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## Northwest **Power** and **Conservation** Council

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March 5, 2024

### **MEMORANDUM**

**TO:** Fish and Wildlife Committee Members

**FROM:** Maureen Hess and Mark Fritsch

**SUBJECT:** Update on Fish & Wildlife resource tools and maps: Lands, Fish Screens, and Hatcheries

### **BACKGROUND:**

**Presenter:** Maureen Hess and Mark Fritsch

**Summary:** Staff will update the Committee on three [resource tools](#) located on the Council's website that displays information on the Fish and Wildlife Program's (Program) land acquisitions, fish screens, hatchery facilities and artificial production programs.

**Relevance:** Land acquisitions, fish screens, and hatchery facilities are critical components of the Program's implementation history and investments to mitigate for effects of the construction and operation of the hydrosystem on fish and wildlife. Development of resource tools related to the Program's asset investments addresses the 2014 Program's public engagement strategy (Part Three.IV.C.8) by facilitating public access to Program information and conveying the Program's accomplishments. These resource tools are also identified in the 2020 Addendum to the Program as reporting tools for communicating information and progress toward the Program's goals and objectives and assist in reporting on program performance.

Workplan: Fish and Wildlife Division; Program Implementation (2014 Program and 2020 Addendum); Program Performance.

Background: The [2014 Fish and Wildlife Program](#) investment strategy (Part Six; Section II, and Appendix P) identifies funding to support long-term maintenance of the assets of past investments as the highest priority of the emerging priorities of the Program. In addition, On October 10, 2018, the Council approved an [Asset Management Strategic Plan](#) to address non-recurring maintenance needs for hatcheries, screens and lands to ensure longevity and integrity of the Program's past investments made for the benefit of fish and wildlife.

The [Resource Tools and Maps](#) on the Council's website includes three tools that highlight the Program's investments in land acquisitions, fish screens, and hatchery facilities. These tools were developed by staff, in collaboration with QW Consulting LLC, Bonneville staff, Fish Screening Oversight Committee (FSOC), Informal Hatchery Workgroup, and Fish and Wildlife managers. Each tool shows an interactive map that identifies the location of where investments and infrastructure occur throughout the Columbia River Basin, and includes key information associated with each investment (e.g., year purchased, acres protected, species supported).

#### *Program Tracker – Lands*

The Program supports implementation of projects that acquire and protect habitat as mitigation for construction and inundation losses affecting habitat for fish and wildlife. The Program Tracker - Lands tool provides an interactive map and information about the 467 land parcels acquired by the States, Tribes and other entities through the Program.

#### *Program Tracker - Fish Screens*

Fish screens are critical to prevent fish from being stranded in irrigation ditches, channels or canals when water is diverted or pumped from rivers and streams. Fish screens installed by the fish and wildlife managers help ensure safe passage of juvenile and adult fish. The Program Tracker – Fish Screens tool provides an interactive map and information for over 1,000 screens supported by the Program that are critical for safe fish passage.

#### *Program Tracker - Hatcheries*

The Program Tracker hatchery tool was initially developed to present information on the hatchery facilities and artificial production programs associated with the Program, to track facility improvement needs, and access other information such as the Council's master planning

documents. Efforts to expand and restructure the hatchery tool have occurred over the last two years, in collaboration with the Council's [Informal Hatchery Workgroup](#) and Fish and Wildlife managers, to be comprehensive by including all of the Columbia River Basin's (CRB) hatchery facilities and programs. The tool displays the Basin's facilities and artificial production programs in context to their primary purpose and management objectives, including preliminary compilation of data associated with Fish and Wildlife Program's artificial production.

This restructuring of the tool shows that the CRB system of hatcheries is primarily federally funded through legislation and established as mitigation for losses and impacts to fish due to habitat degradation and the construction and operation of hydropower dams. While mitigation is the primary purpose of the CRB hatchery system, hatchery programs themselves are managed to achieve multiple objectives, including supporting harvest, supplementation, reintroduction, and/or native fish conservation. Communicating this context of purpose for the CRB hatchery system is a key outcome of this tool, which will serve as a resource for reporting related to the Program performance category assessment for artificial production.

# Update on Fish & Wildlife Resource Tools and Maps: Lands, Fish Screens, and Hatcheries

Fish and Wildlife Committee Meeting

March 12, 2024



Northwest **Power** and  
**Conservation** Council

# Acknowledgements

- Regional Fish and Wildlife Managers
- Council's Informal Hatchery Workgroup
- Fish Screening Oversight Committee
- Bonneville Power Administration - F&W staff
- QW Consulting, LLC



# Fish & Wildlife Resource Tools & Maps

## Fish and Wildlife

Share



The Council works to protect and enhance fish and wildlife in the Columbia River Basin. The Bonneville Power Administration implements this work in a manner consistent with the Council's [Columbia River Basin Fish and Wildlife Program](#), updated in the [2020 Addendum process](#).



### Fish and Wildlife Program

- 2020 Addendum
- 2014/2020 Columbia River Basin Fish and Wildlife Program
- Subbasin Plans
- F&W Program Costs Reports
- Project Reviews and Recommendations

Recent and Upcoming Meetings			
MAY 2023 TUE 23	SEP 2023 THU 21	JAN 2024 MON 08	APR 2024 THU 04



# Relevance and Background

## ➤ Fish and Wildlife Program investments:

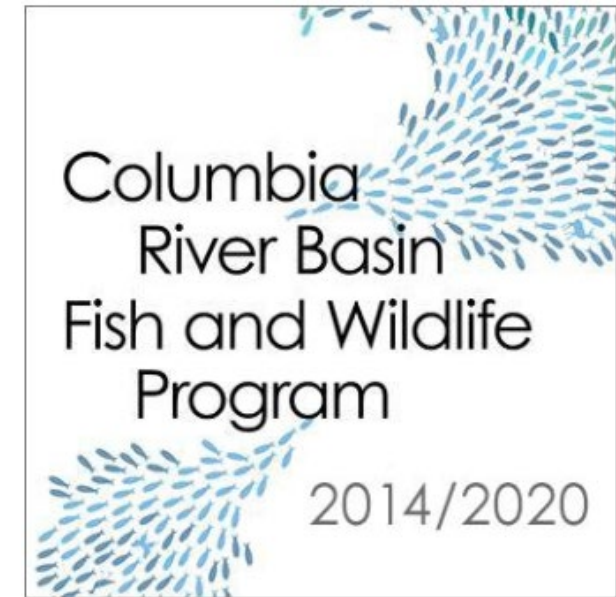
### *Lands*



### *Fish Screens*



### *Hatcheries*



- Part 6.II (investment strategy), Appendix P, & Council's 2018 Asset Management Strategic Plan:
  - *Provide for funding long-term maintenance of the assets that have been created by prior Program investments.*
- Part 3.IV.8 (public engagement strategy):
  - *Educate and involve NW citizens to develop, implement, and improve understanding of the Program and the Council, and to promote successful ecosystem management.*



# Land Acquisitions

- Program projects acquire and protect habitat as mitigation for construction and inundation losses affecting habitat for fish and wildlife.
- > 400 land parcels acquired through the Program.
- > 298,000 acres of land protected.



Source: 1998-022-00



Source: 2000-015-00



Source: 2008-007-00



Source: 1992-061-003

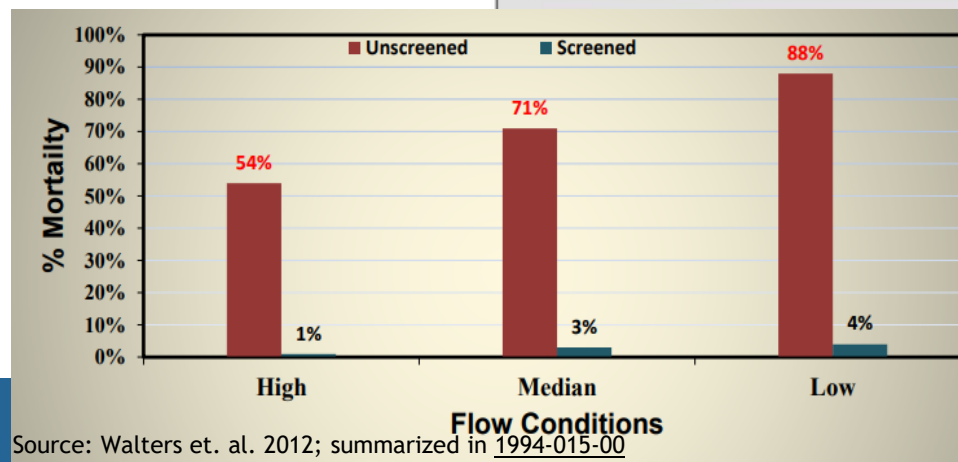
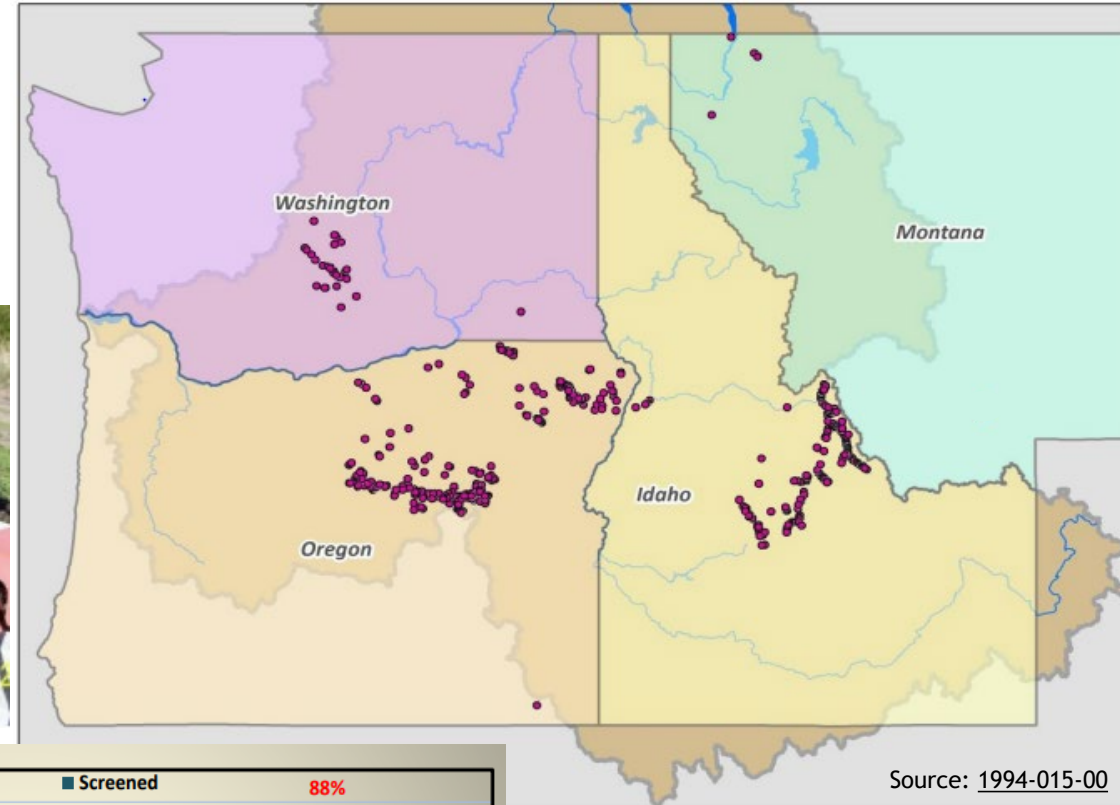
State and Province	# Acres protected
<b>Idaho</b>	<b>47,717</b>
Intermountain	8,725
Middle Snake*	6,241
Mountain Columbia	3,070
Mountain Snake	9,445
Upper Snake	20,237
<b>Montana</b>	<b>25,423</b>
Mountain Columbia	25,423
<b>Oregon</b>	<b>134,960</b>
Blue Mountain	47,553
Columbia Estuary	1,157
Columbia Plateau	54,848
Lower Columbia	23,257
Middle Snake	8,145
<b>Washington</b>	<b>90,044</b>
Blue Mountain	8,459
Columbia Cascades	34,067
Columbia Estuary	2,137
Columbia Plateau	16,180
Intermountain	27,849
Lower Columbia	1,352
<b>Grand Total</b>	<b>298,145</b>

Data Source: Bonneville Power Administration, 7/20/22 \*1 parcel located in Nevada



# Fish Screens

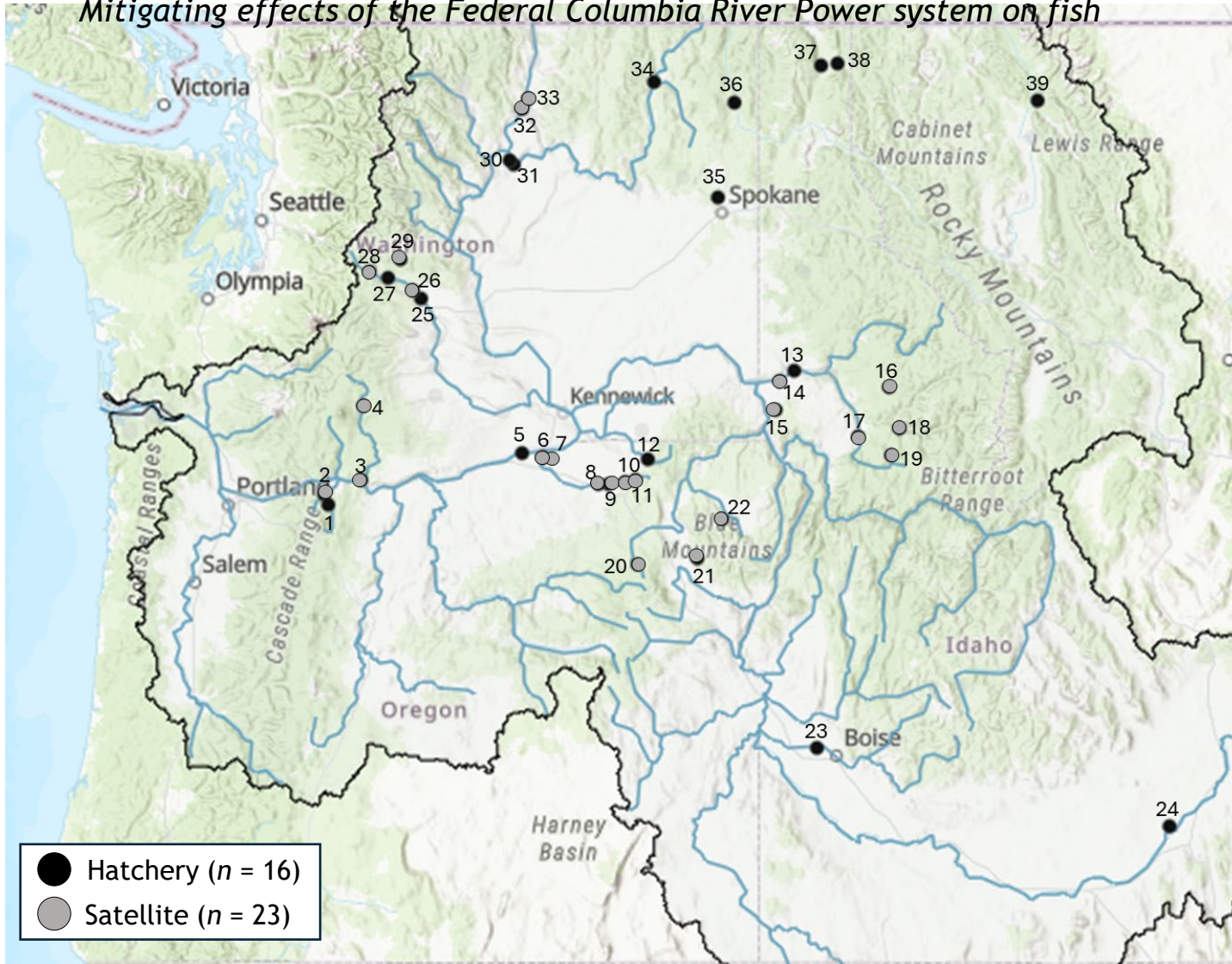
- Install, operate, & maintain fish screens (>1,000 screens)
- Critical to fish survival
- Improve fish passage to tributary habitat
- Guided by Fish Screen Oversight Committee



# Hatcheries

## Facilities established as mitigation through the NW Power Act

*Mitigating effects of the Federal Columbia River Power system on fish*



### Why expand tool and restructure?:

- Comprehensive tool for CRB-wide
- Organizational structure = by mitigation program
  - Understand mitigation responsibility of facilities and artificial production programs.
  - Foundation for initiating staff work on Program Performance; Category assessment - AP.



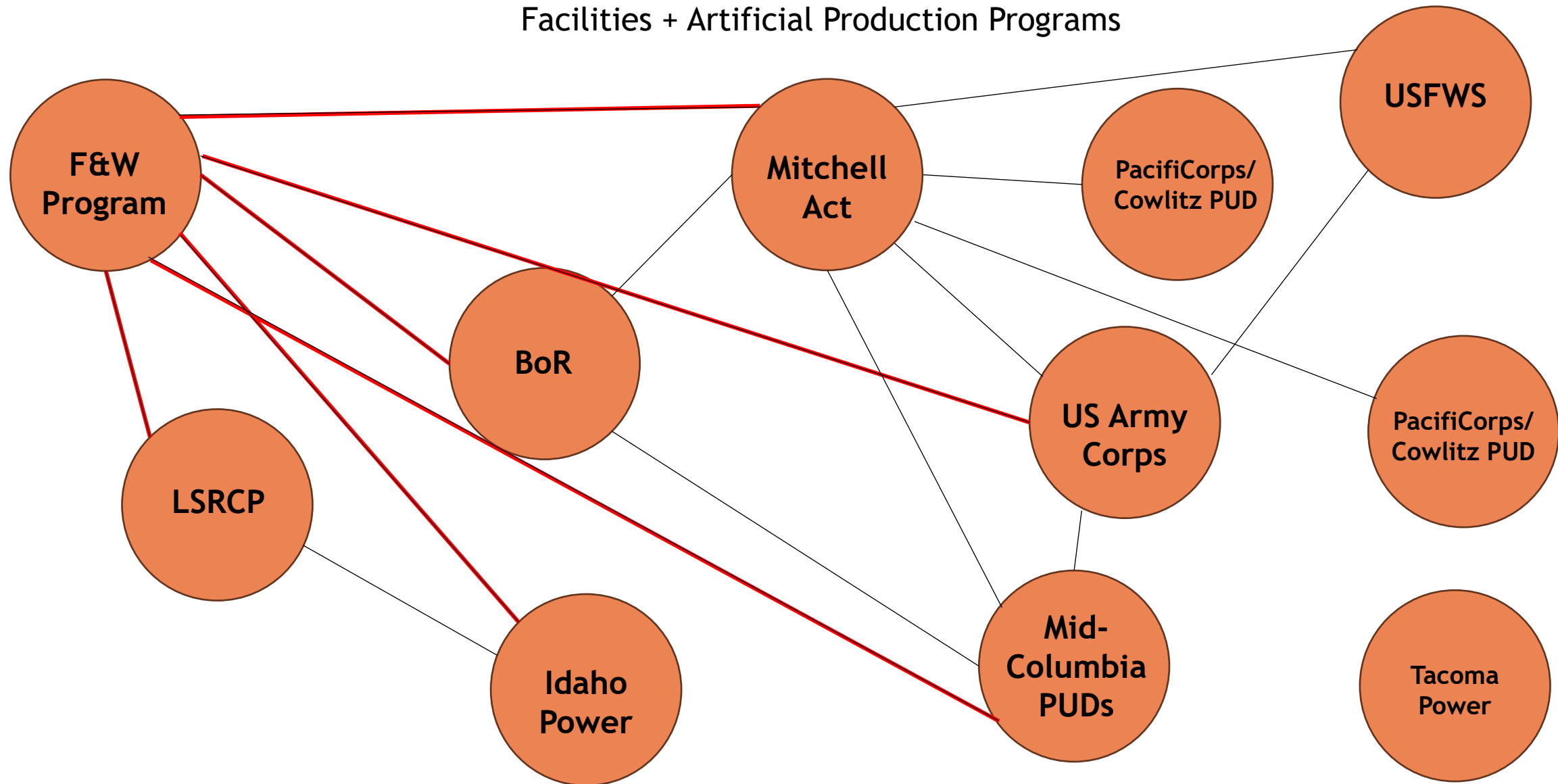
# Columbia River Basin hatchery programs

<b>Mitigation Hatchery Program (titled <i>Program</i>)</b>	<b>Mitigation purpose</b>
Fish and Wildlife Program	Federal Columbia River Power System
Lower Snake River Compensation Program	Lower Granite, Little Goose, Lower Monumental, Ice Harbor Dams
Bureau of Reclamation	Grand Coulee Dam
US Army Corps of Engineers	Willamette Basin Dams, John Day Dam, Dworshak Dam
Idaho Power Company	Hells Canyon Dam Complex
Mid-Columbia Public Utility Districts	Priest Rapids, Wanapum, Rock Island, Rocky Reach, Wells Dams
PacifiCorp/Cowlitz County PUD	Lewis River Hydroelectric Facilities
Portland General Electric	Pelton and Round Butte Dam Complex
Tacoma Power	Mossy Rock Dam
Mitchell Act	Development impacts in the Columbia River Basin
US Fish and Wildlife Service	Water development impacts in the Columbia River Basin

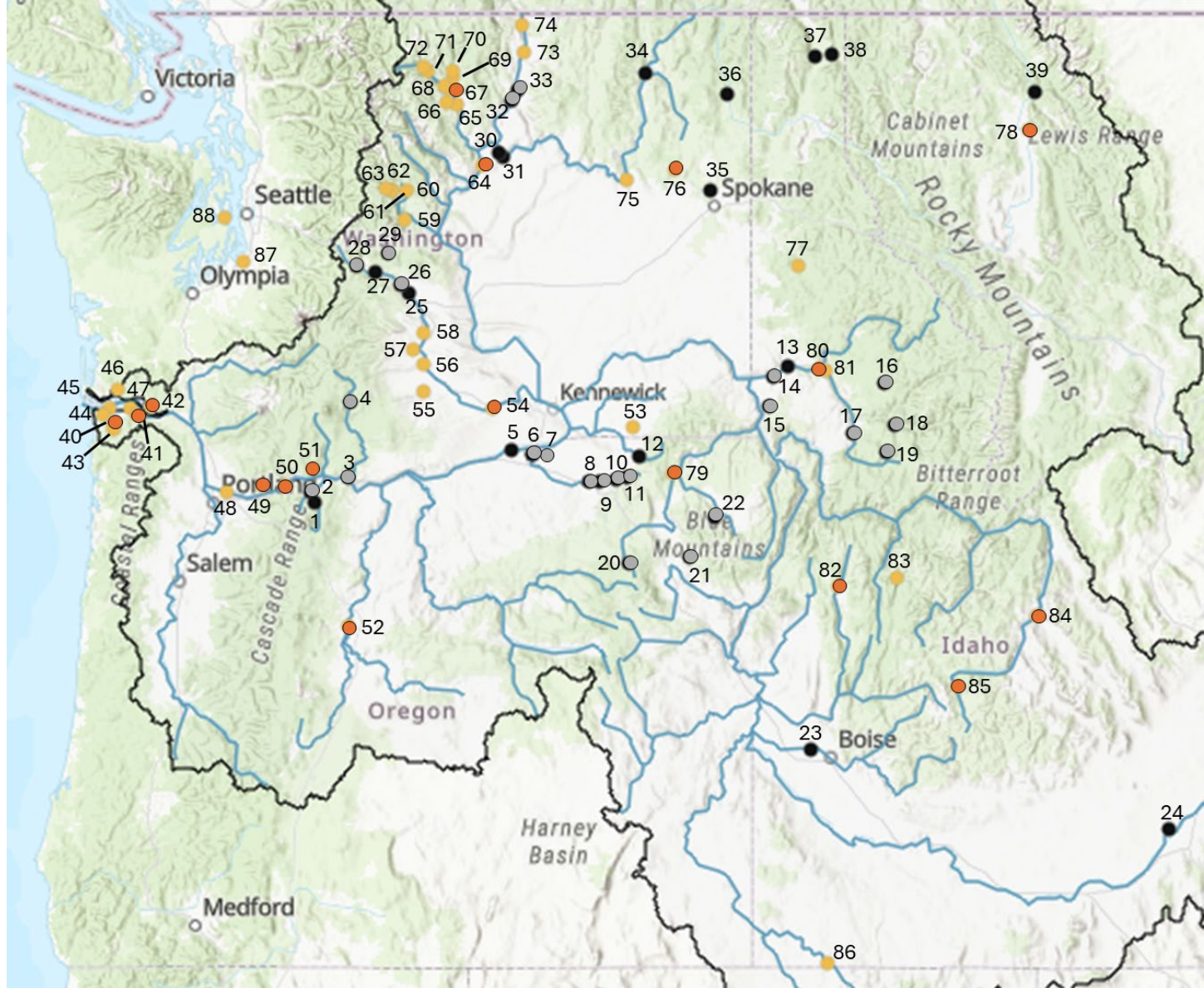


# Columbia River Basin hatchery ~~programs~~ system

Facilities + Artificial Production Programs



# Facilities that support artificial production of the Fish & Wildlife Program



Expanding the tool to be comprehensive allows a more complete picture of the system:

Fish & Wildlife Program's primary facilities (NW Power Act,  $n = 39$ ):

- Hatchery ( $n = 16$ )
- Satellite ( $n = 23$ )

Other facilities used to support Fish & Wildlife Program's artificial production ( $n = 49$ ):

- Hatchery ( $n = 19$ )
- Satellite ( $n = 30$ )

# Program Tracker - Hatchery tool

## Expansion and Restructuring (2022-present):

### ✓ Phase I:

- Identify all CRB hatchery facilities
- Organizational structure = by mitigation program

[Source info: US v. Oregon Production Advisory Committee]

### ✓ Phase II:

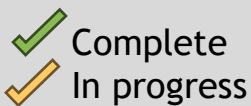
- Identify hatchery production associated with each mitigation program

[Source info: US v. Oregon Production Advisory Committee and production tables in the agreement, Hatchery program managers, HGMPs, Agency websites]

### ✓ Phase III:

- Compile and report data associated with Fish & Wildlife Program's artificial production

[Source info: Hatchery program managers]







# *Resource Tools and Maps*