



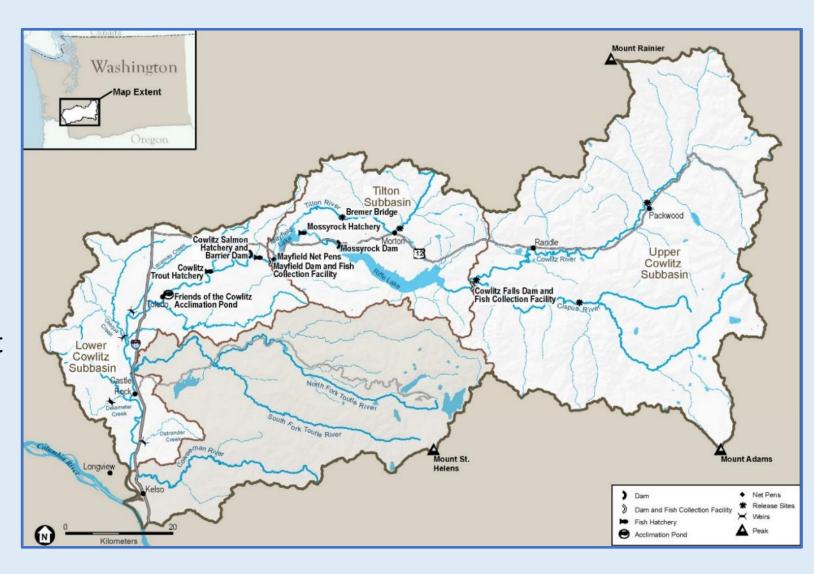
## Cowlitz Project:

The Cowlitz River is one of the most important tributaries for the recovery efforts for salmonid species within the lower Columbia

Overarching Goal: Recovery and Harvest of native salmon and trout

#### **Actions:**

- Fish Passage
- Hatchery Production
- Habitat Improvements





## Cowlitz Annual Program Review and Science Conference

Allows for the review of the science and research reported in 2023 with Partners:

- Department of Fish and Wildlife
- Lower Columbia Fish Recovery Board
- Tacoma Power



#### **Cowlitz Annual Program Review and Science Conference**

Wednesday, September 4, 2024 | 10 AM to 5:00 PM The Veterans Museum, 100 SW Veterans Way, Chehalis, WA 98532

#### Click here to join the meeting

Call in: +1 253-666-4424, 655957630# | Phone conference ID: 655 957 630# | Passcode: QHt8yq
If attending in-person please RSVP by August 30, 2024 – email: cowlitz@cityoftacoma.org

|  | 10:00 AM | Welcome and Engagement Procedure                              | Matt Bleich, Tacoma Power              |
|--|----------|---|--|
|  | 10:10 AM | <ul> <li>Tech Check and Meeting Logistics</li> </ul>          | Carrie Mantle, Tacoma Power            |
|  | 10:20 AM | Current Status  | Jenise Bauman, Tacoma Power            |
| Tacoma Power Operations                            |          |   |  |
|  | 10:40 AM | Project Operations  | Melora Shelton, Tacoma Power           |
|  | 11:00 AM | Hatchery Operations   | Eric Shoblom, Tacoma Power             |
|  | 11:20 AM | Habitat Efforts   | Steve Manlow, LCFRB                    |
|  | 11:40 AM | M&E Plan  | Jenise Bauman, TP; Greg Mackey, FP     |
| Lunch - 12:00 - 1:00 pm (provided by Tacoma Power) |          |   |  |
|  | F        | ish Information   |  |
|  | 1:00 PM  | <ul> <li>Fish Passage- Current Trends</li> </ul>              | Wyatt Wood, Tacoma Power               |
|  | 1:20 PM  | <ul> <li>Fish Passage - Looking forward 2025</li> </ul>       | Chris Vaughn, Tacoma Power             |
|  | 1:40 PM  | <ul> <li>Cowlitz Trout Hatchery Steelhead</li> </ul>          | Scott Gibson, Tacoma Power             |
|  |          | Enumeration   |  |
|  | 2:00 PM  | <ul> <li>Pre-Terminal/Terminal Harvest</li> </ul>             | Josua Holowatz, WDFW                   |
| Break -2:20-2:30 PM                                |          |   |  |
|  | 2:30 PM  | <ul> <li>Lower Cowlitz Adult Estimates</li> </ul>             | John Serl, WDFW                        |
|  | 3:00 PM  | <ul> <li>Adult Returns to the Separator</li> </ul>            | Jamie Murphy/Amy Anderson, TP          |
|  | 3:20 PM  | <ul> <li>Early Winter Steelhead Run Timing Update</li> </ul>  | John Serl, WDFW                        |
|  | 3:40 PM  | <ul> <li>Fall Chinook Population Monitoring Update</li> </ul> | John Serl/Erick Rockwood/Kale Bentley, |
|  |          |   | WDFW                                   |
| Break -4:00-4:10 PM                                |          |   |  |
|  |          | Annual Program Review   |  |
|  | 4:10 PM  | APR Introduction  | Matt Bleich, TP; Bryce Glaser, WDFW    |
|  | 4:20 PM  | <ul> <li>Cowlitz Hatchery Operation and Programs</li> </ul>   | Eric Shoblom, Tacoma Power             |
|  | 4:35 PM  | <ul> <li>Public Comments</li> </ul>                           |  |
|  |          |   |  |

Conference End

5:00 PM

## New: Science and Research Team

Jenise Bauman – Science and Research Manager

Scott Gibson – Cowlitz Monitor and Evaluation

Wyatt Wood – Science and Research Biologist

Chris Vaughn – Senior Fisheries Scientist

TBA – Fish Passage Biologist

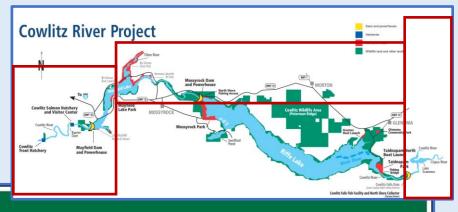


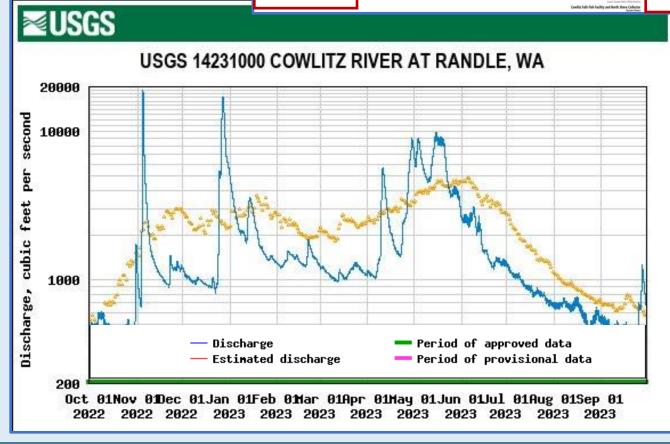


## Project Operations:

#### Melora Shelton, Tacoma Power

- Synthesizes data from USGS and Power Management
- Informs hydrological drivers and conditions that influence inflows
- Translates that into best practices to balance hydropower operations, public safety, and fish habitat.







## Hatchery Operations:

#### **Eric Shoblom, Tacoma Power**

Updates on operating and maintaining the salmon and trout hatchery

Goal: produce up to 650,000 lbs. of fish

- Hatchery performance and trends over the past 5 years
- Fish Health
- New strategies and remodels

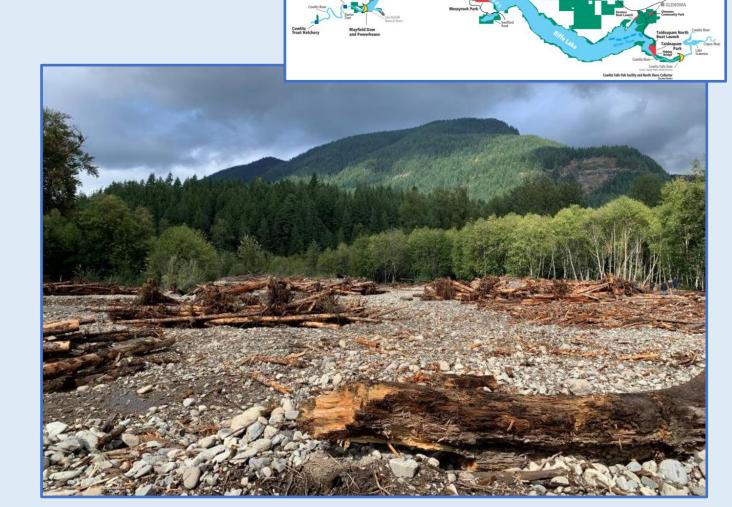




### **Habitat Efforts:**

# **Steve Manlow, Lower Columbia Fish Recovery Board**

- Salmon Recovery: Regional
   Organization Roles & Responsibilities
- Conservation and Restoration
   Partnerships and Accomplishments
- Funded Cowlitz Restoration & Recovery (CRR) Projects





## Habitat Efforts:

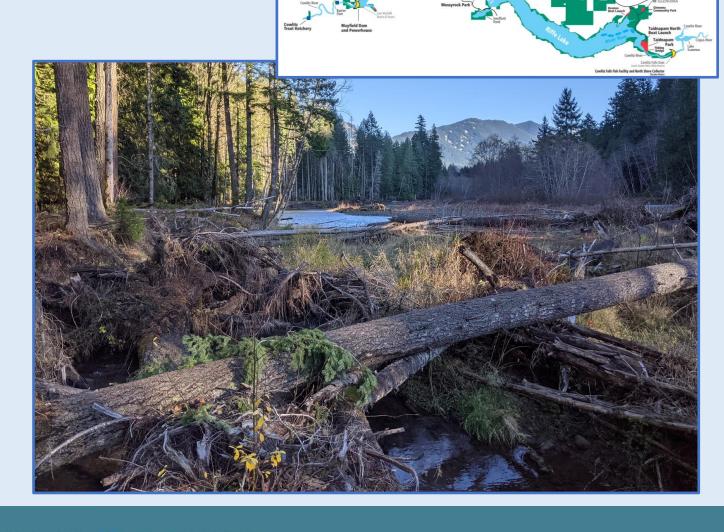
#### **TPU Initiatives**

**Cowlitz Restoration & Recovery Funding** 

#### **Habitat Goals:**

- Annual Wood Replacement
- Gravel Augmentation

Woody Debris Management Project





## Cowlitz Wildlife Area:

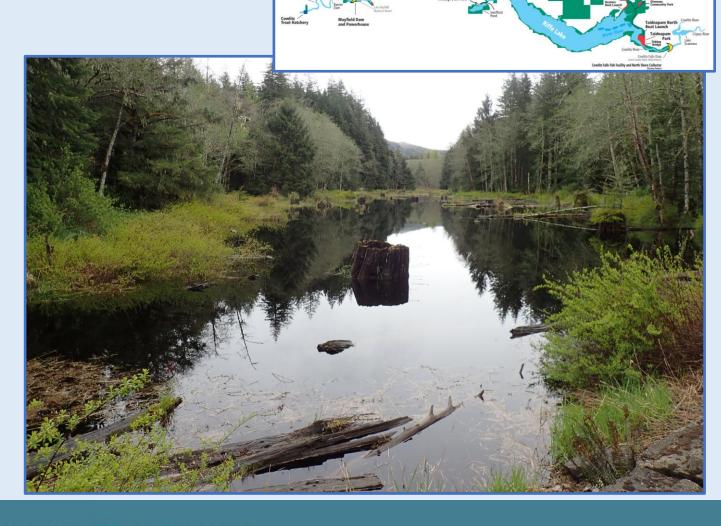
#### **TUP with our WDFW Partners:**

Forest, Riparian, and wetland habitats

- Promote Healthy waters
- Aquatic food webs
- Spawning habitat

Waterfowl and large game

Recreational access to river and ponds for fishing



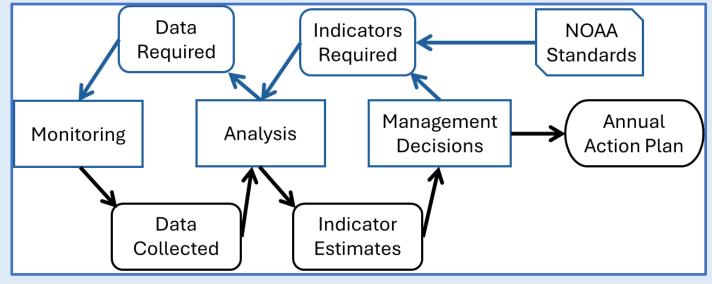


## Monitoring and Evaluation Plan:

# Greg Mackey, Four Peaks, and Jenise Bauman, Tacoma Power

- Monitoring, analyses, and protocols to inform management decisions.
- Test key assumptions and adjust the assumptions accordingly.
- Provide critical information to set management targets and decision rules







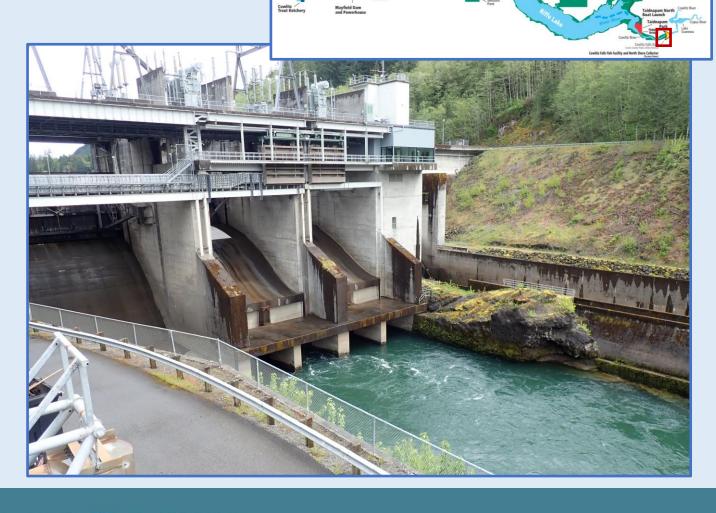
## Fish Passage: Current Trends

#### **Wyatt Wood, Tacoma Power**

- Cowlitz Falls Fish Passage and Survival
- Mayfield Dam Passage and Survival

#### **Species of Focus:**

- Steelhead (Oncorhynchus mykiss)
- Coho Salmon (O. kisutch)
- Chinook Salmon (O. tshawytscha)
- Cutthroat (O. clarkii)





## Fish Passage: Looking ahead 2025

#### Chris Vaughn, Tacoma Power

- Cowlitz Falls Fish Improvements
  - Initial improvements in 2017
  - Acoustic Telemetry Study 2017-19
  - Preparing future initiatives
- Mayfield Improvements
  - Secondary Separator
  - Remodel





## Steelhead Enumeration:

#### Scott Gibson, Tacoma Power

Accounting for numbers at the Trout Hatchery

To address this, Tacoma and WDFW revised protocols

- Equipment Calibration
- Paired Studies
- Improved Enumeration





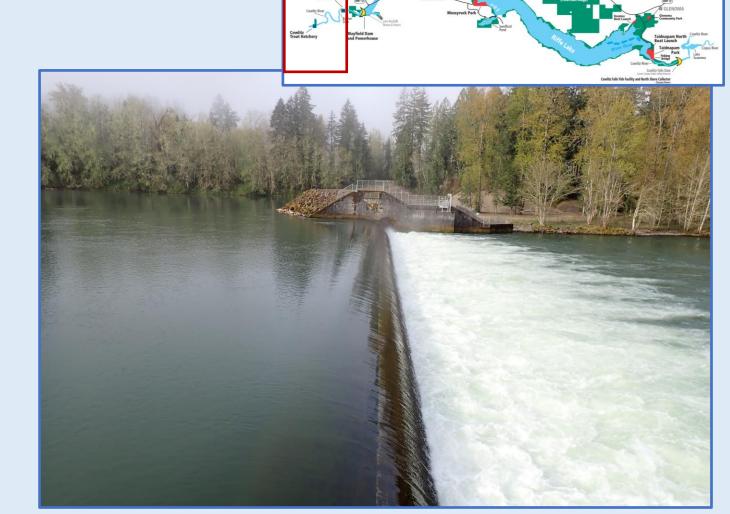


## Pre-Terminal/Terminal Harvest:

#### Josua Holowatz, WDFW

#### **Data Sources:**

- Barrier Dam Adult Facility
- WDFW Lower Cowlitz Spot Creel
- Mark Selective Fisheries: Adipose intact fish are released
- WDFW Catch Record Card Estimates





## Lower Cowlitz Adult Estimates:

John Serl, WDFW

The 2023 Monitoring and Evaluation work:

- Spawner abundance and composition of winter steelhead and coho in lower Cowlitz River tributaries
- Chinook in the mainstem
- Document Cowlitz hatchery broodstock composition, and impacts on naturalorigin adults.





## Adult Returns to Separator:

#### **Jamie Murphy and Amy Anderson**

- Total returns to the separator by species, tag, and mark
- Release sites and distribution
- Total distribution to each release site by species, tag, and mark
- Weekly collections

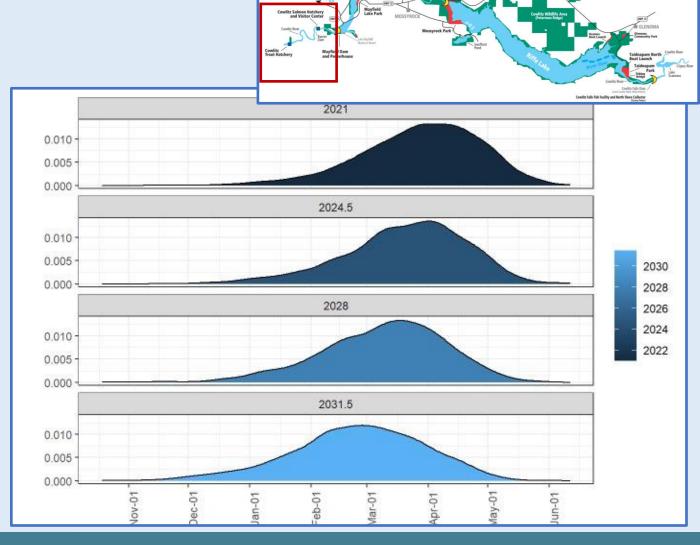




# Early Winter Steelhead Run Timing Update:

#### John Serl, WDFW

- 3 Programs Lower Cowlitz River (Segregated stock) + Tilton and Upper Cowlitz Integrated
- How do we make the Lower River stock early?
  - Earlier Egg Take Start Date
  - Take Brood from First Arrivals
  - Release Goal of 308,000 smolts





Fall Chinook Population Monitoring Cowlitz River Project Update:

John Serl, Erick Rockwood, and Kale Bentley, WDFW

Estimates of fall Chinook abundance in the lower Cowlitz River using mark-recapture

Castle Rock to Barrier Dam (~33 miles) between September – December

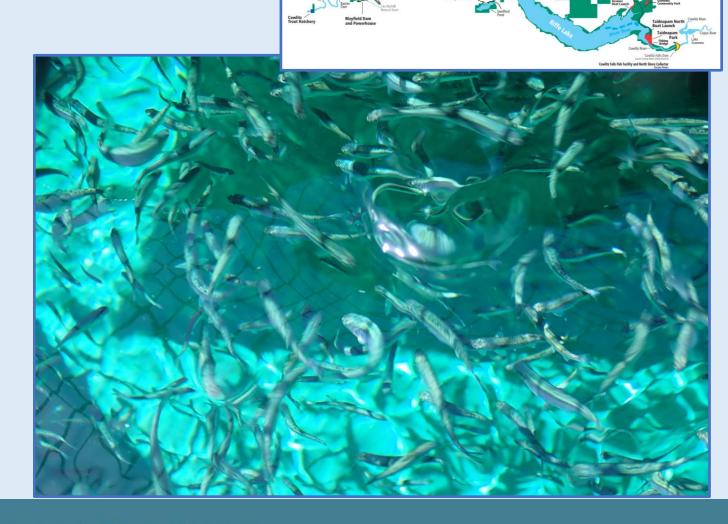
- Weekly Carcass surveys
- Bi-weekly Aerial flights for redds



## Annual Program Review:

## Matt Bleich, TPU, Bryce Glaser, WDFW and Eric Shoblom, TPU

- Fish production plan that sets the number of fish reared and released
- Synthesized with other important management actions
- Intent develop population management strategy for the coming season





## Next Conference & APR - Save the date! April 16, 2025

