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The Columbia River
Resilient and Healthy Rivers Series

Wednesday, January 15, 2025

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Environmental and Energy Study Institute

Non-partisan Educational Resources for Policymakers

A bipartisan Congressional caucus founded EESI in 1984 to provide non-partisan information on environmental, energy, and climate policies

Direct Assistance for Equitable and Inclusive Financing Program

In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

Commitment to Diversity, Equity, Inclusion, and Justice

We recognize that systemic barriers impede fair environmental, energy, and climate policies and limit the full participation of Black, Indigenous, people of color, and legacy and frontline communities in decision-making

Sustainable Solutions

Our mission is to advance science-based solutions for climate change, energy, and environmental challenges in order to achieve *our vision of a sustainable, resilient, and equitable world*.

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Active engagement on Twitter, Facebook, LinkedIn, and YouTube

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Resilient and Healthy Rivers Series

The Mississippi River | Recording Available

The Tennessee River | Recording Available

The Columbia River | Wednesday, January 15, 2025, 2-3:30 PM

The Colorado River | Wednesday, February 19, 2025, 2-3:30 PM

The Hudson River | Wednesday, March 19, 2025, 2-3:30 PM

The Ohio River | Wednesday, April 16, 2025, 2-3:30 PM

“Small But Mighty” Rivers | Wednesday, May 21, 2025, 2-3:30 PM

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Wednesday, January 15, 2025

THE COLUMBIA BASIN RESTORATION INITIATIVE

THE COLUMBIA RIVER BASIN

- Largest salmon-producing river in the lower 48 states.
- Free-flowing, cool rivers once brought ~10-18 million salmon and steelhead back to the Columbia Basin each year.
- Today, we see only ~1-2 million total, with only ~250,000 natural origin spawners.
- The NPCC assessed that hydroelectric dams reduce our salmon and steelhead runs by 5-11 million each year.

COLUMBIA BASIN TREATY FISHING TRIBES

- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Confederated Tribes of the Umatilla Indian Reservation
- Nez Perce Tribe

TRIBAL TREATY FISHING RIGHTS IN THE COLUMBIA BASIN

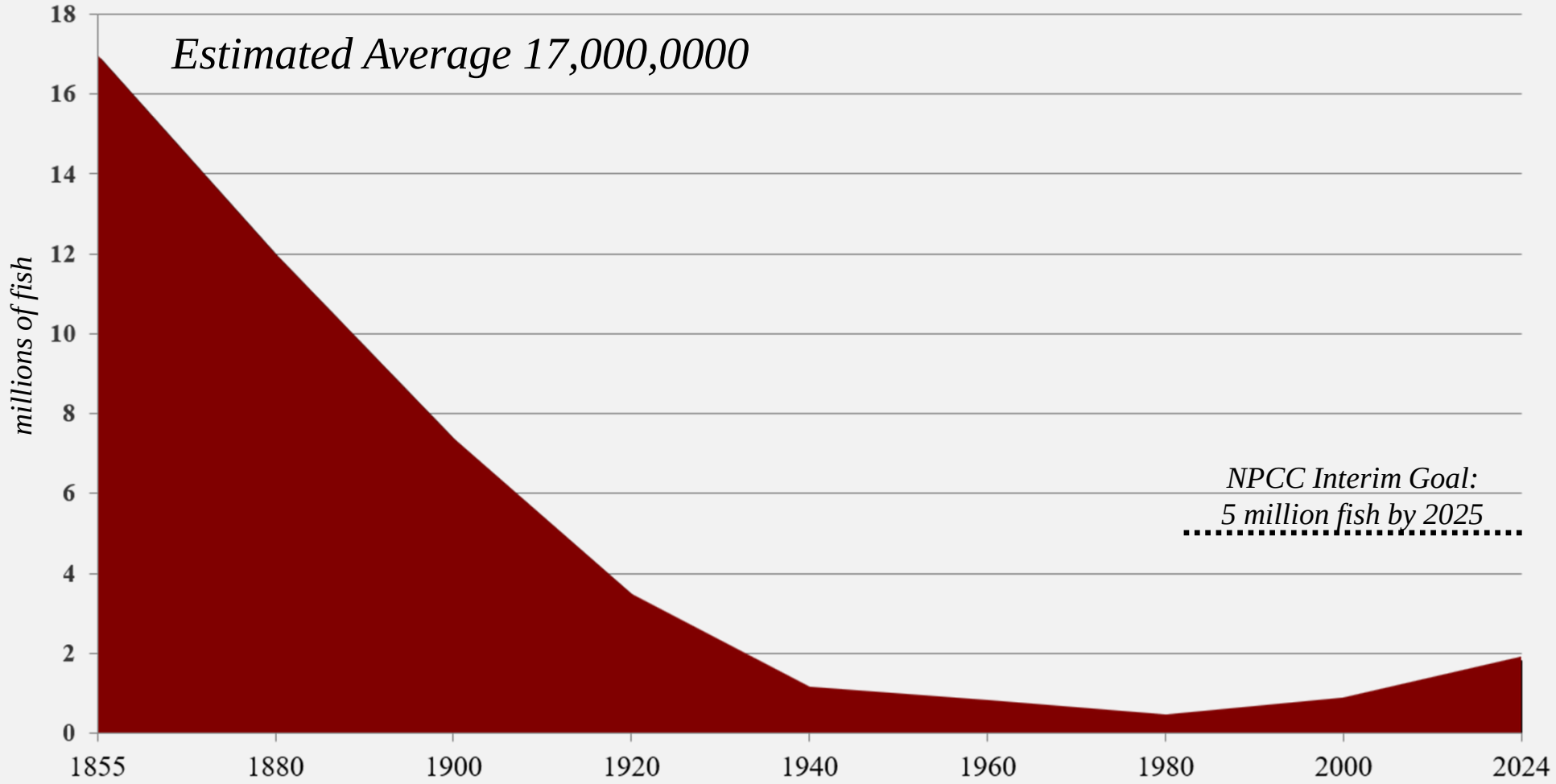
The 1855 treaties negotiated between the U.S. and the Native American groups that now comprise the Yakama, Umatilla, Nez Perce, and Warm Springs tribes contained a substantially identical provision securing to those tribes **"the right of taking fish at all usual and accustomed places in common with citizens of the Territory,"** including on the Columbia River and its tributaries**.**

See, Treaty of June 9, 1855, with the Yakima Tribe (12 Stat. 951); Treaty of June 25, 1855, with the Tribes of Middle Oregon (12 Stat. 963); Treaty of June 9, 1855, with the Umatilla Tribe (12 Stat. 945); Treaty of June 11, 1855, with the Nez Perce Tribe (12 Stat. 957).

Celilo Falls fishing. Photo by Ray Atkinson

SALMON DECLINE

Returning Columbia River salmon (chinook, steelhead, sockeye, coho)



Source: CRITFC. 1855 Data from NPCC historical run estimates; 1880-1920 data points extrapolated from Columbia River cannery output; 1940-present: dam counts & river mouth estimates

SNAKE RIVER SALMON IN CRISIS

- The Snake River is the largest tributary of the Columbia.
- It contains the largest accessible amount of pristine, protected habitat remaining in the Columbia Basin, yet wild salmon and steelhead from the Snake River Basin are in dire straits.
- As of 2021, 42% of Snake River spring/summer Chinook populations have natural origin spawner abundances at or below the Quasi-Extinction Threshold (QET) of less than 50 returning spawners per year; and
- 19% of Snake River steelhead are at or below QET.

THE COLUMBIA BASIN RESTORATION INITIATIVE

A comprehensive vision for Columbia Basin salmon restoration and community resilience.

MAKING A COLLECTIVE COMMITMENT TO A JUST AND PROSPEROUS FUTURE

1

Urgent Action

Our fish are in crisis. Economic, energy and climate conditions in the Pacific Northwest are changing rapidly.

Leadership and urgent action are needed to respond to inevitable changes while meeting regional needs.

2

Unified Approach

We must act now and implement necessary federal investments and commitments across the whole of government to be successful.

3

Obligations to Tribes

The United States has a Treaty and trust obligation to restore Columbia Basin salmon and native fish.

Tribes and their resources were left behind in the Columbia Basin's previous wave of development.

Let's get it right this time.

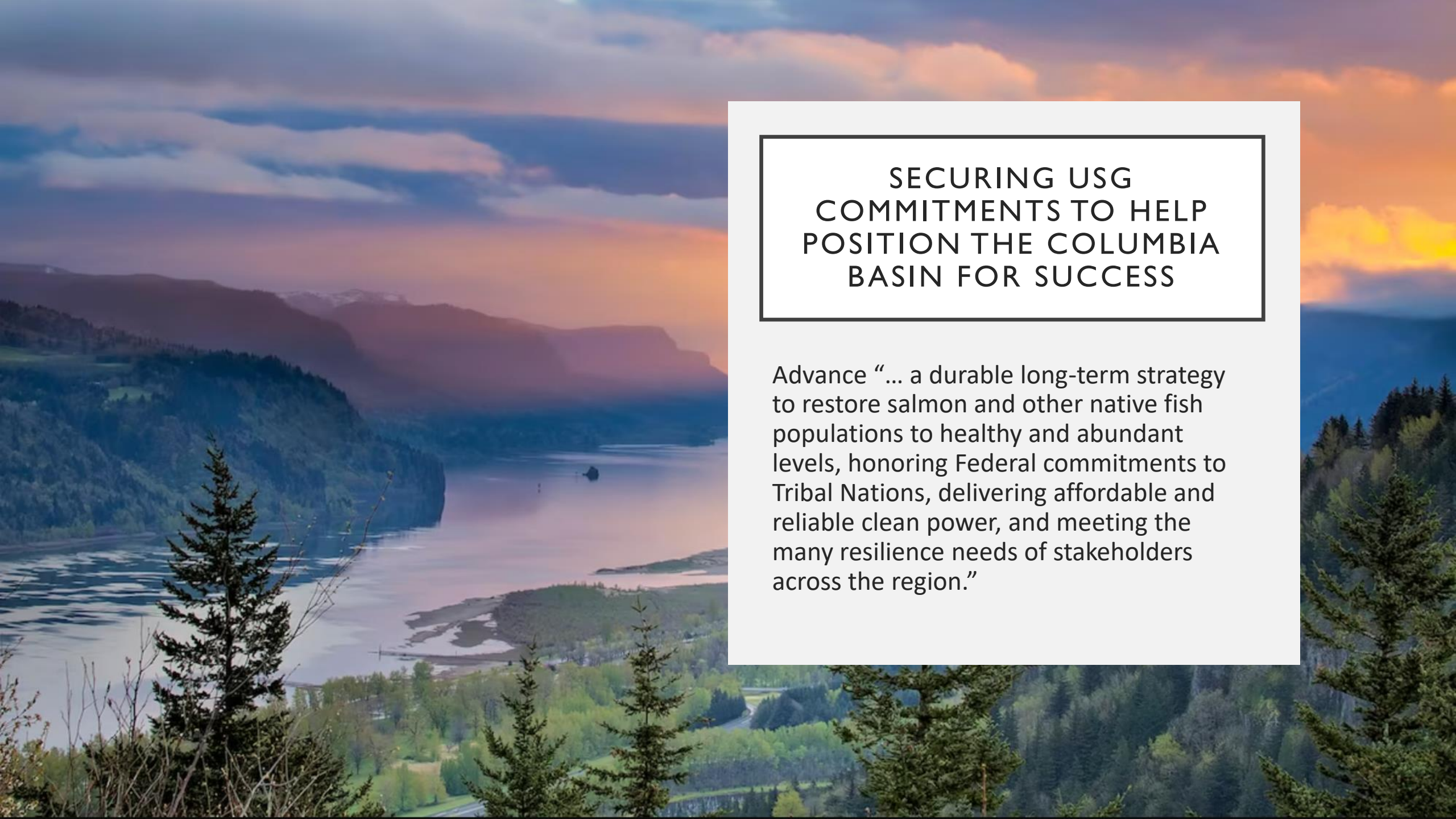
4

Community Resilience

We need to invest in socially just clean energy.

We need to modernize our transportation and agricultural infrastructure.

We can and must do this in a way that supports fish restoration and climate resilience.



SECURING USG COMMITMENTS TO HELP POSITION THE COLUMBIA BASIN FOR SUCCESS

Advance "… a durable long-term strategy to restore salmon and other native fish populations to healthy and abundant levels, honoring Federal commitments to Tribal Nations, delivering affordable and reliable clean power, and meeting the many resilience needs of stakeholders across the region."

CBRI OBJECTIVES # 1-3

1. Restore salmon and steelhead to healthy and abundant levels

Develop and advance an urgent, comprehensive strategy to: restore salmon and steelhead to “healthy and abundant levels” consistent with NOAA’s Columbia Basin Partnership Task Force (CBP) and Rebuilding reports; and complete the actions and investments necessary to secure continuity of services associated with Lower Snake River (LSR) restoration prior to LSR dam breaching.

2. Ensure ecosystem health

Ensure that all species, regardless of ESA-listing status, are considered in the comprehensive strategy in a way that improves ecosystem function in the Columbia River and its tributaries.

3. Halt the decline

Ensure interim fish measures [including, but not limited to hydro operations] minimize additional generational decline of fish populations.

CBRI OBJECTIVES # 4-6

4. Quick and just clean energy transition

Invest in and support communities and economic sectors in a manner that is consistent with meeting decarbonization goals and mandates and integration of renewables; delivers affordable and clean power; improves resiliency and adaptability to climate change and supports the many resilience needs of stakeholders across the region; and honors commitments to Tribal Nations.

5. Urgent and comprehensive action

Secure necessary regulatory compliance, authorizations, and appropriations for implementation of the entire strategy with an urgency reflecting the needs of the fish.

6. Honor treaty and trust obligations

Ensure that the comprehensive strategy and associated federal actions “honor Federal commitments to Tribal Nations” and address past and ongoing inequities related to Columbia Basin development to reflect and uphold federal Treaty and trust responsibilities to Columbia Basin tribes.

RECOMMENDED APPROACH

- Empower tribal & state fisheries co-managers
- Significantly increase funding for restoration
- Fully fund fisheries infrastructure needs
- Lower Snake restoration and continuity of services
- Identify a feasible approach to UC reintroduction
- Ensure accountability to fisheries recovery goals
- Use a transparent ‘whole-of-government’ approach
- Advance key elements concurrently and immediately

INITIAL FEDERAL COMMITMENTS IN SUPPORT OF THE CBRI

In December 2023, the USG signed an historic 10-year Memorandum of Understanding (the "RCBA") with the Six Sovereigns and the NGO plaintiffs in the *NWF v NMFS* litigation.

The RCBA includes a package of initial federal actions ("USG Commitments") in support of the CBRI and in partnership with the Six Sovereigns.

While the USG implements its USG Commitments and the MOU remains effective, the Parties will support the stay of the *NWF v NMFS* litigation and refrain from similar litigation.

QUESTIONS ?

Miles Johnson

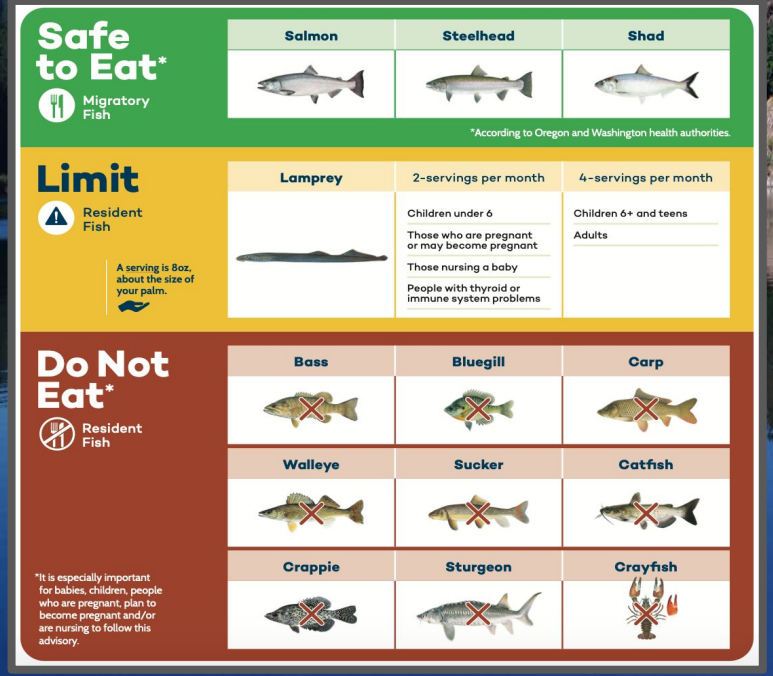
Legal Director, Columbia Riverkeeper

541.490.0487 miles@columbiariverkeeper.org

Photo Credit: Paloma Ayala

COLUMBIA
RIVERKEEPER®

SITIO SUPERFUND DE LA ISLA BRADFORD Y AGUAS VECINAS



COLUMBIA RIVERKEEPER®

JUSTICIA AMBIENTAL

Hanford: More than a Nuclear Site

"Cleaning up the Hanford Site to comply with the Treaty of 1855 would be protective for all people, not just the Yakama Nation."

- **Dr. Russell Jim (Yakama Nation), founder of Yakama Nation's Environmental Restoration/Waste Management Program**

Saddle Mountain, photo by Dan Serres

COLUMBIA RIVERKEEPER®

Science and Education:

(brought to you by BIL and IRA)

COLUMBIA RIVERKEEPER®

Dams and Hydropower

Miles Johnson

Legal Director, Columbia Riverkeeper

541.490.0487 miles@columbiariverkeeper.org

COLUMBIA RIVERKEEPER®

Community-Driven Climate Resilience Projects Along the Lower Columbia River

1/15/25 EESI Congressional Briefing

PACIFIC CONSERVATION DISTRICT

Sea Grant WASHINGTON

Lower Columbia Estuary Partnership

- Project context
- Methods
- Outcomes
- Lessons learned for effective coastal resilience work

Project goals

Recover lower Columbia River native habitats

Reduce impacts of flooding and climate change on communities and ecosystems

How? Proactive and collaborative planning:

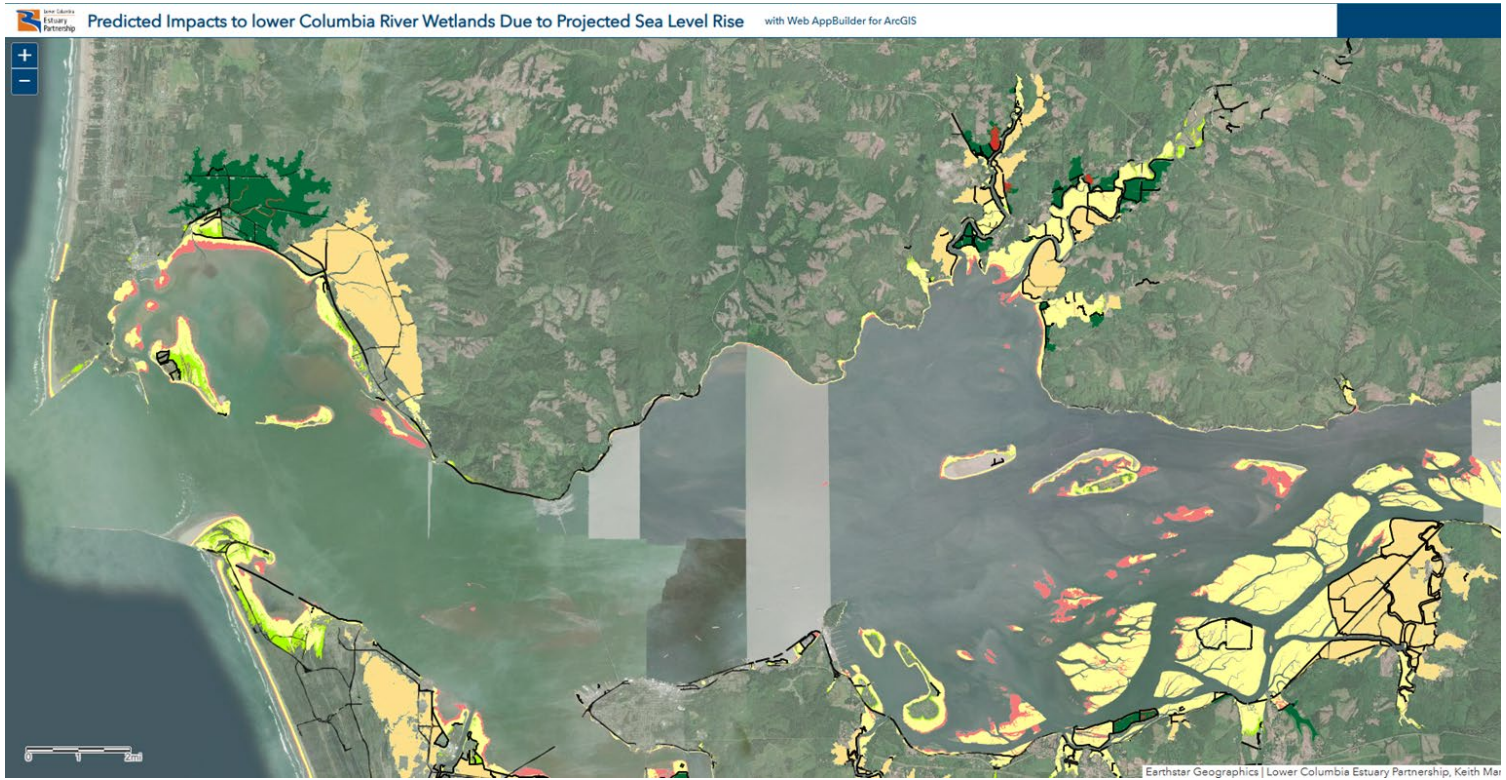
- Engage community members in action-oriented workshops
- Identify multi-benefit nature-based projects to address issues
- Identify and assist local individuals to champion this work

Washington Sea Grant

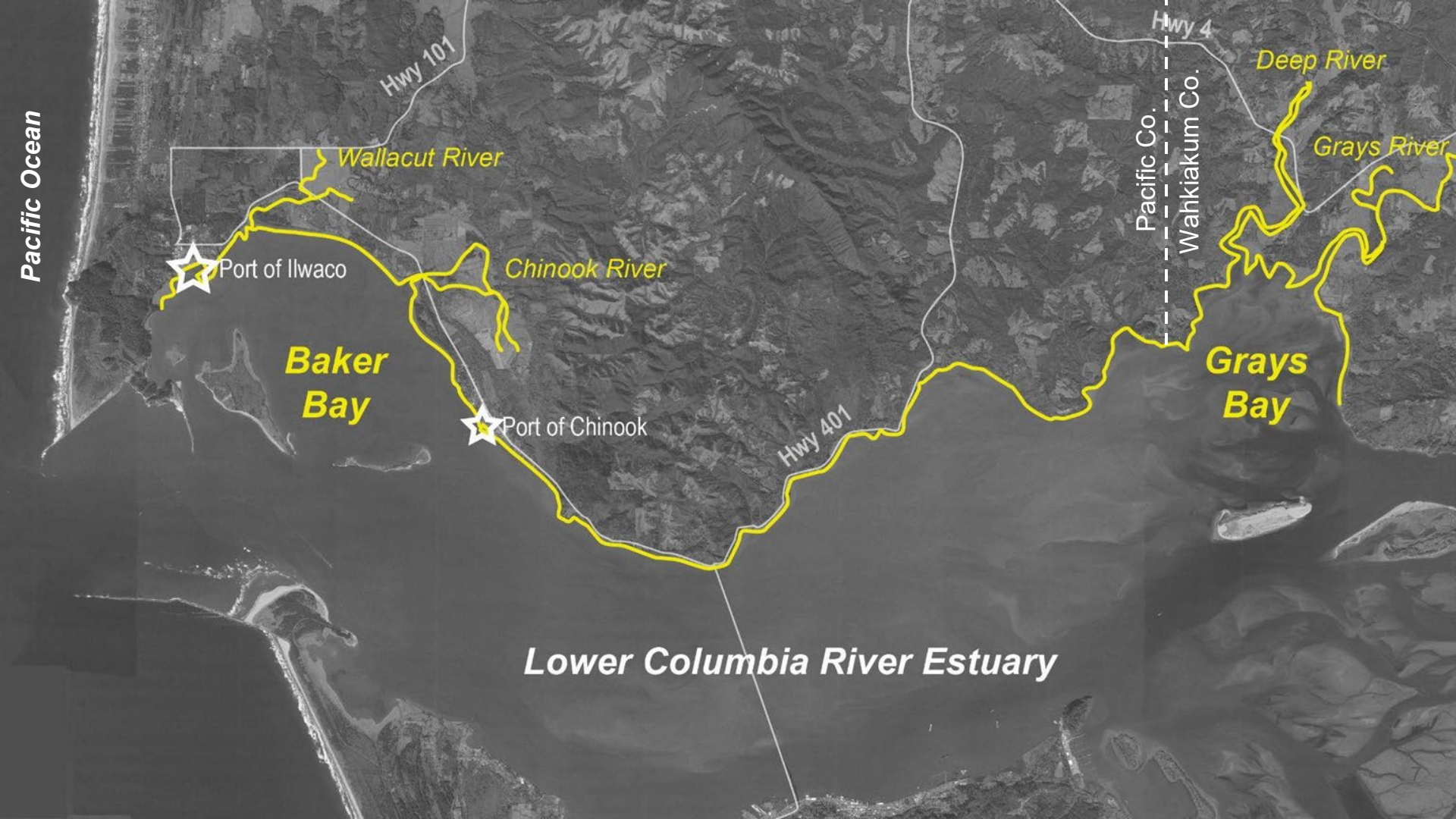
Sea Grant
WASHINGTON

Lower Columbia Estuary Partnership

Lower Columbia Estuary Partnership



Pacific Conservation District


Pacific Ocean
Hwy 101
Wallacut River
Port of Ilwaco
Chinook River
Baker Bay
Port of Chinook
Hwy 401
Hwy 4
Deep River
Pacific Co.
Wahkiakum Co.
Grays River
Grays Bay
Lower Columbia River Estuary


8/11/2016 12:01 PM

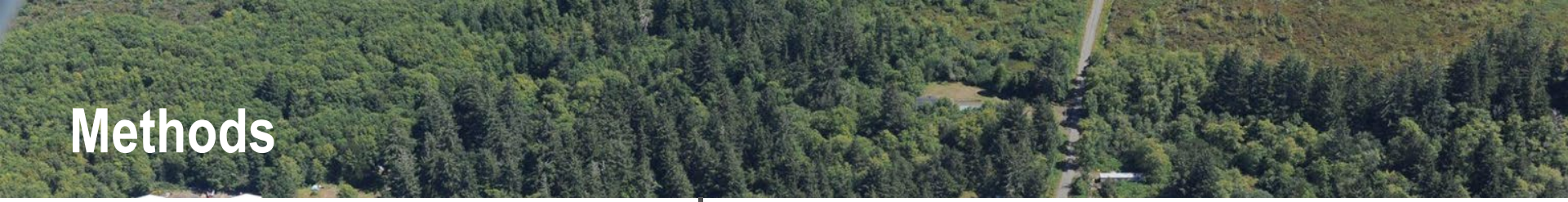

7/14/2016 2:05 PM

PORT OF ILWACO MARINA

Guy Glenn Jr.

Image: Darrell Alexander,
Wahkiakum Eagle, 1/30 2020
Downriver Dispatches

Rosburg Hall



Methods

2022 2023 2024 2025 2027 2028 2029

PHASE 1: Context + outreach

PHASE 2: Workshops

PHASE 3: Projects + plan development

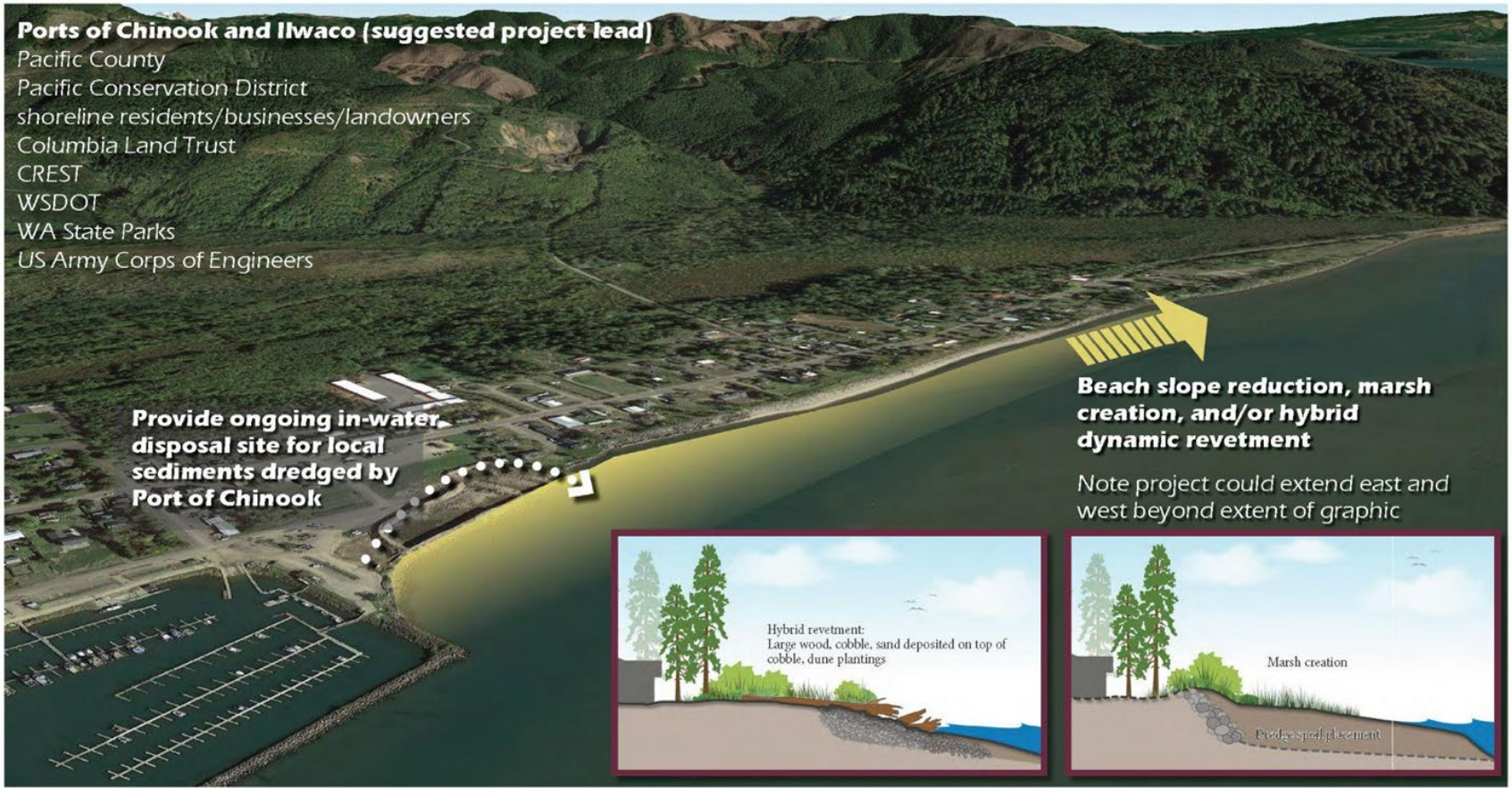
POST-PROJECT: next steps for community-developed projects

FUNDED PROJECTS Future grants/projects TBD


Share: What are you concerned about with these impacts?
Map it with a sticky note or draw on map (speaker or table facilitator)
Go around group; note any themes or questions. Add more until time is called

Image: Mark Letham
Wahkiakum County Fire Protection District 3

Chinook shoreline erosion reduction and habitat enhancement



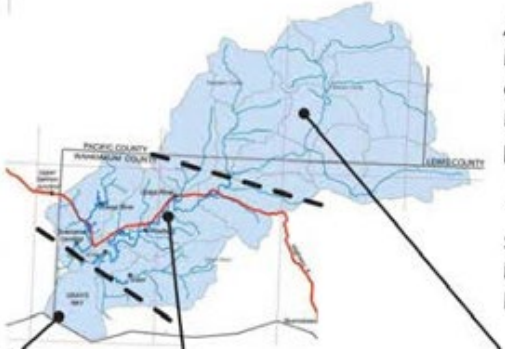
Overtopping of riprap along US 101, via WA Dept. of Fish and Wildlife

Note Astoria-Megler Bridge in background (the only route from Washington to Oregon across the Columbia River's first 65 river miles)

Grays River: watershed-wide coordination

Flood impacts reduction is tied to factors across the watershed. A regular action-oriented community forum can ensure that actions are synergistic with related efforts and communicated to interest parties (see Willapa Erosion Control Action Now - WECAN).

Studies, prototype projects, and information/ insight-sharing will be critical to affecting large-scale change through smaller projects.



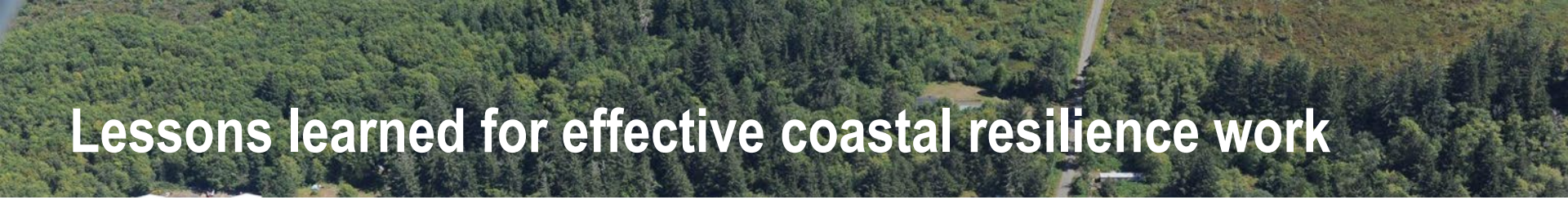
All key organizations would be regularly involved in outreach, fundraising, project developments, and group coordination. Participation by agencies will ensure permittable work that builds relationships.

***As the only key organization in all subregions, Wahkiakum County is the logical lead coordinator. Subregion-specific leads may be different than the County.

Key organizations by subregion:

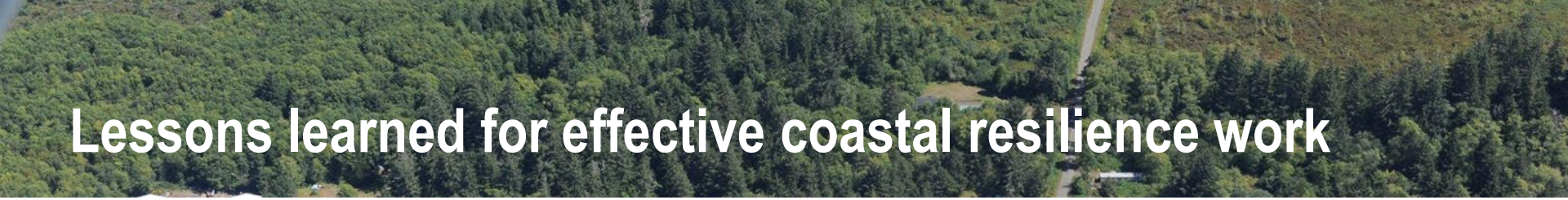
(does not include all partners, or regulators)

Ilwaco and Chinook (Pacific County) upland housing development



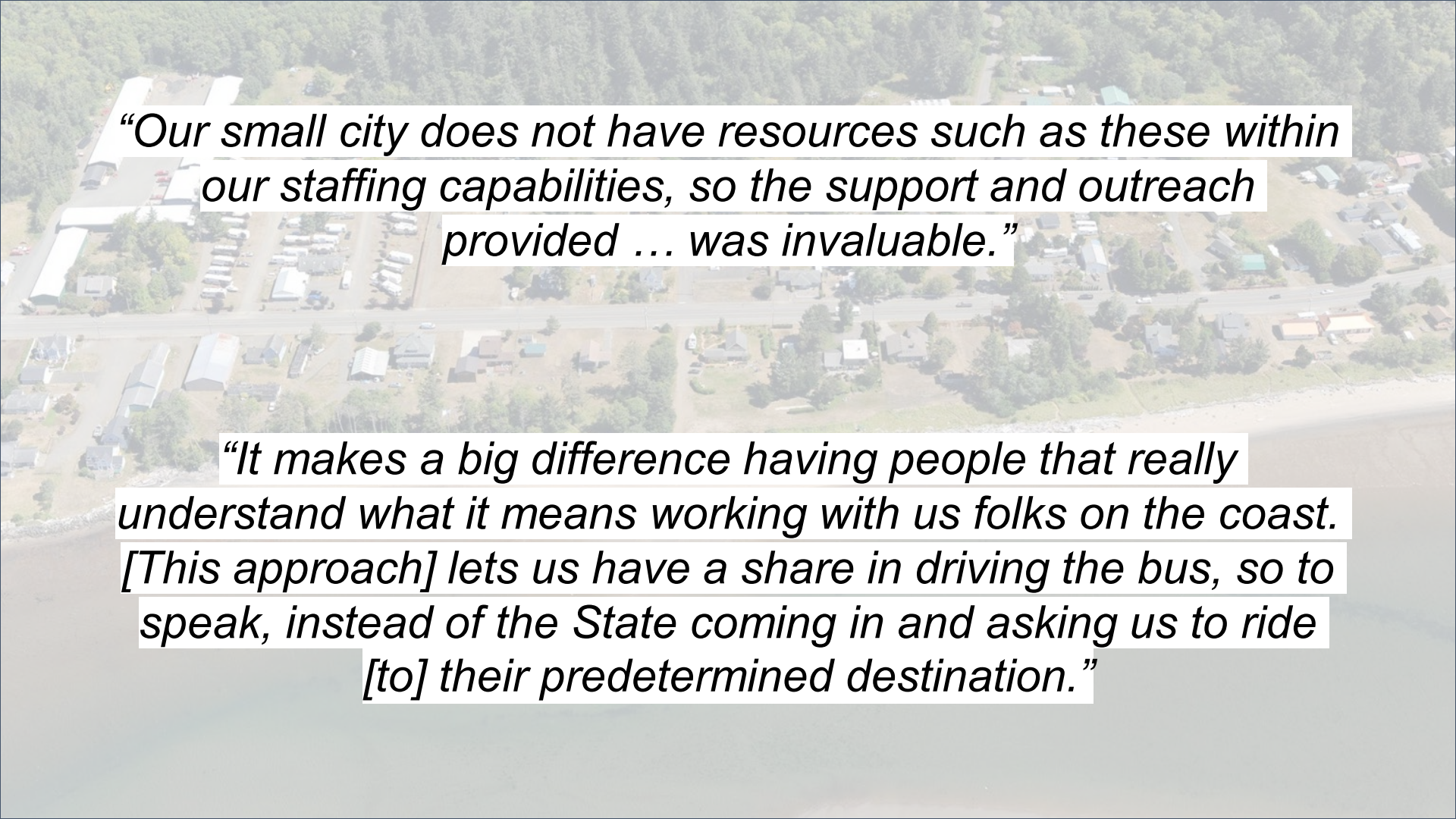
Lessons learned for effective coastal resilience work

- Effective adaptation and restoration requires **local collaboration/leadership:** ensure project dollars go directly to communities as much as possible
- Scale and complexity of this work will require multiple generations. Applied science, creative thinking, and trades **education can build tomorrow's local leaders for this work, and ensure grant dollars stay in communities**
- Complex **underlying issues require larger collaborations and funds**
- **Federal elected officials are necessary partners** to fund local work for USACE and authorize grant programs



Lessons learned for effective coastal resilience work

- Early-stage action-oriented **“Capacity building and planning” grants can grow into many meaningful physical projects**
- **Congressionally-authorized grant programs provide stepping stones for state program development**: this work built on years of federal, state, and local investments that are proving beneficial state-wide
- **Involvement of federally-recognized tribes increases likelihood of effective hazards and habitat resilience projects**



“Our small city does not have resources such as these within our staffing capabilities, so the support and outreach provided … was invaluable.”

“It makes a big difference having people that really understand what it means working with us folks on the coast. [This approach] lets us have a share in driving the bus, so to speak, instead of the State coming in and asking us to ride [to] their predetermined destination.”

Thanks!

Report, projects, and news at: *bit.ly/bay2bayresilience*

Also accessible via: ***WAcoastalnetwork.com***
MER.pacificcd.org

Jackson Blalock
Marine and Estuarine Resilience Program Manager
Pacific Conservation District
jblalock@pacificcd.org

PACIFIC
CONSERVATION DISTRICT

Collaborative commitment to the lower Columbia River

Elaine Placido, DPA
Executive Director
Lower Columbia Estuary Partnership
January 15, 2025

Lower Columbia Estuary Partnership

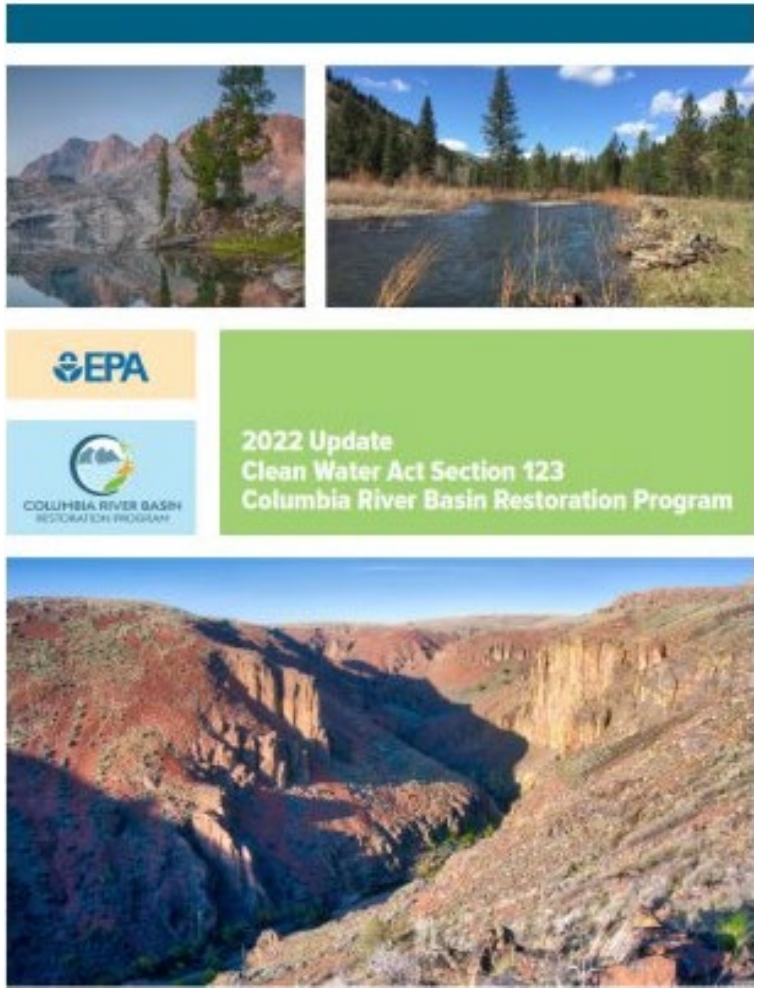
National Estuary Program

- The National Estuary Program is a place-based, collaborative program that safeguards the country's most significant estuaries, along with the communities and economies that depend on them.
- Congress established the National Estuary Program through an amendment to § 320 of the Clean Water Act in 1987. EPA administers the program.
- 28 National Estuary Programs in the U.S. and Puerto Rico
- **For every $1 of funding, National Estuary Programs leverage $17 in local, state, federal, and private-sector investment.**

Columbia River Basin Restoration Program

"The EPA Columbia River Basin Restoration Program—through the implementation of CWA Section 123—will be a catalyst for Basin wide toxics reduction work efforts, enabling communities to access unimpaired watersheds with healthy fish and wildlife and quantifiable toxics reductions in fish, wildlife and water."

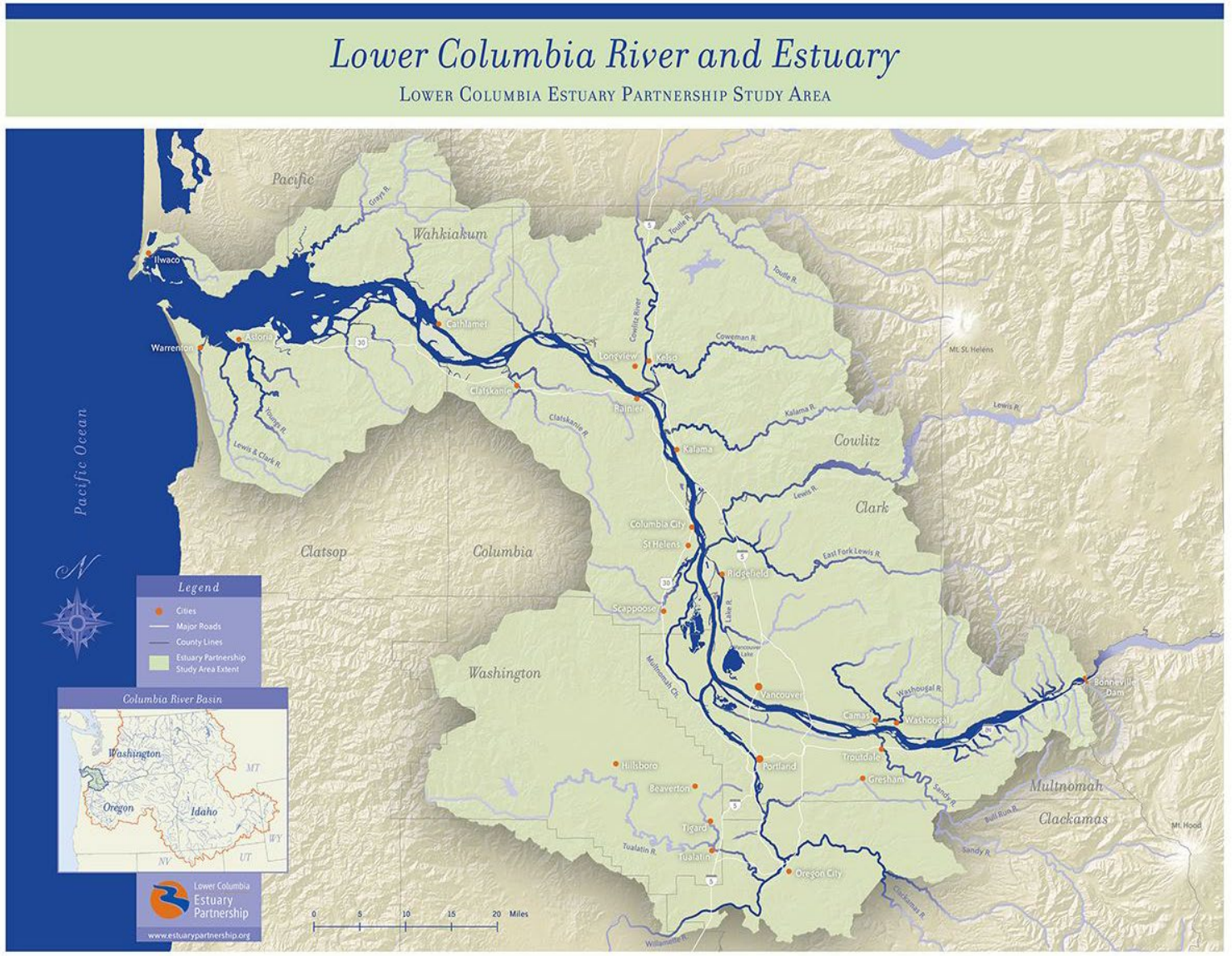
- Approved by Congress in 2016.
- Directs the EPA to develop a voluntary, competitive grant program for environmental protection and restoration programs throughout the Basin.
- $81M ($79M BIL) awarded in three funding cycles



Lower Columbia Estuary Partnership

To restore and care for the waters and ecosystems of the lower Columbia River, for current and future generations of fish, wildlife, and people.

- 501(c)3 organization
- 13 Board Members; 5 Ex Officio Members
- 30 staff members
- Study area: 146 river miles of the Columbia and upland areas
- Comprehensive Conservation and Management Plan



Education and Community Programs

Create and implement education and volunteer opportunities for citizens of all ages to engage in activities that promote stewardship of the lower Columbia River and estuary.

- Since 2000, the Estuary Partnership has:
  - worked with 3,713 classrooms
  - reached 98,595 students
  - provided 490,091 instructional hours
- Big Canoe program: 31,650 paddlers since 2000
- Since 2000, 15,651 volunteers have engaged in:
  - Planting 119,556 native trees and shrubs
  - Water quality monitoring, water trail maintenance, habitat mapping, assisting with restoration activities

Green Stormwater Infrastructure

Reduce and improve the water quality of stormwater runoff and other non-point source pollution.

- 26 Grattix Boxes (“stormwater treatment in a box) installed at commercial and industrial locations
- Port of Ilwaco’s Baker Bay green stormwater project
- Rainier Boat Launch green stormwater project
- $4.2 million Columbia River Basin Toxics Reduction Fund grant (BIL) for green stormwater projects in schoolyards:
    - Mittleman Jewish School, Sunnyside Elementary, Evergreen High School, Glencoe Elementary, Creston Annex Head Start, Chief Joseph Elementary, Fort Vancouver High School, Rigler Elementary, and more to come

Collaborative Science Convening

Facilitate and assist federal, tribal, state, and local governments' protection of the lower Columbia River and estuary.

- Supported an Indigenous-centered, Columbia River-focused learning journey for staff and partners
- Coordinate Science Work Group
- Science to Policy Conference
  - Conservation as climate mitigation: Using carbon programs to protect and restore ecosystems
  - Toxics, climate change, science communications
- Columbia River Estuary Conference
  - Echoes of the Estuary – Reflections for a Resilient Future, May 13-15, 2025.

Habitat Monitoring and Research

Provide information about the lower Columbia River and estuary that focuses on water quality, endangered species, habitat loss and restoration, biological diversity, and climate change to a range of users.

- **Ecosystem Monitoring Program:** baseline information on salmon habitat at five minimally disturbed tidal wetlands sites.

- **Action Effectiveness Monitoring Program:** determine how habitat restoration actions are impacting salmon habitat to improve future restoration actions.
- **Soil Carbon and Methane Study of the Columbia River**

Habitat Restoration

Protect, conserve, and enhance priority habitats, particularly wetlands, on the mainstem of the lower Columbia River and its tributaries.

- Since 2000, the Estuary Partnership has
  - Restored or protected 5,149 acres
  - Opened more than 83.7 miles of stream habitat
  - Supported partner restoration projects to accomplish 284 projects across 35,342 acres
- Spring 2025 – break ground on two floodplain reconnection projects
  - Campen Creek Reconnection Project
  - East Fork Lewis River Reconnection Project

Campen Creek Reconnection PROJECT

East Fork Lewis River Reconnection PROJECT

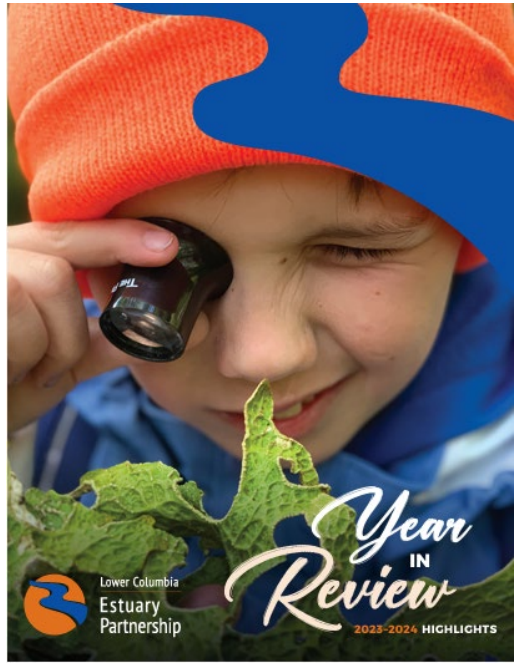
Steigerwald Reconnection Project

Largest habitat restoration project in the lower Columbia River

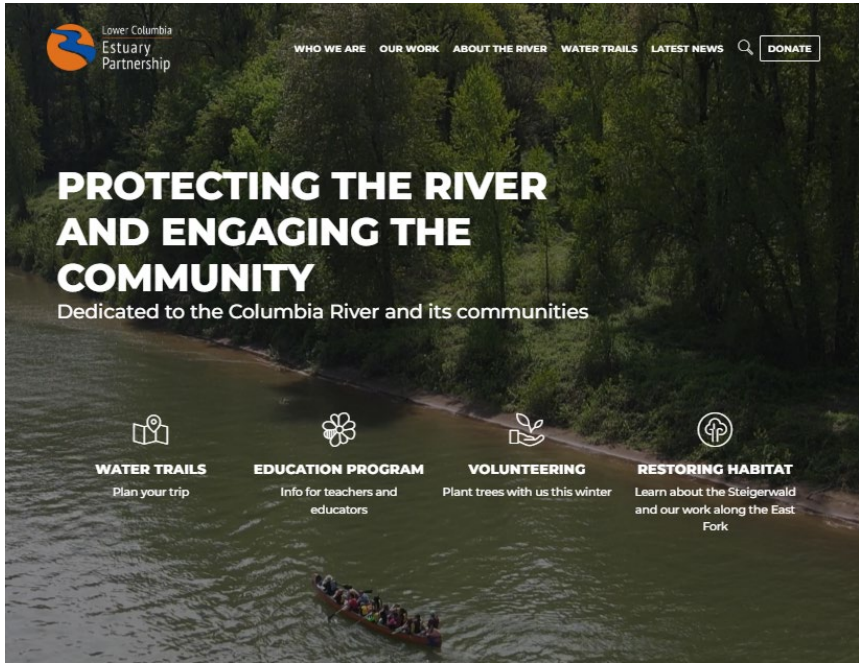
- Fixed three problems: flooding, recreation, fish access

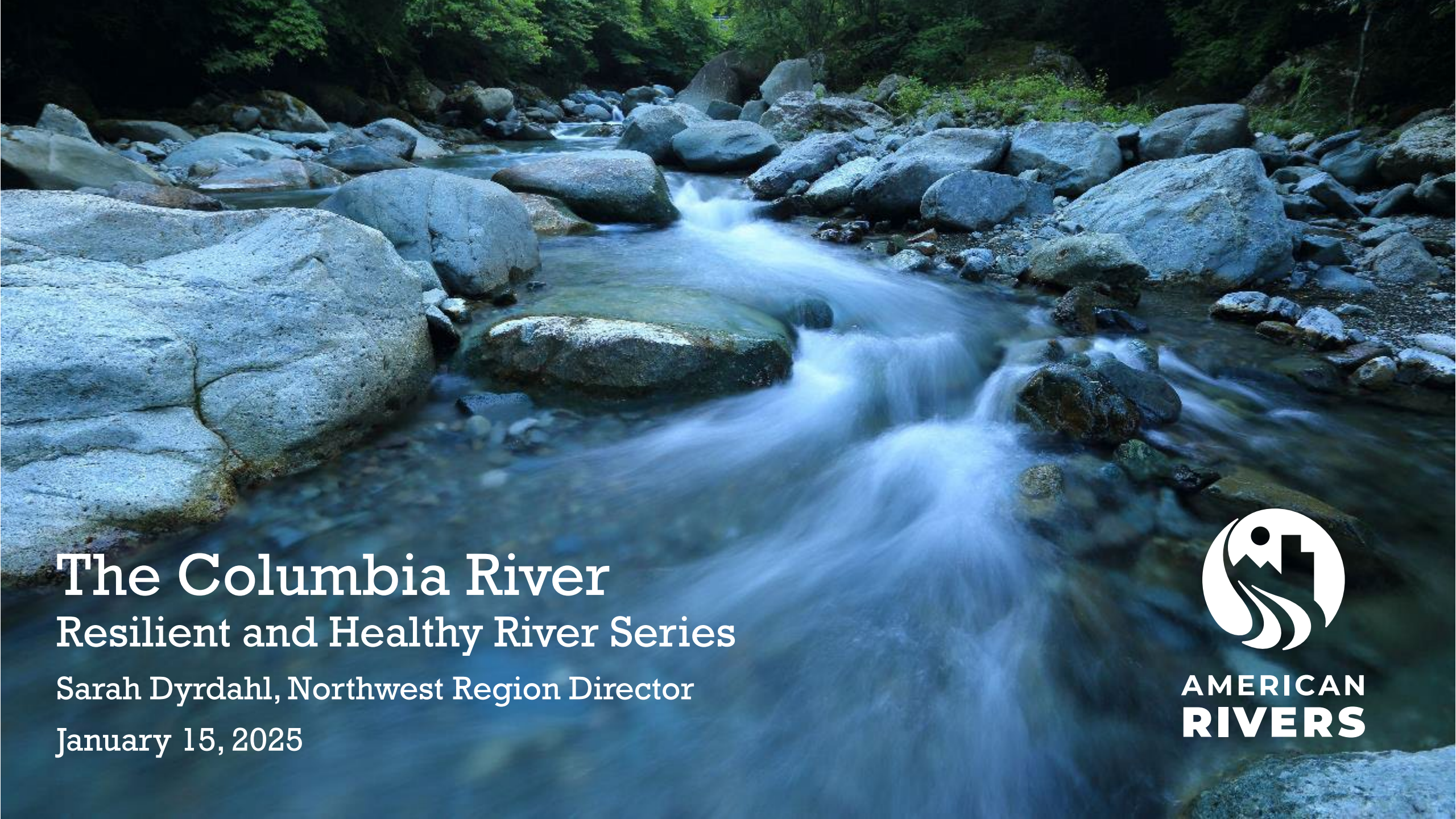
Learn more about us (or visit!)

Year in Review



Website





The Columbia River

Resilient and Healthy River Series

Sarah Dyrdahl, Northwest Region Director

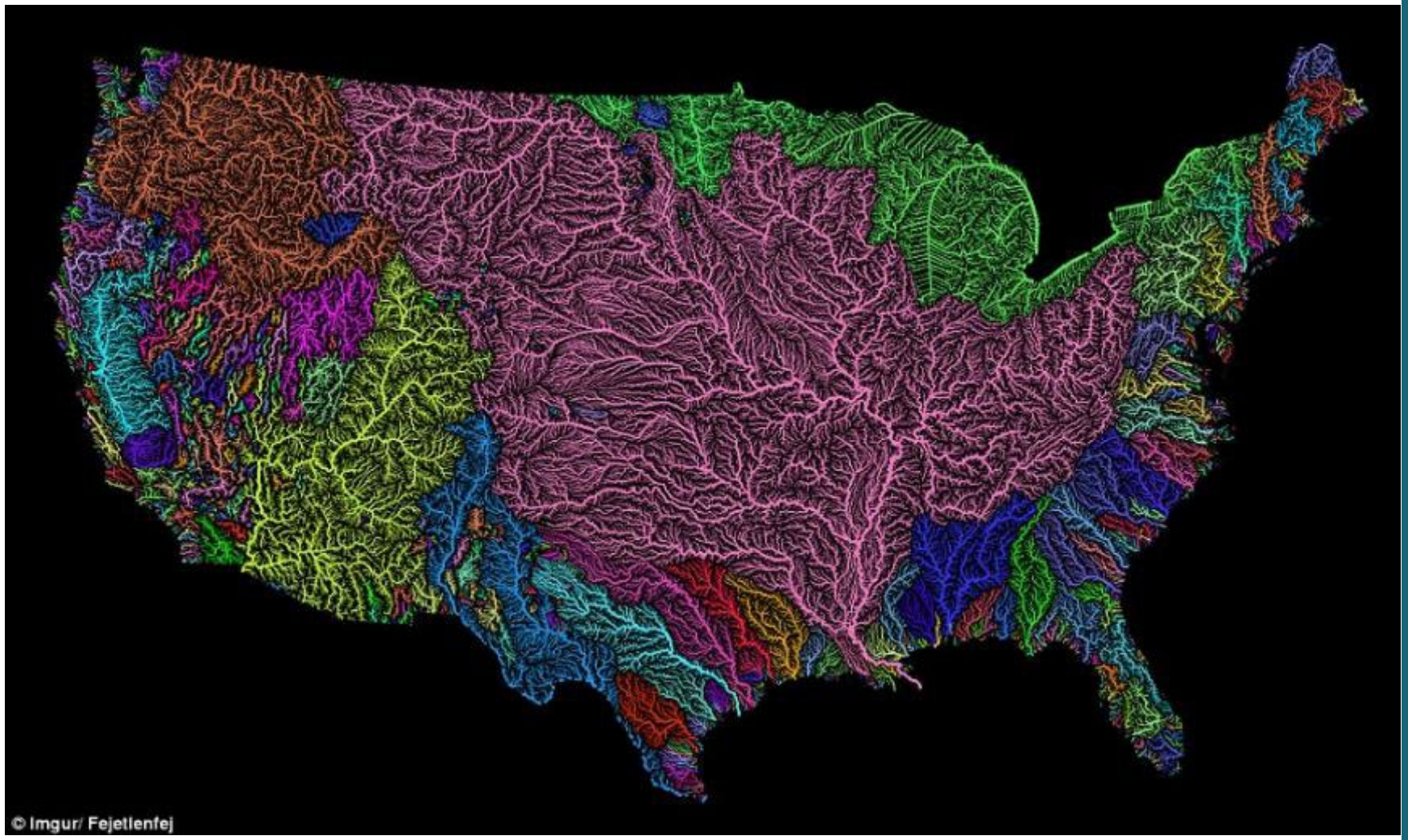
January 15, 2025

AMERICAN RIVERS

“The Pacific Northwest is simply this: wherever the salmon can get to. Rivers without salmon have lost the life source of the area.” *--Timothy Egan / The Good Rain*

(Permit Number 27038 / Center for Whale Research)

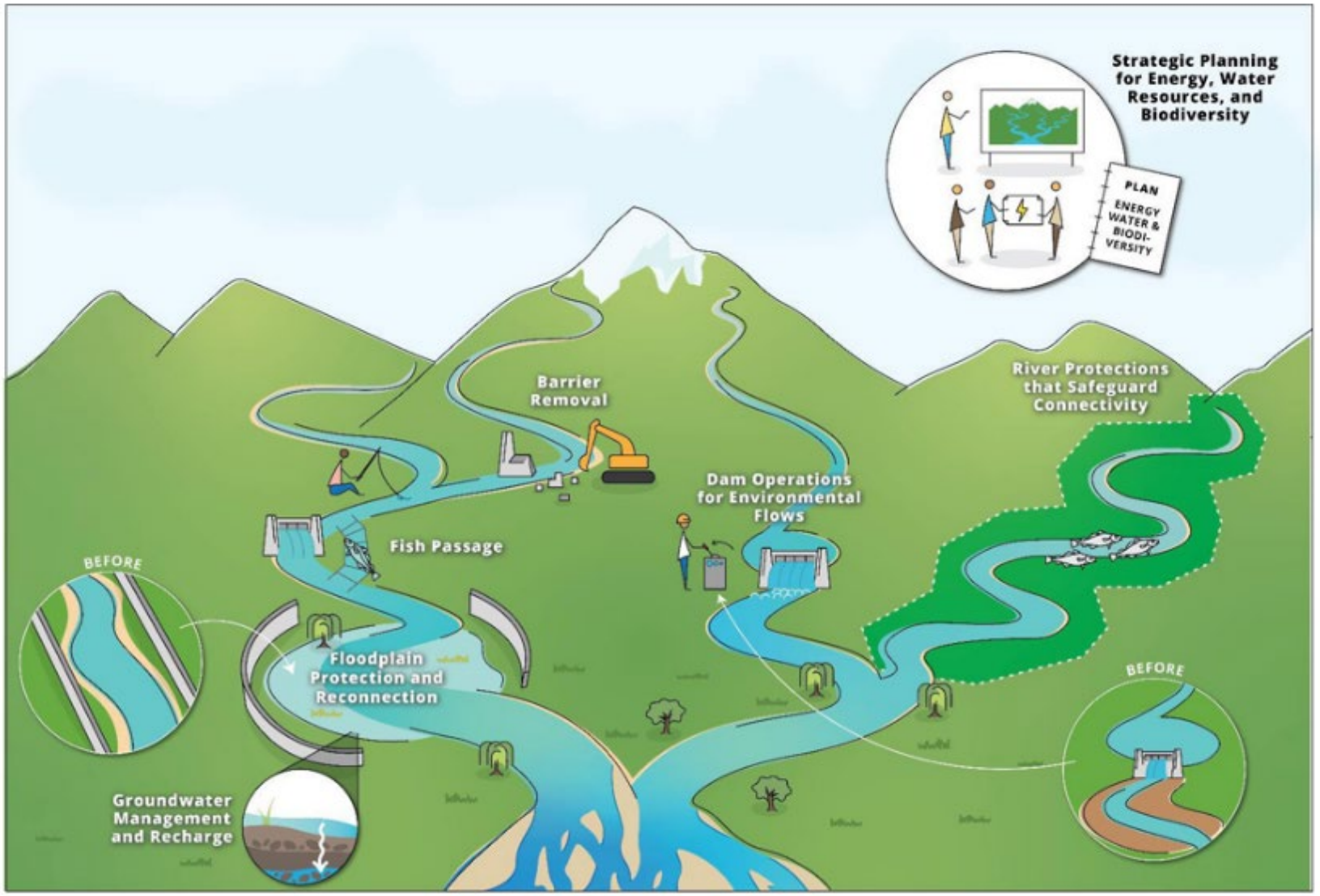
AMERICAN RIVERS



Our Rivers:

- 70% of drinking water
- 80% of species homes
- Greatest # of T&E

Fig. 1. Illustration of measures that can support maintaining and restoring river connectivity.



https://doi.org/10.1139/er-2023-0019

Protect the best, restore the rest!

Focus on connectivity

Removing a dam is the fastest way to heal a river

How do we protect and restore rivers?

Collaboration is key!

https://ssir.org/advancing_the_art_of_collaboration

Kellogg Creek Restoration & Community Enhancement Project

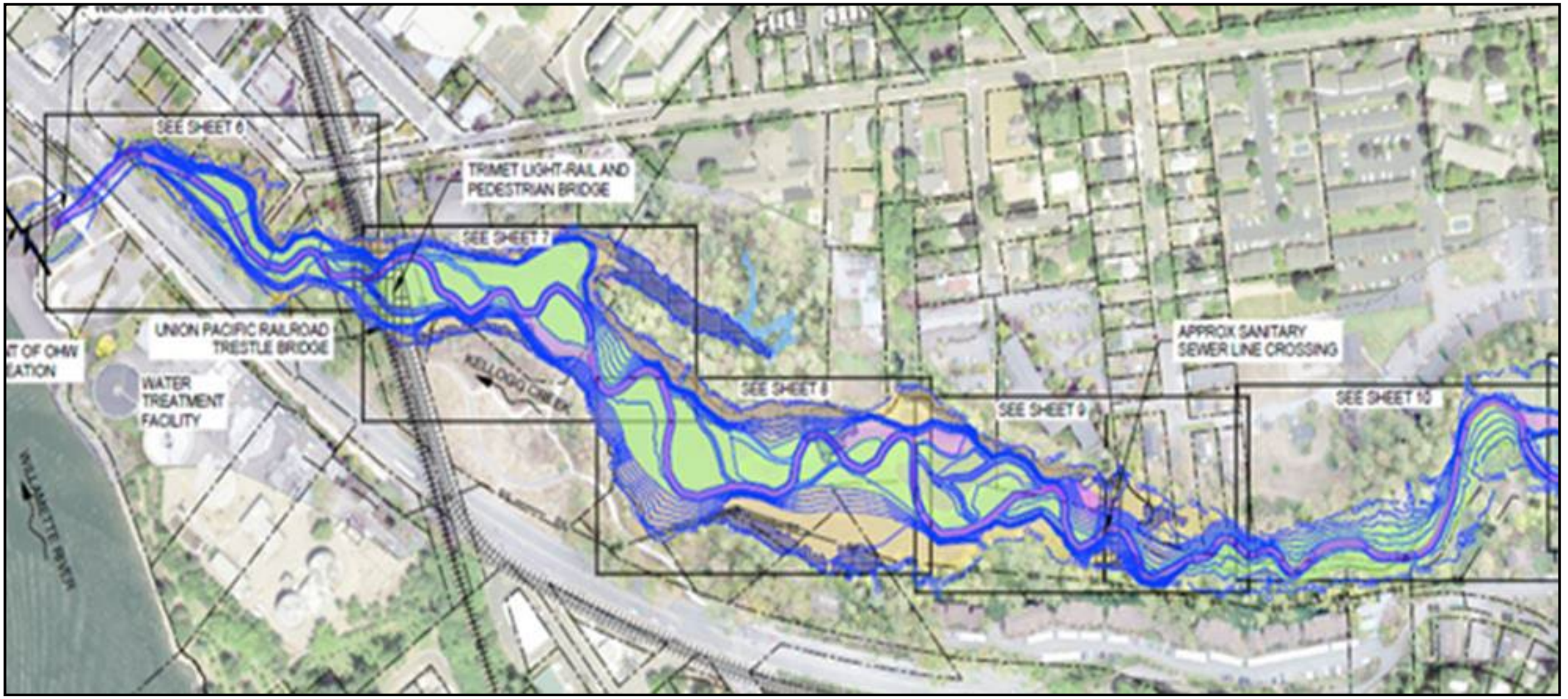
Kellogg Dam/99E Bridge History

(Above) Steamer "Lot Whitcomb", launched Christmas Day, 1850.
(Below) Standard Mill, built 1858, collapsed 1901.

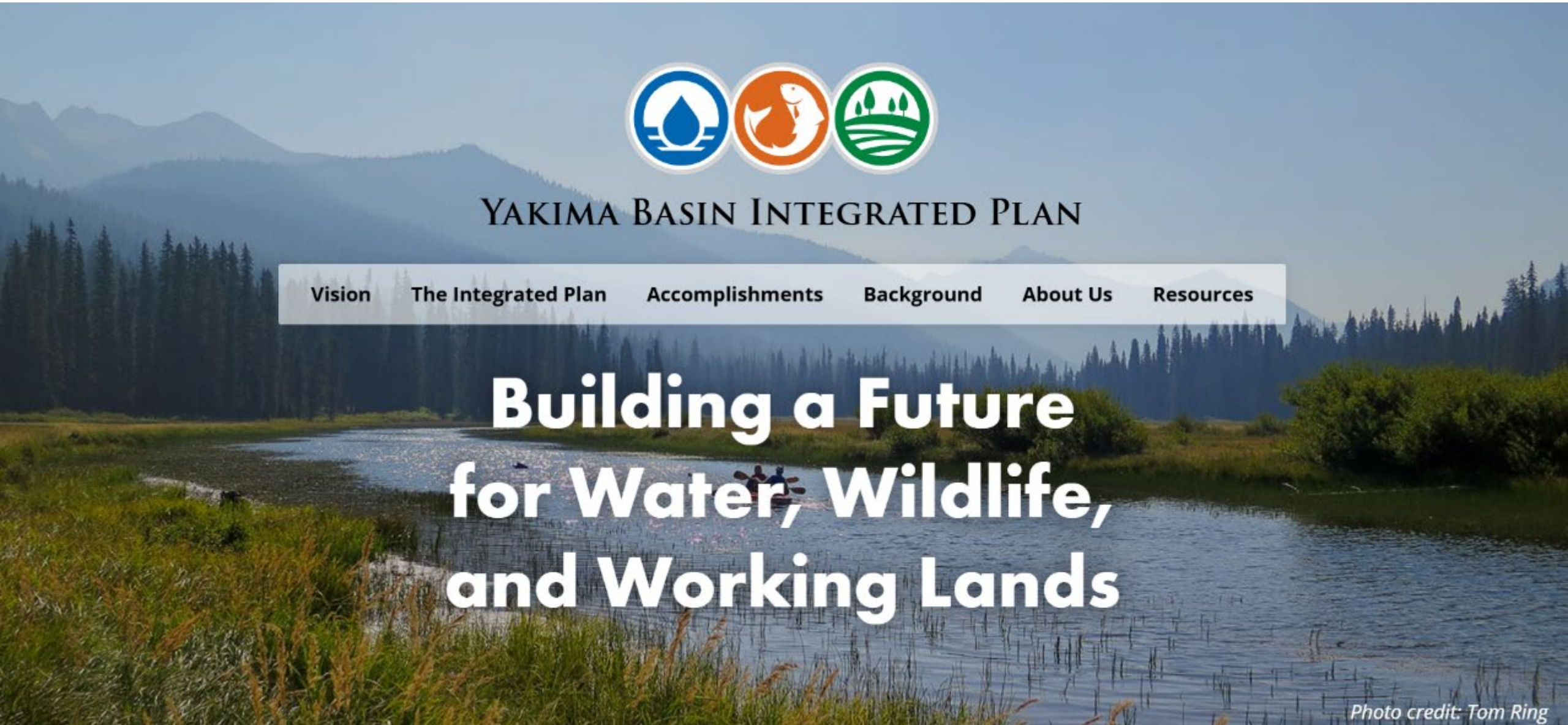
Dam/Lake – built 1848
Standard Mill – collapsed 1901
99E bridge – 1934
Fish ladder modified - 2003

	Volitional Fish Passage	Modernize 99E Bridge	Habitat restoration	Community Enhancement Features (CEF)	Community Resiliency
Project Objectives	**17mi**	**Sustainable, safe**	**15 ac**		
Project Elements	Remove Kellogg Dam Restore Stream Channel through new bridge crossing and Lake	Wildlife migration corridor Multi-use pedestrian underpass Envision Sustainability Verification	Riparian Habitat, Wetlands, Floodplain in Kellogg Lake footprint Lower Willamette hydrologic connectivity	Pedestrian Underpass Access to Greenspace Nature-based recreation	Community input in CEF design Interactive learning and research opps Workforce development

https://www.milwaukieoregon.gov/kellogg



Conceptual Restoration Design



https://yakimabasinintegratedplan.org/

The Seven Elements

The Yakima Basin Integrated Plan identifies seven elements needed to achieve a balanced and comprehensive approach to water resource management and ecosystem restoration in the Yakima River Basin.

Reservoir Fish Passage

Upstream and downstream passage for anadromous and resident fish will be established at all U.S. Bureau of Reclamation reservoirs, allowing access to a high-quality, cold-water habitat essential for restoring depleted runs of fish.

Structural and Operational Changes

Much of the Yakima River Basin's federal and non-federal infrastructure is more than a century old. Modernization measures, such as improving canal efficiency, balancing reservoir levels, and making operational changes, benefit both the fish habitat and the agricultural water supply.

Surface Water Storage

The Integrated Plan will provide 450,000 acre-feet of new storage over thirty years. Water projects in the first ten-year Initial Development Phase include accessing 200,000 acre-feet of water already stored at Kachess Reservoir via a new pumping plan facility, and 14,600 acre-feet from raising the level of Cle Elum Reservoir. Building new reservoirs and expanding an existing reservoir are proposed for later in the Integrated Plan phases.

Groundwater Storage

Additional water supplies will be gained by intentionally storing water in aquifers, and then either pumping it or allowing it to return to the river to improve flows, meet demands, and reduce water temperatures.

Habitat/Watershed Protection

Fish and wildlife habitat enhancement in the basin includes floodplain restoration, flow improvement, removing fish passage barriers, screening diversions, and land and river corridor protection.

Enhanced Water Conservation

Conserving up to 170,000 acre-feet of water per year is the goal of the agricultural side of this program, allowing better instream flows for fish and more precise delivery and use of water. Local governments actively encourage improvements in water conservation from individual homeowners for indoor and outdoor use.

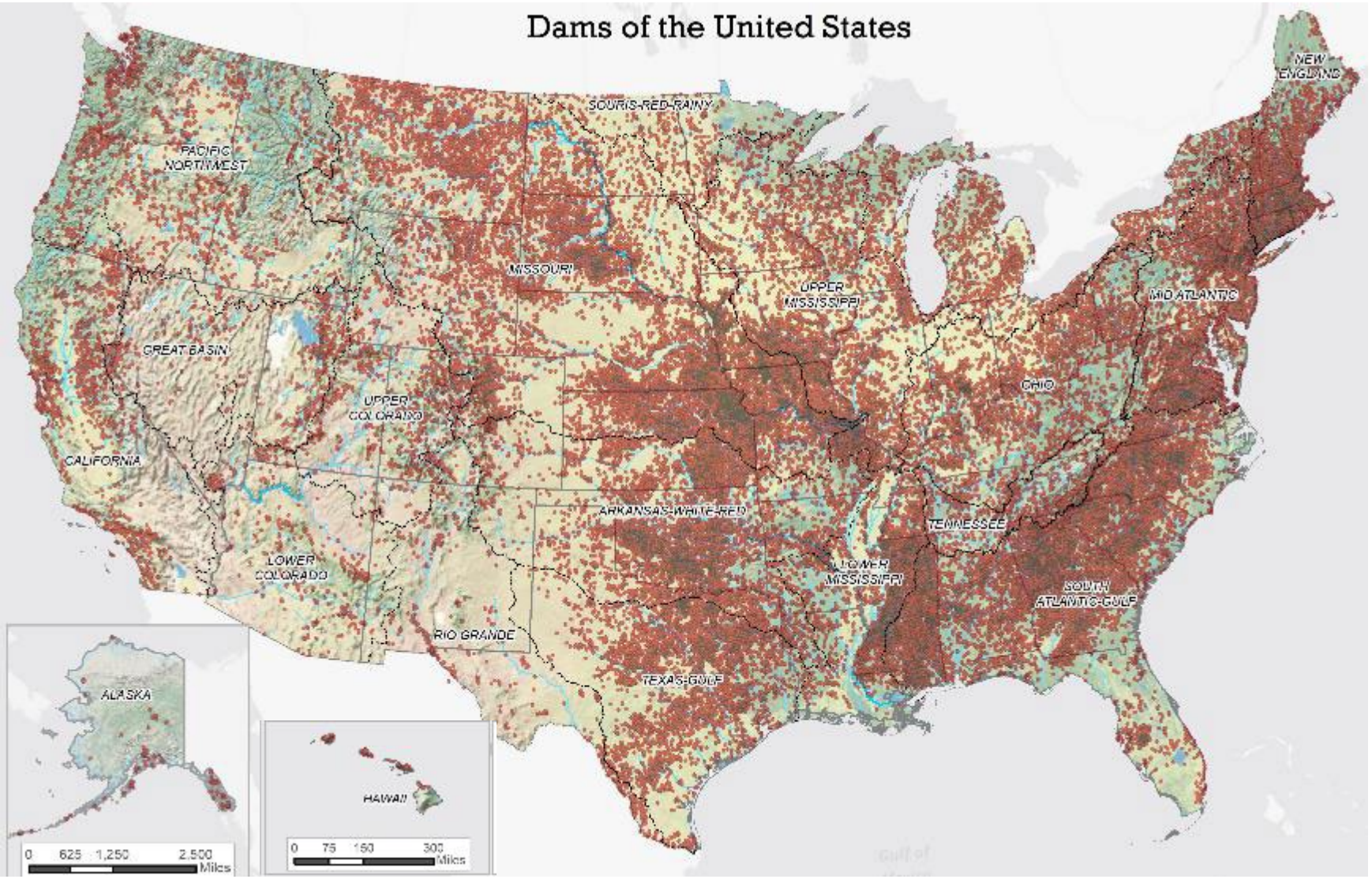
Market Reallocation

The Integrated Plan proponents are developing short- and long-term strategies to increase market reallocation of water during droughts while minimizing adverse effects on other water users and the environment.

Uncommon Dialogue

- **Rehabilitate** dams for improved safety and environmental performance.
- **Retrofit** powered and non-powered dams for increased electricity generation and storage; develop closed-loop pumped storage.
- **Remove** obsolete dams that are harming ecosystems, causing safety risks, and impeding recreation.

https://woods.stanford.edu/research/hydropower-home



The National Inventory of Dams includes 91,843 dams

Current inventory by SARP and USFWS includes 533,429 dams (and counting)

Nearly 6,000 high or significant hazard dams are in poor or unsatisfactory condition

Columbia Basin Restoration Initiative

https://critfc.org/cbri/

Life Depends on Rivers℠