

# Cowlitz Fisheries and Watershed Science Annual Conference



# Conference Housekeeping

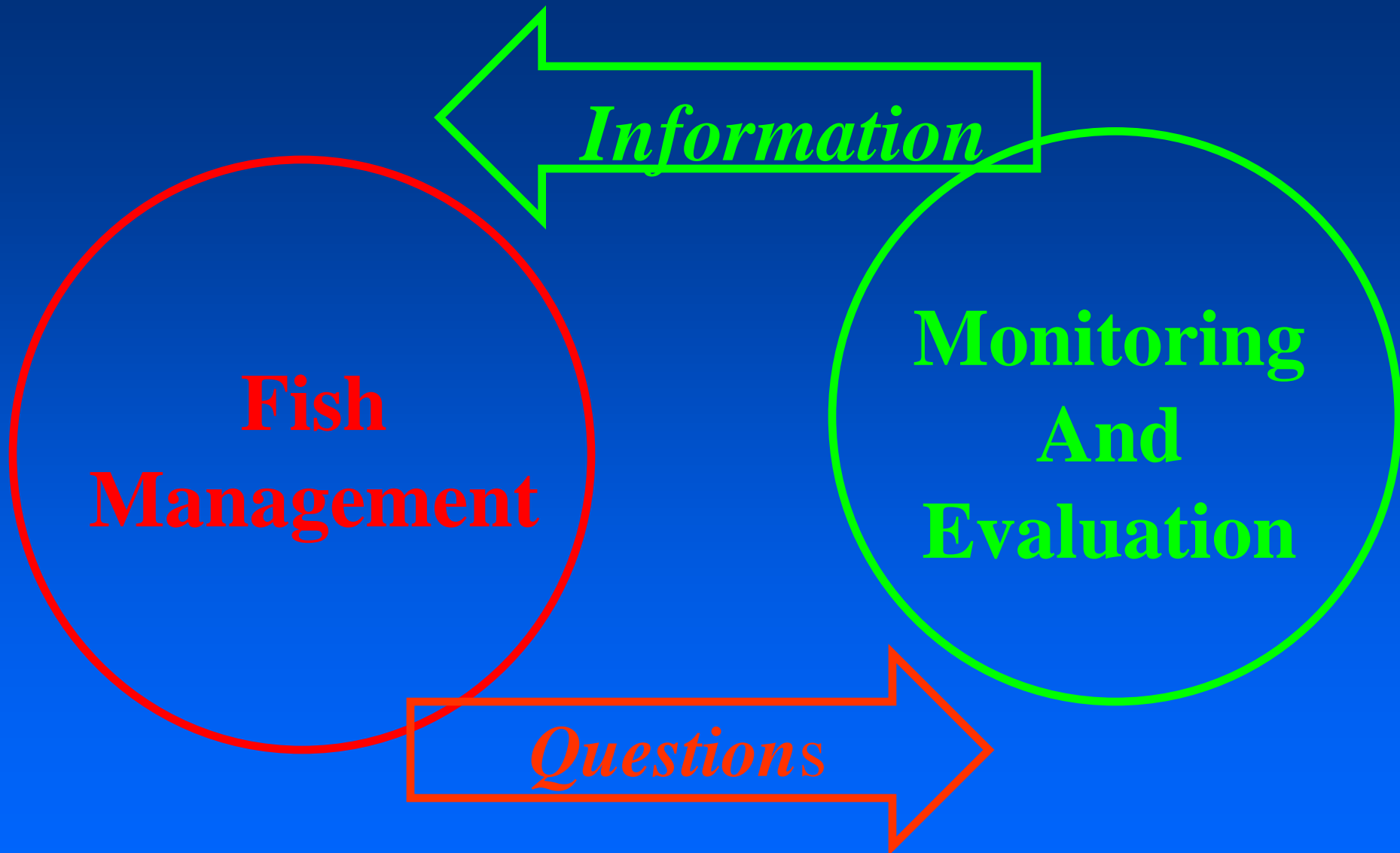
- Sign in, Agendas
- Cell Phones Silenced
- Lunch
- Restrooms and Exits
- Garbage/Recycling
- Museum
- Out by 5 pm

# Conference Ground Rules

- This is a Science Conference
- Presentation Format
  - Introduction
  - Presentation (15-20 minutes)
  - Questions (5 minutes)
- Breaks for additional interaction and discussion

# Conference Purpose

- History
- Information
- If a scientist performs an experiment and does not write a report, are there really any results or conclusions?



# Presenters

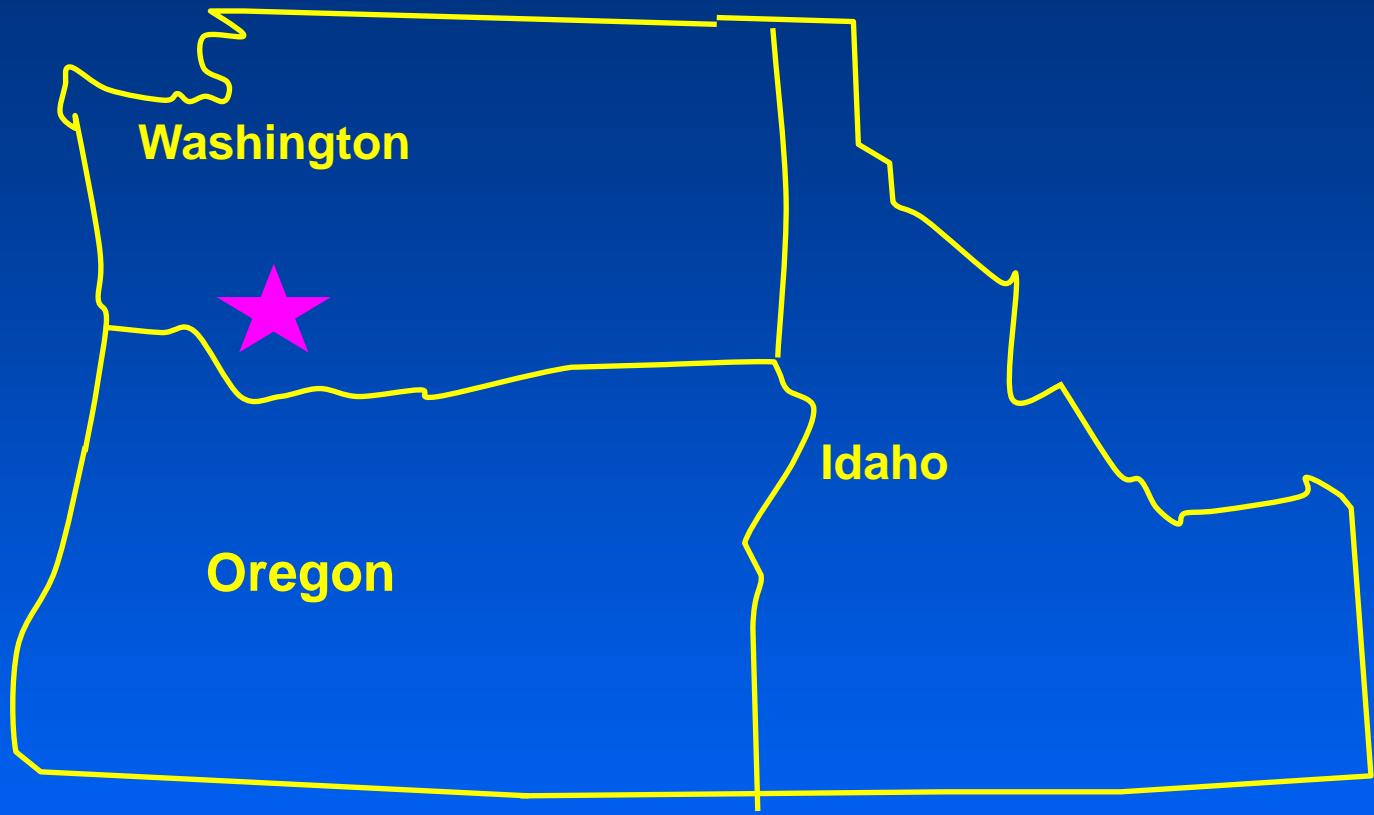
- Tacoma Power
- United States Geological Survey
- Lewis County PUD
- WDFW
  - Fish Program
  - Science Division

# Cowlitz Monitoring and Evaluation Projects Overview

John Serl – WDFW

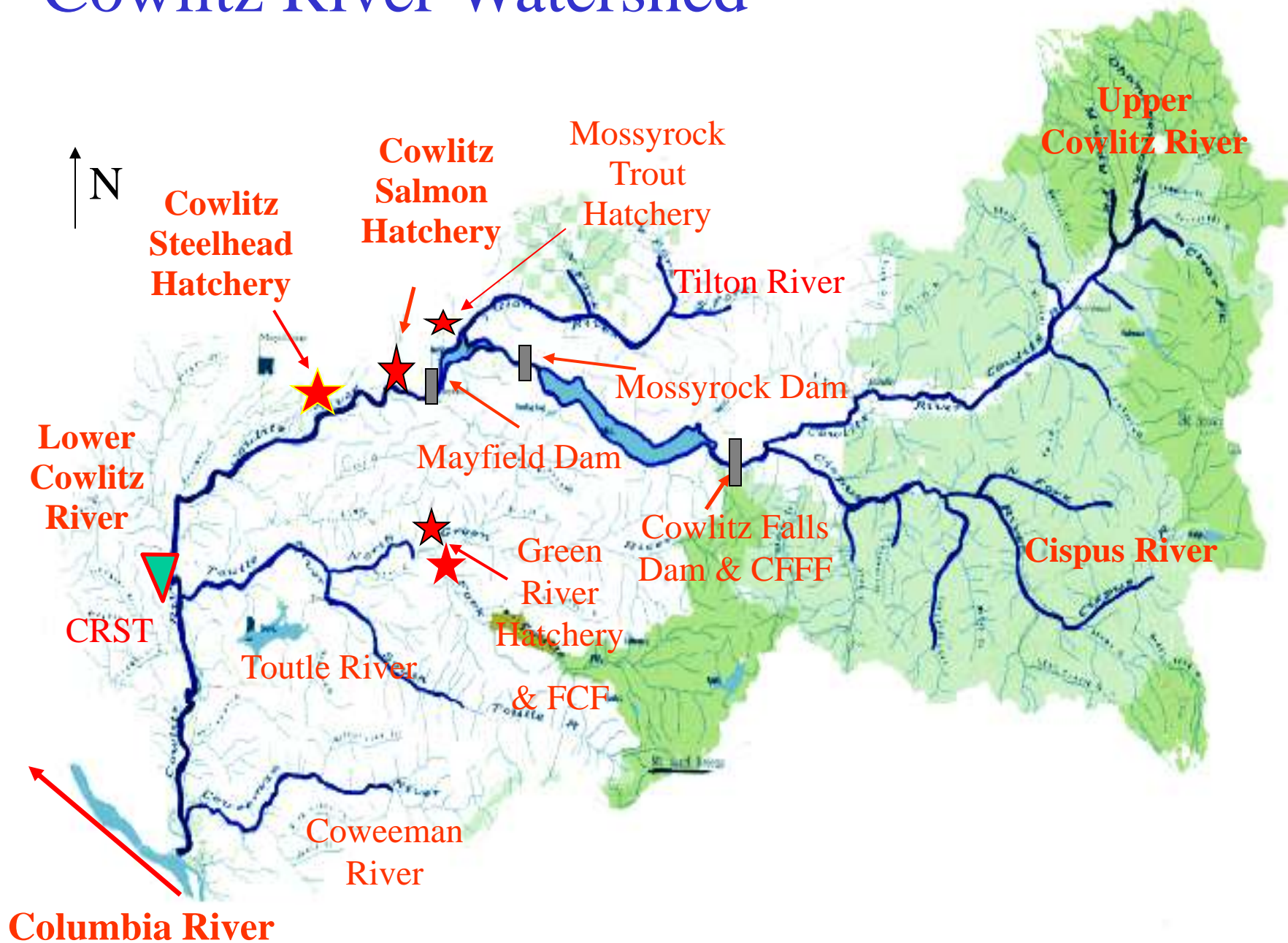
*Cowlitz M&E Program Lead*

April 20, 2016

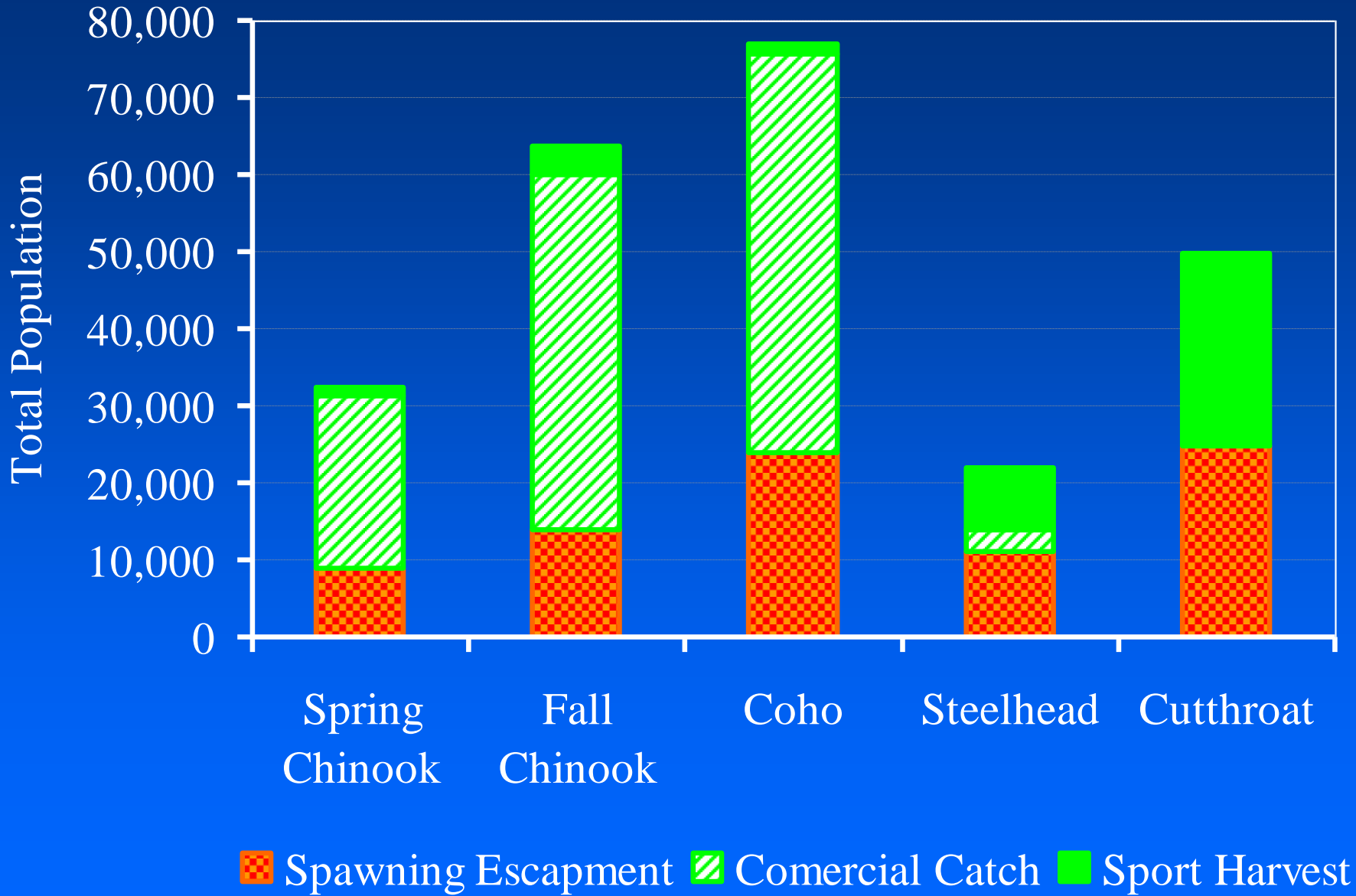




# Cowlitz River Watershed



# Cowlitz River Historical Abundance - 1948

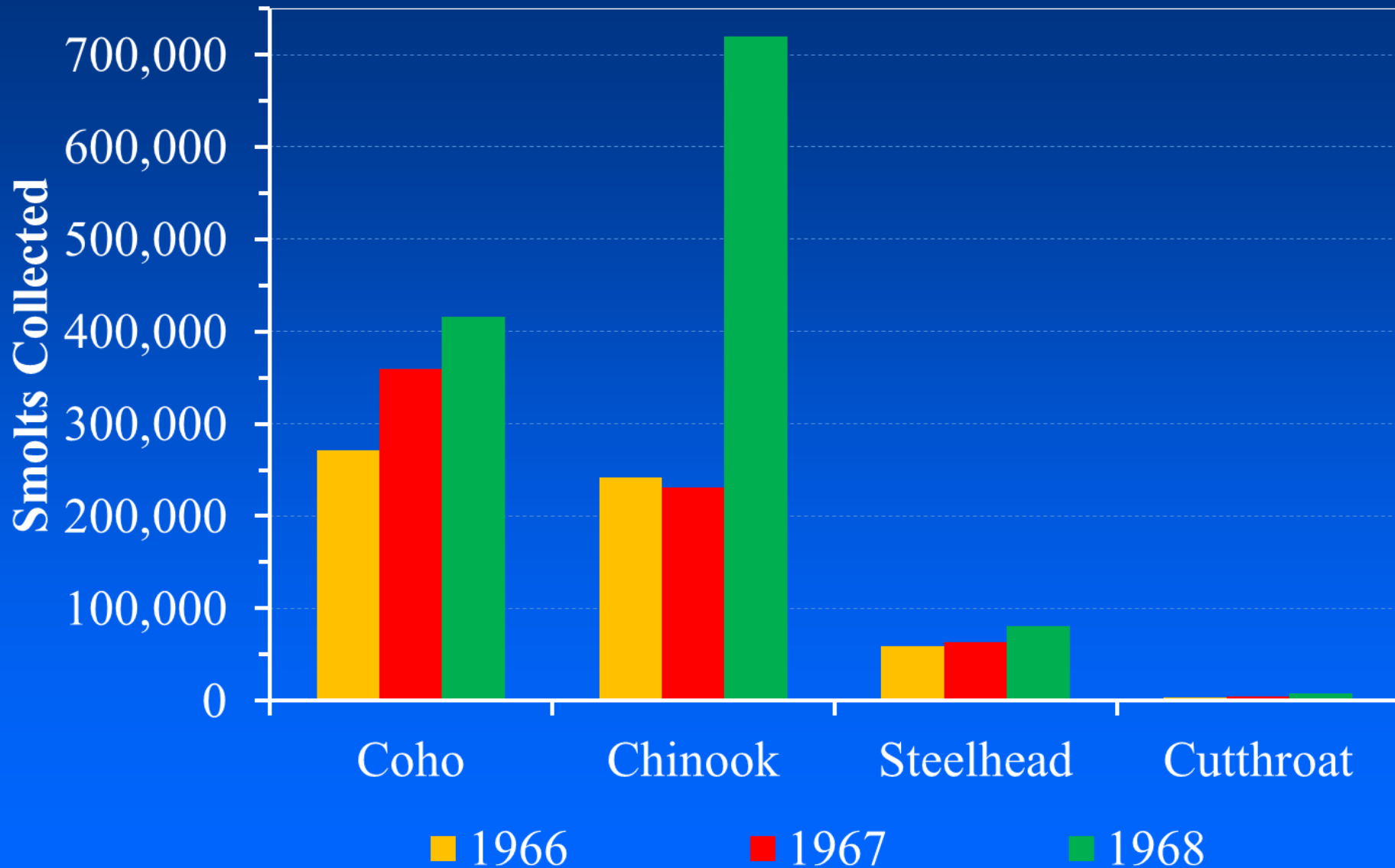


\* Adapted from GAIA, 1994

# Mayfield Dam - 1962



# Mayfield Site Smolt Counts, 1964-66



\*Thompson and Rothfus, 1969, WDF



# Mossyrock Dam - 1968





# Cowlitz Falls Dam – 1994/1996



# Legal – Licensing and ESA

- Tacoma Power holds the FERC license to Mayfield and Mossyrock Dams (Cowlitz River Project)
- Lewis County PUD holds the FERC license to Cowlitz Falls Dam, BPA has a Power Purchase Agreement with LCPUD
- NMFS has consulted on the Cowlitz River Project (2004) and Cowlitz Falls Dam (2009)
  - ESA Section 7 Biological Opinions

# Cowlitz River ESA Listed Populations

## **Lower Columbia River ESU – *Threatened***

- Spring Chinook
- Fall Chinook
- Coho
- Winter Steelhead
- *Chum*
- *Eulachon*



# Tacoma Power Settlement Agreement 2000

6.1.1 “The emphasis of this Agreement is ecosystem integrity and the restoration and recovery of wild, indigenous salmonid runs...to harvestable levels.”

6.1.2 “Fisheries obligations will be met through a combination of effective upstream passage and downstream passage, habitat restoration and improvement, an adaptive management program to restore natural production coupled with artificial production to compensate for unavoidable impacts at levels consistent with ESA recovery, and providing fish for sustainable fisheries.”

# Tacoma Power Settlement Agreement 2000

- Focus on Recovery of Natural Populations
- Meet Fisheries Obligations by:
  - Passage
  - Adaptive Management
  - Habitat
  - Hatchery Production
    - *Replace Unavoidable Losses*
    - *Sustainable Fisheries*

# More Legal Stuff

- Fisheries and Hatcheries Management Plan 2011 update
  - Appendix J – Monitoring and Evaluation
  - Annual Project Review to set Hatchery Production
- LCFRB/NOAA Recovery Plan
- WDFW Fisheries and Hatchery Reform Policy
  - Hatchery Scientific Review Group guidelines

# WDFW Cowlitz Monitoring and Evaluation Tacoma Funded Projects

## Task Orders:

1. Lower Cowlitz Adult Salmonid Sampling
2. Lower Cowlitz Smolt Abundance and Timing
3. Cowlitz Falls Fish Facility Operations
4. Project Management

# Lower Cowlitz Adult Monitoring

- Chinook Adult Spawner Surveys
- Coho Spawner Surveys
- Steelhead Spawner Surveys
- Weirs
- Creel
- Brood-stock sampling

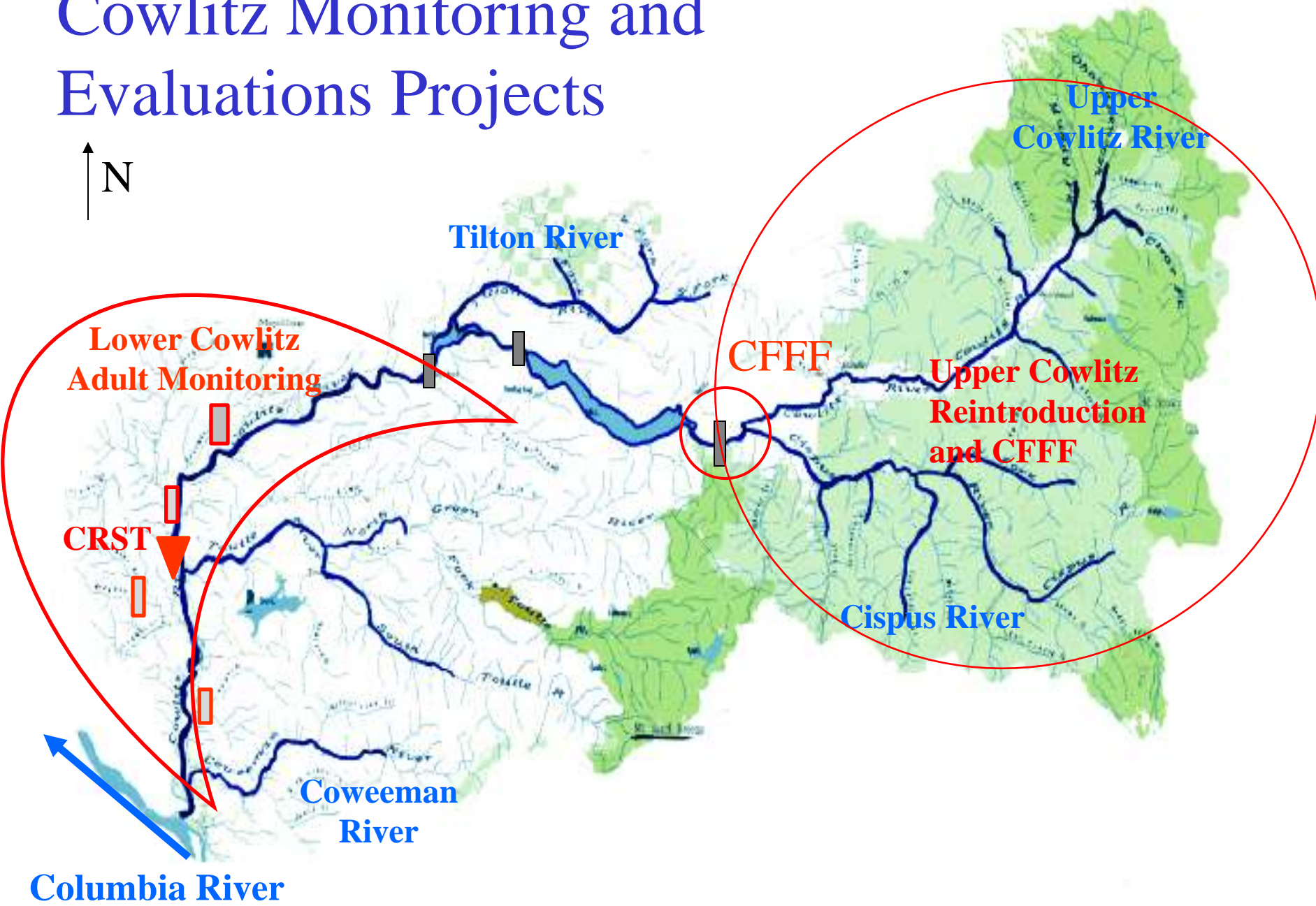
# Lower Cowlitz Smolt Timing and Abundance

- Rotary Screw Trap at Rock Creek
  - Chinook genetic mark-recapture
  - Abundance for all natural stocks
  - Hatchery stock migration timing
- Predation sampling by seining and hook-and-line

# Cowlitz Falls Fish Facility Operations

- Operate the CFFF
- Enumerate collection
- CWT Mark smolts for stock ID
- Coordinate Transportation
- FPS monitoring

# Cowlitz Monitoring and Evaluations Projects



Upper Cowlitz River

Tilton River

Lower Cowlitz Adult Monitoring

CFFF

Upper Cowlitz Reintroduction and CFFF

CRST

Cispus River

Coweeman River

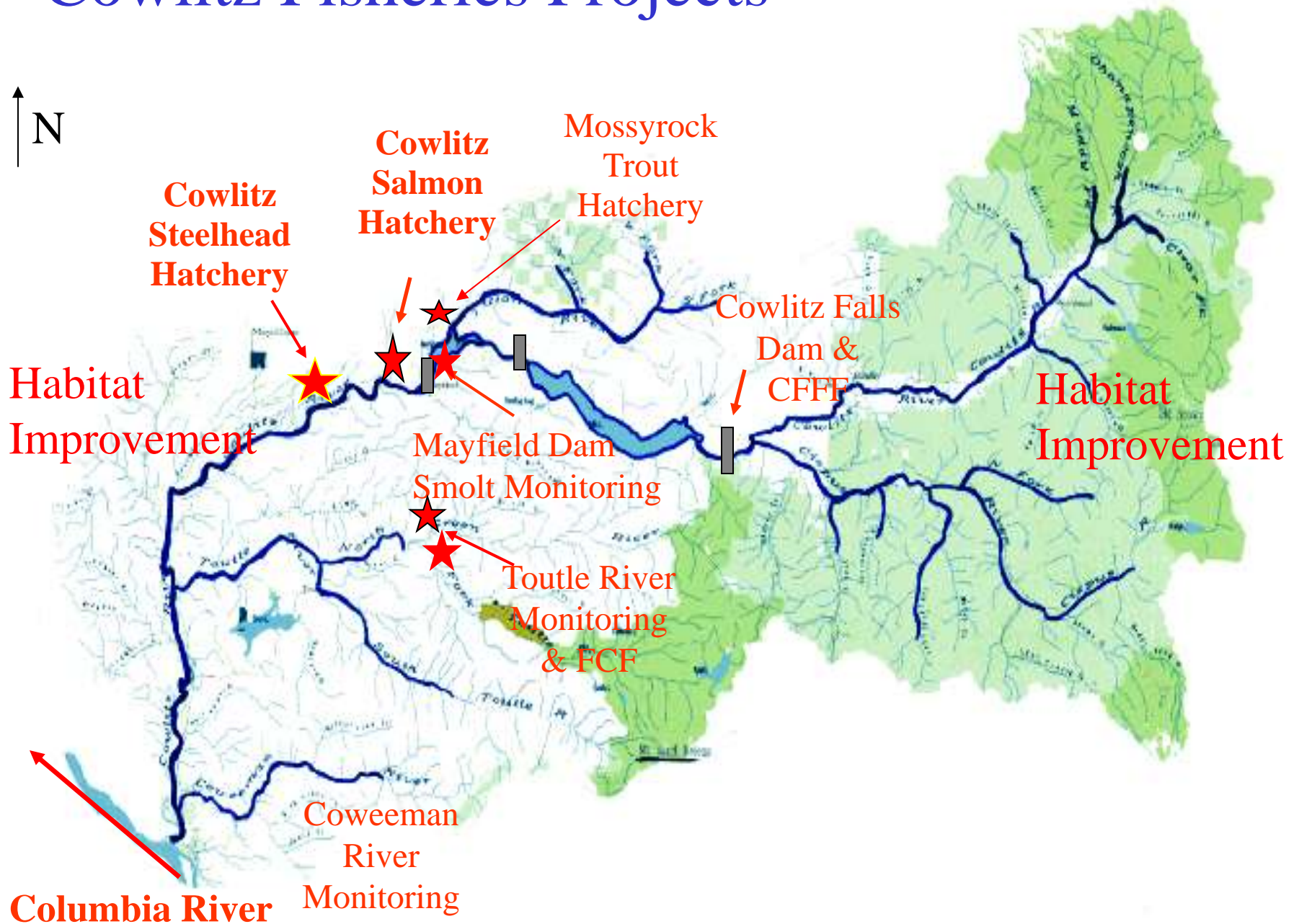
Columbia River



# Other Monitoring in Cowlitz Basin

- Weirs - WDFW funded by CRSSE (summer) and Tacoma Power (winter)
  - Toutle Monitoring – PCSRF/BPA
  - Toutle FCF – Mitchell Act (MA)
  - Coweeman Monitoring – PCSRF/MA
- also*
- USGS/LCPUD studies
  - Habitat - various

# Cowlitz Fisheries Projects



# Acknowledgments

- Chehalis Veteran's Museum
- Tacoma Power
- Cowlitz FTC
- BPA/LCPUD
- Presenters
- Attendees

# Questions?

