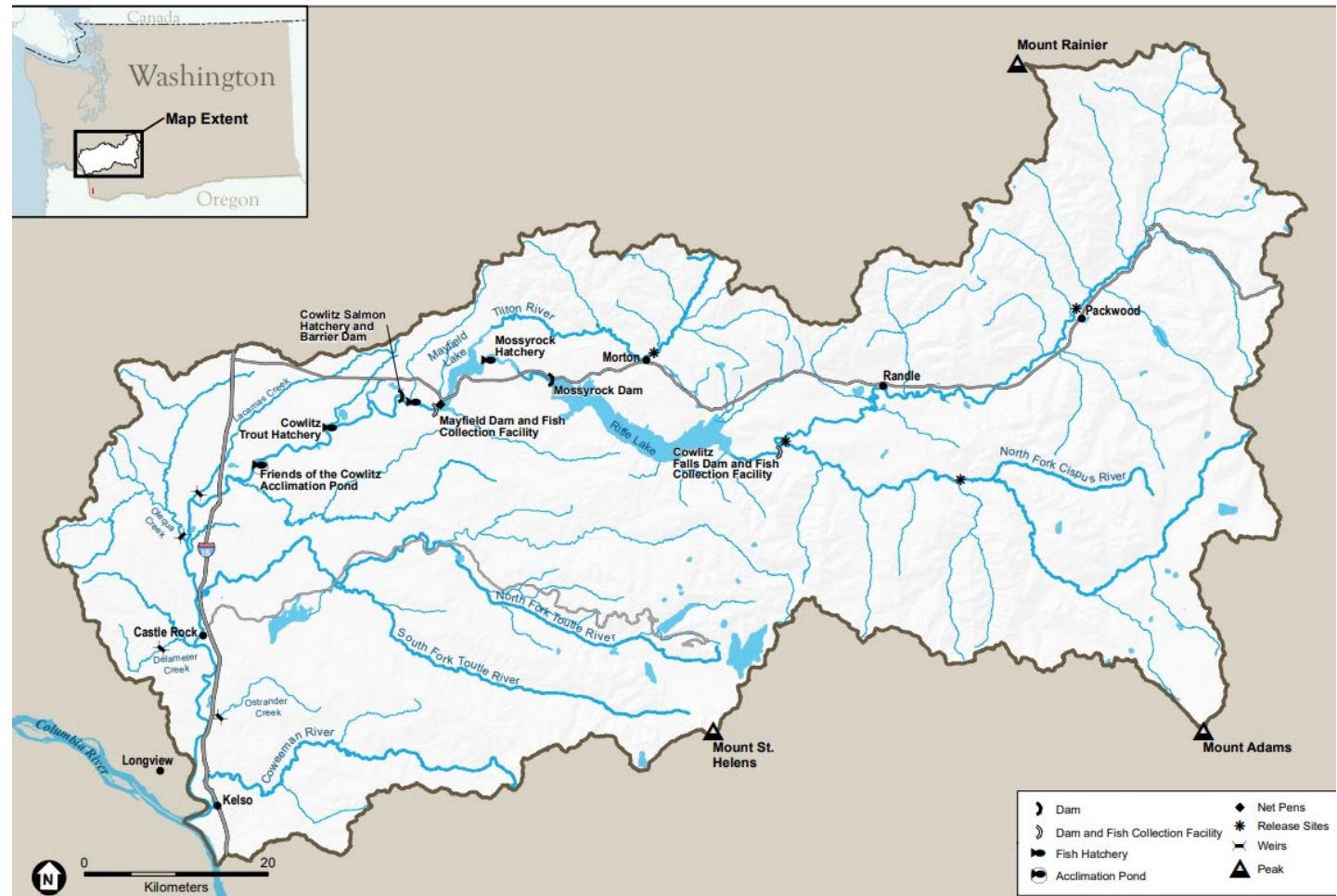


# **Cowlitz River Fisheries Tacoma Power Natural Resources**

Public Utility Board Update

July 24, 2024

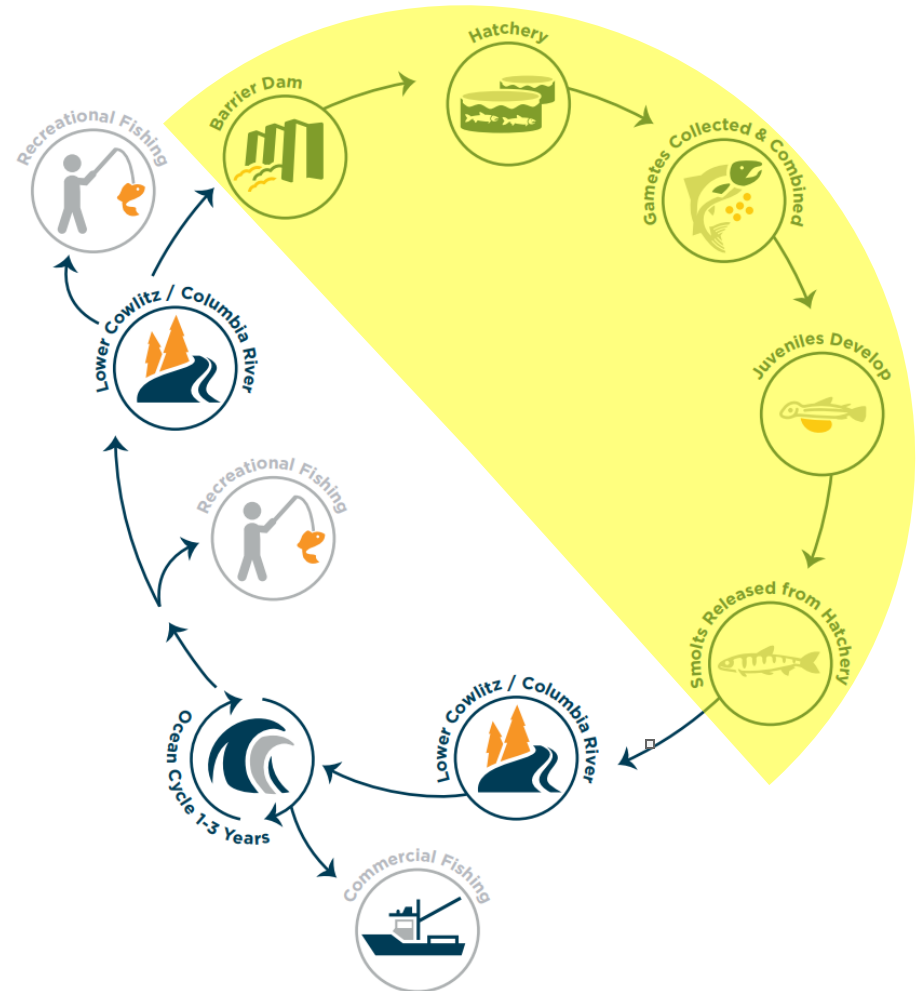
# Cowlitz River:



*We are committed to restoration of salmon and steelhead populations on the Cowlitz River*

# Cowlitz Settlement

" The emphasis of this Agreement is ecosystem integrity and the restoration and **recovery** of wild, indigenous salmonid runs, including ESA-listed and unlisted stocks, to **harvestable** levels."

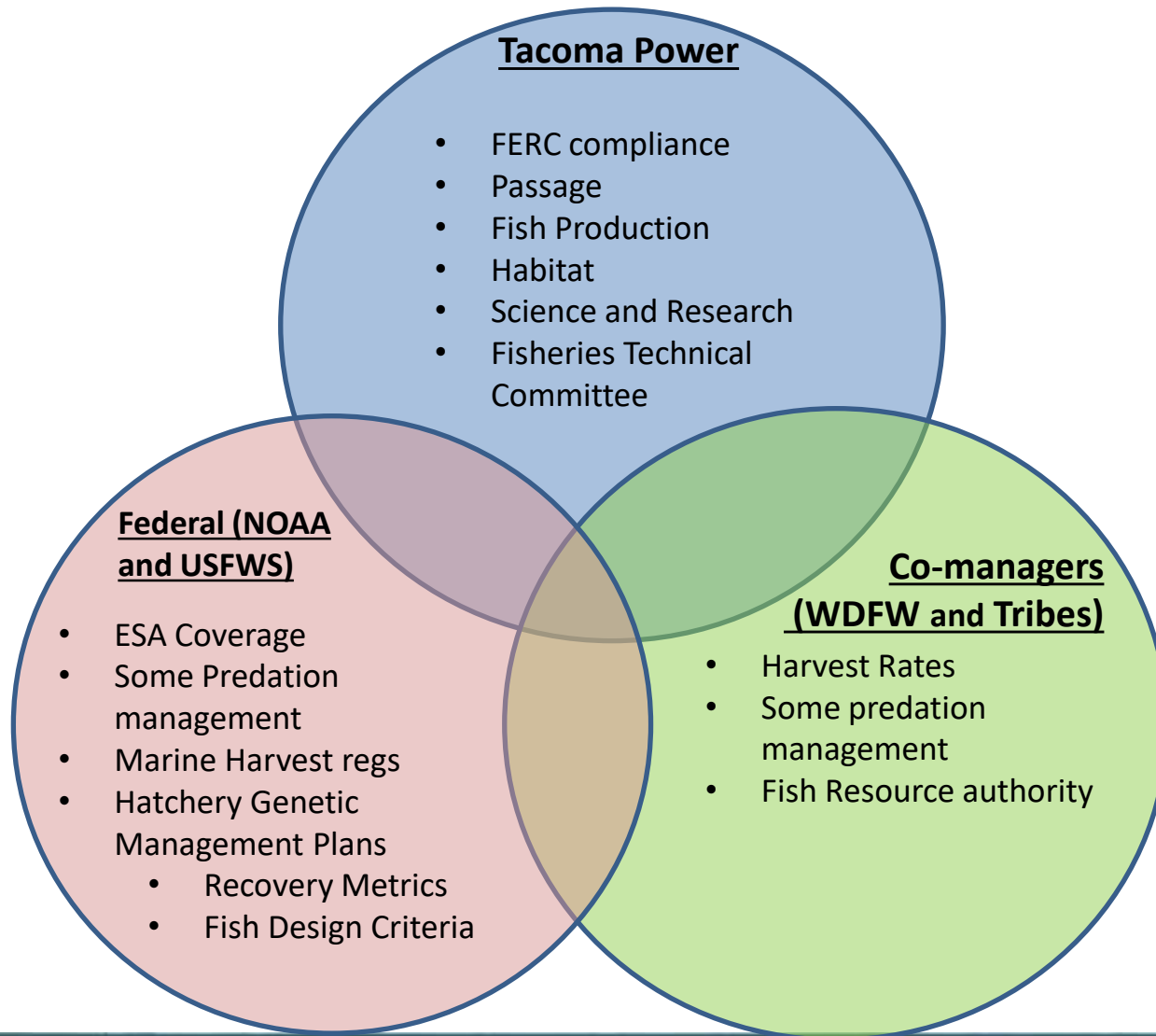


# Cowlitz License Obligations - Fisheries

1. **Downstream Fish Passage** – Articles 1 and 2
2. **Upstream Fish Passage** – Article 3
3. **Fisheries and Hatchery Monitoring** – Articles 6, 7, 8, and 15
4. **Habitat** – Article 3, Article 9, Article 10, Article 11



# Fisheries Roles and Responsibilities

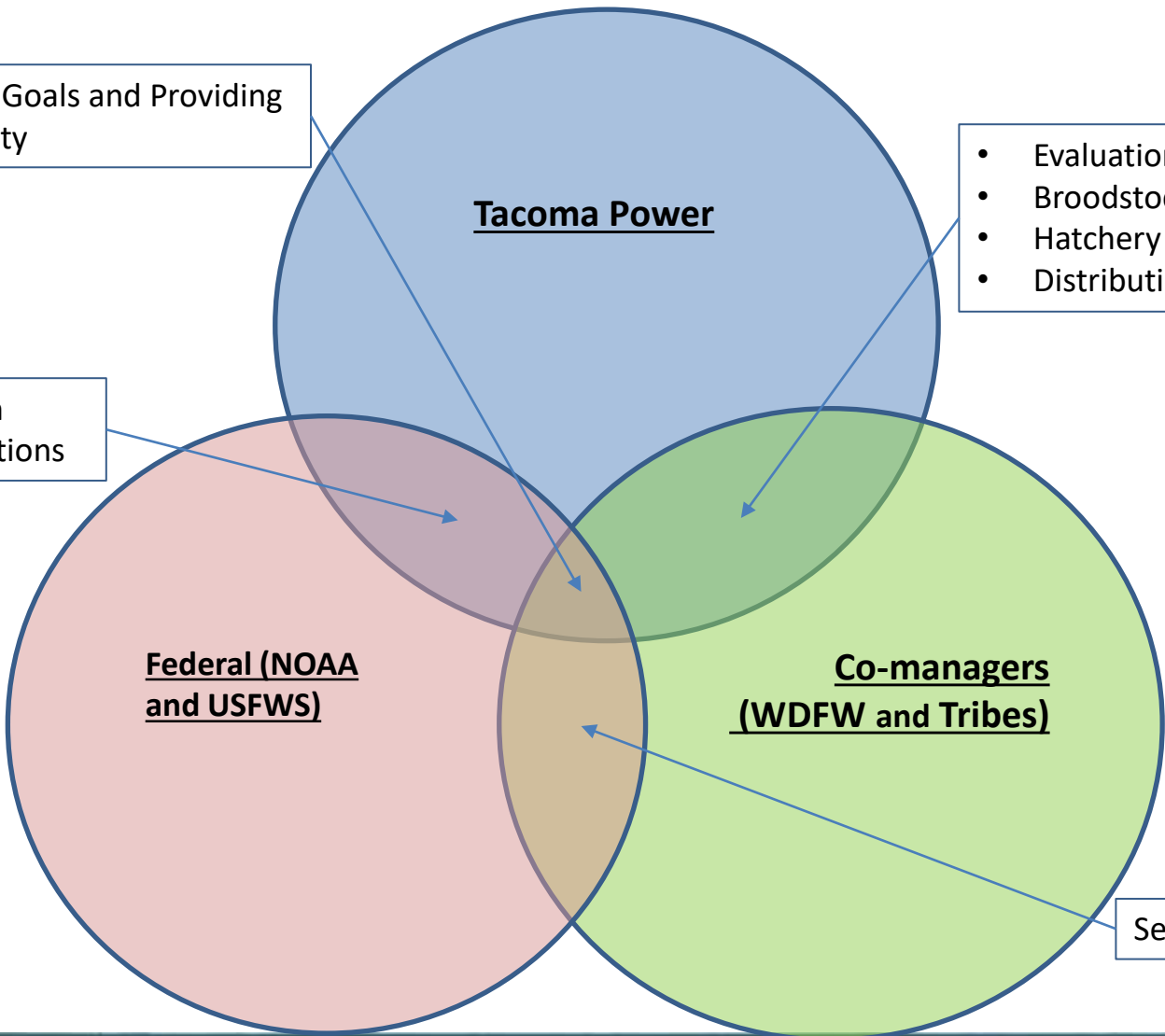


# Fisheries Roles and Responsibilities - Overlap

Meeting Recovery Goals and Providing Harvest Opportunity

- Evaluations → Best Practices
- Broodstock Management
- Hatchery Owner/Operator
- Distribution of Adult Returns

- Facility Design
- Facility Operations



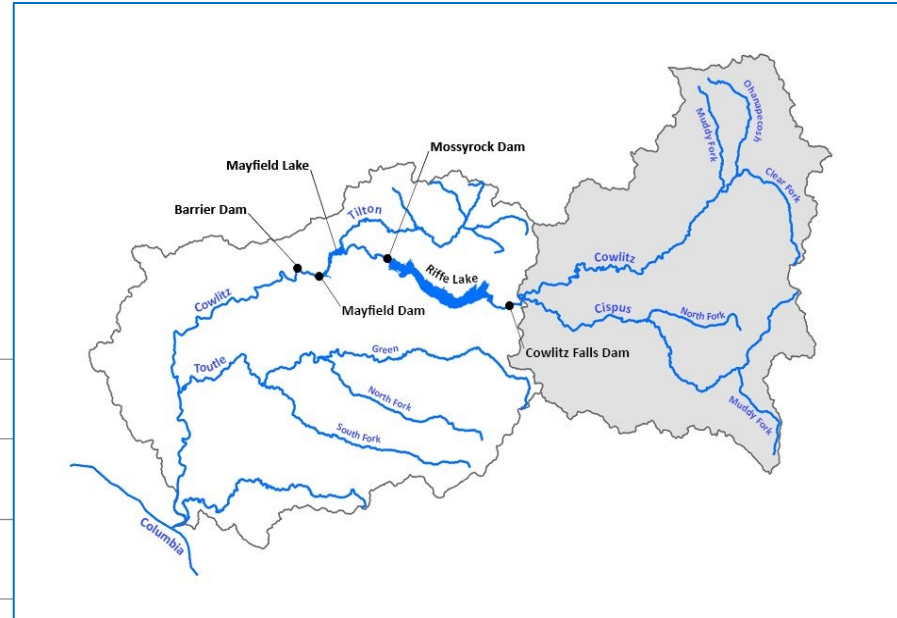
Setting Recovery Goals

# Measuring our success – Downstream Passage

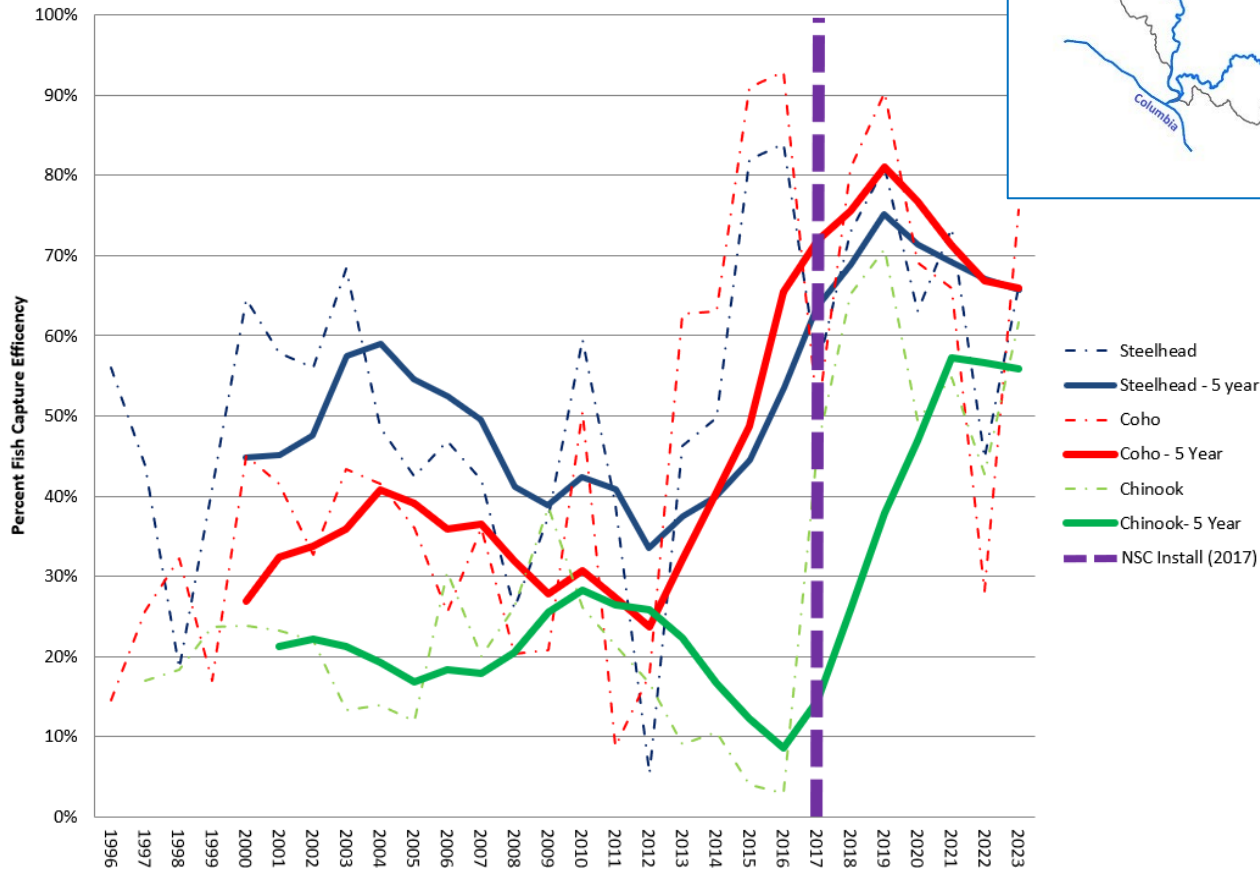
- Article 1: Cowlitz Falls – 95% Fish Passage Survival or 75% with “Best available technology”
- Article 2: Mayfield –95% Fish Passage Survival



# Downstream Passage - Cowlitz Falls

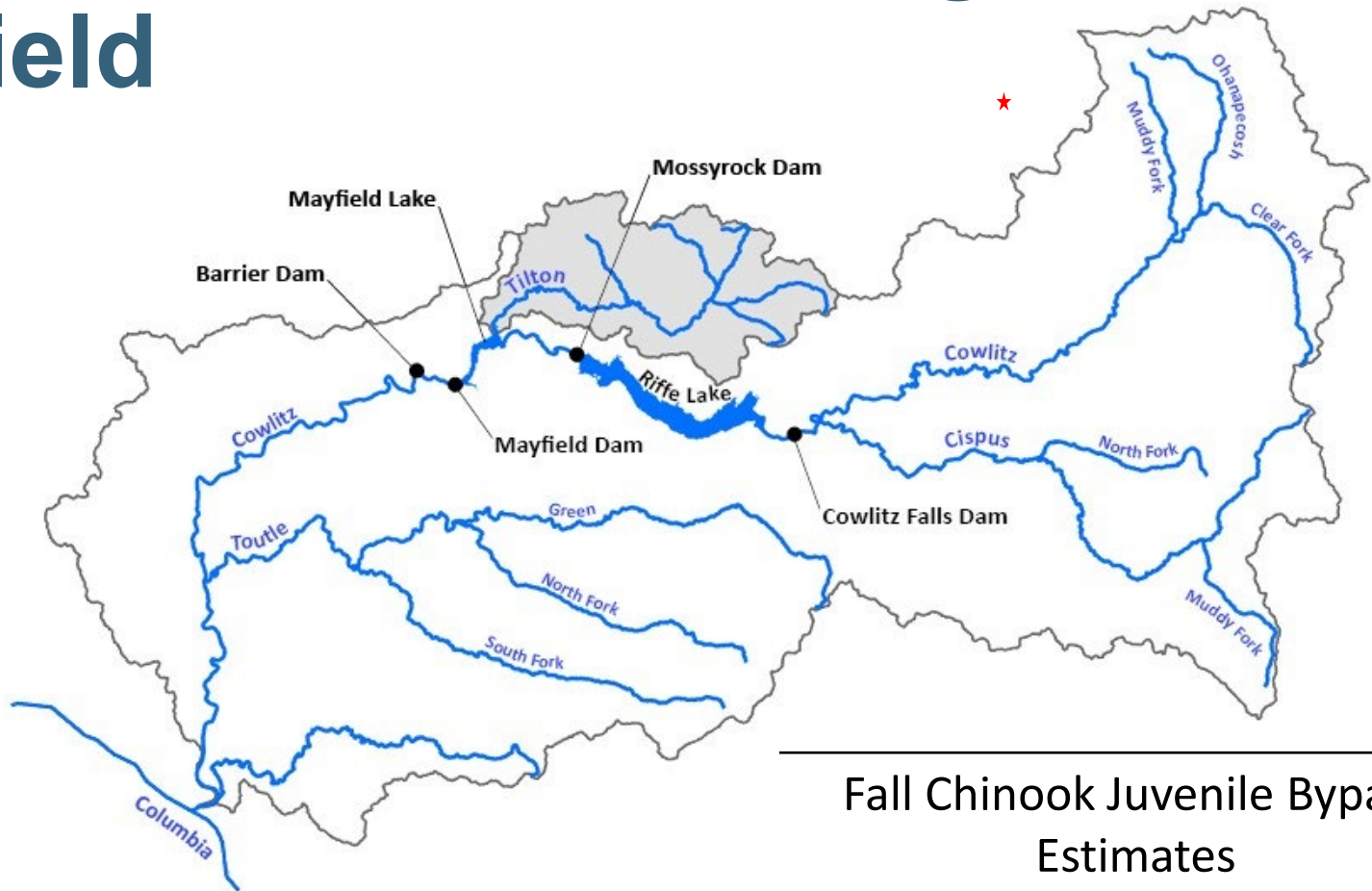


**Cowlitz Falls Juvenile Fish Collection**





# Downstream Fish Passage – Mayfield



Fall Chinook Juvenile Bypass Estimates

FPS	Low	High
51.3%	34.4%	66.8%

# Measuring our success – Upstream Passage

- Article 3: Upstream Fish Passage Annual Report
  - Documents fish handling and disposition for fish at Cowlitz Fish Separator Facility
    - » **Annually Complete by end of June**
- Article 413/415: Fish Passage Plan
  - Develop Trap and Haul Fish Passage Plan and submit to FERC
    - » **Complete**
    - » **Maintain Operational Facilities**

# Measuring our success - Production

- Article 5: Fish Production and Hatcheries
  - **Funding and Operation (includes 3 satellite facilities)**
  - Article 6: Fish and Hatchery Management Plan
  - **Updated Plan every 6 years (most recent was until end of license)**
    - » Commitment to rear and release fish and conduct Monitoring and Evaluation
- Article 7: Hatchery Complex Remodel and Phase-in Plan
  - **Plan complete**
  - **Trout Hatchery Remodel is part of the Phase-in**
- Article 8: Disease Management Plan
  - **Review and status report every 5 years**
- Article 15: Fish Monitoring Plan
  - **Plan and reporting complete**

# Cowlitz – Fish Production

- Hatcheries are operated by WDFW
- Up to 650k lbs. annual production requirement
- Cowlitz Trout Hatchery complex remodel to maintain up to 800k lbs.
- May increase production up to 771,500 via Cowlitz Restoration Recovery (CRR) Fund



# Cowlitz Hatchery Fish Production

- Mix of steelhead and salmon stocks
- Annual Program Review
- Angling community focused on up to 650,000 lbs.
- Cowlitz Trout Hatchery one reason for not meeting goals
- Master Plan
  - Avian predation
  - Improved monitoring
- Tacoma cannot control other aspects
  - Broodstock – ocean conditions
  - Harvest

Year Released	Goal (lbs.)	Actual (lbs.)	% of Goal
2013	643,121	658,976	102%
2014	631,595	681,025	108%
2015	642,753	578,330	90%
2016	643,164	499,218	78%
2017	638,412	636,473	100%
2018	642,547	658,597	102%
2019	643,632	617,114	96%
2020	648,382	566,250	87%
2021	648,382	643,459	99%
2022	650,000	682,188	105%
2023	650,000	609,869	94%

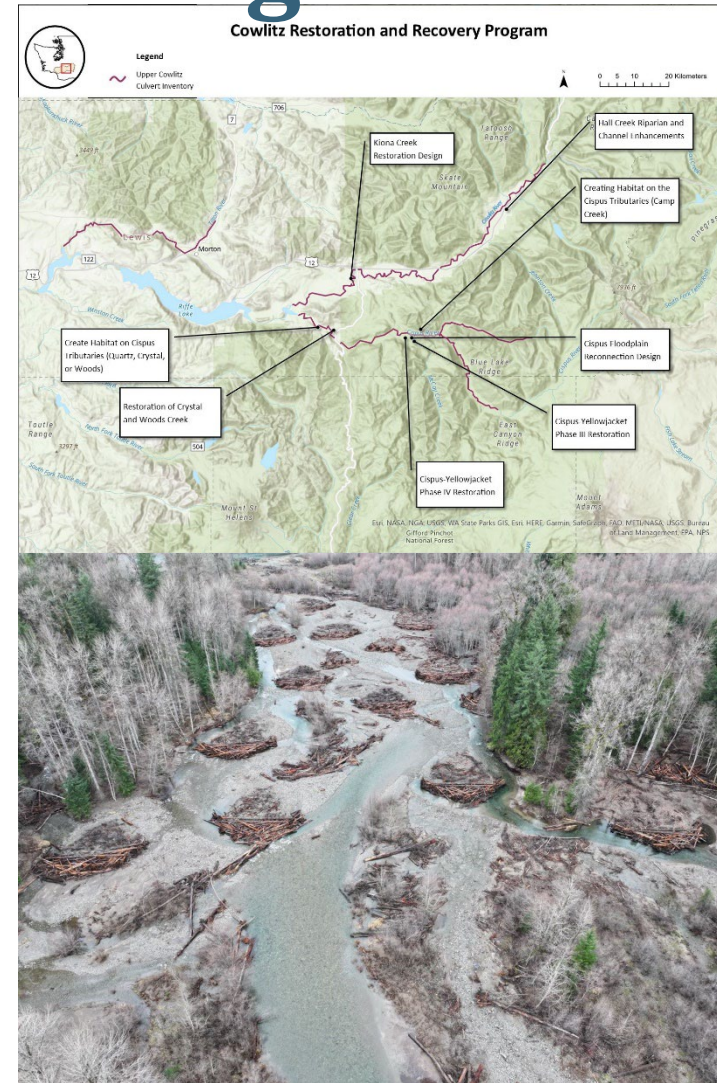
# Measuring our success - Habitat

- Article 9: Large Woody Debris
  - Plan complete
  - **Progress: Ongoing compliance, LWD management improvements**
- Article 10: Gravel Augmentation
  - Plan complete
  - **Progress: Ongoing compliance, filed updated Plan in 2023**
- Article 11: Fish Habitat Fund and Allocation Plan
  - Fund established and plan complete
  - **Progress: Ongoing compliance, fund significantly spent down**



# Habitat / Article 3: CRR Program

- Plan to abandon volitional passage, \$15M interest-bearing (2008)
- Program established in 2019 (PUB, FERC), then annual grant rounds
- Habitat (LCFRB partnership)
  - 8 projects awarded \$3.8M through 2023
  - Design and construction projects
- Production (WDFW partnership)
  - Recent reboot, 2 grant rounds
  - Focus on engagement
- Current balance: \$17.8 M
  - \$15M unallocated
- First project nearing completion
- Spend down by end of license period



Credit: Cowlitz Indian Tribe – Natural Resources Department  
Yellowjacket Creek Phase III (2019 award), January 2024

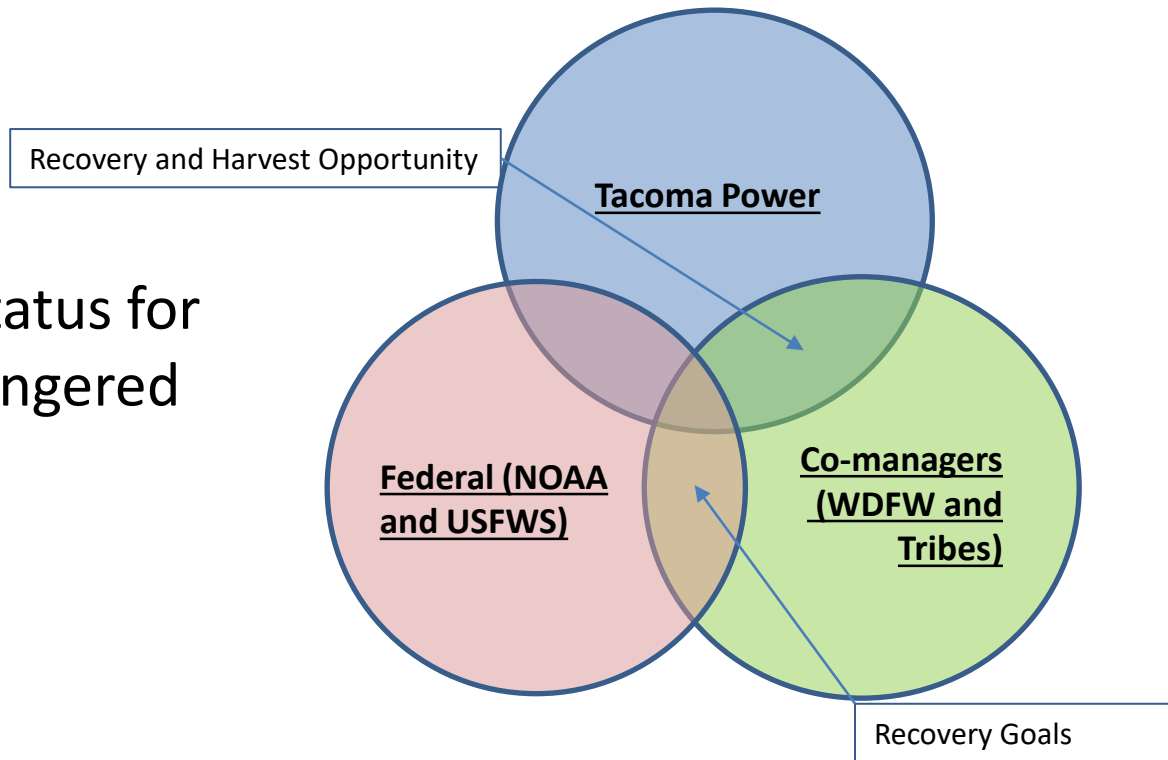
# Overlapping Obligations – How we Measure

VSP (Viable Salmonid Population)

Parameters

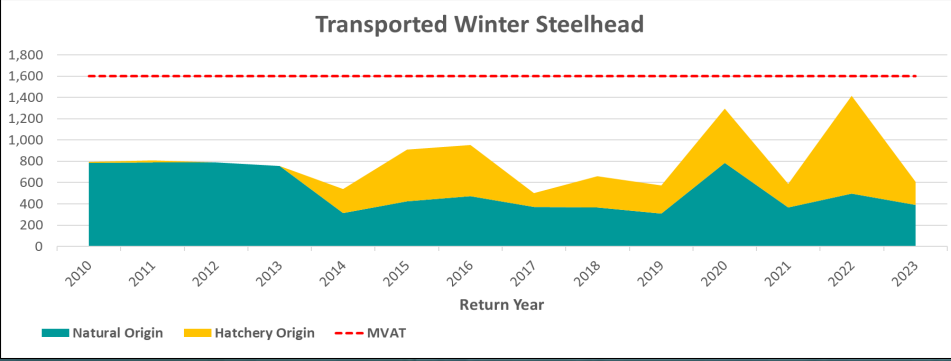
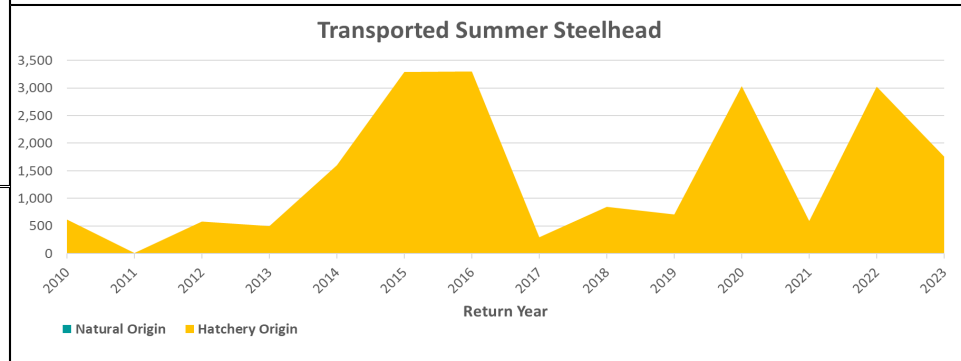
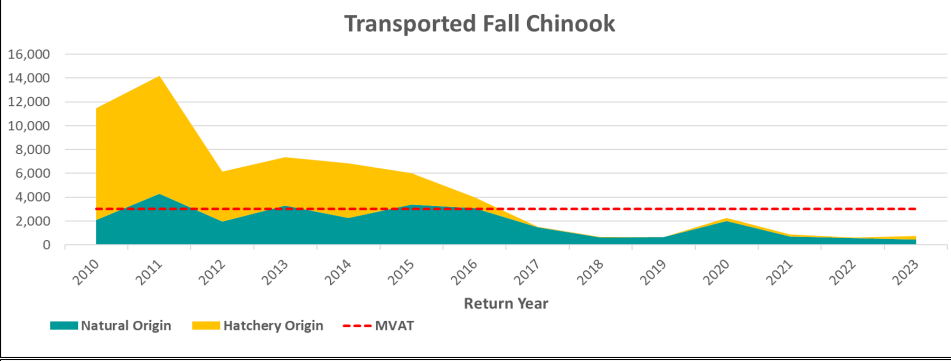
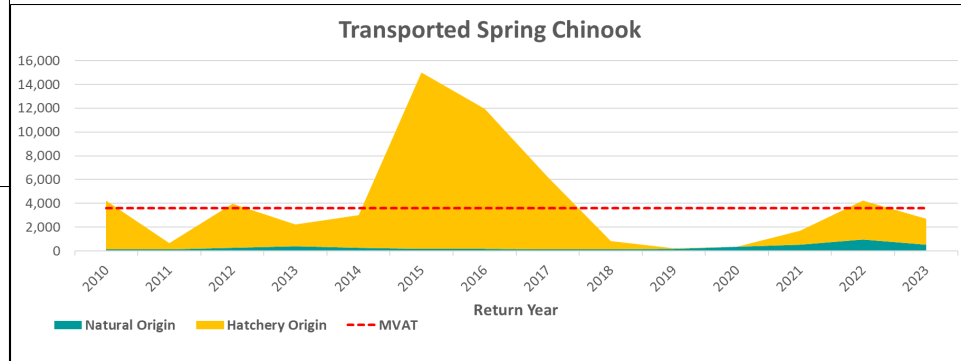
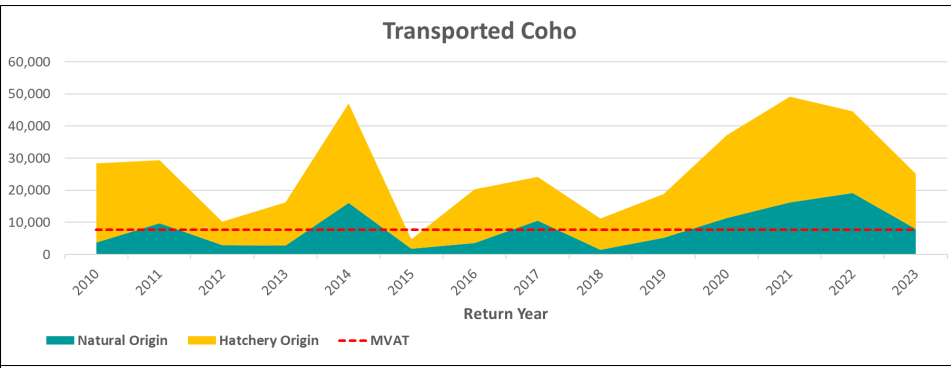
- Population Growth (abundance)
- Spatial Structure
- Genetic Diversity

Parameters inform the status for recovery under the Endangered Species Act

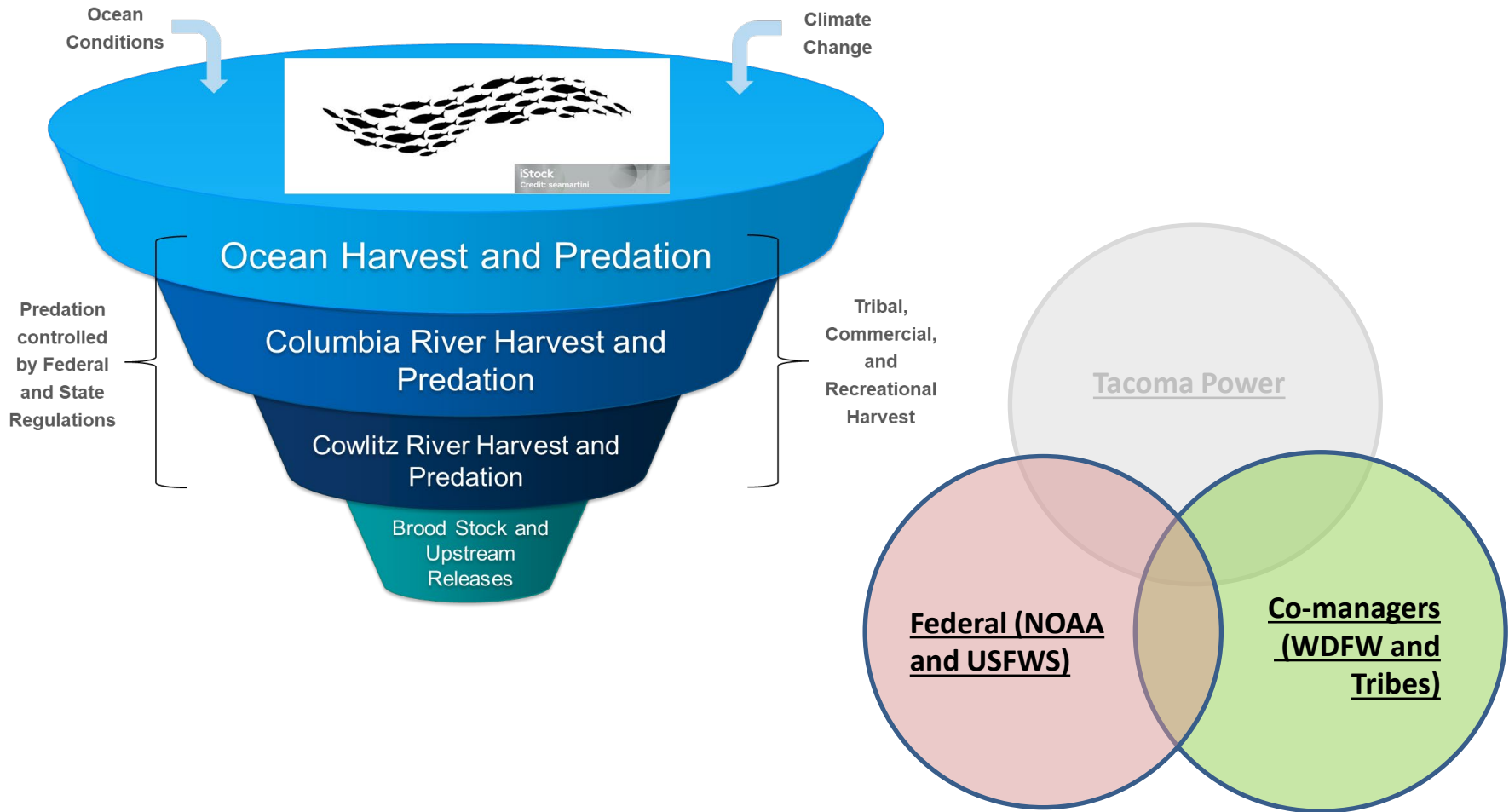




# Cowlitz – Adult Abundance

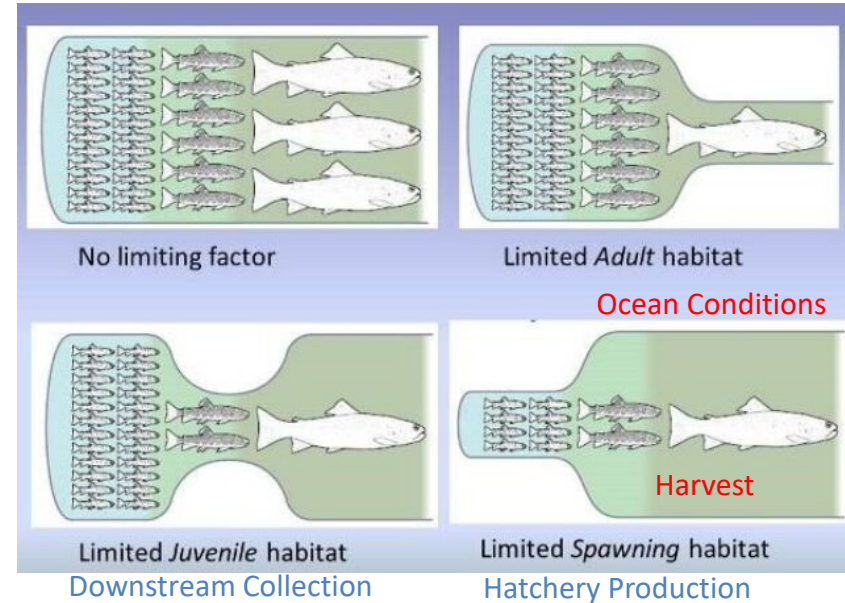


# Harvest and Predation Management



# What's Next?

- Implement Fisheries and Hatchery Management Plan (Transition Plans)
- Construct Lifecycle Models => identify Limiting Factors
- Science and Research to inform management decisions
- Relicensing
  - Three licenses at once
  - Strategy in development



\*Image credit: Dr. Paul Gaskell, from [Catch '22 - new data points to success of TROUT | Wild Trout Trust](#)

# Questions?



Thank you for your support