DEPARTMENT OF ECOLOGY
State of Washington

Columbia and Lower Snake Rivers Temperature Advisory Group

August 2025

Agenda

1. Welcome
2. Advisory Group Feedback
3. Washington Nonpoint Framework
4. Cold Water Refugia
5. Advisory Group Roundtable
5. Public Questions/Comments

Meeting Topic Schedule

Meeting	Schedule Topic(s)
June 2025	• Advisory group intro • TMDL and Implementation Plan overview
July 2025	• Tributaries • Restoration priorities and areas
August 2025	• Tributaries • Nonpoint strategies • Cold water refugia
September 2025	• Point sources
October 2025	• Dams • Interactions with other WA efforts
November 2025	• Dams • Action prioritization • Next Steps
December 2025	• Preliminary implementation plan outline • Advisory group comments

Advisory Group Feedback

Feedback

- Advisory Group members are encouraged to provide feedback to Ecology throughout the implementation plan process.

- Feedback can consist of: questions from last meeting, clarifications, recommendations, further thoughts from previous meetings, etc.

- Public feedback can currently be submitted via our public input survey which is open until October 31st.

Examples of feedback

- *"Could Ecology review what exactly goes into an implementation plan?"*
- *"Could Ecology clarify the relation between the TMDL's 0.1 °C load allocation for tributaries and how that relates to the allowed 0.5 °C warming?"*
- *"What role will Ecology's water resources program have with implementation in tributaries?"*

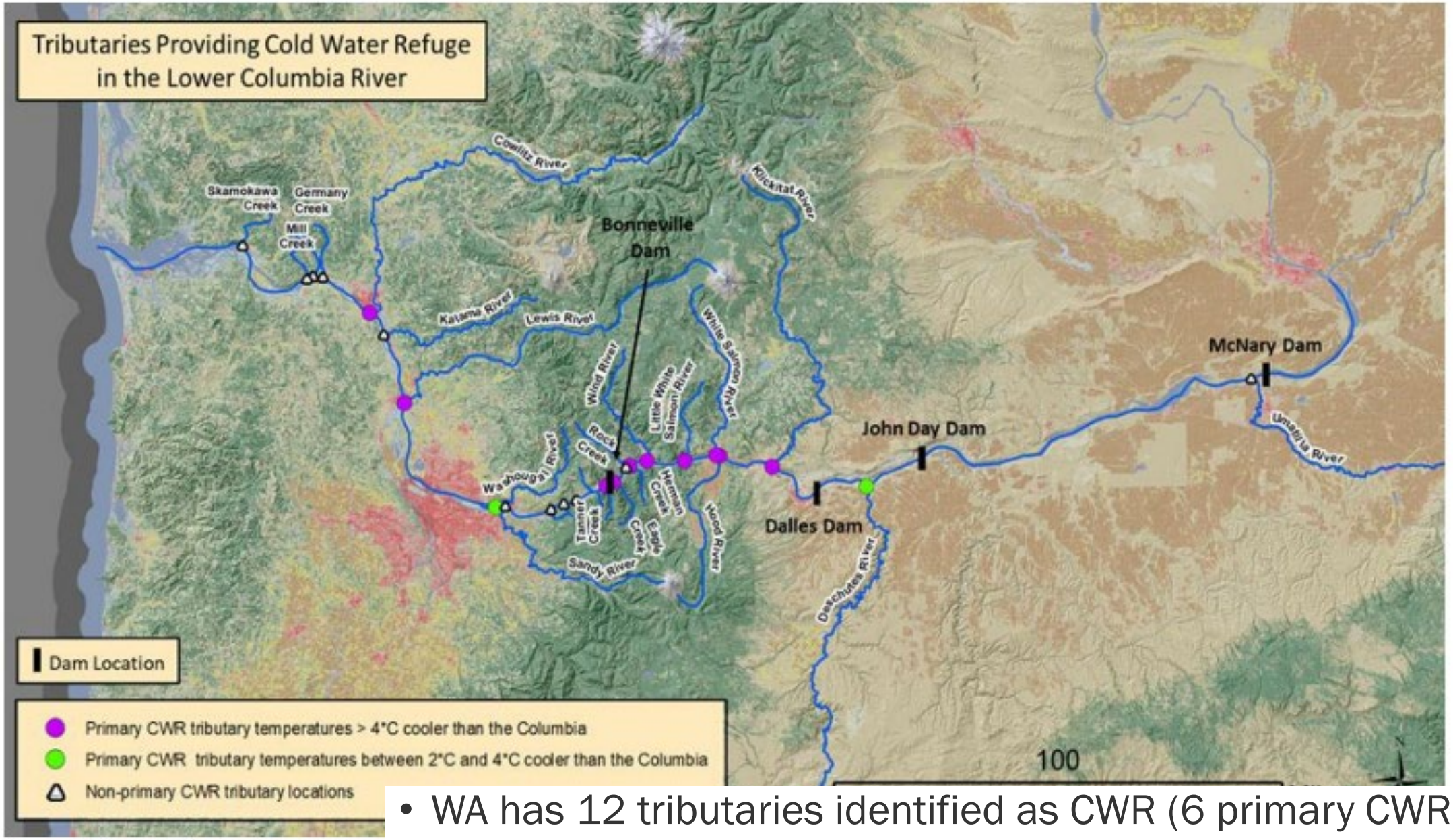
Cold Water Refugia

CWR Review

- Oregon WQS include Cold Water Refuge as a narrative criterion for the Lower Columbia that serves to supplement numeric criteria. CWR is not included in WA WQS for the Lower Columbia.

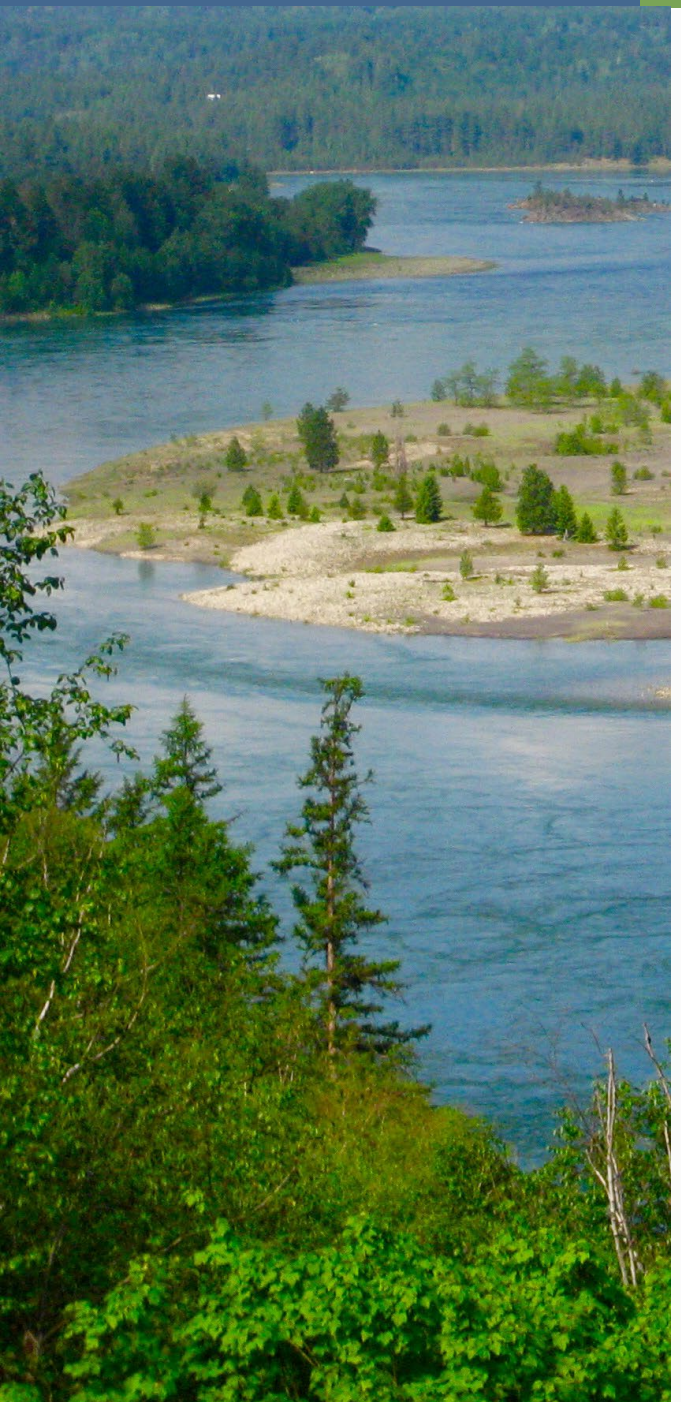
- The TMDL along with EPA's *Cold Water Refuges Plan* identified 23 tributaries that provide CWR in the Lower Columbia and 12 which were identified as primary CWR (based on flow, temps, and observed use by salmon and steelhead).

- The TMDL sets temperature, flow, and CWR volume for 13 tributaries in WA and OR (12 primary CWR and Umatilla).



Figu

- WA has 12 tributaries identified as CWR (6 primary CWR)
- OR has 10 tributaries identified as CWR (6 primary CWR)



Tributary Name	River Mile	August Mean Mainstem Temperature (DART)	August Mean Tributary Temperature (NorWeST)	August Mean Temperature Difference	August Mean Tributary Flow (NHD & USGS*)	Plume CWR Volume (> 2°C Δ)	Stream CWR Volume (> 2°C Δ)	Total CWR Volume (> 2°C Δ)
		°C	°C	°C	cfs	m^3	m^3	m^3
Skamokawa Creek (WA)	30.9	21.3	16.2	-5.1	23	450	1,033	1,483
Mill Creek (WA)	51.3	21.3	14.5	-6.8	10	110	446	556
Abernethy Creek (WA)	51.7	21.3	15.7	-5.6	10	81	806	887
Germany Creek (WA)	53.6	21.3	15.4	-5.9	8	72	446	518
Cowlitz River (WA)	65.2	21.3	16.0	-5.4	3634	870,000	684,230	1,554,230
Kalama River[10] (WA)	70.5	21.3	16.3	-5.0	314*	14,000	27,820	41,820
Lewis River (WA)	84.4	21.3	16.6	-4.8	1291*	120,000	493,455	613,455
Sandy River (OR)	117.1	21.3	18.8	-2.5	469	9,900	22,015	31,915
Washougal River[11] (WA)	117.6	21.3	19.2	-2.1	107*	740	32,563	33,303
Bridal Veil Creek (OR)	128.9	21.3	11.7	-9.6	7	120	0	120
Wahkeena Creek (OR)	131.7	21.3	13.6	-7.7	15	220	0	220
Oneonta Creek (OR)	134.3	21.3	13.1	-8.2	29	820	54	874
Tanner Creek (OR)	140.9	21.3	11.7	-9.6	38	1,300	413	1,713
Eagle Creek (OR)	142.7	21.2	15.1	-6.1	72	2,100	888	2,988
Rock Creek[11] (WA)	146.6	21.2	17.4	-3.8	47	530	1,178	1,708
Herman Creek (OR)	147.5	21.2	12.0	-9.2	45	168,000	1,698	169,698
Wind River (WA)	151.1	21.2	14.5	-6.7	293	60,800	44,420	105,220
Little White Salmon River (WA)	158.7	21.2	13.3	-7.9	248*	1,097,000	11,661	1,108,661
White Salmon River (WA)	164.9	21.2	15.7	-5.5	715*	72,000	81,529	153,529
Hood River (OR)	165.7	21.4	15.5	-5.9	374	28,000	0	28,000
Klickitat River (WA)	176.8	21.4	16.4	-5.0	851*	73,000	149,029	222,029
Deschutes River (OR)	200.8	21.4	19.2	-2.2	4772*	300,000	580,124	880,124
Umatilla River[11] (OR)	284.7	20.9	20.8	-0.1	87*	0	10,473	10,473

CWR Implementation

*Yellow pin is estimated CWR upstream extent

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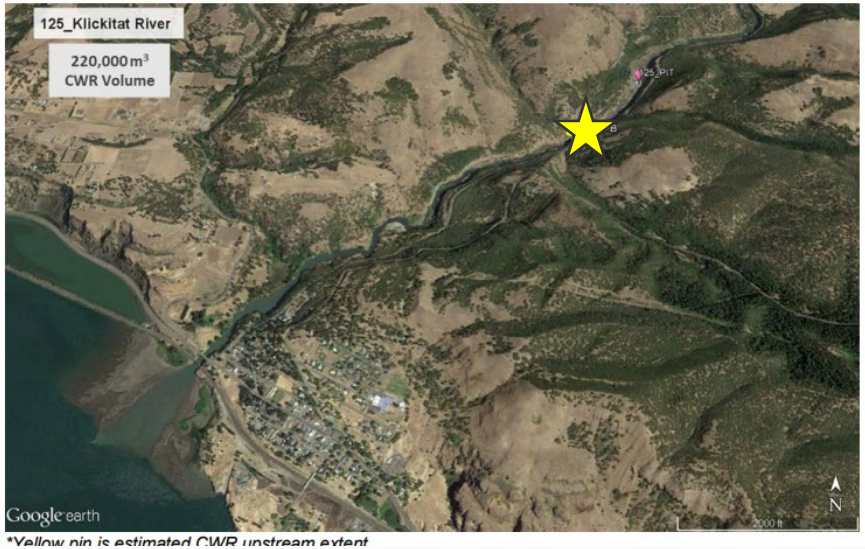

*Yellow pin is estimated CWR upstream extent

CWR Implementation

- EPA's *Cold Water Refuges Plan* provides tributary specific implementation measures and planning considerations.

- Based on the report, CWR actions should be focused on maintaining or improving plume volume, temperature, and in-stream flows.

Advisory Group Roundtable

Group Question

What priority should be given to cold water refugia (CWR) compared to other tributary restoration measures? For example, how should we consider prioritizing cold water refugia compared to tributaries that may have a larger impact on mainstem temperature?

Group Question

What do you see as the biggest barriers to restoration and the implementation of temperature reduction actions in the tributaries?

Group Question

What other recommendations or suggestions do you have when it comes to successfully implementing the needed temperature reductions in the tributaries?

Next Steps

- Ecology to send out scheduling poll for next meeting which will focus on point sources (September).
- All meeting materials posted to Ecology's Columbia/Snake TMDL webpage and EZ View page.
- Submit input/suggestions via Ecology's public input survey.
- TAG members submit to Ecology any specific topics/feedback they want discussed in future meetings.

Public Questions/Comments

Thank you!

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