

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
October 3, 2023 from 9:30 – 3:30

FTC Representative Attendees:

Travis Nelson	TPU
Anne Baxter	Ecology
Bryce Glaser	WDFW
Jonathan Stumpf	TU

Additional Attendees:

Peggy Miller	WDFW
Josua Holowatz	WDFW
John Serl	WDFW
Brian Gale	WDFW
Kristopher Warner	WDFW
Todd Hillson	WDFW
Eric Shoblom	TPU
Scott Gibson	TPU
Melora Shelton	TPU
Leah Marquez-Glynn	TPU
Steve Manlow	LCFRB
Denise Smee	LCFRB
Steve West	LCFRB
Michael Boyles	BPA
Laura Wolfe	LCPUD
Ann Weckback	Lewis County
Stephen Lewis	BIA
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Stephen Raught and Larry Prior

Remaining 2023 FTC Meeting Dates: November 7 and December 5 (in person at Veterans Memorial Museum in Chehalis)

Approval of September Meeting Summary

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

Announcements

- Tacoma is still advertising for these two positions: Senior Fisheries Scientist and Senior Fish Passage Specialist. Please visit TPU Jobs for details.

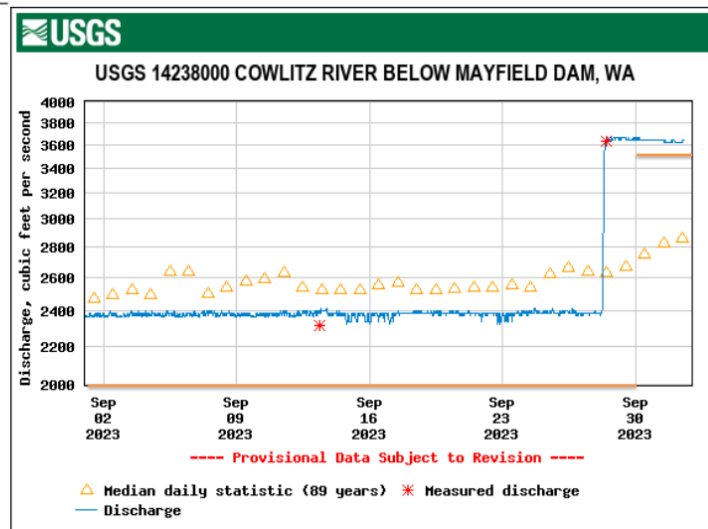
Updates

Hydro Operations – Melora (presentation emailed on October 2)

- Inflows: September daily average flows were 1,117 cfs (63% of the historical average). End of month rain pushed September precipitation to 137% of normal. Water Year 2023 ended well below average for every month except May.

- Storage: Riffe's current elevation is 708' (~12' lower than the 2017-2022 average) with continuous drafting since our last meeting. The Mossyrock long lane closed October 2.
- Outflows: ~3.6K cfs; minimum outflow of 3.5K cfs from October 1. Ramping limits are 1 inch/hr. both day and night.
- 10-day Forecast: Typical temperatures with 3-4 inches of rain and freezing levels above 11K'. Outflows around 3.6K cfs unless there is load demand. Inflows should increase from ~1.7K cfs. It's great to be starting the new water year with rain, but probabilities tilt toward an El Niño fall and winter.

Outflow



Link to the USGS real-time Cowlitz River hydrograph:

https://waterdata.usgs.gov/wa/nwis/uv/?site_no=14238000&PARAMeter_cd=00060.00065
<https://www.mytpu.org/community-environment/parks-recreation/river-flows-lake-levels/>

Water Quality/Monitoring

Action Item: Matt to send out water temperature data if it is available. At the September meeting we discussed possibly adding this to the end of the Hydro Ops report.

Anne B noted it would be helpful to have an FTC discussion on Tacoma's findings in their recently released five-year Disease Management Plan (measuring water, sediment, etc.).

Fish Facilities

Separator:

- More coho are returning to the separator now than in 2014 when we had a record return of coho. There are lots of coho jacks – almost matching the number of coho adults.
- The Port Blakley 300 Road has opened back up after being closed for fire danger. Tacoma has been able to release a few loads of mostly coho along with a few spring Chinook to the Copper Canyon site in the last couple of weeks.
- Eric was pleased to report Lake Scanewa is now under 18 °C. Staff began releasing fish to the Day Use site, discontinuing use of the Copper Canyon site. This allows fish to choose to go to the Upper Cowlitz or Cispus. Bryce noted that the Transition Plan indicates our preference to only put NORs in Scanewa and not to transfer them to Packwood and Cispus. The Plan calls for doing a 25/25 split of HOR coho adults to the Cispus and Upper Cowlitz and 50% to Scanewa. All NORs are to go to Scanewa. John noted 20 NOR coho were sent to Packwood since Scanewa opened back up. The idea is to prioritize Scanewa as much as possible. Eric

will follow up with staff to ensure this is happening. Part of the reason for the split distribution of HOR's is wanting increased angling opportunities.

- 12K coho will be released to the Gust Backstrom release site throughout this season. Transports will occur throughout the entire run vs. releasing them all at the start of the season.
- All NOR coho and fall Chinook are released at the Bremer Bridge release site in the Tilton. This area is closed to anglers even though it has been reported that individuals are still fishing there. Tacoma has been in contact with WDFW Enforcement who has been monitoring the site and has been handing out tickets.
- Note: When 500 fish return to the separator for five straight days, this triggers Tacoma staff to started working a 7-day work week.

Brood Collection:

- Tacoma is currently collecting fall Chinook, coho, and cutthroat trout broodstock. The Summer Steelhead collection ended at the end of September.
- Since the middle of last week, coho collection is on schedule while fall Chinook is a staggering 830 adults behind the collection schedule.
- Fall Chinook NOR broodstock is collected at 10% to brood and 90% to the Tilton with a 2 to 1 demographic displacement. This means for every NOR collected for brood, two HORs are sent upstream.
- All HOR cutthroat are collected for broodstock and all NORs are sent upstream.

Mayfield Counting House:

- Numbers are low and should start picking up. They are seeing coho jacks and coho and fall Chinook adults from the tagging efforts at Mayfield returning to the separator.
- Most of the fish coming into the trap are Chinook sub-yearlings with a few coho.
- The autoflush program was initiated on August 29.
- The Mayfield remodel is still in the planning stages as Tacoma works with Kleinschmidt on scoping and design. They are trying to balance meeting NMFS Criteria while providing maximum flexibility. They have not yet determined whether to build a Counting House on the other side of the river or just remodel it where it is.

Cowlitz Falls Fish Facility:

24/7 operations concluded at the end of September for the 2023 season. Fall operation started today. The facility will start up each Tuesday and operate for 72 straight hours for four consecutive weeks, through October 27.

- Collection numbers so far: >221,000 smolts comprised of approximately:
 - 171K Coho, 40K Chinook, 9.5K steelhead, 838 Cutthroat
- Preliminary FCE estimates:
 - Steelhead: 65%, Coho: 75%, Chinook: 59%
 - Chinook are still being recaptured (33 in September; about half of those came last week as water temps decreased associated with a small fall freshet)
 - Water temps dropped from 15 °C to low 12 °C last week
 - Generation cycled between 1,000 to up to 2,600 cfs last week
 - John noted there were some collection facilities (weir boxes, etc.) used in the past at the weir gates that were useful but not suitable as designed due to dam safety concerns. Utilizing redesigned additions to spillway flumes may be useful to reach collection goals. We are aiming for 95% FCE. This obligation is stated in the Bi-Op and is specific to smolts.

Cispus Release Site (Tom Music Bridge)

Laura reported LCPUD finally got all the necessary documentation together and submitted for the 404 permit and is waiting to hear back from the Corps (Seattle District). She has requested and has been assured their review will be expedited if possible.

Discussion: Are we expecting the review by the Corps to be concluded by the next FTC meeting? Is there anything we can do as an FTC to facilitate the process? The number of entities involved has created complexity. The LCFRB has been working with the Seattle District on some projects. The Corps has set up an internal "Stream Team" that complex projects can be referred to. Steve M offered to discuss this with the project lead for the Stream Team if Laura thinks that would be helpful.

Satellite Rearing

Eric noted there was nothing to report this month other than he has received a quote for the netting for Mayfield Net Pen Pilot Project net pen project. It was suggested we review the schedule per the FTC-approved DD at the November meeting.

Monitoring & Evaluation Subgroup

Bryce noted the M&E plan is an FHMP requirement. It describes the monitoring activities that will be implemented to generate baseline data for monitoring needs and directed studies. Scott noted Tacoma's consultant has produced a draft plan which is currently undergoing internal review. It will then go to the M&E Team for further review. The last meeting of this subgroup was canceled, and they are working on some issues through email and ad hoc meetings as needed. Bryce suggested the recent change made for fall Chinook NOR broodstock collection from 1 in 3 collection to 1 in 10 collection should be sent out to the whole M&E Subgroup, so they are aware. Scott agreed that would be good in the name of transparency. What UC/LC monitoring work is occurring this fall? Bryce requested that TPU provide a list of all M&E work that is occurring this fall. Bryce anticipates other issues coming up this fall that will need to be discussed. Charters are to be developed for each committee within the FTC to ensure clear expectations and communication with members of the FTC. Stephen asked to be added to this group. He is very interested in the Charter.

Post meeting note: On Oct. 16, Scott Gibson requested that this clarification be added to the notes in response to Bryce's question about fall UC/LC monitoring work: In a continued effort to help support the development of a life cycle model for spring Chinook, Tacoma Power has been collecting otoliths from NOR carcasses encountered in the Upper Cowlitz and Cispus rivers. The otolith data will provide insights into the life history and environmental conditions experienced by spring Chinook, which is essential for understanding the timing of life stage transitions in the life cycle. All samples have been cataloged and stored for future analysis. The M&E Subgroup will collaboratively work on a strategy to push the model forward.

- **Action Item:** Travis to coordinate with Bryce to send the email chain out to the larger distribution list. Add Stephen to the M&E Subgroup.

Downstream Adaptive Management Technical Work Group (TWG)

There is no report this month due to the Annual Program Review. The draft Charter from July of 2018 that John was able to find was distributed to all on September 5. John reported the TWG met re: Cowlitz Falls and Mayfield collectors. The Summer Results report will be combined with the Spring Report and will be out to the FTC soon for review. The TWG is looking at options for actions and studies for the 2024 spring-summer collection season. Options discussed include an active tag study for steelhead and coho, testing unbalanced spillway flume flows. Due to the Cowlitz Falls Dam debris deflector removal for maintenance during the Chinook collection period, it is unlikely that an active tag study for Chinook will be pursued in 2024. John also noted that Cowlitz Falls collection will

be unavailable after Labor Day 2024 due to the maintenance drawdown by LCPUD for Debris Barrier work. This will miss a significant portion of the Chinook emigration. He suggested that Tacoma implement collection in upper Riffe Lake during this period. The TWG Charter was not discussed at this meeting. As FTC protocols call for Charters to be established for each subcommittee, Travis will see if he can find a more current version of this group's Charter. He commended the CRR folks / HAP Subcommittee for doing a great job with their Charter.

- **Action Item:** Travis to look for a more current version of the charter. Add this to the November FTC agenda.

LCPUD Dam Operations

As Russell Page was unable to attend the meeting, he provided the following update via email:
Hatch Cover: This work is complete and fish sluiceways are in place. Work continues for outage scheduled through the end of October.

Trash Rack: An emergency repair of the trash rack has been scheduled for the first week of November and will consist of a dual unit outage and spilling through the sluice gates or spillway gate 4 depending on the flows. This work will take approximately one week to complete and LCPUD will have divers in the water every day from 0800-1600. Baffle panels will be removed just prior to this work.

Debris Barrier Rehabilitation Project: This project is still on schedule. They plan to submit the RFQ within the next two weeks and still anticipate a drawdown for rehabilitation site work the first quarter of 2024 based on the selected contractors schedule. The work will take approximately one month to complete and will be finished no later than March 1, 2024. The second drawdown for the rehabilitation is scheduled for 2024 immediately following fish season and will also take approximately one month to complete. The reservoir will be lowered to approximately 484' for this work.

Sluice Gate Project: The 90% design is complete with the design contractor working toward the 100% plans by December 31, 2023. This work will consist of a gantry crane extension, stability retrofits and sluice gate replacement. The Plan will be submitted to FERC for review the first quarter of 2024 with construction tentatively planned for 2025.

FERC Periodic Inspection (PI): This onsite inspection is scheduled for the first week of March 2024 and will require the PUD to open all the spillway gates and sluice gates several times for testing. This is strategically scheduled to occur before the start of fish collection. Baffle panels are scheduled to be installed immediately following the onsite inspection for the PI.

They are still working on a water quality monitoring plan for the riverine drawdown in 2025 for the sluice gate work. This should be ready from preliminary review in December.

Follow-up on Spring Flow Reduction and Summer Operations

Presenter: Leah Marquez-Glynn

Leah Marquez Glynn, Hydro Resource Operations Lead and Power Scheduling/Settlements Manager at Tacoma, gave a recap of the summer refill. She started by reminding all that on April 3, Tacoma executed the minimum flow reduction to 4K cfs with fish transport flows based on low forecast. They stayed at 4K cfs for almost a month and the refill outlook improved. In May they went back up to 5K cfs when a heat event was forecasted. Unfortunately, by June the May inflow forecast provided by the River Forecast Center Model and associated refill probabilities were failing. RFC forecasts are based on current conditions, the 10-day forecast, and weather from 1981 through the prior year to generate refill scenarios. This happened with regional forecasts as well. Actual elevations by end of summer

were 8 ft below the forecasted worst case. The expectation was to be at 749 ft (full pool) at start of June. Instead, June began at 732 ft. Leah has had discussions with the River Forecast Center about what their forecast considers. Tacoma evaluated an additional forecast tool this past year and it failed similarly even with different analyses that take climate change into account). She shared the following summary of the summer operations:

Impacts:

- Recreation was significantly curtailed: Swim beach was dewatered in July; most boat ramps were unavailable in August; and all boat ramps were unavailable in September
- The local community was very unhappy
- There was significant impact to utility revenue

Lessons Learned:

- Forecasts do not account for all variability and are too sensitive to current conditions
- Need to operate more conservatively, leaving more room for error
- In future years do not increase discharge until reservoir is full
- Seismic limit worsens impacts of refill failure

Discussion: Peggy brought up the impact on fish from reducing minimum flow then not increasing discharge until reservoir is full which she finds more important than impact on recreation. Stephen noted there are other long-term forecasts that can be used. Anne said it is important to operate more conservatively and leave ample room for error. Maybe next year, the FTC can start looking at the forecast earlier rather than waiting until March.

Tacoma will continue to consult with FTC on these topics.

Peggy and Anne expressed appreciation for how challenging Leah's job is. Anne asked if we could have started taking mitigating steps as early as December. Leah responded hydrologic conditions in January were normal, so we were in a comfortable position with what the forecast was predicting to start drafting to make room for the water (winter storms, etc.). Travis reminded all of the quote: "All models are wrong, and some are useful." That's why we do the iterative effort on sharing reliable info with the FTC in a timely manner. Ideally the data from the year we just had will be incorporated to strengthen the model.

Tacoma appreciates very much everyone's collaboration and support on this. Leah disclosed this is her last meeting with us as she is moving into a new role in Long-term Planning. We thanked her for all the work she has done including her presentation to the FTC and wished her well.

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

Presenters: Steve Manlow and Melora Shelton

Steve M thanked everyone who participated in the CRR field review and expressed special appreciation to the sponsors for their presentations.

He and Melora presented proposed changes to the CRR Implementation Strategy that incorporate some lessons learned, responses to FTC questions during the grant round, and other program updates. The draft updates will be distributed for a 30-day review and a decision document will follow.

The HAP Subcommittee last met on September 20 and will be meeting again later today. They plan to invite M&E and other science folks to meet with them on October 18 (1:30-2:30) to discuss project ideas that have been identified to date.

Tacoma is requesting a change of date from March 1 to June 1 for filing the CRR annual report with FERC. This will allow for more accurate reporting. Melora will let the FTC know if FERC asks for stakeholder support for this change.

Steve and Melora shared photos from the field tour/site visit which was attended by 25 people. There were sponsor presentations and site visits to Camp Creek and Yellowjacket Creek. Travis expressed much appreciation with the partnership with the FTC and LCFRB.

Action Item: Melora to send out draft DD by October 31 for review at the November FTC Meeting.

2023 APR Process: Public Comment Meeting #2

Presenter: Eric Shoblom

Eric started by reminding all that the Cowlitz Annual Program Review and Science Conference took place on August 22. This provided an opportunity to meet with the public and present a population and hatchery program management strategy for the coming season. This FTC meeting today serves as the second public comment meeting. Eric reviewed the DD that reflects the program as discussed at the last meeting. The proposed decision includes a table of programs aligned with the FHMP Transition Plans. The only change is a portion of the coho will be shifted offsite into Mayfield net pens. Tacoma will conduct a pre-pilot net pen program where coho survival will be tested in four net pens. If successful a full pilot study will occur for one year the following year.

The DD describes how Tacoma will produce the following programs in the Cowlitz Hatchery Complex for brood year 2023 of coho, fall Chinook salmon, summer steelhead, and cutthroat trout. Winter steelhead and spring Chinook salmon goals will take effect in the 2024 brood year as is typical of the APR process:

- Fall Chinook: 3.5 million
- Spring Chinook: 1,678K
- Coho: 2.178 million
- Winter steelhead: 647K
- Summer steelhead: 650K
- Cutthroat trout: 100.599K

Discussion:

Bryce suggested adding the public comments to the DD as has been done in prior years.

Larry:

- Success should be based on adult return goals - not just on releases/production based. The SAR number doesn't seem to resonate with anybody. For 2022 SARs assuming 3.5million releases of fall Chinook, he sees a failure rate of ~99.9% (don't return to the Cowlitz River). Spring Chinook number has a similar failure rate. This needs to be addressed Priest Rapids is having much more success despite the same ocean challenges. Coho program has been successful in terms of returns. Could look at reducing coho release numbers.
- The success of upriver programs depends on the success of the hatcheries. CF collection numbers are down – fall Chinook, spring Chinook, and steelhead.

Bryce: We have been clear that improvement is needed with the fall Chinook program. Just because they didn't return to the Cowlitz, doesn't mean they didn't contribute in other ways. The M&E Plan is now addressing SARs and a lifecycle model. The FTC is working to address these in terms of the Transition Plans.

Eric: Thanked Larry and acknowledged the challenges with spring and fall Chinook. The net pen pilot program is not about increasing the number of coho but about making room in the hatchery for

additional spring Chinook. The option of replacing the portion of the coho program that we move off to the net pens is being discussed.

Bryce indicated that the Transition Plan is intended to reduce the number of coho going to surplus and make more available up river for recovery and angling opportunity. Eric noted Tacoma has proposed many changes to improve rearing for fall Chinook. The Transition Plan uses bio-programming to raise the entire program within the hatchery without using the net pens. We have also transitioned to using the Tilton stock to improve our integration rates and the resiliency of the stock to the natural environment. Our NOR program is doing well. We need to improve the HOR program.

Larry:

- Larry appreciated Bryce's and Eric's responses. He thinks something else is wrong in the hatchery or other programs... Accountability should go along with the adult return goals.
- Release sizes? (Eric noted release sizes have not changed other than the spring Chinook.)
- Have SARs been studied in years of lower releases - less dense, raceways, etc.?

Eric: We have not yet studied them, but the fish looked great with lower density!

Table 1: Retitled to: Cowlitz Annual Production Review Decisions

Eric explained that the table represents the year that we make a decision on future production. This means the change will take effect the next coming opportunity to collect eggs or adult return year. For instance, a decision in 2023 will not necessarily take effect in 2023, some species it will be 2024.

There was consensus among the FTC Voting members to approve this DD.

- **Action Item:** Travis to send out DD approved at this meeting for 7-day electronic approval by voting members not present.

Public Comment Period #1 - Agenda related

Stephen R:

- Recently built his retirement home in the Cispus Valley. The problem is there aren't any fish. The last report showed a total of three fish. He has talked to Joe First and Laura LCPUD about this and feels he isn't getting good answers. He is concerned the water level will be too high to do work in the river, but not high enough to support fish. In the past he worked with the FS to install the chute. The next opportunity to work in the river will be next August. The last time the river was high enough for fish was last November. By sharing these concerns, he is representing the landowners in the area.

Eric: Yes, this has been frustrating not having the Cispus Release site in the upper river. Weekly report shows fish have been put into Copper Canyon which is the Cispus River.

Stephen R:

- Recognizes that Copper Canyon is in the Cispus. And that's not the area he is talking about. The Cowlitz Tribe has spent a lot of money on fish habitat. 400 yards down the river from his property, he sees an excavator working on the river. Can we get an amendment to whatever permit they have, so they can dredge some of the channel so we can get fish up there? He also said he can't fish at the Mossyrock site so there's another lost opportunity for fishing.

Eric: There is an engineer working to move the rock at Mossyrock fishing area and Eric welcomed Stephen to call him at 360-669-3588 to discuss these topics.

Topics for November 7, 2023 FTC Meeting

- Updates incl. Hydro Ops, Water Quality, Fish Facilities, Cispus Release Site
- LCPUD Cowlitz Falls Dam Operations
- Satellite Rearing (?)

- Downstream Adaptive Management TWG
- Follow-up on Spring Flow Reduction and Summer Ops – 15 min.
- CRR Fund / HAP Subcommittee – Review of Implementation Strategy DD
- 2023 APR Process Debrief (?)
- Preview December FTC Meeting topics (In-person at Veterans Memorial Museum)

Meeting Evaluation

- Good participation
- Approved the APR DD
- Completed the second APR public meeting
- Nice to have Stephen Raught join us
- Appreciate the flexibility in the agenda timing

Josua's Inspirational Quote

Josua noted as the fall season begins, and we review what has occurred in the year so far, it is nice to reflect and become more intentional about the future. This reflection will allow us to make better choices and consider more perspectives. "Wisdom comes with the ability to be still. Just look and just listen. No more is needed. Being still, looking, and listening activates the non-conceptual intelligence within you. Let stillness direct your words and actions." - Eckhart Tolle

Public Comment Period #2 – Any Topic

Larry:

- Reviewed 2013-2022 data for adult fall Chinook. 2016 seems to be when the crash started and 2022 was the lowest year. He sees this as failure rates instead of SARs. Priest Rapids' improvement started around the same time as our decline. Larry also asked for an update on where WDFW was in getting fishery permits updated.

Bryce: The decline was consistent Columbia River and coast wide. Cowlitz fall Chinook are not rebounding as fast as in other areas. He also shared that WDFW has received funding to work on updating permits for ESA coverage of fisheries for NOAA Fisheries review and is undergoing a prioritization process to determine where along the Columbia River to start. Bryce hopes they can start in the Lower Columbia River. Jonathan noted that ESA permitting and funding for Columbia River Basin was a priority of TU in the last legislative session. He sees this as a great opportunity to get the fisheries up and running. He offered to coordinate with Larry on getting funding in the next legislative session. Larry, also a member of TU, thanked him.

- Release numbers for steelhead is the gage for success. It should instead be based on return to the salmon hatchery. How about counting those coming into Blue Creek? It would be nice to see some reporting on steelhead.

Bryce: At the Watershed Science meeting just before initial APR meeting in Chehalis in August – Josua showed the lower river harvest and catch rate in the summer SH program. It seems to be relatively consistent even in low abundance years.

Action Item: Travis to see if Josua's presentation on this has been posted. (*Travis sent this out to all at the end of the meeting.*)

Closing Remarks

Travis ended the meeting by reminding us all how important it is that we are there for and take care of one another.

Parking Lot

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