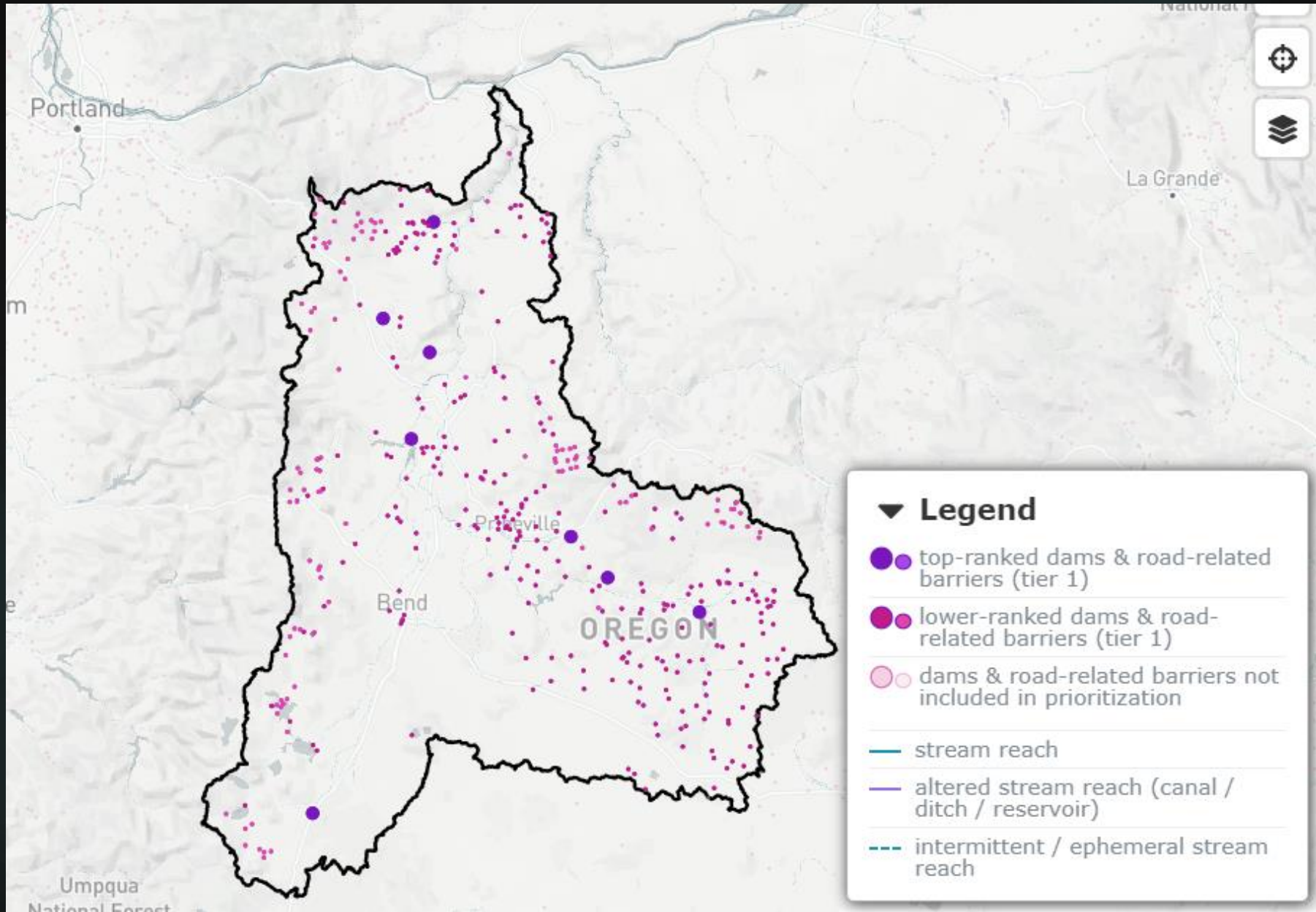
Which entities and organizations are involved in managing this area?
Portland General Electric, Deschutes Valley Water, U.S. Bureau of
Reclamation/Irrigation Districts,

What policies govern this blockage/area?

What are the social dynamics around this blockage?

Barrier Name	Barrier Type	Owner	Stream Name	Species In need of passage at barrier and biological status	T&E score	Avg Hab. Quant	Habitat Quantity Score	# NMF Species	Habitat Quality	Psg. Level	Score	2019 Group Rank
Prineville Reservoir (Bowman)	Dam	Federal	Crooked River	Spring Chinook (historical), Redband trout, Summer Steelhead (historical)	0.0	100.0	100.0	3.0	5.0	5.0	530.0	Group 1
Bend Hydro (Mirrorpond)	Dam	Joe LaMere	Deschutes River	Bulltrout (fT historical), Redband trout	0.0	192.1	100.0	1.0	4.0	5.0	465.0	Group 1
Rice Baldwin Dam	Dam	White Deer Ranch	Crooked River	Spring Chinook, Redband trout, Summer Steelhead	1.0	14.2	55.0	3.0	6.0	4.0	384.0	Group 2
Opal Springs Diversion Dam	Dam	Deschutes Valley Water District	Crooked River	Bulltrout (fT), Spring Chinook, Redband trout, Summer Steelhead (ft)	2.0	356.9	130.0	4.0	4.0	1.0	244.0	Group 4
Ochoco Reservoir Dam	Dam	Deschutes County	Ochoco Creek	Redband Trout, Summer Steelhead	1.0	6.6	40.0	1.0	3.0	5.0	215.0	Group 4
Unknown	Dam	Unknown	McKay Creek	Summer Steelhead, Redband trout	1.0	10.2	55.0	2.0	3.0	4.0	202.0	Group 5
Twin Buttes Dam	Dam	Unknown	Crooked River	Spring Chinook (historical), Redband trout, Summer Steelhead (historical)	0.0	103.7	100.0	1.0	3.0	3.0	185.0	Group 6
Crane Prairie Dam	Dam	Federal	Deschutes River	Redband trout, Bull Trout	1.0	8.2	40.0	2.0	3.0	5.0	175.0	Group 6
Wickiup Reservoir (USBR)	Dam	Federal	Deschutes River	Redband trout, Bull Trout	1.0	8.2	40.0	2.0	3.0	4.0	151.0	Group 8
Prineville Golf and Country Club Dam	Dam	Unknown	Ochoco Creek	Summer Steelhead, Redband trout	1.0	1.8	25.0	2.0	1.0	3.0	145.0	Group 9
Copeland Dam	Dam	Unknown	Mill Creek	Redband trout	0.0	36.9	70.0	1.0	2.0	4.0	132.0	Group 11
Bauersfeld Dam	Dam	Unknown	Mill Creek	Redband trout	0.0	32.6	70.0	1.0	2.0	4.0	132.0	Group 11
Allen Creek Dam	Dam	Waibel Ranch	Allen Creek	Redband Trout	0.0	10.8	55.0	1.0	2.0	5.0	130.0	Group 11
Unnamed culvert	Culvert	Crook County	Bear Creek	Redband trout	0.0	18.7	55.0	1.0	2.0	4.0	123.0	Group 12
Peterson Creek Dam	Dam	Waibel Ranch	Peterson Creek	Redband Trout	0.0	7.1	40.0	1.0	2.0	5.0	100.0	Group 14
Stag Canyon culvert	Culvert	Unknown	Unnamed trib to Deschutes River	Summer Steelhead (fT), Redband trout	1.0	3.8	40.0	2.0	1.0	3.0	94.0	Group 14
Gilchrist Log Pond	Dam	Interfor Pacific	Little Deschutes	Bulltrout (fT historical), Redband trout	0.0	41.8	70.0	1.0	1.0	5.0	75.0	Group 15
Steidl Dam (Tumalo Irrigation District Div. Dam)	Dam	Central Oregon Irrigation District	Deschutes River	Bulltrout (fT historical), Redband trout	0.0	0.4	10.0	1.0	1.0	3.0	71.0	Group 15







Blocked Areas – Work Plan

	April	May	July	Aug	Sep	Oct	Nov	Dec	Jan 202	Jan 2024	Feb
Blocked Area	Trib. the CR	Trib. the CR	Trib. to the Willamette	Trib. to the Willamette	Trib. to the Snake	Trib. to the Snake	Upper Snake	Upper Snake	Upper Columbia	Upper Columbia	Basin-wide

- What are the blockages in this area (including non-hydro dams/ dams with less than 5MW)?
- Which entities and organizations are involved in managing this area?
- What policies govern this blockage/area?
- What are the social dynamics around this blockage?
- What actions could be taken to improve passage at this blockage (capturing associated costs)?

Next Steps

- **KW:** Share final recommendation with SIWG for review
- **Overshoots Sub-group:** continue to draft the overshoots/kelts recommendation
- **KW:** Coordinate with speakers for Tributaries to the Willamette
- **Upper Snake Sub-group:** Continue to draft the salmon source funding recommendation
- **KW:** Draft a meeting summary and circulate to the work group for review



Photo credit: Terry Allen

Thank you ~



Photo credit: Russ Ricketts