

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
September 3, 2024 from 9:30 – 2:30

FTC Representative Attendees:

Melora Shelton	TPU
Bryce Glaser	WDFW
Amy Kocourek	NMFS
Jonathan Stumpf	TU

Additional Attendees:

Thomas Starkey-Owens	ECY
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Kevin Young	WDFW
Jenise Bauman	TPU
Chris Vaughn	TPU
Matt Bleich	TPU
Eric Shoblom	TPU
Scott Gibson	TPU
Steve West	LCFRB
Ann Weckback	Lewis County
Michael Boyles	BPA
Russell Page	LCPUD
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor, Randy LeDuc, and Jack Tipping

2024 FTC Meeting Dates: Oct. 1, Nov. 5, Dec. 3 (in person with a remote option)

Approval of August Meeting Summary

The revised version of the August FTC Meeting Summary was reviewed and approved with clarifying edits and will be posted for public review.

Updates

Hydro Operations (presentation emailed on September 2)

Melora described the following:

- Inflows: Inflows below or well below normal since May. August mean daily flow 1,593 (76% of historical average) despite above-normal precipitation.
- Storage: Riffe Lake drafted from 742 ft on August 1 to 732 ft on September 1 (729 ft recent average).
- Outflow: See [hydrograph](#), minimum flow 2K cfs. No flow or ramp exceedances.
- 10-day Forecast: Warm and dry. Inflows remain low, continued draft. Outflows as high as 6.5 K cfs by the end of the week.

- La Niña condition anticipated this fall, probabilities tilt toward cooler and wetter.

Water Quality

- Matt P reported there were no spill events or water quality monitoring for TDG, etc.
- Since the end of April, Tacoma has been collecting water temperature data related to CFNSC passage.
- On August 16 they removed the vertical temperature arrays at the boat barrier, and the north and south debris deflectors. Melora will send out the summary.
- Currently collecting temperature data at Copper Canyon Creek release site as well as the Lake Scanewa boat launch.
- 2025 passage study will include water quality transect data.
- Working to assess the potential of installing Cowlitz Basin temperature monitors.

Related Project Updates

- Geophysical survey associated with potential water supply for the Cowlitz Trout Hatchery Remodel complete. Report expected on September 16.
- Exploratory drilling associated with assessment of potential water supply for the Cowlitz Trout Hatchery remodel is planned for September/October.
- Gravel augmentation per the Gravel Augmentation Plan is planned for the week of Sept. 16.
- Removal of derelict structures and vessels from both reservoirs is set to occur this month.
- Kosmos: Monitoring is occurring every other week with reports sent to Ecology. No sheens have been observed in the last two years. Ecology's approval of the RI Plan will trigger the 120-day submittal timeline for the Feasibility Study.
- Cove Lane Culvert Replacement Project: This is underway using an Aluminum Box Culvert (ALBC) bridge-type structure to replace a fish passage barrier.
- North Taidnapam Boat Launch Improvement Project: Phase 1 is underway. The turnaround for the boat ramp is complete and Tacoma is waiting for lower water elevations to complete the lower courtesy dock anchor. Phase 2 (lower-level parking area, trail, ADA loading platform, new boom anchor, etc.) is awaiting FERC approval.
- Large Woody Debris Management: Tacoma is committed to disposing of LWD in a more environmentally responsible way (vs. burning it). While this includes the opportunity for aquatic and upland habitat projects, Matt noted there is currently no funding available to provide transport.

Fish Facilities

Separator:

- Eric reported nearly all primary species are returning. The exception is winter steelhead whose return is anticipated in a couple of months.
- Spring Chinook and summer steelhead returns are so far over twice the 5-year average! Both returns are winding down now.
- Recycling: Summer steelhead recycling concluded at the end of August. 4,597 were recycled. For the season 808 Kalama-origin vent clipped spring Chinook were also recycled.
- Weekly returns of coho are close to the 5-year average so far for both HORs and NORs. They are expected to increase now through November.
- Upper Cowlitz River releases: Sending loads to the Copper Canyon Creek and Packwood release sites. LCPUD's drawdown of Lake Scanewa may limit our ability to use the Copper Canyon Creek release site, leaving only Packwood until the Cispus release site is repaired.

Broodstock Collection:

- Summer steelhead broodstock collection started July 1 and is on track to meet goals. They are collecting one week ahead of schedule per WDFW's request.
- Spring Chinook brood collection was completed in early July. An additional 75 females were collected to make up for the lower-than-normal fecundity rate.
- Expecting a low return of fall Chinook, brood collection began in early rather than late August, and is running a bit behind. Per the protocol, they are keeping 1 of 3 NORs and sending two HORs upstream for every NOR kept. Running behind.
- Coho collection starts today.

Mayfield Coho Net Pens:

Supplies have been ordered. Fish have been marked, tagged and placed in stress relief ponds, awaiting transfer in December.

Trout Hatchery Remodel:

Tacoma is expecting the results of a groundwater mapping study by the end of the month. This will indicate the extent to which there is a sufficient and reliable water source. For updates:

<https://www.mytpu.org/community-environment/fish-wildlife-environment/cowlitz-river-project/cowlitz-fisheries-programs/cowlitz-trout-hatchery/cowlitz-trout-hatchery-remodel/>

Discussion:

Bryce noted he was glad we were able to offset the shortfalls for spring Chinook. There is a need to keep an eye out for the vent clipped fish the next year or two. We are learning a lot. The Kalama origin fish come back a little later than Cowlitz stock spring Chinook.

He observed tule broodstock collection is still at less than 10%. We hope to be near 25% in the next two weeks based on historical averages. Our Transition Plans include a matrix of how to respond based on returns. We have yet to identify when we would make shifts accordingly. This may be something for the M&E Group to address. As of September 1, 27 fish have been collected instead of the expected 143. Is the run just late? In the next week or two, we should be prepared to pivot and implement changes to potentially improve collection while remaining within options provided by the Transition Plans. Timing is tricky as runs can drop off earlier than expected. Fall Chinook typically have only one peak. WDFW is looking at making some recommendations on which option(s) to pursue. The criteria for switching among various alternatives and associated timeline is not clearly defined in the Transition Plans. Hence WDFW is proposing making changes at the 25% point of the return timing curve *and* is looking for feedback on that approach. Matt B expressed that he believed changes made to collection did not need FTC approval as long as they were within the scope of options identified in the Transition Plan but was looking for agreement on that. Bryce agreed with Matt's assessment.

Mayfield Counting House

There has been a slight increase in mortality (roughly 10/week). All mortalities go to a WDFW pathologist for inspection. The secondary separator autoflush was initiated on August 20th. Parasite loads look normal. Outmigration totals look normal for the season with steelhead a bit high and Fall Chinook a bit low. Cumulative totals are slightly above the 5-year average.

Cowlitz Falls Fish Facility

Chris announced there hadn't been any outages since the last FTC meeting. Given the Lake Scanewa drawdown, the CFFF is now offline for the season. The last day of tagging was August 23. There was low collection in August (less than 5K smolts). There were 1,300 Chinook fallbacks.

The cumulative outmigration numbers for Cowlitz Falls were heavy in May and June and have since tapered off but are still above average for the season. They are still seeing low numbers of Chinook outmigration. Coho are tapering off and steelhead are finished for the season.

Approximate FCE:

- Steelhead 77%
- Coho 70%
- Spring Chinook 43%

Next month's presentation will include final numbers for the year. Matt B reminded all the low Chinook numbers are also partly influenced by maintenance at Cowlitz Falls Dam.

Monitoring & Evaluation Subgroup

Jenise noted they had a productive meeting last month and they will meet again in September to review the second half of the M&E Plan. In October they hope to switch over to implementation.

Downstream Adaptive Management Technical Work Group (TWG)

A review will begin with the goal of aligning protocols, terminology, and metrics between CF and Mayfield. Jenise noted 2-25% of fish may be missed due to the early shutdown of the CFFF. The TWG also started discussing the Coho Parr Study, which will be presented to FTC in a future meeting (~November). John Best will review data based on the new tagging strategy for spring Chinook and discuss with the TWG the effectiveness of that strategy.

WDFW Chum Project

Re the grant WDFW received from the LCFRB for a chum spawning assessment project, Bryce reported they are working to hire a subcontractor for this work. The associated tasks will include:

1. Initial field recon and site selection (aerial photos, LiDAR mapping) showing where chum may have been historically, along with land ownership, etc.
2. Deeper dive into investigating some of those sites. Start prepping to do pump testing and placing piezometers to gauge water flow. Narrow the list down to four sites.
3. Narrow site selection down to one or two sites and develop conceptual designs for what might be possible at each.

WDFW is also looking at the impact of *C. shasta* on chum survival.

LCPUD Dam Operations

Presenter: Russell Page

Cispus release site: Permits are in hand and the work is expected to occur September 9-12.

Annual unit maintenance is underway. Debris removal (separate from unit maintenance) was completed on August 9th.

The Debris Barrier Rehabilitation Project (for which the drawdown began yesterday) is underway. They are currently holding at 846 ft as Laura and crew are engaged in fish collection/rescue. They anticipate lowering the elevation to 842-843 ft for debris barrier work later today or tomorrow morning, pending completion of fish rescue, which will continue once drawdown is complete. Tomorrow morning, they will begin placing scaffolding for the project. There will be ongoing turbidity monitoring

upstream and downstream of the debris barrier moorage site. They don't anticipate any turbidity issues as it is possible to walk in front of the debris barrier, with 10 ft of rock between that and the water. They are deploying two portable turbidity monitors for this project. Data from these monitors will be continuously monitored and uploaded to the server no less than twice daily.

A dual unit outage is planned for September 16-20. This will include spilling all inflow for relay and transformer testing, etc. The baffle panels were removed last week (after the North Shore Collector was shut down).

Discussion: Thomas thanked Russell for the water quality updates and noted that Ecology has been asking Joe First to put this information in a WQPP so Ecology can review the BMPs. Russell responded that Joe plans to get that to Thomas by end of day today.

Matt P asked if monitoring is occurring downstream the dam. Yes. One dissolved oxygen monitor was installed prior to Northshore Collector Operations. Additional turbidity monitors were installed on the north and south banks for continuous turbidity monitoring. Those points are continuously collected and uploaded every 5 minutes. Also upstream of the debris barrier site on the Cispus River they are continuing to collect data there as well.

Cowlitz Restoration and Recovery Fund / Habitat and Production (HAP) Subgroup

Presenters: Steve West and Melora Shelton

Habitat Grant Round:

A draft DD with attachments was sent to the FTC describing the two projects recommended by the LCFRB for CRR funding. Steve also described these at the August meeting. He reviewed the DD, noting that the TAC's decision on these projects was unanimous as was the approval by the Board, and that the TAC ranked the Cispus Yellowjacket Phase 5 Design (\$345K CRR ask, no match) as #1 across CRR and SFRB projects. The Silver Creek Restoration Opportunity Identification (\$233K CRR ask, no match) also scored and ranked well. Details are in the draft DD. There were no edits, but Steve noted a correction to ranking summary in the draft DD sent to the FTC prior to the meeting.

Action Item: Steve will correct the typo in Table 1 and the DD will be sent out for additional review. All were asked to send any changes to Melora between now and the October meeting.

HAP Subgroup:

Melora reminded all that in June, Jack Tipping submitted a project information form (development) for a Steelhead rearing study embedded within the existing bio-programming. The CRR fund ask is for associated CWT tagging. She reviewed the subgroup's initial review and discussions with Jack to date. This idea is different than the type of projects envisioned by the program (e.g., adult distribution, net pens) and has prompted questions around policy, science, and logistics that will require guidance from the FTC and additional technical support from development, evaluation, and ultimately implementation if approved. Melora asked the FTC for some initial feedback.

Discussion: Bryce and Matt B. concurred that a rearing study could fit within the CRR program. Bryce noted it may also fall within one of the M&E priorities (top 10, not top 5), and Matt B. noted it could fit into the bucket of applied science. Scott noted that he prefers the M&E plan be finalized before evaluating how a proposal like this could fit within M&E priorities. There was general agreement that the idea could continue being developed for CRR consideration.

Suggested next steps for FTC input included:

- Continue using existing CRR HAP materials and pathways

- Clarify management objectives and what results would lead to
- Relate to changes from current practices (how does this differ?)
- Stay high level for now, details on quantitative design and logistics can hold

The CRR calendar includes options for workshops during the last two weeks of October. Jack can engage with the HAP subgroup (and potentially others) and an updated Project Information Form can be distributed for feedback and discussion in November. This timeline is consistent with the 2025 grant round.

2024 APR Process

Presenter: Eric Shoblom

Tacoma has received some public feedback already and will be integrating more feedback after the Annual Program Review meeting tomorrow. Eric walked through the DD and showed the updated brood years and the section on the net pen pilot project. Little else has changed.

Action Item: Eric will update the document and flag if any of the numbers are a change from prior year programming. For this DD (or for 2025 DD) consider expanding the tables to include poundage (Which is the driving factor?). All are asked to review and send any edits to Melora to update and finalize at the October FTC meeting.

Public Comment Period #1 - Agenda related

Larry: How do releases/poundage relate to success/adult returns? How are we doing on harvest? Bryce responded from an M&E perspective, there will be more on this at the Science/APR meeting.

Larry: How are you measuring WQ above CF and below Mayfield? How has that affected returns? Impacts on fish health, growth, and smoltification is also influenced by water hardness.

Matt P: We have been discussing temps upstream in assessing collection efficiencies. Tacoma has met its license requirements for reporting. Water quality data are collected to inform something – not just to collect data.

Thomas: Tacoma Power seems to be requesting springtime flow reductions below established minimum flows at an increasing rate during critical times of year. Habitat impacts, including water quality, in side channel habitats downstream of the projects represent a knowledge gap when flow is reduced below established minimums. We are concerned about Ecology's ability to make informed decisions when/if future flow reductions are requested. Ecology's 401 certification conditions that additional monitoring may be required by Ecology for site-specific projects and fisheries issues. Discussions will follow with Matt P and Ecology's new staff around what additional water quality monitoring can be done.

Matt B: WQ parameters are also measured at the various fish facilities. We are not conducting any eDNA sampling right now.

Eric: Tacoma has done environmental DNA (eDNA) sampling. He did a presentation on this at last year's APR meeting. They found that dredging was not linked to elevated levels of *C. shasta*. They also have done tests of water hardness.

Larry: Fall Chinook – comparatives. There are big numbers going over Bonneville Dam right now.

Jack: Would like to see an update on Mayfield Juvenile trap, juvenile production, and subsequent adult returns. How many smolts coming out of Mayfield are adult returns?

When does Bryce think the Chum Study might get underway?

Bryce: It will likely be at least two years before this gets underway.

Randy: Hopes Jack's CRR proposal will be considered and supported.

Larry: Are all the fish collected at Mayfield through juvenile collection facilities tagged?

John: They are not all collected. There is still passage through the turbines.

Scott: This is the first year of adult fall Chinook returns. FCE at Mayfield is 60-65%.

Eric: Everything is tagged. For the Chinook coming back we have an idea how many are coming back, but we don't know the tag codes.

Bryce: Through tagging application, we want to see if ratios of tagged/untagged match 65% FCE. If not, something else may be going on. That's why we are moving to full marking in the Transition Plan.

Larry: For M&E programs, what is success? Adult returns (whether NOR or harvestable fish)?

Bryce: Implementing baseline monitoring for basic stock assessment (abundance, productivity, population performance to inform life cycle modeling, etc.) is the first step. Then developing and implementing directed studies that are focused on questions that need to be answered to improve operations. Success is both the baseline monitoring and directed studies.

Matt: Life cycle math is informed by the baseline data sets. The limiting factors are informing the pinch points that limit success. How can we remove them through directed studies to make the programs successful and become harvestable?

Larry: The NW Power Council has set SARs as 2-6%. How can a member of the public make a difference? Larry doesn't feel heard in these FTC meetings. His comments haven't been acted upon. Last year's fall Chinook returns were 883 from over 3.5 million releases. Just because you have production numbers doesn't mean you have adult returns. How to improve SARs? Over 99% of the fish released are not returning (per 5-year averages). How was this year's harvest? This matters to recreational fishermen.

Eric: That will be covered at tomorrow's Science/APR meeting.

Topics for October 1, 2024 FTC Meeting

- Updates incl. Hydro Ops, Water Quality – temp data April – August
- 2024 APR Process – Approve DD
- Fish Facilities, Satellite Rearing Ponds Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Coho Par Study design alternatives, Trout Hatchery Remodel, early season FCEs
- LCPUD Cowlitz Falls Dam Operations
- Downstream Adaptive Management TWG, Monitoring and Evaluation Subgroup
- CRR Fund / HAP Subcommittee – Approve DD
- Preview November FTC Meeting Topics

Meeting Evaluation

- Timing of the agenda worked out well
- No Peppers and olives on all the pizzas!
- Great attendance once again.
- Good dialogue among the stakeholders during lunch and breaks
- Check/update email distribution lists

Josua's Inspirational Quote

"The present moment is filled with joy and happiness. If you are attentive, you will see it." – Thích Nhất Hạnh

Closing Remarks

Melora thanked everyone for the extra effort to attend this meeting in person. There is something special about being together. Meeting in person helps to support this collaborative and iterative process. She also thanked those who attended remotely, and everyone for being in community today.

Parking Lot

- Presentation by Tacoma's Power Management Group and/or from Grant PUD re improving SAR
- Review Steelhead Kelt Recycling Program