

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
January 7, 2025 from 9:30 – 2:30

FTC Representative Attendees:

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

Additional Attendees:

Anne Baxter	ECY
Thomas Starkey-Owens	ECY
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Sean Luis	TPU
Matt Bleich	TPU
Matt Peter	TPU
Jenise Bauman	TPU
Scott Gibson	TPU
Sean Luis	TPU
Chris Vaughn	TPU
Eric Shoblom	TPU
Michael Boyles	BPA
Ann Weckback	Lewis County
Laura Wolfe	LCPUD
Steve West	LCFRB
Lyn Wiltse	PDSA Consulting / Facilitator

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

Remaining 2025 FTC Meeting Dates: Feb. 4, Mar. 4, Apr. 1 (no foolin'), May 6, June 3, Aug. 5, Sept. 2 (day after Labor Day), Oct. 7, Nov. 4, Dec. 2

Approval of December Meeting Summary

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

Updates

Announcements

- We were pleased to meet Sean Luis, Tacoma's new fish passage biologist, who was hired in December. After getting his PhD from University of California, Davis, he worked as a consultant for a few years and is happy to be back in Washington State, where he grew up.
- Andrew announced he will be on parental leave through mid-March. In the meantime, please keep Thomas and Chad in the loop. He and his wife are expecting their first child this Thursday!
- Melora noted as we begin the new year, we will be more mindful about following the public protocols established in 2022, including the 3-minute comment limit.
- Melora reminded all that they can find the Riffe Lake Restoration updates by Googling "Riffe Lake Restoration." An email will follow when the website has been officially launched.
- The initial Transition Plan (for Fall Chinook) presentation will occur at the February FTC meeting, as will the CRR/M&E HAP follow up.
- Tacoma is currently hiring seasonals (day and night tech positions) at the Cowlitz Falls Fish Facility and welcomes any recommendations.
- LCPUD has hired Nate Anderson to fill Russell Page's former position. Nate has been a longtime operator with the PUD and will likely attend the February FTC Meeting.

Hydro Operations (presentation emailed on Jan. 6)

- Inflows: After low inflows throughout the fall, December ended with flows back to 100% of the historical average. December precipitation was 128% of average and temperatures were overall slightly warmer than normal.
- Storage: Riffe Lake increased from 713 ft (Dec.6) to 736 ft (Jan. 6) following substantial precipitation and is currently well above the recent, and long-term averages. All boat ramps are open. Snowpack continues to build and is above average at Paradise and White Pass. Reminder that these SNOTELs are >4,000 ft.
- Outflow: Consistent outflow above the minimum flow (4.2K cfs) with recent increases as inflows came up and side flow management was required. No exceedances. Melora reviewed an example of down ramping compliance.
- 10-day Forecast: Below normal precipitation with typical temperatures. Inflows are expected to decrease (below normal). Snow level is expected to drop below 3K ft on Friday. Riffe Lake will maintain, then draft. Outflows will likely drop from 8.7K cfs to ~6K cfs, except if needed for load. NOAA expects La Niña condition to develop in January and transition to neutral March to May.
- Regarding reservoir elevations and management winter going into spring; Melora noted we are in a robust position compared to last month.

Water Quality

- Matt P reported no spill events or water quality monitoring for TDG, etc.
- Tacoma is planning to collect additional water quality data as covariates to the upcoming CFNSC Passage Study and the Coho Parr Study.

Related Project Updates

- Two derelict vessels were removed from Mayfield, in cooperation with DNR and with an approved contractor. The work to remove other derelict vessels and structures will continue.
- Debris removal management across all projects is also planned. The recommendation on collection and disposal in an environmentally friendly way is expected by the end of Q2.
- Kosmos: At the request of Ecology, Tacoma is conducting additional sampling for copper, to determine, by next month, if it should be listed as a contaminant.

- Cove Lane Culvert Replacement Project: This project has been completed.
- North Taidnapam Boat Launch Improvement Project: Phase 1 was completed except for the lower anchor, which should be installed when reservoir elevations go down in the spring. This will be done as part of Phase 2 (lower-level parking area, trail, ADA loading platform, etc.).
- Trout Hatchery Rebuild: Drilling to inform water supply should wrap up by the end of February.

Fish Facilities

Separator:

Eric reported that, as expected, returns continue to decrease (~300 returned last week.) Most of the returns are coho. Winter-run steelhead numbers are increasing and there are a small amount of cutthroat trout and summer steelhead still coming in.

- Coho: Remain above the 5-year average. 58.6K adults have returned to the separator this season with another ~8K jacks. The goal is to transport 12,000 HOR coho to the Tilton River by the end of the season. As of Jan. 3, 11.8K HORs have been sent to the Tilton. Coho broodstock collection started Sept. 3 and was complete Jan. 3. They were able to maintain a 50% pNOB (proportion of natural origin broodstock). Spawning started Nov. 11. With collection now complete, spawning will continue for a few weeks in January.
- Fall Chinook: At the last FTC meeting, the fall Chinook run was just finishing up with the total season return to the separator of 2.2K, just below the 5-year average of 2.7K. This included NORs incorporated into the integrated brood and those transported to the Tilton. Brood collection ended Nov. 18, and spawning was completed shortly thereafter. Less than half of the egg take goal was collected.
- Summer Steelhead: Returns were good this year at 6.3K, well above the 4K 5-year average. Broodstock collection was completed on Sept. 25. Spawning started the end of November and was completed around the third week of December.
- Spring Chinook: Spring Chinook are no longer returning but as a recap, we collected 6.6K adults this year, which is twice as many as the 5-year average of 3K. Thankfully, we made brood this year. The 2025 returns should start returning to the separator in February or March.
- Cutthroat Trout: The run is nearly over and is at about half of the 5-year average of 2.7K.
- Winter Steelhead: Returns are continuing to increase as it is still early in the season. They are currently above the 5-year average.

Release Sites: All release sites are in good working condition and are being used as intended. All NORs and half of the HOR coho are being released into Scanewa for the Upper Cowlitz River.

Mayfield Coho Net Pens: Eric reported the fish in the pens are happy and healthy. Their size is right on track with the hatchery population at 28-29fpp and mortality is very low at less than 0.1% to date.

Cowlitz Trout Hatchery Remodel: Drilling and testing new well locations continues at the Trout Hatchery. Eric hopes the results will be back in time to share at the next FTC meeting. They are also checking on the porosity of the soil for when they do the remodel (a civil engineering exercise that will inform the future design of the stormwater system for the remodeled facility).

Satellite Rearing

Satellite Rearing: Tacoma continues to investigate options including facility testing at Cowlitz Falls. Stay tuned.

Mayfield Counting House

Chris noted operations ceased operations on Dec. 31 and the counting house is in bypass mode until Apr. 1. In the meantime, the facility operated in 24-hour cycles once in January, February, and March. Numbers are typically low during the off season. The numbers are low for Chinook smolts, and about average for coho smolts, steelhead, and cutthroat. They are still within the normal range taking all species into consideration. Chinook sub-yearling numbers have fallen off while yearling numbers have remained high. Tacoma continues to work with the WDFW Fish pathologist on how parasite load is recorded based on fish size. This will kick off when the facility is fully operating again.

Cowlitz Falls Fish Facility

Chris introduced the CFFF DD which contains three proposed items. 1) Continuation of the alternative tagging while developing models aimed at enhancing FCE evaluation performance, 2) conducting the CFNSC acoustic telemetry study, and 3) developing a performance evaluation around the idea of moving coho parr downstream of the Barrier Dam. The draft DD will be sent to the FTC with the meeting materials before the February meeting for review.

M&E Subgroup

The DD approved at the December FTC meeting and sent out for 7-day electronic approval by voting members not present was approved as anticipated.

Jenise reported the Subgroup did not meet in December and will meet again Jan. 15. They left off talking regarding life cycle modeling. They are reviewing what has been done so far in the basin including the USGS coho model and WDFW integrated population models with Lower Columbia chum. Transition Plan presentations will begin with fall Chinook. They are working collaboratively to create a template that can also be used with other species moving forward. They will also be discussing Charter development and other priorities for 2025, including Jack Tipping's steelhead rearing proposal, an approach for consolidating M&E data, and distinguishing spring and fall Chinook broodstock (using DNA). She will send the agenda out tomorrow morning. The agenda will include fall Chinook SARs.

FTC Work Plan / Protocols

Presenter: Melora Shelton

Melora showed the draft 2025 FTC Work Plan and Protocols and noted a target of March this year, rather than April in previous years.

Melora highlighted areas she had updated and/or flagged for discussion including the list of plans referenced in the SA, public comments, and subcommittee details. Bryce noted that WDFW could help with the list of plans, and others are requested to provide input as well. Melora suggested incorporating public comment protocols included in the 2022 DD adopted quarterly public meetings and potentially revisiting that language. She identified that protocols around how subcommittees are established, how they coordinate with the FTC, and follow-up reporting should either be adjusted or followed more closely. Bryce thanked Melora for those suggestions and looks forward to being more cognizant of following them. It would be nice to have some standardized tools available, like reporting templates. For reference, Melora has examples of charters developed by subcommittees in the past. All agreed the CRR Charter is a good template. Bryce can share some charters from the Lewis project to share as well.

Melora also reviewed the roles of signatory parties who are voting members, the decision-making protocol that describes the three-meeting process followed for DDs (and flexibility as needed), and language describing when DDs are required. WDFW can offer comments on how to strengthen descriptions based on their experience on other projects.

The Draft 2025 Work Plan Document has been updated including some changes to the regular update categories (e.g., addition of Capital Project Updates) and scheduled updates (e.g., FHMP transition planning updates). It includes the usual schedule for 30-day review ahead of FERC report filing and in-person meeting schedule. Many of the usual updates will be integrated into transition plan updates so they will have more context and potentially be seen as actionable.

Action Items:

- Anyone who has a version of the TWG Charter, please send it to Melora.
- Melora will distribute the draft 2025 Work Plan and Protocols for feedback with an eye toward finalizing them at the March FTC meeting (no DD required).

LCPUD Dam Operations

Presenter: Laura Wolfe (on behalf of Joe First)

Laura reported sediment removal in front of unit trash racks is scheduled for March 3-28. The plan is for this to become an annual activity.

Sluice Gate Replacement: Due to FERC safety concerns this project will likely be delayed by around five years.

Boat Barrier Replacement: The contractor is set to pour the first anchor next week and the second the week after that. The third anchor is scheduled to be installed in mid-February and the boat barrier should be installed in March.

Mayfield Downstream Passage Remodel

Presenter: Matt Bleich

Matt reminded all of the PPT presentation he shared at the December FTC meeting (and emailed out the following day). He acknowledged this is a big project and Tacoma wants to allow the FTC sufficient time to consider what is being recommended and provide input. After getting FTC buy-in, Tacoma will move forward with an eye toward completing construction by 2028.

Bryce has not yet had time to discuss the recommendation with members of WDFW's Fish Passage Engineering Team to see if they have concerns or suggestions. He hopes to engage them this month. He also recommended using the DD process for this recommendation and volunteered to partner with Matt on that. He also noted he is still interested in some of the monitoring.

Amy is in a similar situation as she has reached out to the NOAA Engineering Group and is waiting for them to get back to her about when they are available to discuss this with her.

Matt thanked both and offered Tacoma's support in those discussions. Tacoma hopes to get the decision by end of Q1 of this year so they can secure a Project Manager, funding authority, etc. Melora suggested Tacoma specifically write out what *the ask* is and where they are looking for technical feedback.

Action Items:

- Matt: Draft the DD, with Bryce's help as needed, and clarify the feedback being sought.
- Amy: Let Bryce know who is assigned to her ticket and he can see if coordination across agencies is possible.

Cowlitz Restoration and Recovery Fund

Presenter: Steve West

Steve reminded the FTC of key grant round dates and then provided an update on the current status of all ten CRR habitat projects that have been funded to date. This information will be included in the annual CRR report (FTC 30-day review in March). Steve and Melora noted that many of the current projects lead to potential additional projects (e.g., projects that deliver designs for future funding). Steve also provided an update on the Cowlitz Wildlife Area Spears Unit Design, which was awarded a Salmon Recovery Funding Board grant in 2024. This is a design-only project. WDFW is the project sponsor, the Lower Columbia Fish Enhancement Group (LCFEG) is the partner, and Tacoma Power is the property owner. The January 10 LCFRB meeting will include approval of 2025 SFRB and CRR grant round materials, which authorizes LCFRB staff to open the grant rounds on January 13. Changes in the 2025 Grant Manual include adjusting the scoring spread from 0-500 to 0-100 total points, changing the number of evaluation questions from 14 to 10, and streamlining evaluation questions.

Downstream Adaptive Management Technical Work Group (TWG)

Presenter: Chris Vaughn

Chris introduced DD 2025-02 that covered:

- Continuing alternative tagging and the development of models to enhance FCE evaluation performance
- Conducting the CFFF North Shore Collector Acoustic Telemetry Study this year
- Starting to move coho salmon parr downstream of the Barrier Dam and develop a framework to evaluate performance.

Internal discussions are continuing on this as they draft the DD. Tacoma welcomes feedback prior to, as well as during the Feb. FTC meeting. A revised DD will be sent out after that meeting for a two-week review. Any additional feedback will be reflected in the final draft of the DD sent out for approval at the March FTC meeting.

Action Item: Chris to prepare the initial draft DD to be sent to the FTC on Jan. 28 along with the agenda and any other related documents for the Feb. 4 FTC meeting.

Public Comment Period #1 - Agenda related

Jack: Asked if nematodes were present in the Chinook at the Mayfield trap and noted that he sees lots of nematode- infected fish in Riffe (expected as Riffe is warmer than Mayfield).

Chris noted discussions are ongoing with WDFW's Sean Roon (who does the subsamples) on this.

Jack: Looking forward to the Feb, FTC meeting when the Chinook Transition Plan will be discussed and expressed concerns about the program include returns and out-of-basin harvest (0.5% of the North of Falcon allocation). He is disturbed that opportunities for spring Chinook are being sacrificed to provide only very few fall Chinook out of basin. He would like to see spring Chinook reared to a larger size (optimum releases are 5 to the lb.).

Eric responded that there could be room in the hatchery to do that and that the intent is to continue the coho pilot. Bryce added that there is a plan with 4 components to evaluate the fall Chinook program: The SAR analysis (which will include a formal fishery assessment), life cycle modeling, summary of marking data at Mayfield, and limiting factors analysis.

Larry: Asked when and how can members of the public make presentations to the FTC. He noted that after attending the April Public Utility Board meeting, that Chairperson directed them to the FTC.

This has been addressed previously. Matt reiterated that the Board has asked the public to come to the FTC with technical questions and comments, Matt clarified that this direction was not for presentations. There is a subgroup working on a process for presentations. FTC stands for Fisheries Technical Committee, and it is a recommending body.

Larry: Learned a new term “spummers” for summer run springers and noted that run timing of returns keeps moving back. In 2024 only 29% returned by May 28; 35% in 2023, and 24% in 2022.

Randy: Asked about possibly increasing egg take to expand the gene pool and potentially address non-biting fish returns and noted that it could be a low-cost, simple improvement.

Eric responded that egg take goals are set based on expected mortality at the hatchery. Changes would be an M&E topic. Bryce added that proposals for program changes should come through the APR process.

Randy: Asked if there is an integrated program starting on the coho, related to questions on biter vs non-biter fish.

John responded there is an integrated program (2012-2024). The plan going forward is for a coho program of 2.1million coho smolt release with a 50% pNOB.

Topics for February 4, 2025 FTC Meeting

- Updates incl. Hydro Ops, Water Quality
- Initial Update on FHMP Transition Plan Implementation – Chinook
 - APR / Science Meeting
- Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, , Trout Hatchery Remodel
- CFNSC 2025 Plans
- LCPUD Cowlitz Falls Dam Operations
- FTC Work Plan / Protocols – public presentations
- Downstream Adaptive Management TWG
 - Coho Parr Study design alternatives
- Monitoring and Evaluation Subgroup – Introduce DD
- CRR Fund HAP Subcommittee
- Mayfield Downstream Fish Passage Remodel
- Preview March FTC Meeting Topics

Public Comment Period #2 – Any Topic

Larry: Wished the numbers were high enough for retention of NOR coho.

This has been addressed previously. Bryce responded WDFW can't allow retention of NORs because they are ESA-listed, and we don't have ESA coverage that allows for that direct harvest. WDFW is in charge of fisheries management. WDFW is working on developing an updated Fisheries Management Evaluation Plan (FMEP) to submit to NOAA this June. They are working on the Lower Columbia River FMEP first (includes the Cowlitz).

Randy: Asked whether the hook mortality study conducted a few years ago been completed/ published and noted the outcome will impact fishing in this state. Was the problem more with barb placement vs. the barbed hook itself?

Bryce responded that Thomas Buehrens is a co-author of the report which has been published. In brief, hooking locations matter, and it varies by species. Information from the study is being

incorporated into models regarding release mortalities in the fisheries as part of the FMEP update. This will be discussed further in North of Falcon this spring. He will send the article links to Lyn to distribute.

Larry: Asked about the best way to make comments during the spring APR process (e.g., springer release size comments he made last fall), and how comments are addressed.

Matt thanked Larry for his interest/concern with the APR process and responded that there is more time (no 3-minute limit) for members of the public to provide comments within that process. When Tacoma receives a clear request/recommendation, they do their best to acknowledge what they heard and how they plan to move forward.

Larry: Asked whether it is proper to reach out to Subject Matter Experts (SMEs) about WQ concerns outside of FTC meetings, given the 3-minute comment limit during meetings?

Matt B and Melora responded yes, and Matt noted the FTC has a certain set of tasks they are trying to complete. For things members of the public want to bring up that are outside those tasks, it should be done by consensus of the entire committee. Matt is happy to direct members of the public to the right SME for issues outside the purview of the FTC. He does this while balancing time and resource constraints.

Larry: Commented that he feels training is needed around water quality and water quality testing to assess the impact of water chemistry changes. He is concerned about the water hardness at the Cowlitz.

Matt responded that Tacoma's SMEs are the right way to go in this case. Andrew added that he also has exchanged emails with Larry on water quality. He noted Ecology is mindful of the water quality conditions in the Cowlitz River— not the hatcheries per se. Ecology's Water Quality Atlas includes specific parameters in the Cowlitz. Water hardness is naturally variable and there is no Ecology criteria for that parameter.

Meeting Evaluation

- Well attended once again.
- Nice that Chat function is accessible once again.
- Good discussion re protocols and what is important to preserve.
- Open discussions.
- Happy to meet Sean

Josua's Inspirational Quote

"New year — a new chapter, new verse, or just the same old story? Ultimately we write it. The choice is ours." — Alex Morritt

Closing Remarks

Melora thanked everyone and said it will be nice to get back to a better annual cadence with the APR occurring once again in the spring. Tacoma very much appreciates all the new faces at the table and are working forward to working together on resources we all value.

Parking Lot

- Review Steelhead Kelt Recycling Program

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Approval of January Meeting Summary

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

Updates

Announcements

- Lyn announced she has begun cutting back on work and June will be her last FTC meeting.

- We were pleased Andrew could join us as he is working one day a week through mid-March.
- The initial Transition Plan (for Fall Chinook) presentation will take place at the March FTC meeting, as will the Cowlitz Restoration and Recovery (CRR)/Monitoring & Evaluation (M&E) Hatchery Associated Production (HAP) follow up.
- Tacoma is still operating under interim Project Managers (PM) for the Trout Hatchery and Mayfield Remodels and would appreciate any recommendations for permanent hires.

Hydro Operations (Presentation provided Feb. 3.)

- Inflows: January inflows were only 61% of the historical average, drivers included low precipitation (44% of average for Cowlitz Basin) and cooler-than-normal temperatures regionally in the last half of the month.
- Storage: Riffe Lake elevation is 720 ft (near recent and below long-term averages). Boat ramp closures are anticipated at 719 ft (Melora to notify WDFW). Upper Cowlitz basin snowpack is in the normal range. The Snow Water Equivalent Storage graph was much appreciated: https://nwcc-apps.sc.egov.usda.gov/awdb/basin-plots/POR/WTEQ/assocHUC8/17080004_Upper_Cowlitz.html
- Outflow: Outflow from Mayfield was consistently above the minimum flow (4.2K cfs), discharge range 5-10K cfs reflects early side flow management and later regional cold. There were no flow or ramping exceedances.
- 10-day Forecast: Well below normal precipitation and temperatures continue. Inflows on decreasing trend from 3.6K cfs and continued draft at Riffe Lake. Outflows will likely increase later in the week with more cold weather. The current climate outlook is tilting cold and wet through springtime. Colder and drier conditions are anticipated through the end of February.

Water Quality

- Matt P reported there were no spill events or water quality monitoring for Total Dissolved Gas (TDG), etc. since the last FTC meeting.
- Tacoma is still working to collect additional water quality data as covariates to the upcoming Cowlitz Falls North Shore Collector (CFNSC) Passage Study and the Coho Parr Study.

Related Project Updates

- Kosmos: Tacoma will conduct additional sampling in March, to determine whether copper should be listed as a contaminant in accordance with the Water Quality Protection Plan (WQPP).
- Trout Hatchery Remodel: Drilling operations continue, these actions are to understand the water supply and inform the remodel design and should conclude up by the end of February.
- North Taidnapam Boat Launch Improvement Project: When spring reservoir elevations allow, Tacoma will complete Phase 1 and move forward with Phase 2 (lower-level parking area, trail, ADA loading platform, etc.). Phase 2 is currently out for permitting.
- Mayfield Dam: In March – April Tacoma will be injecting dye in the spillway adjacent to Mayfield Dam in an effort to determine if leakage is infiltrating into the gallery. Matt noted since they will be using Green Gobbler dye, there is the potential for the pool below the dam to turn a little green. They are coordinating with WDFW and ECY about the timing/notifications on this.

Fish Facilities

Separator:

Eric reported that, as expected, returns in January were low. All 37 fish collected last week were winter-run steelhead.

- Coho: Ended the season above the 5-year average with 58.7K adults, 14.1K of which were NORs. They ended up just short of the goal to transport 12K coho to the Tilton by the end of the season. They reached the goal of 50% NOR broodstock (concluded end of December). Coho broodstock collection Spawning ended mid-January with the egg take goal easily met.
- Winter Steelhead: Returns were in upward trend through January and are expected to increase this month and next. 338 have been collected so far, 100+ above the 5-year average to date. Collection began Dec. 1 (rather than Feb 1) to extend the run earlier for the lower river program. All 150 males and 118 of the 175 females needed have been collected for that program. Collection for the Tilton has also begun and is going well. He noted only 10% of the NORs can be retained for broodstock to protect overmining NORs from spawning naturally. For each NOR kept for brood, two integrated NORs are sent upstream for demographic replacement.
- Spring Chinook will begin to return in March, followed by summer steelhead in early summer and fall Chinook in late summer.

Release Sites: Tacoma staff fabricated a new funnel entrance for the Franklin Bridge at the Packwood site. It is very sturdy and should last a long time. Also new gravel was put down. All release sites are in good working order.

Mayfield Coho Net Pens: Net Pens 1 and 2 are low density and, have half the mortality (0.1%) of the higher density pens (0.25%). This is much better than the 2% mortality in the hatchery. Eric expects the mortality to increase across the board as we move into the spring as temperatures rise, poundage increases, and smolting begins. He also noted these upcoming decisions:

- Apr. 1: Decide whether to proceed with CWT group for BY 2024 coho. If so, they will need to purchase the CWTs 90 days ahead.
- May 23: Complete phase 1 evaluation and recommendations. Send out a draft DD with a formal recommendation.
- At the June FTC meeting: Seek FTC approval to move to Phase 2.
- Aug. 15: Consider securing outside funding for ongoing support.

Capital Projects: Cowlitz Trout Hatchery Remodel: Indications from initial drilling were disappointing, so additional drilling and testing of new well locations continues at the Trout Hatchery. Stay tuned.

M&E Subgroup

Jenise reported the Subgroup last met on Jan. 15. She reminded all that the M&E Plan is posted on the FTC website. <https://www.mytpu.org/about-tpu/services/power/about-tacoma-power/dams-power-sources/cowlitz-river-project/cowlitz-fisheries-committee/>

Life Cycle Modeling – Jenise noted in comparing the model used by USGS for coho with the Integrated Population Models (IPM), the Subgroup is leaning toward using the IPM for the Cowlitz. With the help from WDFW folks who have considerable experience with these models, they are starting to outline information needs, etc. A consultant will be hired to help with this. The Subgroup also discussed Transition Plans and how best to present them. She announced Bryce will be sharing an update on how to communicate the Transition Plans to the FTC. She closed by thanking those who sent example templates for Charter development. She looks forward to sharing a draft Charter at the March FTC Meeting.

When the Subgroup meets again Feb. 19, they will also discuss Jack Tipping's steelhead rearing proposal (also referred to as CCA proposal, making sure it fits within the Steelhead Transition Plans,

etc.), consolidating M&E data into a single location, as well as marking strategies and reviewing species-specific studies.

Annual Program Review

Save the Date – Cowlitz Science Conference and Program Review – April 16. Calendar invite will be sent out the week of 2/3. Jenise reminded all that the date for the APR /Science meeting is April 16 and it will be held at the Veterans Memorial Museum. She will follow up with Bryce and Todd about re-envisioning some of the topics from last fall's APR meeting and will be lining up speakers to present new/updated information. Note: The APR is an annual review of hatchery programs. It takes place over a 3-month period and considers public comments, etc. Section 12-4 of the FHMP describes the review process.

Transition Plan Update (Presentation provided Feb. 5.)

Presenter: Bryce Glaser

The M&E Subgroup has been working collaboratively to create a Transition Plan template that can also be used with all species. The Transition Plan discussions will kick off at the March in-person FTC meeting starting with fall Chinook. In the meantime, Bryce reviewed the structure of the plans and emphasized the original program (pre FHMP update) for each species will be described along with the details of the new program. He reviewed the key components of the transition plans and reminded all that our recovery goals include healthy and harvestable levels.

He concluded by noting that most Cowlitz populations are in recolonization status within the Recovery phase. One of the key metrics is Smolt to Adult Returns (SARs). Performance metrics for the hatchery program include using pNOB to calculate the Proportionate of Natural Influence (PNI), which is important for integrated programs. It is important to understand the influence of NORs on the overall population (limiting the HORs on the spawning grounds, etc.). He also noted we have shifted from hard NOR targets to having goals for those (pNOB targets) and letting those vary depending on the abundance and our needs, thus allowing for optimal habitat utilization.

Downstream Adaptive Management Technical Work Group (Presentation provided Feb 5.)

Presenter: Chris Vaughn

Mayfield Counting House

Chris reminded everyone that the counting house is put in bypass mode each year from Jan. 1 through March 31. During these months, the facility is operated in 24-hour cycles once each month. The first took place on Jan. 28 (3 Chinook and 1 coho juvenile counted). The next operation will be Feb. 18.

Cowlitz Falls Northshore Collector

Chris was pleased to report two seasonal day-shift staff have been hired and the night shift seasonal staff from last year will be returning. Sean Luis explained Tacoma is reviewing passage methods within the Cowlitz basin (Mayfield vs. CFNSC). He noted there has been a lack of a basic framework for the passage configurations and fish handling processes. This will be tied into the M&E Plan, using relevant VSP parameters to provide a foundation for future studies. Sean reviewed a flow chart of the proposed approach for this.

DD 2025-02: CFNSC Evaluation Recommendations

Chris reviewed the three recommendations outlined in the DD 2025-02 that was sent out a week prior to this meeting and asked for feedback with the intent of finalizing the DD at the March FTC meeting.

Action Item: All to send any additional edits by Feb. 18 to Chris so he can send an updated version of the DD out a week in advance of the March meeting.

LCPUD Dam Operations

Presenter: Joe First on behalf of Nate Anderson

This year's sediment removal in front of unit trash racks is still scheduled for March 3-28.

Kiona Creek Enhancement Project – Completed 100% design. The design includes adding wood structures, vegetation, etc. They will be seeking grant funding at the end of Q1.

New Fishing Pond – This is at 10% design. They are hoping to be at 100% design this year and will then go through a couple of years of permitting with construction in 2027-28. The pond is projected to be deeper and have 11 acres of surface water. This will be good for both the anglers and fish.

Sluice Gate Repair – They are still getting the permitting process in place and are currently coordinating with NOAA on this.

Boat Barrier Replacement – The two north anchors have been poured. The contractor will build the form and pour the south anchor in the next few weeks. After that they will install the boat barrier across the reservoir.

Capital Projects: Mayfield Downstream Passage Remodel

Presenter: Matt Bleich

Matt reviewed DD 2025-01 on the Mayfield Juvenile Bypass System. The DD was reflected in the PPT presentations at the last two FTC meetings and sent out the day before this meeting outlining Tacoma's recommendations on their preferred alternative for improvements to the bypass system. Specifically, the DD recommends approval and support of the 25% design of alternative 3b (moving the Counting House and eliminating the sagging bridge). After receiving FTC support, they can move forward with funding in hopes of completing construction by 2028.

Bryce reported once they have an internal conversation with their engineering folks they will get back to Matt with any questions. Lyn noted that Amy Kocourek let her know that while she was unable to attend this meeting, she has submitted a ticket to their engineers. WDFW looks forward to hearing who is taking the lead on this from NOAA so they can coordinate their review and feedback. Matt again offered Tacoma's support in those discussions.

Action Item: All to send feedback to Matt B by Feb. 18 if at all possible so he can get a revised draft out for review a week ahead of the next meeting.

FTC Work Plan / Protocols

Presenter: Melora Shelton

Tacoma is seeking additional feedback on the draft 2025 Work Plan and Protocols which will be finalized at the March FTC meeting. No DD is associated with these. These are to be considered living documents, and we will continue to update them as needed.

Melora also projected the updated draft Work Plan and asked about any updates (not related to Transition plans) that should be added to the schedule. E.g., discussion/decision making around coho net pens. Peggy asked that Gravel Augmentation updates (before and after actions) be listed. WDFW will be providing additional written feedback on protocols and work plans. Feedback is also welcome at the March meeting.

Tacoma has continued to work on protocols for public presentations and will be meeting with stakeholders on that topic later today along with roles in preparing for, stewarding, and responding to public presentations. Stay tuned.

Action Item: All: Send any additional feedback/edits to Melora by Feb. 18 if possible so she can send out any updates for review a week ahead of the next FTC meeting.

CRR Program

Presenters: Steve West and Melora Shelton

2025 Habitat Grant Round: Steve reported the grant round opened on Jan 13. Draft applications are due March 17. Proposal presentations (hybrid and site visits) for all eligible projects will take place April 15-24. May 8 has been reserved for CRR proposal presentations.

HAP Subgroup: Melora announced the HAP grant round opens tomorrow (Feb. 5). Letters of intent are due March 3, followed by pre-application meetings with interested parties. Draft applications are due on April 7. The schedule is posted at MyTPU.org/CRR. The Subgroup last met on Jan. 27. Discussion included initial M&E feedback on the CCA study idea (also referred to as Jack's proposal; for which they received a letter of support from the WA Chapter of CCA). The M&E Subgroup will provide feedback and identify potential questions. Both groups meet next on Feb. 18 so M&E can update HAP, allowing initial feedback to CCA before the Mar. 3 letters of intent are due. There was also conversation around a Friends of the Cowlitz (FOC) project idea to reboot juvenile rearing in the ponds at Toledo that were used previously. Melora will distribute the HAP subcommittee notes for additional detail.

Action Items:

- Melora: Send out the CRR HAP Subgroup notes from the Jan. 27 meeting to the FTC.
 - Melora: Send out the existing CRR Charter a week ahead of the next FTC meeting for review at that meeting.
-

Public Comment Period #1 - Agenda related

Jack: Expressed much appreciation to Eric and hatchery staff for the success of the Net Pen project. This is good for spring Chinook as well as Coho.

Larry: What water quality parameters are you testing for at hatcheries, who's doing the testing? He is disappointed there are no protocols yet for members of the public to make presentations to the FTC. Also, he has been doing comparatives with SARs. According to the HSRG guidelines, weekly escapement reports, etc., in 2024, for most species were less than 1%.

Topics for March 4, 2025 FTC Meeting – in person at Chehalis Veterans Memorial Museum

- Updates incl. Hydro Ops, Water Quality
- Initial Update on FHMP Transition Plan Implementation – Fall Chinook
 - APR / Science Meeting

- Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Trout Hatchery Remodel
 - Mayfield Downstream Fish Passage Remodel - Approve DD 2025-01
 - LCPUD Cowlitz Falls Dam Operations
 - FTC Work Plan / Protocols – public presentations
 - Downstream Adaptive Management TWG
 - Monitoring and Evaluation Subgroup – Approve DD 2025-02
 - CRR Fund HAP Subcommittee
 - Preview April FTC Meeting Topics
-

Public Comment Period #2 – Any Topic

Larry: Recently visited the Barrier Dam Tackle Shop and was pleased to see a FOC group meeting there. In Lewiston, he attended a Steelhead Exposition for Clearwater River. He saw Chris Foster (formerly with Tacoma and now with USFWS and in charge of Dworshak Hatchery funding) who gave him a great tour. Larry was impressed by significant returns of steelhead, coho, and springers there.

Meeting Evaluation

- Well attended once again.
 - Liked the new graph on the Hydro Status Update - tells a more accurate story for the basin.
 - Appreciate the flexibility of people coming and going, participating via phone as needed.
 - Had good use of the Chat for information sharing.
-

Josua's Inspirational Quote

“A good laugh and a long sleep are the best cures on the doctor's books.” — Irish Proverb

Closing Remarks

Melora thanked everyone for taking the time to join the meeting. She looks forward to the next meeting in person (with remote option). She is excited about the refocus on how we work together to ensure these meetings are as productive as possible. Much appreciation for those helping to improve the protocols.

Parking Lot

- Review Steelhead Kelt Recycling Program

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
March 4, 2025 from 9:30 – 2:30

FTC Representative Attendees:

Melora Shelton	TPU
Bryce Glaser	WDFW
Andrew Luymes	ECY
Jonathan Stumpf	TU
Bill Sharp	YN

Additional Attendees:

Peggy Miller	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Larona Newhouse	WDFW
Sean Luis	TPU
Matt Bleich	TPU
Jenise Bauman	TPU
Scott Gibson	TPU
Sam Gibbons	TPU
Chris Vaughn	TPU
Jamie Murphy	TPU
Michael Boyles	BPA
Ann Weckback	Lewis County
Joe First	LCPUD
Laura Wolfe	LCPUD
Nathan Anderson	LCPUD
Steve Manlow	LCFRB
Steve West	LCFRB
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Greg King, Fred Ming, Larry Pryor, Randy LeDuc, Jack Tipping, Chris Vandenberg, Ryan Johnson, and Buddy Rose

Remaining 2025 FTC Meeting Dates: Apr. 1, May 6, June 3, Aug. 5, Sept. 2, Oct. 7, Nov. 4, Dec. 2

Approval of February Meeting Summary

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

M&E Subgroup – Fall Chinook Transition Plan (*Presentation provided Mar. 10*)

Presenter: Scott Gibson

The M&E Subgroup has been working collaboratively to create a Transition Plan presentation template that can also be used with all species. Scott Gibson kicked off the premiere Transition Plan presentation starting with Fall Chinook, explaining the main focus is on the Upper Cowlitz population in the Tilton River. (The main objective is to integrate Tilton Natural Origin Return (NOR) fall Chinook into the brood, while managing both the Upper and Lower Cowlitz populations separately). The assumption for the Upper and Lower Cowlitz populations is that they are in the local adaptation phase with the ultimate goal being full recovery (maintaining recovery and providing harvest). The ultimate goal is an integration rate of at least 50% and the proportion of hatchery origin fish on the spawning grounds (pHOS) of below 30%. He noted that this is the first year we will see four-year-old adult returns from the out-migrating group that was marked in 2022 at Mayfield Dam. For every NOR collected to brood, two Hatchery Origin Return (HORs) are being sent upstream for demographic replacement. The mining rate target is set at a maximum of 30% of the total NOR return to the Cowlitz Salmon Hatchery.

Program description components include adult brood stock collection curve; return timing, adult transportation and disposition, juvenile releases - quantity, size, location, marking/tagging; hatchery configuration; harvest management strategy; program performance metrics; monitoring needs; and bio programming considerations.

Summary of Fall Chinook Transition Plans:

- Two programs have been combined into one integrated program
- Increasing hatchery rearing space – freeing up ponds for Chinook (in progress)
- Repurposing net pens – coho (in progress)
- Monitoring and Evaluation to improve natural origin spawner estimation in lower Cowlitz (now in the 3rd year) and Mayfield marking implemented in 2022 (4-year-olds returning in 2025)

Next Steps:

- “Allow pNOB to be variable to avoid overmining the natural population (30% maximum), which may result in a decrease to PNI in low abundance years.” Use lifecycle modeling to determine carrying capacity (Rmax) to define “full seeding” of Upper Cowlitz/Tilton and Lower Cowlitz populations.
- Continue bypass survival estimates at Mayfield Dam.
- Assess SAR's with new tagging strategy at Mayfield Dam.
- Evaluate hatchery performance based on new net pen strategy improved rearing environment.
- The Transition Plan is intended to serve as a step toward recovery goals evaluated during the Annual Program Review (APR) process and altered through adaptive management.

Discussion:

Bryce Glaser began by thanking Scott for putting together such a thorough presentation. PNI is a combo of looking at the pNOB contribution rate into the hatchery as well as how many hatchery fish are on the spawning grounds. Reducing PNI is a result of balancing not having enough NOR for broodstock without overmining the population. It's a lever providing flexibility to maneuver within those goals.

Matt Bleich also thanked Scott. A lot went into the Transition Plan development, we will begin to layer this into the FTC business. They look forward to hearing what is helpful in this conversation,

what is missing, so we can learn how best to transition the FTC into becoming more of a working group based on the transition plans. NOAA has to approve the Hatchery Genetic Management Plan (HGMP) as we go. Technical staff from NOAA were engaged as the Transition Plans were being developed. This engagement does not constitute approval of the HGMPs. As of yet, no red flags have been identified.

Scott reported the M&E Subgroup is developing a life cycle model to calculate carrying capacity and WDFW is working on a new Fisheries Management and Evaluation Plan (FMEP) that will be submitted to NOAA at the end of June. Since we have been struggling with low returns, hatchery returns in particular, they are trying to understand the cause. They are doing more formal Smolt-to-Adult Returns (SAR) evaluations and the fishery contribution piece as well as kicking off the life cycle modeling.

Matt noted WDFW is developing an automated code to use a standardized method of calculating SARs across all species and is working with Tacoma staff to make it available. Kris Warner noted this is an iterative process – the standardized methodology will likely be further refined overtime.

The FTC opened the discussion to public questions/comments specific to the Transition Plan presentation. Jack Tipping jokingly thanked the FTC for returning hatchery program to 1 million fall Chinook smolts per CCA's request. The APR production goal is 3.5 million but the releases over the past two years have ranged from 1 million to 1.5 million due to poor adult HOR and NOR returns to the Cowlitz Salmon Hatchery. He wanted to hear about the recent wild escapement numbers. They are to be recovered with 3K adult returns (the minimum viability target is 3K NOR spawners). While there is a robust return of wild fish through the basin (this is referring to the Lower Cowlitz population, not basin wide), it is apparent the hatchery population is having some problems. He was hoping to learn how many smolts are released per female and is still concerned about the disposition of the hatchery fall Chinook program. He thinks it should be reduced to under 1 million and use NOR broodstock.

Scott reminded him we are seeing 4-year-old returns in 2025. They have handled few smolts at Mayfield as adult returns into the Tilton have been light over the last few years.

Updates

Announcements

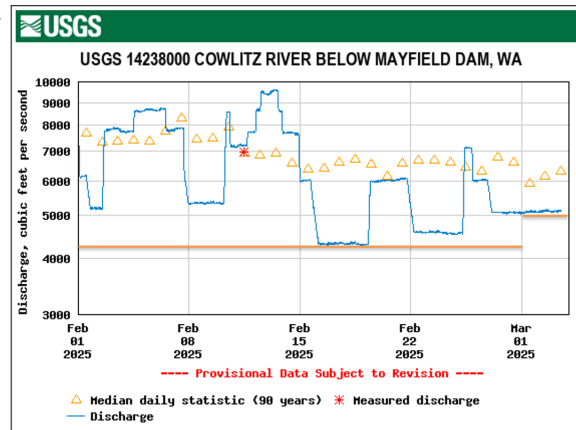
- Anne Baxter (ECY) and Amy Kocourek (NMFS) both expressed regrets that they were unable to attend.
- Larry Pryor was also unable to attend, as he was at the World Aquaculture Society meeting in New Orleans.
- Tacoma is still operating under interim Project Managers (PMs) for the Trout Hatchery and Mayfield Remodels and would appreciate any recommendations for permanent hires.

Hydro Operations (*Presentation provided Mar. 3.*)

- Inflows: Trend of low inflows has continued. Only December was typical. February inflows were 71% of the historical average. Cowlitz Basin February precipitation was 105% of average (93% for Water Year (WY) 2025 with below normal temperatures.
- Storage: Riffe Lake elevation is 723.5 ft, above the recent and below the long-term averages. Boat ramps have reopened. Upper Cowlitz basin snowpack has maintained and is in the normal range. The reservoir drafted 20 ft to 706 ft during weeks of regional cold and rebounded to about 724 ft following the recent storm.

- Outflow: There was a higher discharge during regional cold in late January through mid-February and then decreased to minimum flow. In the latter half of February, it returned to near minimum except to manage side flows. March minimum flow is 5K cfs + weekly fish transport flows if below 8K cfs.
- 10-day Forecast: Below normal precipitation and typical temperatures are anticipated. Inflows will decrease from 9.2K cfs to below normal range. Snow levels will be 2.5K – 4.5K ft. Outflows will maintain 5.1K cfs plus fish transport flows.

Outflow



Current (3/3) discharge 5,120 cfs. 3/1 min 5,000 cfs + weekly fish transport flow (if >8,000 cfs).
Down ramping limits <6,000 cfs (2/16) 0 in/hr day, 2 in/hr night. No exceedances.

Fish Facilities

Separator (shut down February 11-12 for annual maintenance): Sam Gibbons reported that February is typically a slow time. Winter-run steelhead are showing up. Coho and other species have tapered off.

- Winter Steelhead: Usually see 482 on average by this time. So far, 657 have returned. All males and females have been collected for the Lower Cowlitz Winter Program.
- Coho: 5 coho were seen last month.
- Spring Chinook have begun to show up. Spring Chinook broodstock collection starts April 1.

Mayfield Coho Net Pens: Everything is going well as we are 60% through the Phase 1 with the release planned for the first week in May. There has been very low mortality and no signs of predation. Two pens are at a lower density and two are at a higher density. If mortality stays low, this will give hatchery managers options when they go to populate the pens for Phase 2. Sam reviewed upcoming decisions:

- Apr. 1: Decide whether to proceed with Coded Wire Tag (CWT) group for Phase 2 (BY 2024 coho). If so, they will need to purchase the CWTs 90 days ahead. Identify size of CWT grouping. This will be handled through the hatchery operations team meeting in coordination with the M&E.
- May 1: Target date for releasing the Phase 1 fish.
- May 23: Complete Phase 1 evaluation and recommendations. Send out a draft DD with a formal recommendation for Phase 2. (Short turnaround for this DD).
- June 3 FTC meeting: DD seeking FTC approval to move to Phase 2.
- Aug. 15: Consider securing outside funding for ongoing support.

Capital Projects: Cowlitz Trout Hatchery Remodel: We are hoping to have the initial report on the ground water testing for new well locations in the next few weeks.

2025 Spring Chinook: Josua Holowatz and his Region 5 counterpart Matt Gardner recently finalized the preseason forecast factsheet for Spring Chinook returning to the mouth of the Columbia for Washington tributary stocks below Bonneville Dam. The report includes brood needs, juvenile releases, and number of fish needed to prosecute a fishery. All three tributaries (Cowlitz, Kalama, Lewis) will open under permanent rules (the Cowlitz rule includes 2 adults, hatchery Chinook only). More information on Columbia River spring Chinook forecasts is at: <https://wdfw.wa.gov/fishing/management/columbia-river/compact/other-information#2025>.

This year will include 5-year-olds from the Kalama double-clipped (adipose + ventral fin) harvest (the last year of those returns). This component is included as part of the forecasted returns. Hatchery staff will be monitoring this. Josua reminded all that in 2020 the Cowlitz return was insufficient to make brood. The FTC worked with all the parties to bring in gametes from the Kalama to release 300K fish. As they were intended for harvest only, they were ventral and adipose clipped (double clipped).

LCPUD Dam Operations

Presenters: Nate Anderson and Joe First

We were pleased to welcome Nate Anderson to the group. He has over ten years' experience as an operator at Cowlitz Falls Dam (CFD) and was recently promoted to supervisor of CFD Ops. He will do his best to see LCPUD is operating at peak efficiency and in conjunction with Tacoma for fish collection efforts.

Nate reported they have been seeing diminished inflows. A flood event projected to increase flows to over 20K cfs on Feb. 23 resulted in an increase of less than 10K cfs. They didn't have to change reservoir elevations and were spilling lightly for three days. The CFNSC was not in operation during that time. He emphasized the importance of keeping Tacoma in the loop on reservoir elevation changes that may impact fish. They are now in full operation and everything is running well.

Sluice Gate Repair – They are working on getting Bi-Op coverage and are moving forward with permitting process through NOAA and USACE. They anticipate performing the repair in 2028.

Sediment Removal - This year's sediment removal in front of unit trash racks is scheduled for October 6-31. They are working on the forebay debris removal RFPs.

Unit 1 Maintenance – Scheduled for early July when river flows are below 5K cfs. They will be running Unit 2 for the majority of the summer.

Boat Barrier Replacement – The two north anchors have been poured. They are pouring the lower portion of the south anchor today and the upper portion in two weeks. They still plan to install the boat barrier across the reservoir in mid-to-late April.

Transmission Line Interruption – This is set to occur sometime in September. The 230 kV line between CF and Glenoma will be out of service for 3-4 weeks during which time they will be running Unit 2 at minimum generation to supply station load. There will be limited flow through the plant.

TDG monitors – The monitors were removed in September and will be installed again in late March coinciding with the fish collection season.

Capital Projects: Mayfield Downstream Passage Remodel

Presenter: Matt Bleich

Matt reviewed DD 2025-01 on the Mayfield Juvenile Bypass System. The DD was reflected in the PPT presentations at the last three FTC meetings outlining Tacoma's preferred alternative for improvements to the bypass system. This is based on recommendations from consultants and a series of evaluations dating back from 2013. The version of the DD sent out the day before this meeting includes WDFW edits providing clarity and consistency and also language noting there would be a standard 30-day review period at each of the 60/90%/Final milestones. Coordination needs were also clarified including specificity beyond today's meeting.

Specifically, the DD recommends approval and support of the 25% design of alternative 3b (relocating the Counting House to the opposite shore and eliminating the sagging pipeline). After DD approval they can move forward with funding in hopes of completing construction by 2028.

WDFW engineers weighed in on the design. Matt had a conversation with one of the NOAA engineers on this as well and let them know they were welcome to discuss with WDFW. No red flags were raised with regard to moving the Counting House.

Regarding the plan view of option 3b, Andrew Luymes asked if, on the south shore, are fish returning through the pipeline or is it just water. Matt responded that it is both. No Total Dissolved Gas (TDG) issues are anticipated.

NOAA notified Tacoma in advance of the meeting that they were refraining from voting at this time. All voting members present voted to approve the DD.

Action Item: Melora will send this out for the customary 7-day electronic approval.

Annual Program Review (APR)

Presenter: Jenise Bauman

Jenise noted today is the first of three meetings discussing the upcoming program goals for the hatcheries. The APR is about setting the numbers of fish reared, released, and other important actions. Targets are set through FHMP and Transition Plans, population status, and trends. No production changes are proposed this year as far as overall release goals. The coho number incorporates the net pen numbers. Eric Shoblom will present the draft decision document at the April FTC meeting and finalize with a vote during the May FTC meeting. The APR program will be discussed at the APR meeting on 4/16.

Discussion: Allocations for Friends of the Cowlitz (FOC) net pen programs are still in place. All agreed it is important to discuss the updated objectives for this ahead of the APR meeting, including spring Chinook and cutthroat components. We want to be clear regarding the suballocations and how they shape what is proposed at the APR meeting.

Reminder: The Cowlitz Science Conference and Annual Program Review will take place at the Veterans Memorial Museum on April 16 (with lunch provided). TPU thanked Todd Hillson and Bryce for their help in creating a robust agenda and their help in getting the word out. Jenise will be coordinating with the presenters by April 11.

Action Item: Jenise to ensure Eric brings netpen allocations up at one of the hatchery operations meetings.

Downstream Adaptive Management Technical Work Group (TWG)

Presenter: Chris Vaughn

Mayfield Counting House

Chris reminded all that the Counting House is in bypass mode each year from Jan. 1 - March 31. During these months, the facility is operated in 24-hour cycles once each month. The first took place on Jan. 28. The next operation will be today. 24-hour tests have yielded very few fish.

Cowlitz Falls Northshore Collector (CFNSC)

The collector has been shut down since September and will reopen March 14. The trap will be open through September with planned 72-hour blocks through the month of October. The draft 2024 CFNSC Annual Report is being reviewed internally and will soon be out for 30-day review. Sean Luis explained Tacoma is reviewing passage methods within the Cowlitz basin (Mayfield vs. CFD). He will give an update at the next TWG meetings.

DD 2025-02: CFNSC Evaluation Recommendations

Chris thanked everyone who provided comments on the DD which have been incorporated into the version sent out yesterday for review at this meeting.

The DD contains the three recommendations outlined in the DD 2025-02 that was sent out the day before this meeting.

1. Analysis of alternative tagging strategy for FCE for steelhead, coho, and Chinook
2. CFNSC acoustic telemetry study
3. Begin transporting coho parr downstream of the Barrier Dam (coho fry may be added as a future consideration, but this is not currently possible from a logistical standpoint).

Tacoma will begin 100% coho parr transport and there is no current plan to tag fish. Future performance monitoring will continue to be discussed within the TWG and M&E Subgroup with a recommendation brought to the FTC in the future. Chris walked through the edits made based on feedback received and asked for any additional questions/feedback. He will continue working with the TWG and M&E Subgroup March-May as this unfolds. The timeline is still somewhat vague – likely come to the FTC in June or July.

All voting members present voted in favor of approving the DD.

Action Item: Melora to send the approved DD out for 7-day electronic review.

FTC Work Plan / Protocols

Presenter: Melora Shelton

Melora thanked everyone for feedback/suggested edits which have been incorporated into the protocol and workplan. These are considered living documents/our guidebook for how we work together and will continue to update them as needed: there is no associated DD.

Work Plan: Melora projected the updated draft Work Plan and noted there had not been any substantial changes except for adding report outs for wood and gravel implementation. Tacoma will consider collapsing the calendar for the monthly meeting topics for a future revision. It was suggested that the Transition Plan presentations occur at the in-person meetings and the schedule was updated accordingly.

Protocols: Melora projected the same version (clean copy) that was sent out to everyone and with updates largely suggested by WDFW. Public meeting protocols will be updated as a separate

process. In-person meeting changes include removing the obligation to provide written copies of meeting handouts and adding specific language that subcommittees are convened by the FTC as recommending bodies that provide technical support. Additional discussion around subcommittees including clarity in FTC assignments (reflected in charter) and use of approved meeting templates.

Tacoma has continued to work on protocols for public presentations and will be meeting with stakeholders on that topic later today.

Action Item: Melora to send out the “final” 2025 Work Plan and Protocols.

Monitoring & Evaluation (M&E) Subgroup

Presenter: Jenise Bauman

Jenise reported the draft Charter for this group is undergoing internal review and will be discussed at their March 19 meeting and then finalized as a DD for approval by the FTC.

They will draft directed studies to fill in some data gaps in the Fall Chinook Transition Plan. The initial meeting on Life Cycle Modeling will be March 10. WDFW and Tacoma will define roles as a subcommittee and select a consultant and report out at the March 19 meeting.

In reviewing the CCA Steelhead rearing proposal put forward by Jack Tipping, they have determined that Plan B will have management implications, and some logistical considerations e.g., rearing space, tagging strategies, etc. The group feels this would be most appropriate as an M&E study aligned with transition plans.

Cowlitz Restoration and Recovery (CRR) Program

Presenters: Steve Manlow and Melora Shelton

2025 Habitat Grant Round: Steve reminded everyone that the grant round opened on Jan. 13. LCPUD is still working with sponsors and pre-applications. It looks like CRR will have one proposal – at the mouth of Kiona Creek. They are talking with Laura Wolfe to frame up a design for some work there, which would involve adding woody material for complexity, along with some riparian elements. Draft applications are due March 17. Proposal presentations (hybrid and site visits) for eligible projects will take place April 15-24. FTC Voting members and proxies are welcome to attend. May 8 has been reserved for CRR proposal presentations.

Hatchery-Associated Production (HAP) Subgroup: Melora noted the draft Work Plan for 2024-2025 for the subgroup (Brian Gale, Peggy Miller, Melora, Eric, and Matt Peter) has been finalized and serves as a helpful tool. They also reviewed their original Charter from 2022 and agreed to continue to work under the Statement of Work (SOW). Currently there is no regular attendee from Ecology. Meetings were initially twice monthly and are now the third Wednesday of each month after the M&E meeting, and more frequent if needed.

Out-of-the-box ideas such as the CCA Steelhead rearing proposal are much appreciated, and it makes sense for the CCA proposal to be taken on by the M&E Team. Melora has conveyed this to Jack, and he supports this approach. There are still questions about a CRR nexus/funding.

FOC are interested in rebooting their net pen program and are potentially interested in pursuing CRR funding. Currently Cowlitz spring Chinook and sea run cutthroat are the target species, but additional discussions are needed. The draft application is due April 7. The schedule is posted at MyTPU.org/CRR.

Action Item: Melora to send out the CRR HAP Subgroup notes.

Public Comment Period #1 - Agenda related

Greg: Thanked the FTC for having the coho net pen program to make more room in the hatchery for spring Chinook. He reminded all there is an obligation in the Settlement Agreement (SA) to recover fish and doesn't want to see any of those numbers change until 2037 when the SA comes up again.

Sam: The coho net pen program is a 2-year pilot. The overall production poundage would not be exceeded by continuing the net pen program. As you move Coho production off site it makes more room in the hatchery for spring Chinook. After Phase 2 (Brood Year 2024) of the net pen program is complete, Brood Year 2025 coho would have to be re-programmed or overall hatchery production would have to be re-configured.

Jack: If we reduce Chinook production to 1 million or less, it should be maintained.

Matt: If we want to make a change through the APR process, we can. Without a change, it can't be accommodated.

Bryce: If the target stays 3.5 million for fall Chinook through the APR process, that will continue to be our goal. Whether there is room because we didn't achieve a release goal, that would be an annual anomaly but wouldn't affect the APR production table. We assume we will achieve those targets.

Randy: Do we know what it would cost to expand the net pen project to 2 million and what we might be able to do to get outside funding? It looks like it's going to be a good program, and we don't want it to fail.

Sam: Once the first 2 trial Phases are done, the intent is to move one raceway of 250K. Technically, we could move more coho out of there (involves a lot of trucking). Sam explained the history of this effort dating back to 2020. The intent was to increase the number of yearling spring Chinook that are being released. One raceway of coho needs to move out to accommodate the 650K lbs of production within the bio-programming parameters.

Bryce: Satellite Rearing is an obligation that Tacoma has. This is one of the ways we are considering moving forward – timing is uncertain.

Jack: Expressed much appreciation to Eric and hatchery staff for the success of the Net Pen project. This is good for spring Chinook as well as coho.

Topics for April 1, 2025 FTC Meeting via Teams

- Updates incl. Hydro Ops, Water Quality
 - Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Trout Hatchery Remodel
 - LCPUD Cowlitz Falls Dam Operations
 - Introduce Coho Net Pen BY 2026 DD
 - FTC Work Plan / Protocols – public presentations
 - CRR Fund HAP Subcommittee
 - Preview May FTC Meeting Topics
-

Public Comment Period #2 – Any Topic

Greg King: Spring Chinook – Negative effect of mini-Jacks. Doug Milward (WDFW, now deceased), warned that holding Chinook smolts too long can cause them to jack and that will lead to a false forecast. Tacoma could save a lot of money by not raising these fish to 4-5 to the lb.

Sam: The M&E Subgroup evaluated data back to the 1990s along with various release sizes and timing and found fish released closer to the first week of April and at a larger size produce more adults. On the Cowlitz, the study found yearling spring Chinook produce more adults. Minijacks are not included in the brood. They are also not being passed into the upper watershed where most of the spawning is occurring.

John Serl: It is typical to see a weak return year followed by a strong year and this gives the appearance that the proportion of jack is very high during the low return years.

Randy: Any update on the chum situation?

Todd: Despite some contracting challenges, it is underway.

Randy: Can we get the pool below Barrier Dam open early for elderly anglers? And might it be possible leave it open later if the coho come back in abundance? He is talking about a very small group of anglers, but it would make a world of difference to them. Bank access there is very limited.

Josua: We will take a look at that.

Bryce: The 400' marker is the standard boundary. WDFW tries to liberalize that when they can. Currently winter steelhead are returning, and we are in the spring management period for spring Chinook and winter steelhead.

Meeting Evaluation

- Record breaking attendance!
- Technology worked well
- Great presentations and discussions
- Very productive
- For future in-person meetings, use the microphone

Josua's Inspirational Quote

Lately, there has been a lot of change. In uncertain times it is important to remember:

"The secret of health for mind and body is not to mourn the past, worry about the future, or anticipate troubles, but to live in the present moment wisely and earnestly." – Buddha

Closing Remarks

Melora thanked everyone for taking the time to join the meeting. Lots of work occurred since the last meeting to ensure we had a productive time together today. It feels like there is a sense of grace around the table. We can say we are moving forward working toward common goals. She looks forward to the next meeting in person (with remote option). She is excited about the refocus on how we work together to ensure these meetings are as productive as possible. She also expressed much appreciation for those helping to improve the protocols.

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
April 1, 2025 from 9:30 – 2:30

FTC Representative Attendees:

Melora Shelton	TPU
Bryce Glaser	WDFW
Andrew Luymes	ECY
Bill Sharp	YN

Additional Attendees:

Anne Baxter	ECY
Peggy Miller	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Eric Shoblom	TPU
Sean Luis	TPU
Matt Peter	TPU
Jenise Bauman	TPU
Scott Gibson	TPU
Chris Vaughn	TPU
Michael Boyles	BPA
Stephen Lewis	BIA
Ann Weckback	Lewis County
Joe First	LCPUD
Laura Wolfe	LCPUD
Steve West	LCFRB
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Greg King, Randy LeDuc, and Jack Tipping

Remaining 2025 FTC Meeting Dates: May 6, June 3, Aug. 5, Sept. 2, Oct. 7, Nov. 4, Dec. 2

Approval of March Meeting Summary

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

Updates

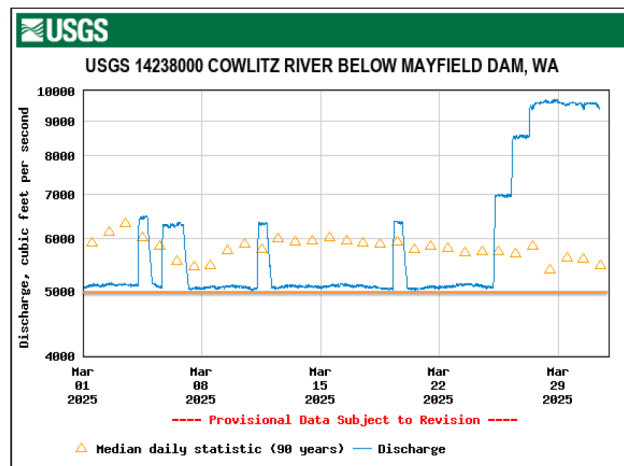
Announcements

- 30-day reviews: Comments on the Draft 2024 Cowlitz Restoration and Recovery (CRR) Fund report are due Apr. 25. Comments on the Draft 2024 Cowlitz Falls Northshore Collector (CFNSC) Downstream Fish Passage report are due Apr. 30.
- Tacoma will soon hire a Project Manager (PM) for the Trout Hatchery and Mayfield Remodels.

Hydro Operations (Presentation emailed Mar. 31.)

- Inflows: After lower inflows in January and February, warm and wet conditions in March led to inflows 120% of the historical average. Recent max daily inflows were over 20K cfs and are now declining.
- Storage: Riffe Lake elevation is 740 ft, above the recent and below the long-term averages. Boat ramps are open. Upper Cowlitz basin snow water equivalent is above average. Tacoma Resource Operations is managing the reservoir to balance between ensuring capacity to capture the spring runoff and meeting minimum flow requirements. Matt noted 749 ft level will be a hard cap during ongoing cultural/historical resource studies (will take a couple of years). This will also prevent any inundation at the Kosmos cleanup site.
- Outflow: Current discharge is 9,440 cfs. There were no exceedances since the last meeting.
- 10-day Forecast: Below normal precipitation and typical temperatures are anticipated. Inflows are decreasing from 11.5K cfs to near or below normal range. Outflows will reduce to 7.7K cfs later this week and then continue to move back to minimum flows. May-July climate outlook tilts warmer and drier.

Outflow



Current (3/31) discharge 9,440 cfs. 5,000 cfs min + weekly fish transport flow (if >8,000 cfs).
Down ramping limits <6,000 cfs o in/hr day, 2 in/hr night. No exceedances.

Water Quality

- Matt reported there were no spill events or water quality compliance monitoring for TDG, etc. since the last FTC meeting.
- Deployed water temp arrays associated with the CFNSC – north and south deflector sides of the debris barrier and the boat barrier were deployed on Mar. 14 and removed last week as boat barrier was being replaced by LCPUD – will be redeployed Apr. 3. Those data will be shared once the CFNSC is up and running.
- Tacoma will deploy additional arrays in the forebay associated with the acoustic telemetry studies.

- Tacoma is still working to collect additional water quality data as covariates to the upcoming CFNSC Passage Study.

Related Project Updates

- Kosmos: Tacoma is monitoring every other week and providing monthly reports to ECY. No sheens have been seen in years. Additional soil sampling later this month will determine if copper should be listed as a contaminant of concern. Ecology is expected to approve the work plan from Tacoma in the near future. Next steps will include the feasibility study and development of the draft clean-up action plan later this year.
- North Taidnapam Boat Launch Improvement Project: Phase 2 (lower-level parking area, trail, ADA loading platform, etc.) is out for permitting from the Corps and Section 106 for Cultural Resources. Construction (reservoir elevation dependent) is expected to begin this spring or fall.
- Mayfield Spillway Joint Testing: Next month Tacoma will be injecting Green Gobbler dye adjacent to Mayfield Dam in an effort to determine if leakage is infiltrating into the gallery. There is the potential for the pool below the dam to turn a little green. Tacoma is coordinating with WDFW and ECY about dates/notifications.
- Onion Rock Bridge Inspection: This is Tacoma's key access point to enter the powerhouse (typically open to the public from the west side). WSDOT notified Tacoma there is undermining on the center pier. In June Tacoma will insert some grout concrete there to get the pier back to functional condition. The second phase of the repair will include armoring to prevent future scour there. Tacoma has met with affected agencies and permitting is underway. Public access to the bridge will be restricted during this project.
- Debris Management Improvements to the Lake Scanewa haul out area are being assessed.

Fish Facilities (Presentation emailed Apr. 2)

Eric Shoblom began by noting these presentations will be shorter at future FTC meetings because Separator operations with graphs and tables will be included in the weekly reports sent to the entire FTC distribution list. Updates in these meetings will supplement the information in the reports. Eric welcomes feedback regarding any specific/additional updates folks would like him to include.

Separator Returns:

- Winter steelhead and some spring Chinook are starting to return.
- Spring Chinook: Peak of the run should be May and June. Broodstock collection started at the end of March and goes into the first week of August. All returning fish of Kalama stock origin (adipose+ventral clip) will be recycled through June to provide more angler opportunity.
- Cutthroat: The run picks up late summer.
- Winter run steelhead: The peak is expected in mid-April. Eric reminded everyone that for the last few years, collection has started Dec. 1 instead of Feb. 1 to help extend the return timing for the lower programs. Broodstock collection is complete and is in accordance with demographic replacement and mining protocols.

Rainbow Trout Plants:

- Trout plants began in early March. To date 18,400 trout have been planted in Swofford and South Lewis County Park Ponds. The first plant into Mayfield Lake will occur in early April.

Cowlitz Release Sites: Although the Cispus release site is not currently being used, due to the shallow depth of the water at the site and downstream channel, truck drivers and fish biologists

continue to monitor the site as it will be needed soon. The Tilton, Packwood, and Scanewa sites are all in good working condition.

Capital Projects: Cowlitz Trout Hatchery Remodel: All wells have been decommissioned. Contractor demobilized. The first draft of the report is expected May 2. This will determine next steps for water source. They also conducted hydraulic analysis of the existing facility. A new PM will be hired soon.

Cowlitz Restoration and Recovery (CRR) Program: Steve West noted that draft applications for the Habitat round were due Mar. 31, and one project (Kiona Creek) was submitted. More detail on this will be presented at the May FTC Meeting. Reminder that CRR proposal presentation and site visit will be May 8, Steve and Melora are working on the itinerary. FTC voting members or their delegates are welcome to RSVP to Steve if they would like to attend. Space will be limited.

Melora reported that draft applications for the Hatchery Associated Production (HAP) round will be due Apr. 7. The pre-application from the Friends of the Cowlitz (FOC) was received on Mar. 18. Uncertainty remains around the FOC program/developing co-op agreement with WDFW, and she anticipates an application with assumptions described. The HAP Subgroup discussed this and scheduled holds for presentations at their Mar. 19 meeting. The grant round schedule is posted at MyTPU.org/CRR.

Monitoring & Evaluation (M&E) Subgroup: Jenise Bauman reported the draft Charter for this group was discussed at their Mar. 19 meeting and is undergoing internal review after which it will be finalized as a DD for FTC approval. They also discussed progress on transition plans, timelines, data needs, etc. They will present at the in-person FTC meeting in June with a speaker from WDFW. They are also focusing on the upcoming Annual Program Review (APR) meeting and working with Eric on an outline and timeline for continued evaluation of the Fall Chinook program in consideration of Jack Tipping's proposal (received at last fall's APR) to reduce fall Chinook in favor of spring Chinook. Jack Tipping has passed off the study to the M&E Subgroup. His HAP pre-proposal focused on steelhead program evaluation now including Chinook as well, will form the basis of a specialized sub-committee to outline methods and timelines.

Coho Net Pen Project, Phase 2

Presenter: Eric Shoblom

Mayfield Coho Net Pens: Phase 1: Everything is going well with the release planned for the end of April. There has been very low mortality (0.4%) compared with 2% typically in the hatchery. Bird netting and in-water predator netting have proven effective against predation. Mortality is expected to increase in the spring as the water temps rise. If overall mortality stays low this will give hatchery managers options in how they populate the pens for Phase 2.

Phase 2: In June the FTC will decide whether to approve moving the program to Phase 2.

Post Phase 2: If an outside funding source is not identified by mid-August programs will be adjusted accordingly.

Fall Chinook Transition Plan: *(Presentation emailed Apr. 2)*

Models for Managing Fall Chinook Populations

Presenter: Jenise Bauman

Jenise reminded all the M&E Subgroup has created a Transition Plan template that can also be used with all species, with an initial focus on Upper Cowlitz population of Fall Chinook in the Tilton River.

(She noted summer steelhead and cutthroat trout are production species and managed, but do not have transition plans.) The Subgroup has also been working on a life cycle model to calculate carrying capacity and better understand the cause of low (especially hatchery) returns. The model will help identify life stages, criteria to assess the need for supplementation, prioritize habitat restoration, and inform program changes. Fall Chinook is a priority species, however, identified data gaps (springs vs. hybrids vs. falls, Lower Cowlitz vs. Tilton origin) will delay the modeling for this population. Life cycle modeling will be used as an adaptive management tool as we work towards achieving recovery goals and will be evaluated during the APR.

Jenise then gave a detailed and riveting presentation on a two-stage state-specific life cycle model developed by Plumb and Perry in 2020. This model provides an example of the work done to date on life-cycle modeling and sets the stage for development of future Integrated Population Models. The model provides a statistical estimation framework for predicting populations among stochastic simulation framework allowing for the evaluation of alternative management actions while accounting for uncertainty in abundance estimates. It strikes an appropriate balance between model complexity, tractability, and applicability to guide future management decisions and program changes.

Next Steps include the M&E Subgroup forming a specialized work group with members from WDFW and Tacoma. This group will utilize an Integrated Population Model (IPM) framework developed by WDFW and USGS. They will hire a third-party consultant to advise on the theoretical side of the modeling and anticipate being able to apply the model to Cowlitz populations in the spring of 2026. Starting populations will include Upper Cowlitz winter steelhead, spring Chinook, and fall Chinook.

Anne Baxter asked if the new IPM life cycle modeling parameters will include ocean conditions and food availability, streams, etc. Jenise responded in the affirmative. Bryce reminded everyone that all FTC members and technical support staff are welcome to attend M&E Subgroup meetings and participate in the life-cycle modeling topic.

LCPUD Dam Operations

Presenter: Joe First

Joe reported that after flows as high as 15-16K cfs at the dam and 11K at Randle, flows have now returned to normal. The reservoir was not drawn down however there was spill. On March 25 they installed baffle panels on spillways 2 and 3 to help focus flow and fish to the surface spillway flume entrances for collection. He is just back from being out of the office for a week, he will confirm with ECY that the TDG monitors removed in September were installed again in late March as planned.

Boat Barrier Replacement – Will finish up this week.

Transmission Line Interruption – Scheduled Sept. 2 through the end of the month.

Downstream Adaptive Mgt Technical Work Group (TWG) (*Presentation emailed Apr. 2*)

Presenter: Chris Vaughn

Mayfield and CFNSC Methods Comparison

Chris reported that Sean Luis presented a document on this topic at the last TWG meeting. TWG is currently reviewing and will discuss it at the next meeting. Look for an update at the May FTC Meeting

CFNSC Acoustic Telemetry (AT) Study

Key dates:

- April 7 – project kickoff meeting (TPU & LCPUD & Four Peaks)
- April 23 – onsite pre-deployment site visit
- June 2-6 – equipment deployment
- June 9-12 – array test, mock download, troubleshooting

Opercle Punching Chinook Fallbacks

Details around this operation will be determined by the TWG this month.

Mayfield Counting House

Since Counting House is in bypass mode each year from Jan. 1 – Mar. 31, that makes today the Opening Day of monitoring fish passing Mayfield Dam! Chris noted the occasion with a photo of a ball game at Cheney Stadium. Yay!

Cowlitz Falls Northshore Collector

The collector reopened on Mar. 14 and spillway flumes opened on Mar. 31; collectively, Cowlitz Falls Fish Facility (CFFF). Crews are now working on debris management. All coho parr will be moved downstream to the stress relief ponds. There has been a surge of Chinook fry collected at the CFFF which coincides with the high discharge at Cowlitz Falls Dam (CFD). They are starting to tag fish (refer to slides for numbers).

FTC Operations: Fish Program Reports

Presenter: Melora Shelton

Melora noted that much of these FTC meetings is devoted to re-sharing information already provided in weekly fish reports. It is important to make room in these meetings for deeper dives into the fish collection information as needed as well as open time for other FTC business. For this reason, starting this Thursday, these reports will be sent via a single weekly email to the FTC distribution list. Included will be:

- Cowlitz Separator Adult Fish report
- Mayfield Adult facilities report
- Cowlitz Falls Fish Facility report

This transitions makes this information available to everyone by default vs by request only. It does not change direct coordination and data sharing that is already occurring. She also welcomes ideas from FTC members about topics for deeper dives such as a mid-season update for collection as well as one for end of season roundup. What kind of cadence would people like to see?

Bryce looks forward to hearing of any issues/challenges the FTC needs to be made aware of. A focus on where we are with collection efficiency targets is also appreciated.

Annual Program Review (APR) (Updated DD emailed on Apr. 2)

Presenters: Eric Shoblom and Jenise Bauman

Eric noted today is the second of three meetings discussing the upcoming program goals for the hatcheries. Today's meeting is the third APR meeting and includes a second Public Comment period reserved for public feedback on the APR. The APR program will be discussed at the APR meeting Apr. 16. Jenise is working with the presenters to collect PowerPoint talks. The meeting will be at the April 1, 2025 FTC Meeting Summary

Veterans Memorial Museum in Chehalis with lunch provided. Emails were sent to the FTC and to the public. All were asked to RSVP to attend to ensure there are sufficient refreshments.

Eric walked through the draft decision document 2025-03 with some edits in track changes that was sent out on March 25. There will be further changes based on public feedback. This will be finalized with a vote at the May FTC meeting. He called out the change to the spring Chinook numbers (1,657K instead of the former 1,678K) related to rearing more of these fish to a larger size. Other programs will remain at the same overall size as last year. Still to be discussed is how to capture the of allocation for other net pen projects with transparency.

Eric welcomed feedback and made additional edits to the DD. Now that we are doing the full pilot coho net pen program, we have more space at the hatchery. In addition to the coho for Mayfield net pens, WDFW brought up the need to clarify how allocations from these programs would be used for the net-pen project being revitalized by Friends of the Cowlitz (FOC). Several approaches were discussed and will be considered in finalizing the APR tables for the April 16th meeting to ensure transparency. WDFW also proposed that the species reared in the FOC net pens shift from spring Chinook and cutthroat as done in the past, to summer steelhead and cutthroat. Bryce suggested that summer steelhead would better align with management and project objectives of providing more fish for harvest in the lower river areas, staying within PHOS objectives and reducing the need to further divide up the spring Chinook production. There were no objections to this suggested change. He and Bryce will discuss possibly capturing these allocations as well as the fpp on the APR table. To the Coordination section, Eric will add more information regarding at what size (i.e., fpp) fish will be transferred.

Action Item: All to RSVP at Cowlitz@Cityoftacoma.org if they plan to attend the Apr. 16 for Science Conference and APR meeting. Jenise will add the link to the invite.

Public Comment Period #1 - Agenda related (excluding APR topics)

Greg: Wanted Bryce to be aware that there are some dangerously deep holes at the Olequa boat launch where it transitions from asphalt to gravel.

Bryce thanked him and said he would look into it.

Larry: Was unable to attend the meeting but emailed ahead of the meeting asking about the release dates for summer and winter steelhead, coho, spring and fall Chinook for 2025 smolt releases from the Cowlitz River hatcheries, as well as sizes expected at release. He also asked how the release dates are set and by whom and where he could find release strategies for each group.

Eric noted that the future brood document on WDFW's website contains most of this information and he will follow up with Larry. <https://wdfw.wa.gov/fishing/management/hatcheries/future-brood>
The only information not included is who sets the release dates. Fish culture practices and hatchery space constraints have a part in setting those timing windows. They are also set in consultation with NOAA, based on fish biology like smolt timing and avoiding conflict with natural populations.

Topics for May 6, 2025 FTC Meeting via Teams

- Updates incl. Hydro Ops, Water Quality

- Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Trout Hatchery Remodel
 - LCPUD Cowlitz Falls Dam Operations
 - Transition Plan Update for Fall Chinook
 - Coho Net Pen BY 2026 DD 2025-04
 - APR DD 2025-03
 - FTC Work Plan / Protocols – public presentations
 - CRR Fund HAP Subcommittee
 - Preview June FTC Meeting Topics
-

Public Comment Period #2 – APR

Jack: What about reducing the coho program to 2 million and use the space we gain in the hatchery to increase spring Chinook production or rear more to a larger size?

Brian Gale: We're currently maximizing the space that we have and even with a 150K reduction of coho, we wouldn't have enough space to rear additional spring Chinook. If we want more fish, raising spring Chinook to 5 fpp helps to maximize that group because it results in better SARs, which is what we're doing already.

Greg: Back when we had a Cowlitz Restoration Advisory Group (CRAG), FOC asked for satellite rearing ponds to be set up in net pens. Cowlitz stock of fall Chinook are caught all over the Pacific Northwest. Spring Chinook cost a lot and are hard to raise. Anglers are more inclined to fish in better weather. He supports keeping the programs in the production table the same – no changes.

Eric thanked everyone for the discussion around forward thinking in the FHMP on what triggers would result in modifications. Jenise also thanked everyone and noted she looks forward to Apr. 16. In the meantime, she invited everyone to feel free to send any feedback directly to Eric.

Meeting Evaluation

- Wish that Steve West hadn't been so "anti-climactic!"
 - Good discussions
 - Had lots of lag time – Teams issues
 - Nice to have flexibility with the agenda – Thanks Joe and all!
 - Very productive
-

Josua's Inspirational Quote

It's spring time. Flowers are out. There is baseball and lots of anticipation for the future.

"Baseball is about talent, hard work, and strategy. But at the deepest level, it's about love, integrity, and respect." - Cal Ripken Jr.

Closing Remarks

Melora thanked everyone for being at today's meeting, She specifically cited all the great teamwork during and between the meetings. She also appreciated getting to hear lots of different voices today in the discussions. This all is a good reminder that we are all in this together as we work on license implementation at the Cowlitz Project.

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
May 6, 2025 from 9:30 – 3:30

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Matt Peter	Tacoma
Bryce Glaser	WDFW
Andrew Luymes	ECY
Bill Sharp	YN
Jonathan Stumpf	TU

Additional Attendees:

Anne Baxter	ECY
Peggy Miller	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Larona Newhouse	WDFW
Matt Bleich	Tacoma
Eric Shoblom	Tacoma
Sean Luis	Tacoma
Jenise Bauman	Tacoma
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Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Chris Vandenberg, Larry Pryor, and Randy LeDuc

Remaining 2025 FTC Meeting Dates: June 3, Aug. 5, Sept. 2, Oct. 7, Nov. 4, Dec. 2

Approval of April Meeting Summary

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

Updates

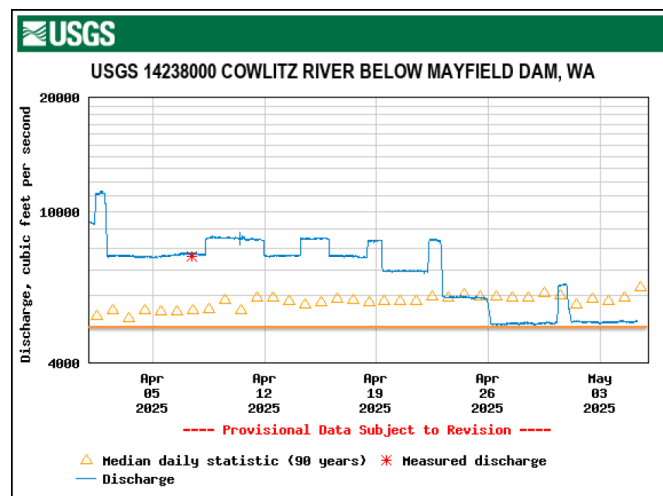
Announcements

- The CRR site visit is this Thursday. FTC voting members / their delegates who wish to attend are to respond to LCFRB asap.
- Matt Peter is stepping in for Melora who is on Jury Duty this week. Scott Gibson is also out due to Jury Duty this week. We thank them for their service!
- Sad news to report: Lorri Bodi passed away from cancer last month. Her career started in Washington DC as an attorney for EPA where she helped to craft and implement the EPA's early clean water regulations. After moving to Seattle, Lorri was hired as an attorney for NOAA. She soon became a key figure in advocacy for protection of salmon, an issue in which she would play a leadership role for several decades. She also co-founded the NW office of American Rivers, and was BPA's VP of Fish, Wildlife, and Environment.
- Eric was pleased to report Tacoma has hired Gus Garcia as the new Project Manager (PM) for the Trout Hatchery and Mayfield Remodels. We look forward to meeting him.

Hydro Operations (Presentation was emailed May 5, updated version was emailed on May 8)

- Inflows: After March inflows of 120% of the historical average, April inflows averaged 7,433 cfs – 95% of the historical average with only 39% of average precipitation and warmer temperatures on average. Precipitation in the Cowlitz Basin, WY 2025 to date is 89% of average.
- Storage: Riffe Lake elevation is 741.6 ft, right at the recent and 18 ft above the long-term averages. Boat ramps are open. Upper Cowlitz basin snow water equivalent is a bit below average. Tacoma is keeping the reservoir around 740 ft to manage for refill while maintaining outflows near minimums (plus fish transport flows) in anticipation of spring storms and additional snowmelt to prevent any spill actions. Current discharge is 5,160 cfs. There were no flow or ramp exceedances since the last meeting.
- 10-day Forecast: Below normal precipitation and normal to above normal temperatures. Inflows are below normal, ranging from 4.7K to 6.2K cfs. Outflows will continue to be near the minimum with the exception of fish transport flows.

Outflow



Current (5/5) discharge 5,160 cfs. 5,000 cfs min + weekly fish transport flow (if >8,000 cfs).
Down ramping limits <6,000 cfs 0 in/hr day, 2 in/hr night. No exceedances.

Water Quality

- Ben Caviness reported there were no spill events or water quality compliance monitoring for TDG, etc. since the last FTC meeting.
- Deployed water temperature arrays associated with the Cowlitz Falls North Shore Collector (CFNSC) on Mar. 13 – collecting temperature data at Cowlitz Falls Dam. Tacoma is developing a new automated way to display these data. They had to remove the temperature arrays from Mar. 27 to Apr. 3 due to high inflows into Scanewa, while LCPUD was replacing their debris barrier.
 - Debris Deflector North
 - Min Temp – 5.13 °C at 12 meters on Mar. 17 at 8:55 am
 - Max Temp – 10.20 °C at 0.5 meters on Apr. 27 at 12:25 AM
 - Debris Deflector South
 - Min Temp – 5.1 °C at 7.5 meters on Mar. 17 at 8:45 AM
 - Max Temp – 10.9 °C at 0.5 meters on Mar. 25 at 6:25 PM
 - Lewis Boat Barrier – Replaced on Apr. 1 and 2. Temp string replaced on Apr. 3.
 - Min Temp – 5.2 °C at 7.5 meters on Mar. 17 at 8:55 AM
 - Max Temp – 13.3 °C at 1.5 meters on Apr. 29 at 1:20 PM
- Currently temps are mainly impacted by inflows and amount of weekly precipitation and are fairly uniform throughout the water column. There are no data yet on Copper Canyon Creek or Lake Scanewa boat launch. Additional temperature arrays will be deployed, and weekly downloads will begin in June in coordination with the acoustic telemetry study. Debris barrier array maximum depth is ~3 meters. Depth of generators is ~23 meters. Temps are collected down to 18 meters on the north side and to 21 meters on south side.

Related Project Updates

- Trout Hatchery – Ground water study is complete. Results are expected soon.
- Kosmos Site – This is being monitored every other week with no sheens observed. In mid-June, they will conduct a metals background study to understand the native metals level in the area. After the feasibility study is reviewed and approved by ECY, Tacoma will develop a draft clean-up action plan later this year.
- Tacoma will do some dye testing at Mayfield spillway on May 13. The dye is environmentally safe and should dissipate quickly. This has been reported to the Statewide Environmental Reports Tracking System (ERTS). There will be signage on site. All are welcome to forward any questions to Ben. Ben will share a photo of the dye deployment to Andrew Luymes.
- North Taidnapam Boat Launch Improvement Project: Phase 1 has not been finished due to reservoir levels. Still waiting to finish the last portion which is pouring the cable anchor. Phase 2 (lower-level parking area, trail, ADA loading platform, etc.) permitting is complete and work is expected to begin this summer.
- Onion Rock Bridge Pier Repair – After permitting is secured, this will be done in two phases – inserting grout and then adding protection/ armoring against additional scour. Phase 1 of this work will likely be done in early June.

Fish Facilities (Presentation emailed May 8)

Separator Returns:

- Spring Chinook returns continue to increase and are nearly 4 times the 5-year average.
- The first load of summer steelhead and Kalama spring Chinook were recycled on May 2 to the I-5 Bridge launch.

- Winter steelhead returns are dropping off and are 75% of the 5-year average. Brood collection for the Lower Cowlitz and Tilton are complete. 20 more females are needed to complete the Upper Cowlitz program after fecundity levels dropped off toward the end of the season.
- Summer steelhead recently started to trickle into the separator. Brood collection starts June 16 (two weeks early to avoid the elevated pond losses at the end of the season).
- Cutthroat returns will pick up in August and are currently at the 5-year average.

Rainbow Trout Plants:

- Since March 44,200 trout have been planted at Mayfield Lake, as well as at Swofford and South Lewis County Park Ponds. 100K are expected to be planted by the end of August.

Cowlitz Release Sites: All sites are currently useable. Concerns continue regarding the water depth at the Cispus site. In discussions with the USFS, Tacoma has received approval of an extension of the access permit for temporary maintenance action.

Capital Projects: Cowlitz Trout Hatchery Remodel: The first draft of the ground water report to determine a reliable water source has been delayed until May 25 due to difficulties in comparing data from the 1960s and '70s. Eric hopes to present the results at the June FTC meeting. Eric looks forward to introducing the recently hired PM, Gus Garcia to this group.

Monitoring & Evaluation (M&E) Subcommittee

Presenter: Jenise Bauman

Jenise reported this group is working through a short punch list that includes species-specific baseline tables and how to systematically prioritize the tables listed in the M&E plan. Some directed studies will launch this year. Two additional subcommittees have been formed for deeper dives: Life Cycle Modeling and a separate subcommittee focusing on concepts originally presented in Jack Tipping's study proposal.

At the June FTC meeting WDFW's John Serl and Sean Toomey will present an update and recommendations for the Spring Chinook Transition Plan. She thanked everyone for the great feedback along with presenters at the recent Science Conference and APR meeting.

Jenise walked through a completed draft of the M&E Subcommittee Charter. Today's discussion constitutes the first of three steps toward a DD over the next couple of months. She walked through the Subcommittee roles, scope of work, and monthly meeting schedule, reminding all their meetings open to all FTC reps and tech advisors. The Subcommittee has some autonomy to make in-season decisions to facilitate actions already approved by the FTC. Matt B recommended that when in-season decisions come up, these be communicated in updates to the FTC. The charter also includes milestones and measures. It will eventually be finalized as a DD for FTC approval. It will be posted to the FTC site and available for public review.

LCPUD Dam Operations

Presenter: Joe First

Tailrace survey: The firm AKS Engineering & Forestry will perform this survey this June or July.

Unit maintenance: They will be taking Unit 1 down in early July until the end of Sept. Unit 2 will be operating during that time.

Joe was pleased to report they have made good progress on the trash racks. There is currently zero differential on all four racks with only 6 ft of material per rack. They are also assisting with Tacoma's acoustic study.

Downstream Adaptive Mgt Technical Work Group (TWG) (*Presentation emailed May 8*)

Presenter: Sean Luis

Sean explained that Tacoma is working on a “comparative review of existing fish passage programs in the Cowlitz River basin: implications for baseline monitoring and directed investigations.” They are currently integrating comments from Tacoma and WDFW and then the document will be finalized. Components include facility configurations and fish processing/enumeration methods among the different facilities. TWG products have ramifications for M&E subgroup as well. Findings tie into existing baseline studies and will inform development of directed study concepts. This review has been conducted in the context of the Viable Salmon Population (VSP) parameters: Abundance, productivity, spatial structure, and genetic diversity – translated into monitoring metrics. This is the backbone of Tacoma's M&E Plan – guided development of baseline monitoring – and directed study concepts.

Key passage program components within the Cowlitz basin include the downstream juvenile trap and haul from the Upper Cowlitz River, downstream juvenile bypass at Mayfield, and upstream adult trap and haul program to multiple subbasins. He reviewed the passage group classifications and differences among facilities along with baseline monitoring implications. He tied the differences regarding directed study design implications to the various VSP parameters. He also reviewed key findings and next steps which include evaluating current methods and identifying opportunities to standardize protocols, continuing to better understand implications for M&E efforts, and understanding how best to align with regional practices.

Fall Chinook Transition Plan: Data Gaps (*Presentation emailed May 16*)

Models for Managing Fall Chinook Populations

Presenter: Jenise Bauman

Jenise began by thanking WDFW for their assistance and collaboration with the Fall Chinook Transition Plan and reminded all we will shift species to spring Chinook at the June FTC meeting. While fall Chinook is a prioritized population to include in the life cycle modeling, there are several data gaps to resolve including:

- Spring versus fall Chinook (results will refine calendar dates for brood stock collection of the two populations not understanding the abundance of the hybrid genotype).
 - M&E directed study design
- Lower Cowlitz vs. Tilton origin (potentially taking an otolith approach to determine river origin and migration behavior as we don't want a mixing of these two populations into brood stock).
 - M&E current study topic
- Mayfield guidance efficiency
 - Design will be based on Tacoma's previous studies associated with the secondary separator.2025 study.

Discussion: Anne Baxter asked if the modified summer flows impact the returns. John Serl asked whether having a 2,000 cfs flow that is cooler vs. ~700 cfs that is warmer might have allowed the spring and fall Chinook returns to overlap more than they would in the pre-dam system. Jenise

thanked both Anne and John and will take this into consideration. Anne also presented information on a new approach describing how stable isotope analysis of eye lenses can be used to determine a fish's life history. Jenise will follow up with Anne on this topic.

Cowlitz Restoration and Recovery (CRR) Program

Presenter: Steve West

Cowlitz Restoration and Recovery (CRR) Program: LCFRB is under contract with Tacoma to facilitate this CRR grant round. They provide overview of each submitted proposal. One CRR proposal was received this year – to enhance Kiona Creek. Steve West noted that draft applications for the Habitat round were due Mar. 31, and one project (Kiona Creek) was submitted by LCPUD. This proposal would implement design from CRR-1011-003. Cost is low and feasibility is high.

Project Goal: Restore natural processes of Lower Kiona Creek by adding complexity and developing a more robust riparian area to support the Upper Cowlitz/Cispus coho, winter steelhead, and spring Chinook populations.

Project Objectives:

- Addition of large wood structures are proposed throughout the project to increase habitat cover and complexity, increase pool scour and cover, help sort and retain gravels, and increase lateral channel dynamics such as split flow conditions.
- Increasing lateral channel dynamics will help to accelerate channel evolution processes, creating more inset floodplain surfaces and thus increasing floodplain connectivity. Wood additions that span the channel and collect bedload material will contribute to channel bed aggradation, further addressing floodplain disconnection.
- Restoration actions are focused on restoring native riparian vegetation communities to reestablish natural levels of stream stability, stream shading, nutrient exchange, and future large wood recruitment. Note: this restoration component is largely meant to complement existing and ongoing riparian management performed by LCPUD.

Total Project Cost: \$683,332; **Grant Request:** \$576,618 (84.4%); **Match:** \$106,714 (15.6%)

Steve closed by reminding everyone that the CRR proposal presentation and site visit will be May 8. He and Melora are working on the itinerary. FTC voting members or their delegates are welcome to RSVP to Steve if they would like to attend. Space will be limited.

Mayfield Coho Net Pen Project, Phase 2

Presenter: Eric Shoblom

Eric walked through an initial draft DD 2025-04 recommending moving this project to Phase 2. The initial pilot is now complete as WDFW released the Mayfield Net pens on April 28. After the results come in on May 23, he will send out a draft DD (including the original plan) along with a summary of the evaluation comparing performance between the net pens and the hatchery. A vote to approve the DD will take place at the June FTC meeting as the timeline is short. If not approved, the hatchery program changes will be warranted. If approved, outside funding will need to be secured by Aug. 15 to support ongoing production of 250K BY2025 coho in the Mayfield net pens. In the event funding is not secured, the program will be concluded after Phase 2 (May 2026) and the BY2025 coho brood stock may be reduced accordingly. Tacoma is interested in taking control of this program as a Satellite Rearing (SR) facility.

Bryce asked if there were any net pen inventory discrepancies noted during the release on Apr. 28. Kris Warner replied that in his early investigations, there seem to be no red flags as inventories seemed to align with expectations.

Action Items:

- Eric: Update the DD and incorporate suggested edits and send out for review by May 27.
- All: Send any additional comments/suggested edits to Eric asap.

Annual Program Review (APR) (Updated DD emailed on May 8)

Presenter: Eric Shoblom

Eric noted today is the fourth meeting since March 4 to discuss the upcoming program goals for the hatcheries. The APR program was discussed at the annual meeting on Apr. 16 at the Veterans Memorial Museum in Chehalis.

Tacoma recently received a letter from Chris Vandenberg requesting the status of the Satellite Rearing (SR) program and expressing concern that, at the APR meeting, Tacoma stated they were discontinuing the program with no explanation.

Eric thanked Chris for the letter and noted that Tacoma has been struggling for many years to define and construct even one of the three Satellite Rearing Facilities. After many more years of deliberation and utilizing contractor help, they still were not able to come up with a solution that had high likelihood of success while also addressing their modern fisheries management concerns. The now completed Fisheries Hatchery Management Plan (FHMP) includes well defined goals along with a shared vision of recovery priorities. The FHMP includes some actionable and impactful options that can really move the needle toward recovery, which was the original intent of the license requirement. He emphasized that Tacoma is wholly committed to fulfilling its SR requirements. Since 2003 it has been working toward a viable solution that addresses modern fisheries management concerns. They are not abandoning SR and are continuing to work on this in concert with four other viable options. They hope to present a formal proposal at an upcoming FTC meeting. Progress has been slow but steady and updates have been provided at the October, February, and March meetings.

Review of initial draft DD 2025-03:

- Bryce reminded all that after the 2024 APR meeting Tacoma and WDFW agreed it was important to do a better job of capturing comments from the public. He was pleased to see the public feedback summary in the DD. Chris asked that the letter be included in the APR notes. Bryce suggested and Chris agreed to include his letter with these meeting notes instead.
- Eric reminded all of the change in the spring Chinook numbers, as well as an update on the net pens, noting that they were a success, and that funding will be provided to continue the program into 2026 which also would require that we take the fish now.

This DD was approved by FTC voting members present and will be sent out for electronic approval from FTC voting members not in attendance.

Action Item: Eric/Melora to send out DD for 7-day electronic approval.

Public Comment Period #1 - Agenda related

Larry: (The following is a summary of what he posted in the Chat.) As stated at the APR meeting, Larry is concerned that nothing is being done about the many seals and sea lions at the mouth and upriver on the Cowlitz River. He sees their arrival and departure as an easy correlation to when the large smolts are released between March and June. They leave when the smaller fall Chinook smolts are released. The number of predators is growing over the years from the same static release dates/timing. And this year's releases are going along as usual. What can be done to change release timings and sizes? Larry's emergency medical background and career we would have treated these events as Disaster Management. He has been discussing changing release times with NOAA representatives. To be continued!

Bryce: For the record, we are aware of the issue and are concerned and have been actively trying to pursue funding to address the pinniped issue. It is important to recognize the differences between correlation and causation. It's clear they come in to eat smelt and have an impact on adult fish and likely juvenile fish too. The proportional effect on the population is not clear.

Larry: Who is on the M&E Subcommittee? Can fishermen join? How can the public get a copy of their Charter? When is a schedule/agenda released? This M&E process can be an important tool in the turnaround of fisheries. Matt Bleich and Jenise need some credit here, to be determined. It seems the tribes are more effective in fisheries and hatchery management as they have active participation with and from their tribal fishermen, and many council members are fishermen.

Matt: FTC reps and their technical advisors are members of the M&E Subgroup. Depending on the topic, some consultants/those with particular technical expertise also attend. Members of the public are invited to attend the monthly FTC meetings.

Jenise: After FTC approval, the M&E Subcommittee Charter will be posted to the FTC website for public review

Chris: Hopes all read his letter. He was a Bio 1 for Cowlitz Falls fish evaluation under John Serl back in 1996. He thinks Tacoma is squandering its potential having accomplished little to nothing after 23 years of potential for restoring up-river populations. The adult transport program is not meeting the seeding goals. Tacoma needs to take initiative and start building facilities. Several years ago, Rep Jaime Herrera Beutler wrote a letter to FERC citing the same. Chris is a fisheries advocate. He proposes less talk and more action. He was told by Matt B in 2021 that there would be action on this in 2024. Tacoma is not willing to go above 650K lb cap unless someone pays for it.

Eric: Thanks for your comments. Tacoma knows it's been a long time. They have not been making as much progress as they would like to. The SR does not have to be part of the 650K lb cap.

Matt P: Tacoma has been actively/recently investigating - especially more recently in getting temperature data to identify places that would be viable options.

Matt B: Work on this issue is not just being done by Tacoma. There is an opportunity to be more communicative about the steps being taken and the progress that is being made. Everyone wants to see this project get to completion to get to the shared benefits.

Randy: Likes the concept of the M&E Subcommittee and would like to see a copy of its Charter in time to comment on it before it is finalized. It is important to include all relevant facts involved. Doing a better job getting help from other agencies might have a big effect in the long term.

Jenise: They are currently working with their regulators as well as with their WDFW partner. They are reaching out to experts in the field and will continue to share what they learn with the FTC.

Topics for June 3, 2025 FTC Meeting at Chehalis Veterans Memorial Museum & via Teams

- Updates incl. Hydro Ops, Water Quality
 - Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Trout Hatchery Remodel
 - LCPUD Cowlitz Falls Dam Operations
 - Transition Plan Update for Spring Chinook
 - Coho Net Pen BY 2026 DD 2025-04
 - FTC Work Plan / Protocols – public presentations
 - CRR Fund HAP Subcommittee
 - Send out M&E Charter as 30-day review – make changes and then it goes up for official vote (likely in August)
 - Preview August FTC Meeting Topics
-

Public Comment Period #2 – Any topic: No comments.

Meeting Evaluation

- Great presentations/discussions
 - Appreciation for adjusting the agenda for DFW.
 - Some feedback/ background noise – be vigilant about use of the mute button
 - Start each meeting with a review of protocols
 - Very productive
-

Josua's Inspirational Quote

As we heard during the tech check, it's gardening time!

"Successful gardening won't happen on its own. You have to get up and plant the seed and see if it grows, but you can't just wait around, you have to water it and take care of it." - Bootsy Collins

Closing Remarks

Matt Peter thanked everyone for all the collaboration that keeps this group moving during these meetings and between meetings – especially with the M&E group being back up and running. Lots of uncertainty these days at the fed and state level. Matt B added that he appreciates the partnership resulting in more collaborative progress.

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Draft Meeting Summary
June 3, 2025 from 9:30 – 3:30

FTC Representative Attendees:

Melora Shelton	Tacoma
Bryce Glaser	WDFW
Andrew Luymes	ECY
Bill Sharp	YN
Jonathan Stumpf	TU

Additional Attendees:

Anne Baxter	ECY
Peggy Miller	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Larona Newhouse	WDFW
Matt Bleich	Tacoma
Matt Peter	Tacoma
Eric Shoblom	Tacoma
Scott Gibson	Tacoma
Sam Gibbons	Tacoma
Sean Luis	Tacoma
Jenise Bauman	Tacoma
Jamie Murphy	Tacoma
Ben Caviness	Tacoma
Chris Vaughn	Tacoma
Jason Stewart	Tacoma
Audrey Lamb	Tacoma
Stephen Lewis	BIA
Ann Weckback	Lewis County
Laura Wolfe	LCPUD
Steve Manlow	LCFRB
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Fred Ming, Jack Tipping, Chris Vandenberg, Larry Pryor, Carol Serdar Tepper, Randy LeDuc, and Greg King

Remaining 2025 FTC Meeting Dates: Aug. 5, Sept. 2 (in person), Oct. 7, Nov. 4, Dec. 2 (in person)

Approval of May Meeting Summary

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

Updates

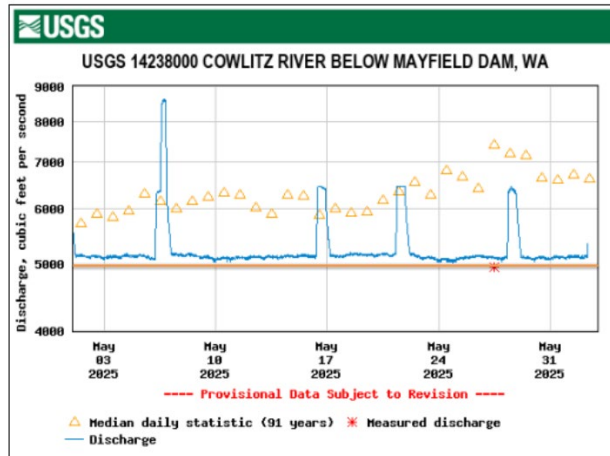
Announcement

- This was Lyn Wiltse's last meeting as the facilitator of the FTC. The FTC appreciates all of Lyn's efforts over her ~20-year tenure with the group. Her nimble efforts to facilitate a committee made up of diverse perspectives and agendas resulted in the completion of major milestones and major strides in satisfying the requirements of the Settlement Agreement and FERC license. The entire committee is grateful for Lyn's service, professionalism and commitment to fairness.
- Jennifer Arnold from Reciprocity Consulting will assume the role of facilitator/notetaker for this group starting with the August meeting. Jennifer comes highly recommended and looks forward to working with this group. Lyn has appreciated very much her time with the FTC.
- Joe First is double booked today and will email his update to be included in the meeting summary if he is unable to join the call.

Hydro Operations (*Presentation was emailed June 2*)

- Inflows: After 95% of the historical average in April, May inflows averaged 5,369 cfs (62% of the historical average, 4th percentile) with only 48% of average precipitation and typical temperatures. Precipitation in the Cowlitz Basin, WY 2025 to date is 87% of average.
- Storage: Upper Cowlitz basin Snow Water Equivalent (SWE) started off relatively normal this year. It didn't build much in April and has been rapidly declining since and is now below average. White Pass and June Lake have now substantially melted out without much increase in the reservoir. Riffe Lake elevation has been between 739 and 741 ft through May; currently at the recent average, and 18 ft below the long-term average. Boat ramps are all currently open. Operating at minimum flows in the lower Cowlitz with the exception of fish transport flows. Current discharge is 5,400 cfs. There were no flow or ramp exceedances since the last meeting.
- 10-day Forecast: No precipitation and normal to above normal temperatures. Inflows to be below normal, ranging from 5K to 6.3K cfs. Outflows will continue to be near the minimum with the exception of fish transport flows. They will continue to capture as much of remaining snow melt as possible.

Outflow



Current (6/2) 5,400 cfs (Unit maintenance). 5,000 cfs min + weekly FTF (if >8,000 cfs).
Down ramping limits <6,000 cfs o in/hr day, 2 in/hr night. No exceedances.

Additional Notes:

- On June 16, ramping rates will change to 1 inch/hr 24 hours a day.
- Fish transport flows before the ramping rate change, it may require two nights to return to minimum flow (may pause during daylight and finish the next day).
- Reservoir drafting is anticipated through June unless there is substantial precipitation.
- On July 1, Tacoma will ramp down directly to summer low flow, as was done last year.
- This has been a challenging year. Tacoma Power Management has been diligently monitoring the situation (e.g., 4th percentile May inflows). Long-term modeling indicates drafting and elevation substantially below 749 ft on July 1. There may be a need to reach out to this group consulting on a spring flow reduction during June in order to mitigate the extent of the draft.

Water Quality

- Matt P reported there were no spill events or water quality compliance monitoring for TDG, etc. since the last FTC meeting.
- He will send out a snapshot of temperature monitoring results. They are currently setting up for the acoustic telemetry study and associated WQ monitoring.
 - **Action Item:** Matt will send out temperature monitoring results.

Related Project Updates

- Trout Hatchery – Ground water study is complete and under internal review at Tacoma.
- Kosmos Site – Bi-weekly surveys continue at the site with monthly reporting to ECY. No sheens have been observed in the last few years in the Project area, including the banks of Rainy Creek. Additional soil sampling is underway to understand copper levels in the soil. When the Remedial Investigation study is complete, Tacoma will start the feasibility study and the draft clean-up action plan (early 2026).
- The dye testing at Mayfield spillway took place on May 13. Dam safety engineers are evaluating how to interpret that the green dye didn't show up anywhere.
- North Taidnapam Boat Launch Improvement Project – All permitting is complete. They have begun to rough-in the lower parking area and access point to that area as well as the trail

there. The upper parking lot ADA access will soon be underway, and the entire project should be complete by late summer-fall of this year.

Fish Facilities (Presentation emailed June 4)

Separator Returns:

- Spring Chinook typically peak the last week in May and will continue into October. To date, they have trapped 3,562, which is more than 2.5 times the 5-year average. Brood collection is well ahead of schedule.
- So far, 127 summer steelhead and 107 Kalama (AD+vent clip) spring Chinook have been recycled to the I-5 Bridge launch (ongoing.)
- Winter steelhead returns fell off in mid-April, with only 3 returning last week. Returns are 80% of the 5-year average. They completed broodstock collection on May 13.
- Summer steelhead are beginning to come in at around the 5-year average (131 to date) and recently started to trickle into the separator. Brood collection starts June 16.
- Cutthroat returns are currently just above the 5-year average and will pick up in August.

Rainbow Trout Plants:

- Since March 62,480 trout have been planted in Southwest Washington lakes. 100K are expected to be planted by the end of August.

Cowlitz Release Sites: Eric was pleased to report that all sites are currently available and in good working condition. Tacoma received an extension for access to maintain or dredge the Cispus site from the Forest Service and LCPUD is in the process of applying for maintenance HPAs.

Capital Projects: Cowlitz Trout Hatchery Remodel: Tacoma received the Draft Groundwater Report at the end of May. Estimates show a range from 1.5cfs to 5cfs of groundwater available if a Ranney-style well is installed. The geomorphology of the area is highly unpredictable. Additional imagery would be required prior to any construction efforts to understand the best paths for the laterals. These wells use a large, 12' diameter concrete cylinder or caisson as a collection point with horizontal well screens that jack out radially. Without a full analysis with cost estimates, it's too early to determine whether or not this is an appropriate path forward for providing additional, clean water to the hatchery. While 5cfs of pathogen-free (or pathogen-light) groundwater would definitely help the facility, other water sources may make more sense. Next steps include Water Source Alternative Analyses to determine a recommended path forward. Stay tuned.

Public Presentation Protocols: Tacoma has been working with WDFW on a draft protocol for a member of the public to make a presentation to the FTC. This will include roles of various voting members regarding decisions.

- **Action Item:** Melora to distribute draft public protocol to FTC signatories and delegates by June 30 targeting discussion ahead of the August FTC Meeting.

CRR Program: Steve M. reported the May 8 field visit with Technical Advisory Committee (TAC) went well and included a much-appreciated tour of the Cowlitz Falls North Shore Collector. The LCFRB will provide feedback on the CRR proposal to enhance Kiona Creek to the LCPUD. The TAC will review final applications at the end of June; scoring and ranking will show how this CRR proposal stacks up against the SRFB projects. Once final application materials are available, they will be sent to the FTC for review. At the August FTC meeting one of the Steves will give a

presentation on the project details and TAC ranking, followed by LCFR Board recommendation in September. We will finalize the associated DD for approval at the October FTC Meeting.

Melora reported the HAP subcommittee didn't meet in May and will meet on June 18. She will send out materials to subcommittee members. More details will be shared at the August FTC Meeting.

Monitoring & Evaluation (M&E) Subcommittee

Presenter: Scott Gibson

Scott walked through the draft of the M&E Subcommittee Charter, expressing appreciation for WDFW's comments which will be integrated. The Charter formalizes the FTC directive, defines role and scope of work, and the process for making recommendations to the FTC. Today's discussion is the second of three steps toward DD 2025-05 to be finalized at the August FTC meeting.

Next steps: All comments will be reviewed at the next M&E meeting in mid-June, including inclusion of the Annual Operating Plan, and changing "minimum viability" targets to "full recovery" targets.

Action Items:

- Scott to send out a clean draft noting where edits were made and ask for additional feedback prior to the August FTC meeting.
- Melora and Jenise to check with James Archibald to see if he is the correct NOAA rep to include in this subcommittee, per the roles described in the Charter.

Spring Chinook Transition Plan: Data Gaps (*Presentation emailed June 4*)

Presenter: Sean Toomey

Sean Toomey walked through a very dynamic presentation introducing the Transition Plan for Spring Chinook. He emphasized that the focus is full recovery of the Upper Cowlitz and Cispus populations.

- Program Type: Segregated (ongoing while life-cycle modeling is completed and the plan for integration is developed)
- Recovery phase: Recolonization
- Goal of program: Conservation/Harvest

Juvenile releases: 16 fpp were planted in November. 12 fpp are now planted in December. With a set release date, holding fish back to be released at 8 fpp is difficult compared to letting them grow to 5 fpp.

He also described potentially moving from a segregated to integrated program driven by NOR returns, infrastructure, and program goals.

Next steps:

- Complete life cycle modeling - Integrated Population Model (IPM)
- Continue SAR analysis and compare with neighboring basins
- Continue to improve juvenile collection and survival at the CFFF
- Evaluate current segregated program including residualism of sub-yearling releases and the effect of the rearing strategy on adult age composition

Discussion:

Melora and Matt B expressed appreciation for this presentation as well as the state of the transition plans. Building out the spring Chinook program will form a helpful base of information from which to make recommendations for the future as we observe trends. Bryce noted that the program itself is straight-forward as it is a segregated program to provide spawners in the upper basin and support fisheries. At first, making brood was a real struggle. We are now starting to see a good number of fish return to the upper basin. The segregated hatchery program and current abundant returns has allowed us to shift the return timing, working to increase brood collections at the front end of the returns. Earlier collection targets are working well due to the early returns. We are currently ahead of the collection curve by about two weeks.

We are collecting samples from returning Chinook adults to assess timing and mixing of single-nucleotide polymorphisms (SNPs) within *GREB1L gene region* that show a strong association between early-(spring Chinook) and late- (fall Chinook) migrating phenotypes.. We currently have cut-off dates to help us with broodstock collection.

Subcommittee Update:

At the last M&E meeting WDFW's Lance Campbell gave a presentation on otolith work to differentiate between upper Cowlitz and Tilton Stock. They also discussed the Fall Chinook Transition Plan and the potential for different rearing strategy options for fall Chinook at the Cowlitz Hatchery, including future approaches for this. The subcommittee is also working on developing a life cycle IPM and have consulted with outside firms and with WDFW regarding models already developed/in use and how best to incorporate them in the Cowlitz basin. The subcommittee is also discussing how to make timely in-season decisions (e.g., disease management).

LCPUD Dam Operations

Presenter: Joe First (*Provided after the meeting via email*)

- Unit 1 maintenance will begin in late June or early July as the river flow decreases.
- The boat barrier replacement is complete.
- Transmission line outage is scheduled for September 3 – October 2.
- Forebay debris removal is scheduled for October.

Mayfield Coho Net Pen Project, Phase 2

Presenter: Eric Shoblom

Eric walked through the updated DD: Net Pen Coho Project - Phase 2 DD 2025-04 which recommends moving this project to Phase 2 based on the success of Phase 1 (survival in the net pens was equal to or greater than the five-year average of in-hatchery survival.) Due to feedback from the last meeting, he attached the evaluation of Net Pen Phase One Evaluation, showing that this was a year where there was a disparity, the loss is mathematically significant, but not biologically or pragmatically per Kris Warner.

Discussion:

Bryce noted that WDFW thinks this type of evaluation works for this DD. He had been anticipating that a more detailed summary of the pre-pilot results, including infrastructure, densities, etc. would also be included in the DD. For example, there is no clear recommendation on which density

performed the best and should be used next year. He would like to see a commitment to completing better documentation of how things went and the associated recommendations moving forward described in this DD, along with a commitment to follow through with recommendations around improved monitoring. The development of an improved monitoring approach (i.e., Mark/Recapture approach) was not completed as scheduled during Phase 1 due to time constraints. This work needs to happen before moving to the full pilot in Phase 2. More also should be added to the Coordination Need section of the document to reflect these commitments.

There has been concern about how coho will perform in the net pens. The original DD was completed pre-season with the improved monitoring information included (the evaluation step between Phase 1 and 2). Ideally this would be in place now, but that piece was not completed. This DD should include what was not completed in the initial phase before moving to Phase 2. There was a question about the appropriate level of detail to include in the DD. There were logistical and mechanical challenges in doing the secondary evaluation to the degree it deserves. This can't be revisited with existing data. The how matters less than the commitment to do the additional evaluation.

Could the M&E team review an approach and make recommendations accordingly? Is there a need to do a mark/recapture? Phil suggested there would be a mark/recapture approach that may not require much investment and would provide a lot more certainty about the population in a pen at release. Especially if we are considering this as a satellite rearing option, we want to make sure the approach is sound. WDFW committed to working on a draft framework for the improved monitoring of abundance/survival in the net pens for discussion with the M&E subgroup and FTC.

Next Steps:

The FTC is giving this assignment to the Hatchery Operations Management (HOM) and M&E groups to meet to develop a summary document to formalize results and recommendations by the Oct. 7 FTC meeting.

A funding source needs to be identified by August 15. Matt B is working on a satellite rearing DD that includes this option and plans to review this with the FTC at the August or September meeting. That would satisfy the commitment to at least take the brood, so there may be a pathway by then. The limiting factor is the time to collect brood.

With edits made at this meeting, this DD was approved by FTC voting members present and will be sent out for electronic approval from FTC voting members not in attendance.

Action Items:

- Melora: Send out DD for 7-day electronic approval. *(Done.)*
- Matt B: Follow up on funding for Phase 2 (required by August 15).

Public Comment Period #1 - Agenda related

Larry: I have been waiting nearly two years for how the public can make a presentation to the FTC. In the meantime, I am making public comment directly to FERC. Who creates the agenda for the FTC meetings?

Melora: Topics are queued up with FTC input at the end of each meeting. Then the facilitator and I put together the initial draft which is routed internally for edits. We also start each meeting by reviewing the agenda and asking for any edits, so it is a very participative process.

Larry: In all the discussion about the Spring Chinook Transition Plan, there is discussion about releases – the production side of things, but no evaluation of hatchery success. Why would a member of the public want to support that? When is the next FHMP?

Melora: 2030

Greg: Would like to see marking Summer steelhead for their program if possible. CFFF Collection efficiency - 60% is the top of the range for Chinook for one year. If the goal is 95% of FPS or 75% with best available technology for all species, what happens if that is not accomplished by 2037?

Jack: Keeping sea run cutthroats for broodstock? They might just be residuals.

Eric: No. We are not collecting them.

Jack: Since Phase 2 of coho program is to make room for spring Chinook, what is the strategy?

Eric: Some of the 8 fpp production will be raised to the 5 fpp.

Topics for August 5, 2025 FTC Meeting via Teams

- Updates incl. Hydro Ops, Water Quality
- Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Trout Hatchery Remodel
- LCPUD Cowlitz Falls Dam Operations
- Transition Plan for Spring Chinook
- Coho Net Pen Phase 2 – Funding source
- FTC Work Plan / Protocols – public presentations
- CRR Fund Update
- Preview September FTC Meeting Topics

Public Comment Period #2 – Any topic:

Jonathan asked about the Cowlitz Indian Tribe's Notice of Intent over failure to protect threatened steelhead.

Melora: Tacoma Power received notice from the Cowlitz Indian Tribe and The Conservation Angler Monday, May 19th stating their belief that Tacoma Power is not in compliance with the Endangered Species Act. Tacoma Power has been operating in compliance with our FERC license requirements and responsibly stewarding the land and fisheries operations on the Cowlitz River for many years. We are in the process of analyzing these new concerns and will have further information once we fully understand the scope of their claim.

Bryce: The FTC has relied on a password-protected internet site in the past for posting documents and other information. It is now out of date, though it does include good background information.

Melora: Yes, and until it is updated, I will send out the password to allow access to it.

Carol: Keep in mind that with the change in fish flows, there will be a need to monitor for dead and dying fish. She is grateful that Matt P has demonstrated that there is good water quality. As a former regulator and current member of the public, it is important to remember that the best time to plan for droughts is when not in a drought.

Larry: How is springer fishing in the Cowlitz?

Josua: Good. Getting reports on spring Chinook as well as summer steelhead. Creel reports show spring Chinook being caught including 5-year-olds from Kalama stock.

Larry: Upper Cowlitz revolves around fisheries success. It is not as productive as everyone had hoped. There is a need to do the numbers and shift from a production to a harvest mentality. (Larry did this exercise on coho last year.

Meeting Evaluation

- Meeting link
 - Productive conversations – resulting in arriving at a place of common understanding
 - Record breaking attendance at 41!
 - Great presentations/discussions
 - Start each meeting with a review of protocols
-

Josua's Inspirational Quote

"Don't be dismayed at good-byes. A farewell is necessary before you can meet again. And meeting again, after moments or lifetimes, is certain for those who are friends." Richard Bach

Closing Remarks

Melora thanked everyone for such a collaborative meeting with challenging but productive discussions to ensure a common understanding and path forward. She also thanked Lyn for her many years of service and closed by reading what she called a "Lynerick" in her honor.

**Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Meeting Summary**

August 5, 2025 from 9:30am-2:30pm

FTC Representative Attendees:

Melora Shelton	Tacoma
Peggy Miller (for Bryce Glaser)	WDFW
Andrew Luymes	ECY
Bill Sharp (for Phil Rigdon)	YN

Additional Attendees:

Anne Baxter	ECY
Josua Holowatz	WDFW
John Serl	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Larona Newhouse	WDFW
Matt Bleich	Tacoma
Eric Shoblom	Tacoma
Scott Gibson	Tacoma
Sam Gibbons	Tacoma
Jenise Bauman	Tacoma
Ben Caviness	Tacoma
Chris Vaughn	Tacoma
Joe First	LCPUD
Laura Wolfe	LCPUD
Steve Manlow	LCFRB
Michael Boyles	BPA
Jennifer Arnold	Reciprocity Consulting, LLC / Facilitator

Public Attendees: Jack Tipping and Larry Pryor

Remaining 2025 FTC Meeting Dates: Sept. 2 (in person), Oct. 7, Nov. 4, Dec. 2 (in person)

Approval of June Meeting Summary

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

Updates

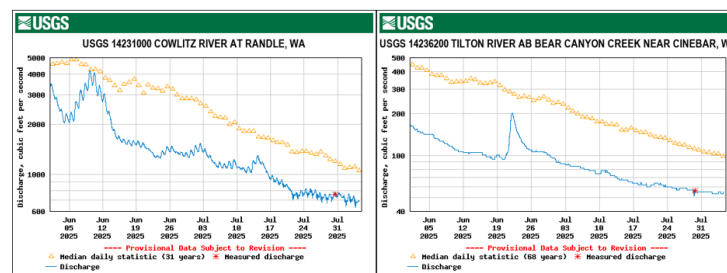
Announcements

- Jennifer Arnold from Reciprocity Consulting, LLC is the new facilitator/notetaker for this group. Lyn and Melora have supported her onboarding. Jennifer has known Lyn and worked with her for years. Her intent is to match Lyn's style and practices and invite feedback along the way to adjust and continue improving as we go. Her intention is to support each person and a strong group process. She is always open to feedback.

Hydro Operations Update by Melora Shelton (Tacoma) (Presentation emailed August 4)

- This update includes two months of data: June and July.
- Inflows were typical in April, but quite low since then (see below).
- The elevation of Riffe Lake has been about 10' below the recent average (2017-2024) and drafting. It is currently at 728 ft. Refill was not achieved.
- Outflow has been near minimum flows. It is currently at the typical summer low (2,300 cfs, above the 2,000 cfs summer minimum).
- There were no minimum flows or ramping deviations.
- All boat ramps are open. Courtesy docks will be removed and ramps closed as the reservoir drafts. WDFW will be updated, including before Labor Day weekend.
- John Serl reflected that the low flows this spring probably contributed to the high juvenile fish collection efficiency.

Inflows (6/1-8/4)



Snow melt done by mid June, minimal late precipitation June.

Overall well below average streamflow throughout June and July.

TACOMA POWER
TACOMA PUBLIC UTILITIES

Water Quality Update by Ben Caviness (Tacoma) (Presentation emailed July 23)

- Ben reviewed water temperature profiles emailed on July 23 and their monitoring locations.

Related Projects

- August maintenance dredging includes boat ramps (Blue Creek 8/4, Barrier Dam 8/5) and at Blue Creek for stormwater management at the Trout Hatchery (8/6).
- North Taidnapam Boat Launch Improvements Project – The parking area and the fishing trail are nearing completion, additional work will require lower reservoir elevations. They hope to complete everything by this fall.
- The Onion Rock Bridge pier repair – Phase 1 repairs to the bridge pier were completed in July. Phase 2 (armoring to prevent future erosion) is in permitting.
- Josua asked about lamprey salvage. Fish salvage efforts were completed prior to and during Blue Creek boat ramp creek dredging, including lamprey rescue.
- Josua asked about upland sediment disposal and the desire to return them to the river. Tacoma is having conversation with Ecology to incorporate this into future permits.

Fish Facilities Update by Eric Shoblom (Tacoma) (Presentation emailed August 5)

Separator Returns:

Currently at the separator, there are spring Chinook, fall Chinook, summer steelhead, cutthroat trout, and a few chum and sockeye returning. The majority of fish returning currently are summer steelhead. First time returning summer steelhead are getting recycled along with HOR cutthroat, chum, and sockeye.

Staff were able to collect 100% of broodstock required for our Winter Steelhead and Spring Chinook programs. Summer Steelhead broodstock collection is currently underway. Cutthroat Trout and Fall Chinook are just beginning to arrive and the Fall Chinook are being transported to the Tilton River until their broodstock collection begins on August 18th.

Cowlitz Release Sites:

Currently, all release sites are available and in working condition. Tacoma is working with LCPUD to identify and develop an alternate release site on the Cispus River.

Rainbow Trout Plants:

Annual rainbow trout plants began the first week of March, and 92,712 have been planted so far across Southwest Washington lakes, like Mayfield, Swofford, and South Lewis County park ponds.

Update on the Mayfield Net Pens:

WDFW has been working on evaluation methods for Phase II, which is on schedule. Tacoma and WDFW met on logistics, and Tacoma is in the process of purchasing additional nets and supplies for the program. WDFW is working on preparing the net pens and growing the fish. The Coho have already been tagged and set aside for the program. Matt Bleich had an FTC action item to secure funding for the Phase II net pen program, which was completed in June.

Capital Projects: Cowlitz Trout Hatchery Remodel:

Tacoma commented on the Draft Groundwater Report and received the final draft. Tacoma would like to bring slant well technology forward into the Alternatives Assessment as it appears that 3 to 5 wells could produce around 5 cfs. Tacoma will also continue to look at other water supply alternatives. They are testing the now defunct North Well. If testing is promising, they will recommend a full rehab and analysis and add it to the Alternatives Analysis.

Fisheries Update by Josua Holowatz (WDFW)

For fall management, WDFW has moved the fishing boundary to the standard 400'. Fishing rules will be no Fall Chinook retention until further notice as posted on WDFW's pamphlet, website, and app. As WDFW continues to monitor, they have some capacity to liberalize those rules but are not looking to do so right now.

Public Presentation Protocols Update by Melora Shelton (Tacoma)

Melora distributed the draft protocols to FTC signatories and delegates and is scheduling a meeting with delegates to discuss it in August or September. NMFS cannot participate until October so there will be follow up.

Gravel and Large Woody Debris (LWD) Placement Implementation Presenter: Ben Caviness (Tacoma)

Annual large woody debris place is happening today (8/5). There was additional discussion around wood management, including the fate of any wood removed from Lake Scanewa instead of spilled into Riffe Lake. David Cogswell is Tacoma's lead for the programmatic approach to wood management, which includes transitioning away from burning excess wood and proving it to other entities. People can follow up with David directly or through Matt Peter.

Annual gravel placement is planned for next week, 900-1,000 cubic yards. This is consistent with the 2023 Gravel Plan addendum filed with FERC. Ben will report on completed work in September

Monitoring & Evaluation (M&E) Subcommittee Presenter: Jenise Bauman (Tacoma)

Finalizing the M&E Charter. DD 2025-05

Jenise incorporated all of the comments from Tacoma and WDFW into a clean version of the charter. Comments from FTC and the Subcommittee helped strengthen the document. Jenise confirmed that James Archibald is still the subcommittee rep from NOAA.

Melora shared the proposed final Decision Document (DD 2025-05) on screen. She reminded the group that we can update the primary points of contact, as needed, without

updating or amending the DD. No additional edits were proposed and the DD including the M&E Subcommittee Charter was approved by FTC voting members present. It will be sent out for electronic approval from FTC voting members not in attendance.

Jenise thanked all the reviewers for contributing.

Action Items:

- Melora: Send out DD for 7-day electronic approval.

Update on Life Cycle Modeling

Jenise explained that the approval of the M&E plan generated lots of ideas for actionable studies. They all hang under the umbrella of **life cycle modeling**, which will be the cornerstone for synthesizing data for all of our populations of interest.

To initiate the life cycle modeling work, Tacoma and WDFW will bring in a consultant to design and implement studies to address data gaps and curiosities starting with Winter Steelhead. The next step will be to organize all the data and pull it into a shared database. WDFW's and Tacoma's data specialists are working with them to figure out the best way to do this. The model will first be built with Winter Steelhead, then they will fill data gaps with Spring and Fall Chinook. One data gap is confirming the broodstock collection dates between spring and fall. They will use molecular and phenotypic traits to try to figure this out. They will also collect otoliths to ascertain where they originate to ensure proper dispositioning and broodstock. They will also look at study designs to compare release strategies for Fall Chinook. Each initiative will produce data to incorporate into life cycle modeling to understand the best methods to improve SARs into the future.

Larona asked what happens if unmarked Fall Chinook adults are sampled? Or Spring Chinook with Coded Wire Tags? Are you sure you're sending them to the right place? John answered that they presume the separator staff will be able to id the Fall Chinook. Uncertainties will be confirmed using the laboratory techniques mentioned above, which will reconcile uncertainties and confirm calendar dates used for collection and dispositioning.

Update on M&E Implementation Planning

On August 20, there will be a 4-hour in-person meeting to discuss implementation planning and how that fits into the APR process. Everyone from FTC is welcome and can reach out to Jenise for meeting details if you are interested. At the meeting, the group will be whiteboarding their priorities and then sharing them with the M&E Subcommittee and FTC.

Mayfield Net Pen Pilot Project, Phase 2
Presenter: Eric Shoblom (Tacoma)

- Eric explained that Tacoma and WDFW wanted to add some details under Coordination Need in the DD 2024-04 specifying decision points and deadlines for the record. The only change was to add “Coordination Need updated August 5, 2025” to the decision date.
- Peggy asked a procedural question about any need for FTC concurrence or recognition of the change? Melora responded that because the additions are follow ups in the Coordination Need section and do not change the decision, she proposes to just post it with the update clearly noted as shown.
- Todd and Eric discussed the proposed updates and made minor clarifying edits.

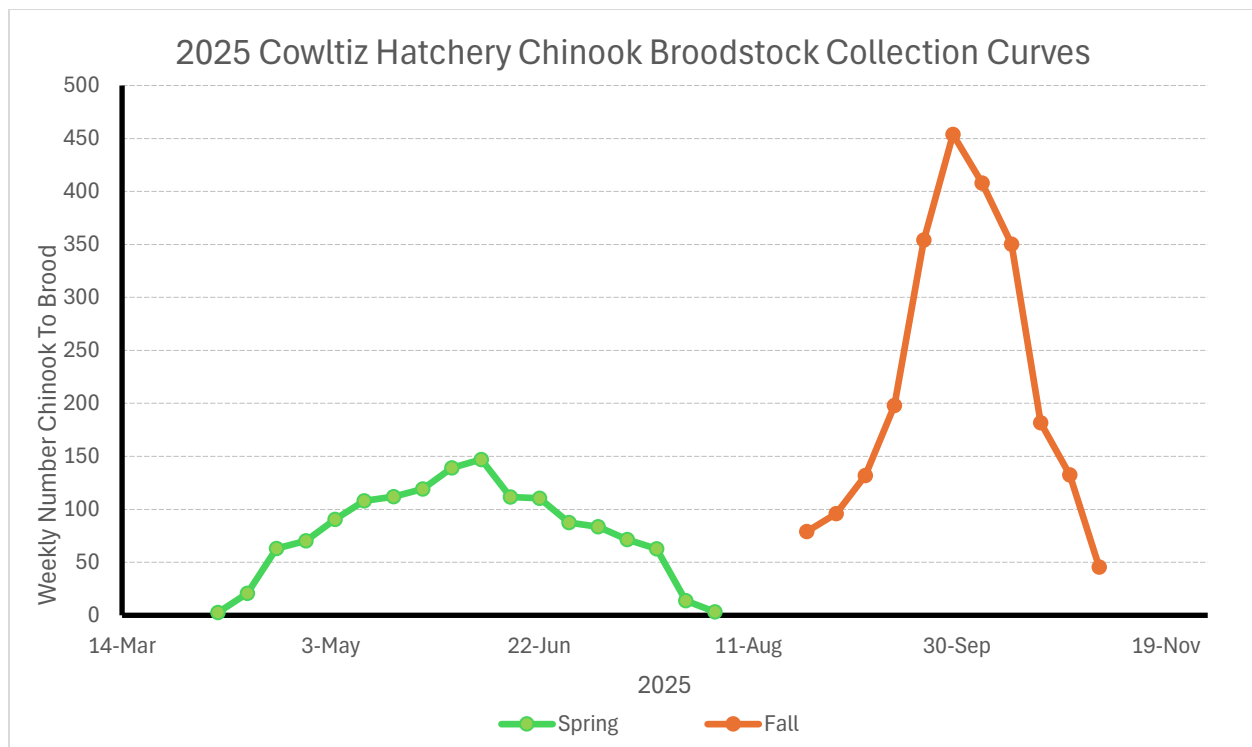
Action Items:

- Melora: Post DD 2024-04 with agreed on updates to the FTC website.

Spring Chinook Transition Plan – Follow-up Topic: Collection Update
Presenter: Todd Hillson (WDFW)

Kris Warner was scheduled for a presentation on Spring Chinook collection but was unable to attend the meeting. Todd and others from WDFW provided high level updates.

Hatchery staff have modified the broodstock collection curves for 2026. They noticed a bell-shaped, bimodal curve with a right-handed tail to the distribution in August 2025 (see below). Because of uncertainties around Spring to Fall timing and identification, WDFW moved the collection curve earlier with a hard date at the end of July for Spring Chinook broodstock collection. Even with the new hard cutoff date, spring Chinook broodstock goals were met without any issues



WDFW led additional discussion around returning timing and how program numbers influence collection timing, the potential benefits of targeted coded wire tagged fish for broodstock, and the trade-offs around targeting specific return timing in the long term and potentially not making brood stock collection goals (e.g., Fall Chinook). The focus on timing for Spring versus Fall Chinook is a really good example of collaboration between hatcheries, science, and management – and all the people involved.

Josua also explained that, based on the pre-season forecast for Fall Chinook and broodstock needs there will be no Fall Chinook retention. There was additional discussion about addressing data gaps around unmarked Fall Chinook juveniles passing the turbines at Mayfield.

Melora thanked Todd and Josua for presenting on this topic and responding to questions on the fly. Kris Warner potentially has more to present on this topic. Jenise will check-in with Kris when he is back to ask if he would like more time to present in September or at a later meeting, knowing that the FTC is scheduled to start with the Coho transition plan at our in-person September meeting

Action Item

- Jenise will check-in with Kris and follow-up with Jennifer and Melora if needed for a presentation on this topic at an upcoming FTC meeting.

Downstream Adaptive Management Technical Work Group (TWG)

Presenter: Chris Vaughn (Tacoma) *(Presentation emailed August 8)*

Acoustic telemetry project

Chris provided a brief update on the acoustic telemetry project. Sean was not able to attend this meeting, but he is preparing a deeper dive next month.

The Cowlitz Falls North Shore Collector telemetry study runs 2025-2026. They are looking at entrance configurations and what methods they can use to increase the collection efficiencies for Chinook using three different treatments: 1) a control treatment with 500 cfs inflow, 2) an occlusion plate blocking off half of the entrance face, also with 500 cfs inflow, and 3) tailrace discharge adding 250 cfs for a total inflow of 750 cfs.

They have one more tag and release event on August 12th, which will be 580 fish total. They've added an additional block at the end (with no tag/release) to allow more time for observing downstream migration and behavioral responses in the forebay.

Chris presented some promising detection efficiency data, which indicates equipment functionality, fish behavior, and data quality.

Josua asked what is the tag life of the acoustic tags? Is this showing some fish are delayed through their migration in the reservoir, so they are collected again after the acoustic tag is expired? Conservatively, the batteries are published to last 45-50 days although the consultant estimates longer.

Todd asked if the acoustic tags are surgical implants with an antenna. Are they scanned? Do you have numbers on fish that came through with a PIT tag but not a radio tag due to delayed migration? Chris responded there is no antenna. The dual tags are associated with their companion PIT tag so they would know if there was an acoustic tag that is no longer functioning at time of capture. Todd asked if it was looked at. Chris responded that they haven't seen it, but he wasn't sure if they had looked at that issue specifically. It is unlikely we would have seen this at this point considering tag life.

Coho parr

Mayfield and Cowlitz Falls facilities have historically had different dispositions for parr life stages. There is extensive literature on life history plasticity, especially this nomadic stage with Coho.

They brought this to FTC in January 2025 with the recommendation to begin passing Coho parr downstream. DD 2025-02 was approved in March, and as soon as the Cowlitz Falls Fish Facility was open, Coho parr were sent downstream. TWG was tasked with looking at performance monitoring associated with that decision.

They felt it was best to first take a passive approach to performance monitoring looking at SAR comparing it to juvenile-to-adult return (JAR), specifically Coho from the Upper

Cowlitz. Past SAR performance will be compared to 2027+ JAR. Ocean conditions, among other things, can drastically influence SAR, so they also plan to compare same year JAR to the SAR of same year FCE trial Coho smolts. If they see return rates below the lower bound of the confidence interval (6.5%, 2019-2023) for 3 consecutive years, they have the option of moving to Phase 2 looking at rate of downstream dispersal where they would tag parr and compare the downstream rate of observation to that of tagged smolts from the FCE trials. Depending on the results of a statistical comparison, they could move to an optional phase 3, which would focus on upstream overwinter survival and behavior. Phase 3 would come back to TWG for study design.

LCPUD updates

Presenter: Joe First

- They are in the middle of Unit 1 outage. Unit 2 is operating.
- The transmission line outage between Cowlitz Falls and the Glenoma substation is scheduled for September 3 – October 2. Unit 2 will still have 1-2 MW flowing.
- The sluice gate project is in the design phase and has been sent to NOAA. They wrote a letter to FERC disagreeing with their methods for seismic hazard analysis, and FERC responded that they agreed with us. There is a lot of permitting to work through, but optimistically they hope to start construction in 2029.
- Sediment removal in front of the sluice gates is scheduled for October.
- Alternate release sites in the Cispus look promising.

Peggy asked about flows in October during the outage. Joe described prescribed spill through October and noted they might be able to spill it over the North Shore collector during the outage. Peggy emphasized the benefit of this approach to avoid spilling smolts into Riffe Lake. Joe noted that the low flow conditions make the outage easier to manage. Tacoma and LCPUD have worked well together and will coordinate on this.

CRR Program Updates

Grant Round Funding

Presenter: Steve West (LCFRB) *(Presentation will be emailed when it is received)*

Steve went over the ranking for all 21 proposals received by the Lower Columbia Fish Recovery Board. LCFRB staff ranked all of the proposals, which were then reviewed by the 10-member Technical Advisory Committee (TAC). Kiona Creek was the only project submitted for Cowlitz Restoration and Recovery (CRR) Funding. Steve emphasized that Laura Wolfe did a great job with the Kiona Creek site visit and the overall application. Steve stated that all of the submitted projects were good projects and that the scores and rationales reflect this. However, projects are scored on their own merits and ranked relative to each other. Kiona Creek was ranked 20 out of 21 with several concerns identified: lack of benefits to fish relative to cost, lack of overall considerations of

watershed processes, ambiguities in the proposals, and surrounding property constraints to limit project success. With the ambiguity, it was unclear what was required by LCPUD under their license and what was being proposed. The TAC felt it was a good project, but they needed more information and greater clarification of project metrics. Although the project score was high enough to fund, the TAC-recommended and board-approved decision is do not fund Kiona Creek in 2025 due to the concerns. The overall TAC opinion is that this is a good project. Steve and Laura discussed the project and some ideas to make the proposal more robust. All parties have agreed to work together to make the project more robust, and LCPUD will resubmit in 2026 or 2027.

Steve and Melora reminded everyone that the LCFRB recommends projects but the FTC makes decisions on CRR expenditures following FTC decision protocols.

Melora reflected on the value of FTC's partnership with LCFRB to make these funding decisions. She expressed appreciation for the technical expertise of TAC and LCFRB staff and use of their robust ranking process. Steve shared that the LCFRB Board expressed gratitude for the TAC members and their role in ensuring the value for Tacoma Power's ratepayers.

Action Item

- Steve and Melora will work together to prepare a DD for the FTC's decision not to fund the Kiona Creek Project in 2025, which will be presented at the September FTC meeting.

HAP Subcommittee

Presenter: Melora Shelton (Tacoma)

There were no June workshop requests. The next opportunity is in October. They reviewed the application materials for 2026 and are only changing dates to match the SRF Board calendar which will be finalized in a few months. They will share the draft calendar and work plan after this meeting and will hold meeting time for technical assistance as needed.

2023 Funding Clarification Memo

Presenter: Steve Manlow (LCFRB)

Steve explained the purpose of this memo and agenda topic is to provide clarification for the record. The Crystal and Woods Creek Project was funded in 2023. There was a discrepancy between the preliminary project cost \$157,648 and the final cost \$168,098. They realized recently that the DD references the preliminary cost and was never updated to reflect the final cost that matches the contracted amount. All of the materials that the FTC used to make their decision, including linked PowerPoint presentations, applications, and the project summary correctly use the final cost, but the DD still had the original cost. The goal of this memo is provide an explanation for this discrepancy.

Melora proposed attaching this memo to the DD posted online and also attaching it to the FERC annual report for the record. Peggy asked that the DD include a note at the top that there is a memo appended. Melora will do so.

There was discussion about any need for further process. Members present (WDFW, Ecology, and Tacoma) agreed with this approach, but recognized that they would like to check-in with the other signatories, especially since it relates to funding. We will pause when we go through the August notes in September to ask if any other voting members want to weigh in.

Action Item

Melora: Add the memo as an appendix to DD 2024-04 with a note at the top that a memo was appended in August 2025.

Public Comment Period #1 - Agenda related

Jack: The closure of Fall Chinook on the Cowlitz shows the dire need to change management. Lewis County is missing out on millions of dollars worth of recreational value. The last FTC meeting showed that the Cowlitz Falls Hatchery Fall Chinook only have 20% of the survival of the Kalama hatchery. It's time for a change. He keeps commenting on this every year and yet sees changes delayed.

Larry: Larry echoed Jack's comment. He also asked Jenise what she meant by "proper broodstock".

Jenise: Tacoma has established cutoff dates for Spring and Fall Chinook. They are proposing to use molecular techniques to identify species and adjust cutoff dates if needed. If they are expecting a low return year for Fall Chinook and they need to collect more broodstock, this will help them understand if they can adjust the dates to collect earlier in the season. For the life cycle model, this will confirm numbers of outmigrating juveniles by strengthening our understanding between Spring and Fall Chinook populations.

Larry: Are SARs being tracked at the Cowlitz Falls Collection Facility?

Jenise: Yes, SARs are being tracked.

Larry: There is a good amount of Coho. The Springer SARs have exceeded the hatchery SARs and the sizes are coming out smaller than the hatchery release sizes, which is why SARs are important as they relate to hatchery management.

Topics for September 2, 2025 FTC Meeting in Chehalis with a Hybrid Teams Option

Coho Transition Plan

Option - Spring Chinook Transition Plan: Follow-up on Collection

AM TWG update – Sean Luis – presenting preliminary data
CRR funding draft DD and Fund update
Fish Collection: Mid-season Update
Satellite Rearing
Follow-up on Gravel and LWD placement
Usual Updates: Hydro Status, WQ, Fish Facilities, M&E, TWG
Preview October FTC Meeting Topics

Public Comment Period #2 – Any topic:

Larry: The release timing should be changed because of the thousands of seals at the mouth of the Cowlitz River. Who is responsible for release timing? Is it NOAA? Hatchery managers have said they have had earlier release times to try to avoid problems, but it's important to talk about it now instead of May and June when it is too late.

Wild Coho retention. Last year there were 14,000 wild Coho collected at the separator, yet we have not been able to retain wild Coho. He would like to know the progress.

How has fisherman participation and harvest been for late winter steelhead, springers, and summer steelhead? His sense was that planners generally don't know what fishing participation is like on the River. From his perspective, that needs to change, and planners need to take into account the economic impact.

Josua described how WDFW does creel survey in the Cowlitz and provided some preliminary numbers. He noted that while it does not provide a census, it does confirm that fish are being caught every week. Management numbers won't come out for another year. The 2024-2025 season just ended in April, and those numbers probably won't be available for a year. Numbers after April 2025 won't be reported until 2026.

Scott: Tacoma is working on various release strategies for each species based on the studies described earlier, particularly for different sizes for Fall Chinook.

Meeting Evaluation

What went well? What can we change or improve in the future?

- Kudos to Jennifer for providing a nice transition.
 - We demonstrated flexibility today and pivoted when we needed to.
 - Thank you to WDFW staff for filling in.
 - Glad to see “relax and refresh” stayed on the agenda.
-

Josua's Inspirational Quote

“The strength of a team is each individual member. The strength of each member is the team.” Phil Jackson

Closing Remarks

Melora thanked Jennifer and everyone for their contributions and commitment.

**Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Draft Meeting Summary**

September 2, 2025 from 9:30am-3:15pm

FTC Representative Attendees

Tacoma: Melora Shelton

WDFW: Bryce Glaser

ECY: Andrew Luymes

TU: Jonathan Stumpf

Additional Attendees

BPA: Michael Boyles

ECY: Anne Baxter

LC: Ann Weckback

LCPUD: Joe First, Laura Wolfe

LCFRB: Steve Manlow, Steve West

Tacoma: Jenise Bauman, Matt Bleich, Ben Caviness, Sam Gibbons, Sean Luis, Eric Shoblom, Chris Vaughn

WDFW: Brian Gale, Josua Holowatz, Elliot Johnson, John Serl, Sean Toomey, Kristopher Warner, Kevin Young

Facilitator: Jennifer Arnold, Reciprocity Consulting, LLC

Public Attendees: Randy LeDuc (Coastal Conservation Association), Fred Ming (Friends of the Cowlitz), and Larry Pryor (Northwest Fisheries Enhancement)

Remaining 2025 FTC Meeting Dates: Oct. 7, Nov. 4, Dec. 2 (in person)

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 on the public website.

Review of Agenda and Action Items

When reviewing the action items, Bryce and Melora followed up on a previous discussion revisiting the password-protected FTC website, including as a potential repository for files not on the public site (for example, PowerPoint presentations, subcommittee meeting summaries). It does not have live editing capabilities. It has not been updated since 2020, but we could consider how to make it useable without overhauling the whole site. Melora is the person who would make any changes and post any documents.

Action Item

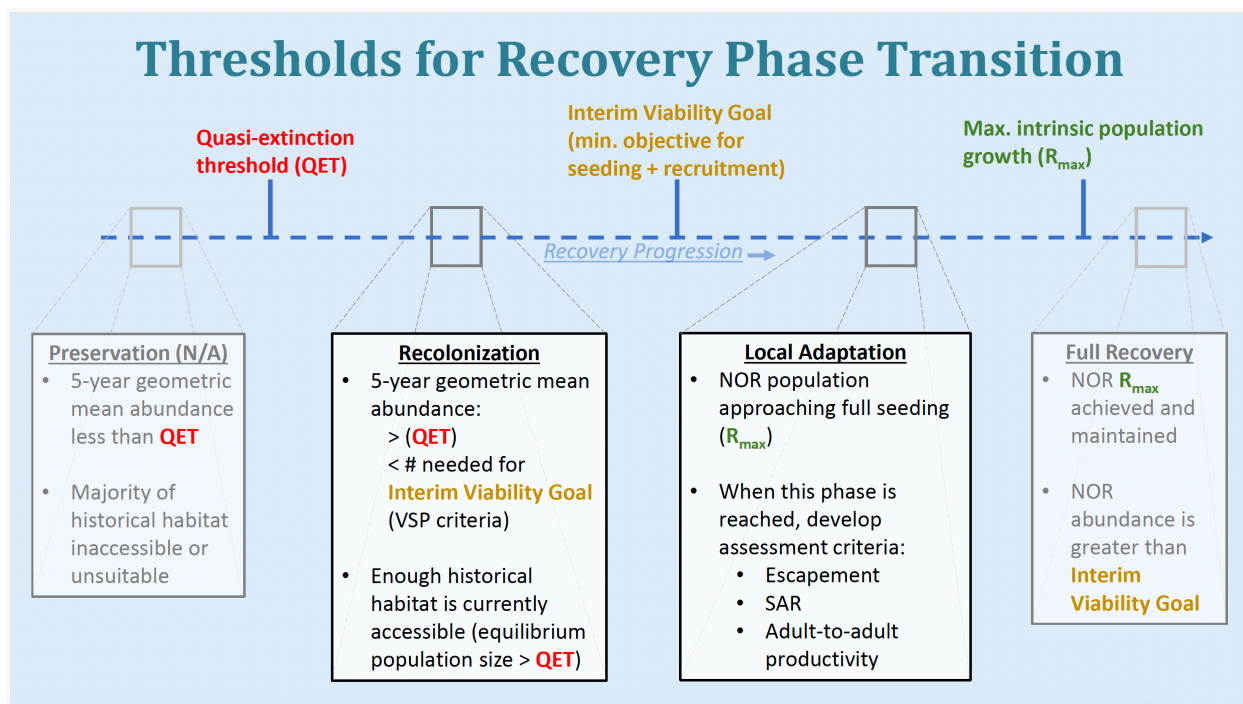
- Tacoma will internally review the potential functionality and utility of the password-protected website and bring back suggestions to a future FTC meeting.

Coho Transition Plan: Overview (slides emailed 9/4)

Presenters: Chris Vaughn and Sean Luis (Tacoma)

The Coho Transition Plan presentation used a format similar to the spring- and fall-run Chinook Transition Plan presentations from earlier this year. The purpose is to give an overview of the status and management of each species using the four phases of recovery (see image below).

Based on the current status of the populations, coho management in the Upper Basin is in the recolonization phase, while coho in the Lower Basin is in the local adaptation phase. Recolonization emphasizes use of hatchery fish to grow the population and try to colonize as much available habitat as possible, while keeping below a target of 30% HOR in the spawning population. Once the population grows to meet the amount of available habitat, management shifts to the local adaptation phase, emphasizing increase of NOR production and a decrease in proportion of hatchery-origin spawners (pHOS).



Chris and Sean presented targets for management and data showing that all were met or even slightly exceeded in 2024, including the broodstock mining rate and proportion of natural-origin broodstock (pNOB).

Chris noted that differential marking using Coded Wire Tags (CWTs) of coho smolts switched from CFFF to Mayfield in 2022. This change was primarily due to more manageable numbers of outmigrating fish at Mayfield. They will continue refining Mayfield operations based on the secondary separator study with fall Chinook that could be beneficial for other species like coho as well.

Bryce thanked the presenters for the digestible presentation. He seconded the notion that the change in marking strategy introduced some uncertainty in NOR adult returns, and that it would be good to get this onto the M&E Subcommittee docket soon to look into further. He recalled that last year there were fewer fish in Tilton compared to other areas, but those estimates could be a result of different marking strategies. Jenise noted this down as a future M&E agenda topic.

Bryce asked why they were not able to calculate Proportionate Natural Influence (PNI)? Chris responded that there were not robust enough estimates of pHOS in Upper Basin populations, pre-spawn mortality, and harvest rates to calculate a meaningful estimate of PNI. Bryce suggested that we could use previous Catch Record Card (CRC) data to generate a harvest rate and assume a low pre-spawn mortality rate for coho to begin generating estimates of PNI.

John, Josua, Bryce, and others emphasized that these results are exciting. Because the natural and hatchery origin populations are integrated, going forward, we will have a decreased number of surplus HOR coho. If the entire upper basin was combined, with the Tilton and lower Cowlitz, we could see over 20,000 NOR coho coming back each year, which is exciting.

Presenters invited discussion about the interim viability goal (IVG) as a minimum objective for seeding and recruitment and the threshold for transitioning from recolonization to local adaptation.

Bryce reflected that hopefully we can use the Life Cycle Modeling to validate targets and thresholds for transitioning between recolonization and local adaptation phases, which we can compare to the IVG for coho from the Recovery Plan. The recovery plan used the Ecosystem Diagnosis and Treatment (EDT) modeling framework to assess habitat criteria and capacity targets (methods described in appendices linked [here](#)). Bryce was involved at the time those were developed years ago. He emphasized that they populated EDT, which is a ranked model with ~40 habitat attributes. They used whatever data were available, as well as surrogate data from other systems to make informed assumptions and fill in the gaps. We also now have the Healthy and Harvestable Targets from the Columbia Basin Partnership Task Force that we can use with Life Cycle modeling derived numbers to help refine our targets.

Josua responded to questions about harvest management. He explained this is an area that is currently being worked on. Currently, the Lower Columbia is managed as one HOR-specific aggregate harvest group in the North of Falcon process of which the

Cowlitz coho are part of. WDFW highlighted that the coho transition plan calls for a tributary-specific forecast for NOR (and HOR) returns to be developed. They are making progress on this task, but conversations are ongoing.

Bryce also gave an update on the Fisheries Management Evaluation Plan (FMEP) and the steps needed for the Management Strategy Evaluation (MSE), which is similar to a Life Cycle Model approach across all Columbia River populations. They held a series of public meetings, it is now going through internal policy review, and then WDFW will submit it to NOAA for review this fall although it is unclear what NOAA's capacity or timeline will be to review. It will probably be based on impact rates instead of quotas. He will provide an update when it is ready. It will require independent HOR and NOR forecasts for implementation. He emphasized there is lots of progress.

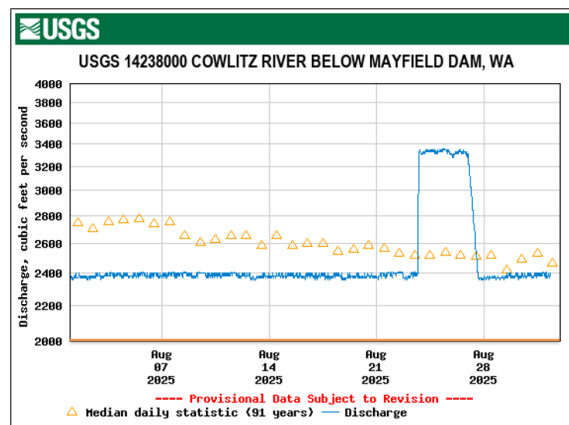
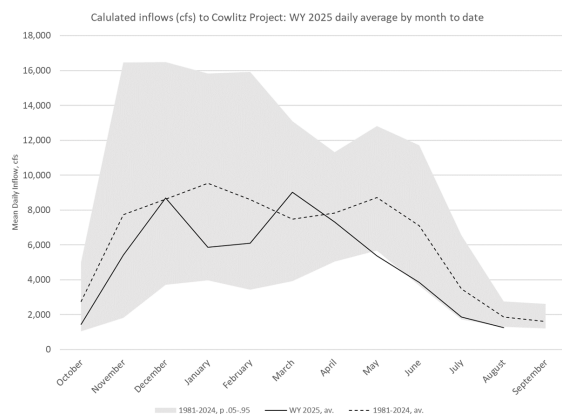
Updates

Announcements

- WDFW's Peggy and Todd are on vacation so not present this month.

Hydro Operations Update by Melora Shelton (Tacoma) (Emailed 9/1)

- Inflows continue to be very low (below) with conditions very dry and warmer than average.
- Riffe lake is at 721.4', well below long-term and recent historical average (729').
- Outflow has been mostly near typical summer low (2,380 ft cfs); 2,000 cfs is the summer minimum.
- No exceedances to report.
- All boat ramps are open. Courtesy docks have been closed.
- Forecast: continued very low inflows, maintain discharge in the current range.
- Tacoma will probably have to close boat ramps and will maintain coordination with WDFW.



Water Quality Update by Ben Caviness (Tacoma) (Slides emailed 9/4)

- Ben reviewed water temperature profiles and their monitoring locations.

Related Projects

- North Taidnapam Boat Launch Improvements Project – The parking area and the fishing trail are completed. Additional work will require lower reservoir elevations. They hope to complete everything by this fall.
- Kosmos oil clean up monitoring is on-going. In June, background metal testing occurred. Currently, they are having conversations with Ecology regarding the Remedial Investigation (RI) report.
- The Onion Rock Bridge pier repair – Phase 2 (armoring to prevent future erosion) is in permitting.
- Riffe Lake Fishing Area at Mossyrock Dam – There are concerns about rocks falling onto boulders where people fish. Tacoma is planning some mitigation options.

Fish Facilities Update by Eric Shoblom (Tacoma) (Slides emailed 9/30)

Separator Returns:

Currently at the separator, there are a majority of summer steelhead. In the next couple of weeks, they will go from hundreds of fish per day to thousands per day.

Cowlitz Release Sites:

Currently, all release sites are available and in working condition, except Lake Scanewa and Copper Canyon Creek, where temperatures are elevated. Temperatures are fluctuating a lot, so Tacoma is actively monitoring to release fish when they can.

Bryce followed up that they had identified Copper Canyon as a release site for NORs regardless of temperature. John clarified that cool water is available from Cispus in the channel at the release site, so even though it can get warmer where it is shallow next to the shore where the temperatures are taken, there should still be cool water available near the release site. He remembered that there were days when fish weren't released in Copper Canyon because some staff were out or a road had been closed, but they can be released there again now. He emphasized this isn't a big issue since there have only probably been 2-5 fish/day that could have been released. Eric appreciated this clarification.

Rainbow Trout Plants:

Annual rainbow trout plants have been completed as planned with over 100,000 planted across Mayfield Lake, Swofford Pond, and Lewis County Ponds.

Update on the Mayfield Net Pens:

WDFW and Tacoma are on schedule coordinating on logistics for Phase II.

Capital Projects: Cowlitz Trout Hatchery Remodel:

Tacoma is still in the information gathering stage of bioprogramming. Then, they will collaborate with WDFW. Groundwater workshops and investigations show the vertical and slant wells are the most promising to include in the alternatives analysis.

Climate change report: Cowlitz Trout Hatchery

A consultant is wrapping up a report examining the effects of climate change on the trout hatchery. The report is expected by September 16. It analyzes different climate scenarios against different operations scenarios, including full operations and reduced operations with the reservoir in its current and future condition. Among other things, the report will examine the impact of low flows from climate change. Even with climate change, low flows are more predictable in a dammed system than natural variability in an undammed system. The overall expectation with climate change is less snow and more winter rain.

Hatchery tours

The Tacoma core team toured the Cushman hatchery to hear the pros and cons of new technology. They also toured the Cowlitz Salmon hatchery last week to review the lessons learned from the remodel with their consultant McMillen.

Monitoring & Evaluation (M&E) Subcommittee by Jenise Bauman (Tacoma)

The M&E Subcommittee had a longer, in-person meeting to review all the metrics in the 2024 M&E plan to prioritize how to focus their efforts for each population. They identified high priority metrics and low-hanging fruit, where data are already available to incorporate into the Life Cycle Modeling (LCM).

They are gradually making progress creating a centralized database accessible to everyone from which to build the LCM. It is a big lift. They are starting with Upper Cowlitz winter steelhead because there were fewer gaps in the data. This month, Tacoma will be sending out a Request for Proposals for a third-party consultant to develop a model that can then be applied to the other populations.

Spring Chinook Fish Collection by Kristopher Warner (WDFW) (Emailed 9/4)

Kris shared a few slides as a brief follow-up from August's FTC presentation on this topic. He showed the bimodal distribution and explained how they hope to better differentiate spring and fall Chinook. Kris thanked Brian Gale (WDFW) for providing data and leading development of the adjusted data curves. Bryce emphasized how successful this has been and thanked everyone for their hard work. Kris emphasized that it will be good to talk next spring to reflect on how the fall collection went. Josua emphasized that by December or January, they will have the 2026 forecasts, which will be useful in that spring discussion. Kris, Josua, and John emphasized that this study will yield a lot of information on origin, actual ages, run time, spawn time, etc.

Cowlitz Restoration and Recovery (CRR) Update by Melora Shelton (Tacoma)

Melora shared the HAP subcommittee is mostly planning for next year because there is no active grant round. They are holding September 17 in case anyone needs support.

Gravel and Large Woody Debris (LWD) Placement Implementation *(Emailed 9/4)*
Presenter: Ben Caviness (Tacoma)

Ben shared photos and video of the LWD and gravel placement. Everyone celebrated that Tacoma has now caught up on their targets and even exceeded them. “You guys rock!” It has been since 2016 when the targets were last met. Melora emphasized that it has been a long road to reach agreement on an approach, and it feels really good to be back on schedule.

Fish Collection: Periodic Updates

Melora reminded the FTC since Tacoma is sending out weekly fish collection reports we have shifted to periodic instead of monthly FTC report outs. This is the first opportunity, and feedback on the change is welcome.

Adult Fish Collection

Presenter: Eric Shoblom (Tacoma) *(emailed 9/30)*

Coho – Tacoma collected the first coho of the season August 25 – 2 NOR and 2 HOR. Coho is a single integrated population with a goal of 50% NOR.

Winter steelhead – Collection started December 1 rather than February with broodstock collection completed successfully by May 13. There was a fecundity drop, so they collected a few more later in the season and program goals were met.

Spring Chinook – Returns have been well above the 5 and 10-year average. The hatchery program is still segregated until NOR returns increase.

Cutthroat trout – All HOR collections are now being used for broodstock until goals have been met. Both HORs and NORs are well-below the 5-year average.

Summer steelhead – Collection is currently underway.

Fall Chinook – Returns were higher than average for the first half of August, then slowed. Return estimates forecast a lower than average return.

Downstream Passage at Mayfield and the CFFF

Presenter: Sean Luis (Tacoma) *(emailed 9/4)*

For Mayfield, it was an above average year for outmigrating juvenile abundance. It was a big year for fall Chinook in the Tilton at greater than 2 times the 5-year average for yearlings and 1.8 times the 5-year average for sub-yearlings. Coho and steelhead were close to their 5-year average. Above-average frequency of fall-run Chinook mortality was likely driven by exceptionally high abundance.

For CFFF, it was a big year for Chinook and coho – exceeding more than 200,000 yearling coho smolt for the season, which is awesome.

2025 Fish Collection Efficiency (FCE), including Chinook, will be presented at a later date once finalized.

Spring FCE has shown to be inversely proportional to discharge, which has been a topic of discussion at the TWG. The acoustic telemetry study with Chinook can help understand some of the environmental factors during the summer months. Discharge is directly proportional to differential pressure (DP refers to the vertical difference in water surface elevation on either side of the trash rack). DP has a statistically significant inverse relationship with FCE in regression models going back to 2017. Tacoma is working with LCPUD to increase debris removal efforts during spring months working to remove debris earlier. LCPUD has been working to get it down to 10', and Tacoma and LCPUD are working on a cost share agreement to mobilize a contractor to get it down to zero. Tacoma Power is awaiting approval from the BPA legal team to finalize the agreement.

LCPUD updates

Presenter: Joe First

- The transmission line outage between Cowlitz Falls and the Glenoma substation started today September 3 and will go through October 2.
 - There is currently 5-10' of sediment on the trash racks, which they are hoping to get to zero. It was at zero a few years ago. Typically, woody debris is attracted to the trash racks 100' below the surface, then the sediment packs in around it. It is a normal cycle that needs maintenance.
 - They are running 1-5 MW. It used to be that 12 MW was the minimum at 1850 cfs. After experimenting, they can now go below 5 MW without spilling. Ten years ago, they would have been spilling 100%, but now they can spill less and turn the units on and off.
 - The sluice gate project is in the design phase and has been sent to NOAA. They need to work through dam safety and environmental review permitting, but they hope to start construction in 2029.
 - They are working on the trash rake replacement, which clears the trash rack. They hope to have the design done by December 2025 to keep up with the debris.
-

Updates on Cowlitz Falls North Shore Collector Acoustic Telemetry (AT) Study

Presenter: Sean Luis (Tacoma) *(slides emailed 9/4)*

- The AT study seeks to investigate collection efficiency for spring Chinook. Specifically, entrance efficiency. This presentation builds from what was shared at the FTC Spring Science Conference in April 2025. Results will inform potential

operational changes within the Draft Adaptive Management Program (AMP) decision framework.

- This presentation described the project area and study design with placement of acoustic receivers. It was designed for high coverage and redundancy, which has served the project objectives well preventing gaps in data despite some minor issues with equipment failure and vandalism. The consultant has relationships with both technology companies they are using, which has helped resolve issues.
- In light of the planned generation outage at Cowlitz Falls Dam, TPU will be tracking reservoir inflow and working with LCPUD to respond to high flow events. They have had to compromise between maintaining study treatment conditions and losing fish via LCPUD spill events. It is a priority not to lose acoustically-tagged fish. Downstream receivers are meant to account for and enumerate acoustically-tagged fish we lose to spill events.
- After transport, the tags are still active for a period of time (~50 days post-activation) depending on battery life.
- With the LCPUD outage starting today, there are some remaining tagged fish trickling in, and they will continue to collect environmental and operational data through September 16. At the end of the data collection season, they will breakdown the equipment and store it until data collection starts again next year. They will collect two years of data.
- Sean shared some preliminary data. Changes in FCE for acoustic tagged fish align pretty well with PIT tagged fish. It will be a very large and useful data set when they are done. Analysis will be a big lift involving multivariate statistical analyses at multiple spatial scales within the study area. The final report is expected in 2027 along with any related AMP decision(s).
- Sean emphasized that this has been a big effort with involvement from a significant portion of the Tacoma Power Natural Resources Department. Matt emphasized how massively complex a study like this is and how fortunate it is that everything has gone so smoothly. Everyone congratulated the team effort.

CRR Program Updates

Grant Round Funding

Presenter: Steve West (LCFRB) *(Emailed 8/26)*

Steve walked through draft DD 2025-06, reviewing the highlights that were discussed at the August meeting. In summary, LCFRB ranked 20 proposals for funds from the Salmon Recovery Funding Board along with the 1 proposal for CRR funding from LCPUD for a project at Kiona Creek. All of the proposals ranked fairly high with the LCPUD proposal ranking 20th out of 21. However, the LCFRB Technical Advisory Committee (TAC) and LCFRB board recommendation was not to fund the LCPUD proposal for 2025. LCFRB staff, LCFRB TAC, Tacoma Power, and LCPUD have agreed to work toward clarifying project metrics, goals, and objectives to improve the proposal.

Through this coordinated effort, they hope the LCPUD will strengthen the proposal and resubmit in 2026 or 2027.

Action Item

- Anyone who has comments on draft DD 2025-06, please reach out to Steve West in the next two weeks, so he can make changes before distributing the final DD in advance of the October FTC meeting.
-

Public Comment Period #1 - Agenda related

Randy expressed concern about narrowing of the gene pool resulting in fewer 'biters.' If Tacoma is able to expand the gene pool, there is a tendency for fish to bite better. John and Eric emphasized that this is the first year with an integrated population now at 50% pNOB and that the broodstock is robust with 2,400 adults. Sam mentioned if the concern is that domestication creates non-biters, then the changes we made should reduce those effects. Bryce recognized that this is an age-old question about biters. There have not been many studies looking at this, but he and Jonathan cited [one study](#) from Alsea River in Oregon looking at steelhead, where they actually found the opposite of what was expected: the second generation from angler-caught fish contributed less to catch than fish with hatchery returning parents.

Larry echoed what Randy shared: With wild coho, when will we be able to catch and eat them? The harvest rate is 5.6-19.3% with a mean of 13.7%. There is substantially lower participation. Is anyone alarmed? Chris responded that those harvest rates from the transition plan are outdated numbers. Bryce responded that they are not prepared to respond today about harvest rates. Coho rates tend to be lower due to the time of year when rivers are coming up and fish are moving hard. Josua presented harvest data at the Annual Program Review. WDFW has an application into NOAA to update the Fisheries Management and Evaluation Plan (FMEP) this fall although it is unknown what NOAA's timing will be to review it due to their current capacity constraints. A Management Evaluation Plan (MSE) allows management to change year-to-year based on impact rate. If there are more NOR fish in a year, allowable harvest can increase within that impact range.

Larry also asked about spawning matrix and milt management for coho. What are you doing? Referring back to Randy's comment, he suggested harvesting milt from biters. Bryce responded that, because the Cowlitz has such a large coho program, they use 1:1 adult male to adult female ratios with back-up males and no matrix spawning.

Larry asked if anyone is tracking returns for coho adults that pass Cowlitz Falls Dam as juveniles.

Topics for October 7, 2025 FTC Meeting on Teams

Coho Transition Plan follow up topic, CRR funding final DD, Satellite Rearing, overview of proposed DAMP update, and Usual Updates: Hydro Status, Water Quality, Fish Facilities, M&E, TWG and LCPUD

Public Comment Period #2 – Any topic

Larry reflected that the fishing season is over on the Cowlitz until March. There are no fall Chinook, and he hasn't been able to catch coho. He referred to the Settlement Agreement 6.1.1 and 6.1.6. that states, "maintenance of a recreational fishery is important." What does that mean to FTC? Why are there not more specifics about what that means? Bryce responded that as we talk through FTC topics, we continue to talk about recreational fishing. Reintroduction and recovery is the primary focus, but that language in the Settlement Agreement recognizes that recreational fishing is also important. While we are reintroducing, we are also managing for harvest. It is a part of our hatchery program. If we would be solely focused on recovery, we wouldn't be doing all of that. Matt emphasized that is why we are managing each population according to the phases in the transition plan overview presentation. We are working toward recovery and to increase recreational opportunities where we can. It is a balance that we talk about every day.

Meeting Evaluation

What went well? What can we change or improve in the future?

- Several people emphasized that the Coho Transition Plan presentation was well done. Presenters effectively used the last slide to promote discussion and engagement. There was good collaborative discussion.
 - Sean thanked Scott Gibson for putting together the first Transition Plan presentation, which served as a good framework for the others. He thanked John and Josua for help with some of the content for the slides.
 - Eric thanked Melora for a tip on sharing his PowerPoint on Teams.
 - Randy emphasized great job with everything. There are a lot of improvements.
 - Larry asked if there could be time for public comment after a particular comment, even if just 1 minute, rather than waiting for the end, especially considering he travels quite a distance to make this meeting.
 - The pizza delivery was late, but it seemed like a one-time mistake.
 - Melora thanked everyone for being so flexible with the agenda, especially the patience of people online, as we figured out the timing of our lunch break.
-

Josua's Inspirational Quote

"Education is for improving the lives of others and for leaving your community and world better than you found it." - Marian Wright Edelman.

Closing Remarks

Melora recognized the positive evolution of the FTC and thanked everyone for their contributions and collaboration.

**Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Meeting Summary**

October 7, 2025 from 9:30am-3:15pm

FTC Representative Attendees

Tacoma: Melora Shelton

WDFW: Peggy Miller (morning) and Bryce Glaser (afternoon)

ECY: Andrew Luymes

TU: Jonathan Stumpf

Additional Attendees

BPA: Michael Boyles

LC: Ann Weckback

LCPUD: Laura Wolfe

LCFRB: Amelia Johnson

Tacoma: Jenise Bauman, Matt Bleich, Sam Gibbons, Scott Gibson, Jamie Murphy, Sean Luis, Eric Shoblom, Chris Vaughn

WDFW: Brian Gale, Josua Holowatz, Todd Hillson, Larona Newhouse, John Serl, Kristopher Warner

Facilitator: Jennifer Arnold, Reciprocity Consulting, LLC

Public Attendees: Randy LeDuc (Coastal Conservation Association), Greg King (Friends of the Cowlitz, formerly Cowlitz River Advisory Group), Larry Pryor (Northwest Fisheries Enhancement), and Chris Vandenberg (Northwest Fisheries Enhancement)

Remaining 2025 FTC Meeting Dates: Nov. 4, Dec. 2 (in person)

Approval of August Meeting Summary

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

Review of Agenda and Action Items

We reviewed the agenda and action items, then proceeded with the meeting.

Updates

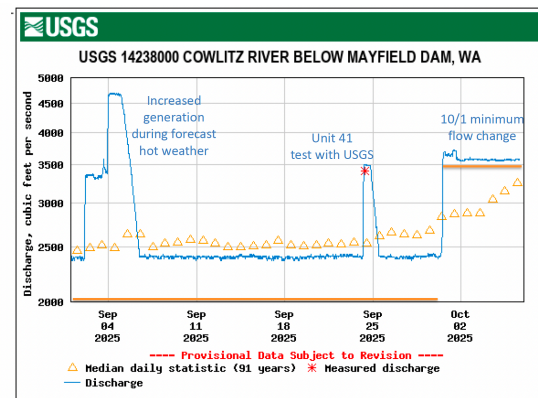
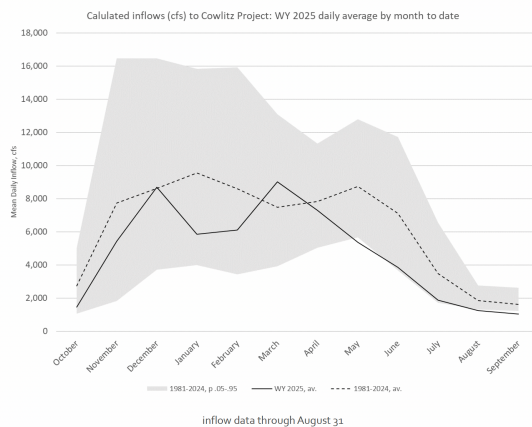
Announcements

- Melora acknowledged that federal partners are not present due to the federal government shutdown.

Hydro Operations Update by Melora Shelton (Tacoma) (emailed 10/6)

- Continued warm and dry conditions, low or extremely low inflows since May.
- WY 2025 ended with below average precipitation.

- Reservoir has been drafting since mid-June, at near-record low.
- Discharge at Mayfield mostly near or at minimums, two exceptions during hot weather.
- Near term outlook is dry.
- No operational changes anticipated until consistent fall rains return.
- USGS has confirmed that they commit to maintaining their network of streamflow gauges throughout the federal shutdown. However, they will not be doing validation measurements, and there may be a delay moving data from provisional to final status.



Current (10/6) 3,590 cfs.

Ramping at 1 in/hr 24 hr, min flow 3,500 cfs. No exceedances.

Fish Facilities Update by Eric Shoblom (Tacoma) (emailed 10/8)

Separator Returns:

Currently at the separator there are spring Chinook, fall Chinook, coho, summer steelhead, cutthroat trout, and a few chum, sockeye, and pinks returning. The majority of the fish returning currently are coho.

When separator staff collect 500 fish for 5 straight days, they begin operating 7 days a week. They averaged about 750 fish each day last week, so they will shift to operating 7 days a week this coming weekend.

Cowlitz Release Sites:

All of our release sites are currently operational.

The US Forest Service and LCPUD are currently working on a pathway for permitting a second release site across from the existing site.

Update on the Mayfield Net Pens:

WDFW and Tacoma are on schedule with Phase II with plans to stock in December.

Capital Projects: Cowlitz Trout Hatchery Remodel

Tacoma is still in the Water Supply Alternatives Analysis phase of this project.

Tacoma has completed many parts of the analysis, including:

- a complete review of existing studies and documents,
- the schedule, risk register, and other project management materials
- full grounds survey
- an initial Stormwater Management Plan, which will be updated as design progresses
- a Site Hydraulic Model
- groundwater investigation
- a Climate Change Study
- initial Bio Programming, which will be updated throughout each phase and decision point, and
- Design Basis Memorandum, which details general expectations for all phases of design.

The remaining parts they are working on include: Ozone Treatment and Intake Evaluation, Existing North Well Physical Evaluation, and Head Tank Alternatives.

Working with their consultant, Tacoma hopes to have a decision on the water supply alternatives and which combination of approaches to move into design by Jan 15.

Monitoring & Evaluation (M&E) Subcommittee by Jenise Bauman (Tacoma)

Life Cycle Modeling

Tacoma is going through a final legal review before posting a Request for Proposals (RFP) for a third-party consultant to develop a life cycle model (LCM). Thank you to the WDFW modeling team for helpful feedback on the RFP.

Tacoma and WDFW are making progress creating a centralized database accessible to everyone from which to build the LCM. They are starting with the Upper Cowlitz winter steelhead and then will move onto other populations. It is going smoothly so far. They hope for data delivery over the next month.

Spring and fall Chinook DNA Collection

A big thank you to TPU and WDFW staff working at the adult return separator and broodstock sampling. They will have some great data to fine tune spring and fall Chinook collection so that they will know if there is hybridization. It will inform moving through the decision-tree. For example, if they see fall Chinook in this window, should they halt collection of spring Chinook? It will also help them confirm that they are sorting correctly.

Net Pen Assessment

Kris, Todd, Chris, Scott, and Phil have been working steadily on the study design and questions.

Transition Plan Updates

Tacoma is continuing with the Transition Plan Update presentations to show the framework and data highlighting ongoing questions they are working on and the direction of the program. This month, they focused on coho, then in December, they will focus on winter steelhead.

Scale collection

Tacoma has some scales to read that were collected in previous years.. Data from the scales can help close the gap in the LCM data set. Jenise will reach out to Todd soon about processing these through the WDFW aging lab.

Tipping's proposal

The M&E Committee has been busy with the LCM and hatchery remodel, but they haven't forgotten about this proposal. They will get back to it when they have a chance.

Fall Chinook release strategies

The Cowlitz Salmon Hatchery has had low fall Chinook broodstock collection so far, and they are not close to proposing alternate smolt release strategies. They are in the initial stages of thinking through the 2026 potential bio programming plan.

Cowlitz Restoration and Recovery (CRR) Update by Melora Shelton (Tacoma)

The HAP subcommittee has not gotten any requests for support, but they are available if needed. They are waiting on the 2026 calendar from LCFRB before they set their calendar.

TWG Subcommittee Update by Sean Luis (Tacoma)

Draft Downstream Adaptive Management Plan (DAMP)

Tacoma is currently working on refreshing the draft Adaptive Management Plan, which was written by TPU, WDFW and NMFS in 2014 before the Cowlitz Falls North Shore Collector (CFNSC) was built. They want to clean up the language that talks about what would happen after the CFNSC was built and replace it to describe the current reality, however the TWG would like FTC direction on how to proceed. They emphasized that the decision-making framework has not changed. They would like to present this DAMP overview to the FTC in November if possible so that the FTC can direct the TWG on how to proceed with this document. The presentation would include decisions that have been made since 2014, scientific findings, and next steps.

Question: Peggy asked if Tacoma considers the current Adaptive Management Plan a draft? It was supposed to return to the FTC for a decision. Can you address this next month?

Suggestion: John asked if they could present a roadmap or table of contents of what the DAMP contains since it is a lengthy document. It would be helpful for the FTC if it

was laid out like the Transition Plan presentations starting with the decision-making framework and explaining how that provides a roadmap to determine how to proceed.

CFFF Summary Report

The report is being reviewed by the subcommittee. The CFFF staff has handled about 300,000 outgoing smolts and also set a new record for Chinook smolts captured.

CFNSC Acoustic Telemetry (AT) study

TPU and consultants demobilized the AT field equipment on October 1.

A Process Note about Subcommittees by Melora Shelton (Tacoma)

Melora reminded people that each subcommittee creates their own meeting summaries using the same template for consistency and those are distributed to the FTC. The FTC can rely on those documents in order to keep the FTC meeting summaries high level. She will send these out tomorrow and include reminders of upcoming meetings.

Action Item: Melora will send subcommittee meetings summaries and upcoming meeting dates to the FTC. *(done)*

Introduction of draft TWG charter by Jenise Bauman (Tacoma)

Jenise walked through the draft charter explaining that it follows the same structure as the M&E charter that the FTC recently approved. She walked through the overview, context, roles and scope. She reached out to their NOAA representative James Archibald, who confirmed he is still the point of contact for TWG. She will prepare a draft DD for FTC to discuss at the November meeting aiming for a final DD in December.

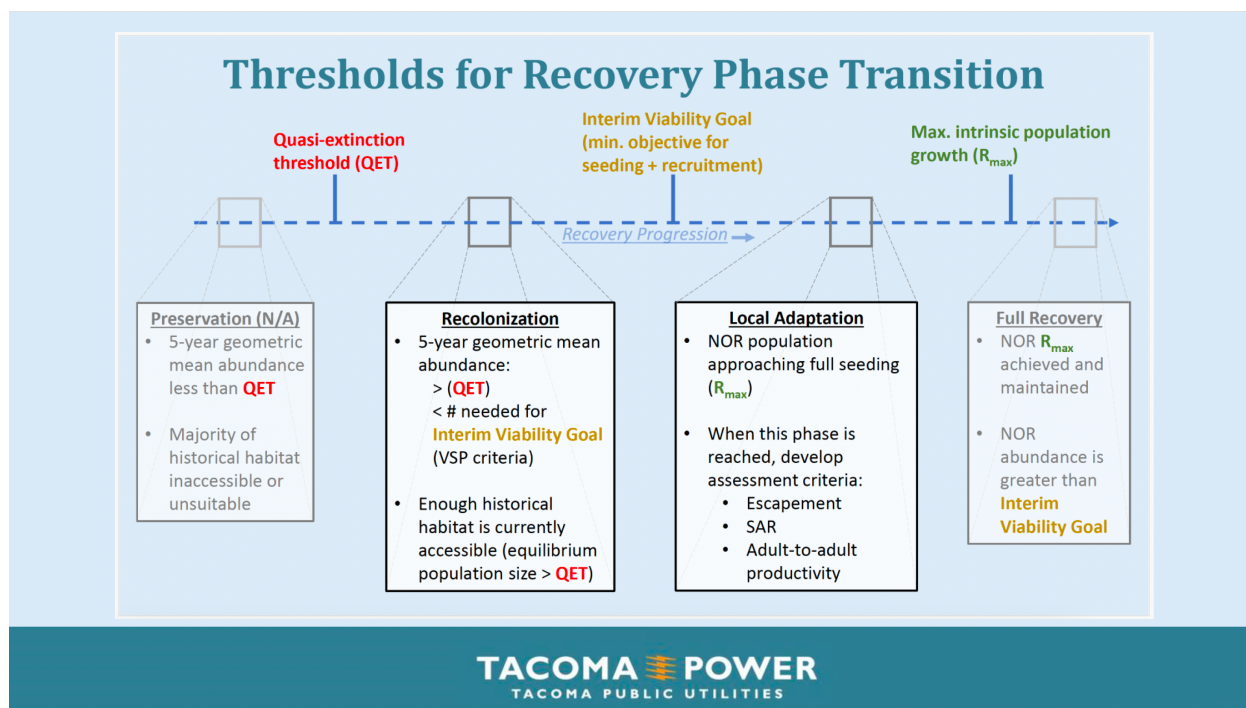
Action Item: Jenise will send the draft TWG charter to the FTC for review. Everyone should reach out directly before the next FTC meeting if they have questions, comments, or edits.

Melora reminded everyone that this step of adopting charters is to formalize how the subcommittees work in alignment with FTC protocols. We will plan to revisit each charter annually. Updates to membership won't need a DD, but we would want to initiate a DD if there are big shifts.

Coho Transition Plan Part 2: Data Dive *(emailed 10/8)*

Presenter: Jenise Bauman and Scott Gibson (Tacoma)

Last month, Chris and Sean presented the framework for understanding phases and triggers for coho transition planning to put in context our current situation in the progression toward recovery. The Upper Cowlitz is in the recolonization phase, the Tilton is in the recolonization phase, and the Lower Cowlitz is in the local adaptation phase, such that all have goals for conservation and harvest.



Jenise emphasized that all program goals for coho at this stage are being met:

- There is a single Upper Cowlitz Subbasin Integrated Hatchery Program.
- Since 2022, they have begun CWT marking of coho smolts handled at the Mayfield Dam Juvenile facility.
- They are conducting a coho pilot study to assess program performance.

Jenise and Scott presented the 5-year data summary and highlighted key points:

- Fish Collection Efficiency (FCE) tends to vary by water year. Current studies (Chinook) will aid in understanding environmental conditions that also impact Coho and contribute to performance improvements.
- Adult HOR returns are steady based on the five-year average. However, these estimates don't yet incorporate harvest, and Tacoma did not yet check the returns with WDFW.
- Hatchery production goals have been consistently met.
- SAR values for both basins are steady. NOR in the Upper Cowlitz is 7%. NOR in the Lower Cowlitz will require additional years of data to estimate due to the change in tagging strategy in 2022, which likely inflated estimates before that.
- The Tilton 5-year average illustrates greater smolt production with lower adult numbers, which suggests that maybe the carrying capacity is being reached.
- Needs for transition planning:
 - Upper Cowlitz better spawner abundance estimates
 - Lower Cowlitz more years of data with new tagging strategy

They highlighted some conclusions and next steps for each basin.

Upper Cowlitz in recolonization recovery designation

- Enough historical habitat is currently accessible (including by trap and haul) for maintenance of an equilibrium population size greater than QET (to be determined during Population Phase Assessment).

Tilton in recolonization recovery designation

- Develop assessment criteria for trigger(s) such as R_{\max} , SAR and/or adult to adult productivity during the next year for determining how to move between recovery phases.

Lower Cowlitz in local adaptation designation

- Develop or confirm assessment criteria for trigger(s) during next year, such as escapement, R_{\max} , and adult to adult productivity.
- Maintain pHOS goal of 30% while Upper Cowlitz Integrated Program is established and reassess as program matures and data becomes available post 2025.

Jenise invited everyone to continue to think about how to use this data to better plan and create decision trees. They will return to this topic for at November's meeting.

John emphasized that the Tilton is a separate basin with a distinct population, also in the recolonization phase. He said they have 30 years of data from the Tilton. Is it worth going back to look at that data? They have enough HOR for seeding, but they are not sure if the habitat on the Tilton is underutilized. They have not been able to do spawning surveys. He suggested they could do a more rigorous hatchery evaluation to see how many hatchery fish are spawning. The catch record cards probably underestimate harvest.

Melora thanked the presenters for taking this time to share data and explain the goals around HOR and interactions among HOR, NOR, and other variables. It is helpful to see it laid out and compared across basins in the context of ongoing research.

Sam praised Larona and her staff for all the work that makes it possible to hit the targets for harvest opportunities and conservation.

LCPUD updates

Presenter: Laura Wolfe

- The transmission line between Cowlitz Falls and the Glenoma substation was energized on October 3.
- Cowlitz Falls Unit 1 was started on October 3 and continues to run.
- Maintenance on Unit 2 is wrapping up, and crews will get Unit 2 available to operate on or before October 16.

- Crews continue to remove debris on the unit trash racks. There is only about 5 feet remaining on the trash racks. We will remove the remaining debris using a crane in early March 2026.
 - They will remove the baffle panels in two weeks.
-

Satellite Rearing Proposals *(emailed 10/8)*
Presenter: Sam Gibbons (Tacoma)

Sam began his presentation reflecting on the challenges of proposing feasible options for satellite rearing on the Cowlitz over the last 25 years. There have been many proposed options, but nothing has gained traction. He emphasized that this presentation represents a different approach from what was originally envisioned at the time of the Settlement Agreement, but an approach that is designed to meaningfully support the recovery objectives.

He reminded people that a lot has changed since the Settlement Agreement was written. They were managing in a preservation phase with little to no NORs. There were challenges with FCE. They were doing juvenile and adult supplementation and upper watershed acclimation and release. They have made progress growing NOR populations and increasing FCE, especially with the new collector in 2017. Juvenile supplementation in the upper basin has now been discontinued and the focus is on adult supplementation. They don't want juvenile hatchery fish competing with NORs in the upper basin. Their goal with this new approach was to think creatively about meaningful projects that will benefit recovery given the current situation.

Sam clarified that these proposals focus on satellite rearing 'opportunities' not 'sites.'

Sam cited the Settlement Agreement Article 5:

- "The Licensee shall be responsible for funding the operation and maintenance of the Cowlitz Hatchery Complex consisting of the remodeled Cowlitz Salmon Hatchery, the remodeled Cowlitz Trout Hatchery, and **three satellite rearing facilities**, for the duration of this license."
- Article 5 further clarifies, "**production shall emphasize the recovery of indigenous stocks**, and production and management of all stocks shall be consistent with that goal."
- The License and Settlement Agreement also emphasize an adaptive management approach: "**An adaptive management approach to implementing the Agreement is a central concept.**"

He explained that all proposals must:

- Meet FERC requirements
- Promote recovery

- Have a high probability of success and
- Have broad support.

He emphasized that they looked for a synergistic approach that:

- fits within existing fish management
- augments current conservation and recovery efforts and
- leverages existing capacity to maximize results.

He presented a high-level overview of the three proposals, which they developed working closely with WDFW and which are collectively expected to increase production by an estimated 15,300 lbs.:

1. Mayfield Net Pen Coho rearing program, assuming pilot phase 2 is successful, Satellite Rearing implementation in 2026-27

Benefits

- Estimated increases spring Chinook abundance (250-500 adults)
 - Maintains current coho program (2,500-10,000 adults)
 - Added capacity dedicated to coho now, which could be flexible in the future as conditions and needs change
2. Cowlitz Falls spring Chinook activating additional raceways for rearing (35,000-50,000 spring Chinook), utilizing this space to extend rearing of part of the fall release of sub-yearlings program to yearling stage with a potential start date in 2026 or 2027 pending upgrades to develop a dedicated waterline

Benefits

- Estimated increases abundance of spring Chinook (250-500 adults)
 - Acclimates spring Chinook to the upper watershed
 - Provides a pathway to an integrated program – Transition Plan/FHMP
3. Expand Cowlitz Falls Fish Facility operations from March to December as much as possible considering weather, debris, drawdowns, repairs, etc. with a potential start date October 2026

Benefits

- Additional outmigrant collection – All ESA listed species
- Further improves FCE
- Increase abundance & productivity
- Potential life history diversity benefit

Sam emphasized that none of the proposals will conflict with current hatchery operations.

Jennifer asked FTC voting representatives to weigh in with initial impressions of the proposals.

Bryce responded that he is conceptually supportive of the three proposals. He reminded FTC that WDFW wrote a letter in 2019 to Tacoma supporting a pivot away from traditional satellite facilities and toward more relevant options that can promote faster recovery. He emphasized that all three options have flexibility for an adaptive management approach, which is a benefit. He emphasized that he would want to evaluate the third proposal as it gets implemented to assess how much it is possible to expand operations at the CFNSC given weather, maintenance, etc.

John Serl asked if they could rear integrated steelhead at Cowlitz Falls or just spring Chinook. Sam responded that they are developing this proposal specifically for spring Chinook, but if needs change in the future, there is that capacity to redirect to integrated steelhead or whatever the needs are determined to be.

Jonathan Stumpf responded that he appreciates this creative approach and feels it is moving in the right direction, especially with the focus on adaptive management.

Andrew responded that his initial impression is positive and that it is clear everyone has put a lot of thought into these proposals.

Melora emphasized that she likes how all three proposals foundationally provide increased capacity and flexibility, which are important to the FHMP and transition plans.

Bryce clarified that the intent is to add poundage at the net pens and raceways and that the estimated 15,300 extra poundage would not be included in the 650,000 pound production cap.

Matt B. reflected that these proposals reflect a lot of thought and collaboration over the years. He thanked Sam for all of his work. He emphasized that he is excited that they will be able to do something meaningful to benefit recovery. He reached out to FERC already since this is a non-traditional approach and they were comfortable with this direction.

Eric emphasized that he is also excited to be moving forward something meaningful with a high probability of success. Since he was hired in 2015, they have been going around and around with different ideas, some of which had a much higher risk of damage from storms or vandalism. The proposals we are discussing now are in protected facilities where there are support people on call who can respond to emergencies. John Serl agreed.

Sam will prepare a draft DD with more details for each of these proposals and circulate it in advance of the November FTC meeting for people to review. They will aim to have it go out with the meeting materials a week before the November meeting. Matt B. encouraged voting members to reach out directly with questions or edits, so we can keep the proposals moving forward and avoid wordsmithing during FTC meetings.

Bryce noted that federal partners are currently furloughed, and it will be important to hear from them. He also emphasized that we should keep moving forward and that this is consistent with the Hatchery Genetic Management Plans (HGMPs).

Cowlitz Falls North Shore Collector AT Study Update (*emailed 10/8*)
Presenter: Sean Luis (Tacoma)

This AT study seeks to investigate collection efficiency for Spring Chinook, specifically entrance efficiency. Last month's presentation focused on the methods, while this month focused on preliminary data and next steps for analysis. Results will inform potential operational changes within the draft Adaptive Management Program decision framework.

2025 End of Season Data Update

- The monitoring equipment was successfully demobilized thanks to many Tacoma and LCPUD staff.
- Sean showed some preliminary data with the caveat that the final two weeks of data from two autonomous upstream receivers have not yet been processed.
- The LCPUD line outage (Sept 2-17) created altered forebay hydraulics due to:
 - CFNSC Inflow variable throughout LCPUD outage (reservoir Water Surface Elevation)
 - Pumpback Diffuser System pumpback volume below normal (normal = 520cfs)

Study Questions and Hypotheses

- Sean shared testable hypotheses, response variables and data attributes for four location-specific collection efficiency metrics and several metrics related to travel, diversion, entrainment, Zone of Influence (ZOI) microhabitat selection, and behavior.

Next Steps for 2025

- Continue developing positioning protocol
- Continue covariate data consolidation
- Data exploration to characterize covariate relationships considering 78 potential covariates
- Develop multivariate mixed effects models
- Draft a 2025 interim report

Matt B. emphasized how exciting it is that this very complex study is going so smoothly.

CRR Program Updates

Grant Round Funding

Presenter: Amelia Johnson (LCFRB) *(Emailed 8/26)*

Amelia referenced DD 2025-06 and the attachments that have been sent out for review and discussed at the August and September FTC meetings. She emphasized that the recommendation is not to fund the project at this time but to work together to make it a better project for a future funding round. There were no additional comments.

DD 2025-06 was approved by FTC voting members present and will be sent out for electronic approval from FTC voting members not in attendance.

Process Question about FTC Business during the Federal Shutdown

Melora recognized that federal partners are currently in furlough status due to the federal shutdown. She suggested the FTC might want to develop protocols in the future in case this happens again. She emphasized the intention is to give all FTC voting members an opportunity to participate in all decisions alongside the importance of keeping FTC business moving forward. Tacoma consulted with their legal team and proposed that if the federal shutdown continues past the 7 day electronic approval window that they allow another 7 days, which would be 14 days total, in the hopes that the federal government would resume operations and they could respond. In the case that the shutdown continues beyond that 14 days, they propose finalizing the decision.

Bryce, Jonathan and Andrew generally agreed with the approach. Discussion included checking in with Federal partners at 14 days, noting that some Federal leadership positions are available for urgent issues, that we don't want to pause FTC business, being mindful of how it would feel if one of us were in the position if not being able to be present. There also was discussion around whether it would be different with a more consequential decision and importance of a future process or established procedure for guidance independent of the type of decision.

Melora will follow up on the initial 7 day hold email and copy FTC representatives when communicating with federal partners on this issue.

Action Items

- Melora: Send out DD for 7-day electronic approval. *(done)*

- Melora and Matt: If the federal shutdown continues beyond 7 days, allow another 7 days with outreach to federal partners and documentation before finalizing the decision. *(10/15 or 7 days after notice was sent)*
 - Melora and all: Develop a procedure for what to do when one partner is unable to participate in FTC because their agency or organization is shutdown. *(2026)*
-

Water Quality Update by Melora Shelton (Tacoma)

- There have been no spill events and no water quality compliance issues.
- Temperature monitoring is ongoing at the same locations: Copper Canyon, Lake Scanewa Boat Launch and the Boat Barrier.
- The water quality monitoring equipment at the north and south debris deflector arrays was demobilized for the Downstream Passage AT Study.
- Water monitoring is continuing as part of the Mayfield Downstream Passage Study.

Related Projects

- North Taidnapam Boat Launch Improvements Project – The parking area and the fishing trail are completed. The lower courtesy dock anchor and upper ADA loading ramp will likely be completed next week.
 - Kosmos oil clean up monitoring is on-going. They are in the final stages of working with Ecology to approve the Remedial Investigation (RI) report. They are developing a Feasibility Study (FS), which includes draft of alternatives and is due to Ecology 120 days after the report is accepted. The Feasibility Study will help inform the schedule for Riffe Lake Initiatives.
 - The Onion Rock Bridge pier repair – Phase 2 (armoring to prevent future erosion) is in permitting.
 - Riffe Lake Fishing Area at Mossyrock Dam – There are concerns about rocks falling onto boulders where people fish. Tacoma is assessing some mitigation options.
-

Public Comment Period #1 - Agenda related

Comment: Randy noted that the satellite rearing proposals aim to increase production by 15,300 lbs. He asked what reassurance do we have that you won't cut back other production if this is successful knowing it's expensive?

Response: Eric responded that the Settlement Agreement calls for a maximum of 650,000 lbs. If the FTC cuts back, then we would still have to adaptively manage that within our decision-making framework. The satellite rearing would increase targets for additional poundage, estimated at 15,300 with these proposals.

Follow-up Comment: Randy asked if there would be the potential to expand the programs if they were successful without having to talk about it for another 5 years?

Response: Sam responded that with any new program there will be lots of opinions. Everything they've talked about fits within the FMHP and HGMP based on the current population parameters on the Cowlitz. However, NMFS needs to weigh-in. Decisions to change programs would be on a case-by-case basis and vary by species. For example they are pretty close to the limit on summer steelhead, so probably no room there, but spring Chinook could be discussed.

Follow-up Comment: Randy emphasized that if there was a chance to increase spring Chinook, he hopes it goes through. He has not heard the debate. He is definitely in support of these proposals.

Comment: Chris Vandenberg introduced himself as a fish enthusiast who formerly worked as a fish biologist. He emphasized that spring Chinook is a keystone species in the upper watershed. He said he is okay with the coho net pen if it frees up space to lower the density of spring Chinook at the salmon hatchery and lower the chance for disease. He appreciated the increased poundage. With the current SARs for spring Chinook at 0.2%, they only expect about 150 adults to come back without accounting for harvest. He is okay with the CFFF extended rearing as long as it doesn't take a year to get the infrastructure in place. Although he felt the proposals presented were creative, he felt taking the funding for satellite rearing to operate the collector for a few more months is not following the letter of the law. He emphasized that FTC needs public buy-in and should go up to talk to people in the upper watershed and include them. He reiterated that Greg has suggested the possibility of doing egg plants there.

Comment: Greg King represents Friends of Cowlitz and formerly participated in the Cowlitz River Advisory Group (CRAG). He thanked everyone for their hard work on the satellite rearing proposals. He said they have suggested the net pen projects in the past, which have been successful up and down the West coast. He voiced concern about meeting the Settlement Agreement obligations and requirements. He felt the term 'adaptive management' is used to kick the can down the road. He suggested they could have another net pen at Mossyrock, where there is security and people to feed fish. Friends of Cowlitz used to do this. It could be a win-win without a lot of expense. They could put net pens in Scanewa and Riffe Lakes. He urged Tacoma to move forward after 25 years of delays.

Comment: Larry said he would start with the bad news and then shift to positive comments.

- He emphasized 2025 fish returns for the hatcheries were terrible. He presented the SARs he calculated: late winter steelhead 0.0045; spring Chinook 0.002 as of May 29 and 0.0047 as of Aug 29; summer steelhead 0.0064 as of Aug 29 and 0.0085 as of Oct 2; fall Chinook 0.00015 as of Oct 6, which is 568 adult returns from 3,506,863 released in 2022 from 2021 broodstock. His SAR calculations included projected harvest using Serl and Holowatz 2024 APR harvest report.

- Larry praised Jenise's and Scott's report on Coho. He emphasized that they did a nice job. He said it's been a long time coming to see this type of reporting.
 - He returned to Sam's comment about targets. Larry felt FTC has fallen short of their goals for years. He asked: What are FTC's SARs goals? What are harvest goals? The Northwest Power and Conservation Council and BPA have long had SARs goals of 2-6% on the Columbia River above Bonneville Dam, and they measure them consistently. He urged FTC to set goals for SARs and harvest. He has raised this repeatedly but has not gotten an answer.
 - With regards to the satellite rearing proposals, Larry asked Sam what water quality testing they have done. He said that he has been concerned about water hardness. He obtained samples from the Upper Cowlitz and had them tested, which came out to a hardness of 14. He is concerned that water quality is leading to poor results.
-

Topics for November 4, 2025 FTC Meeting on Teams

Coho Transition Plan follow up topic 2, Satellite Rearing draft DD, TWG charter draft DD, if time allows, an overview of the refreshed DAMP, and Usual Updates: Hydro Status, Water Quality, Fish Facilities, M&E, TWG, HAP, and LCPUD

Public Comment Period #2 – Any topic

Comment: Chris Vandenberg commented on the poundage associated with the satellite rearing proposals. He said Tacoma is required to produce 650,000 pounds but can go up to 800,000 pounds. He echoed Greg that it has been 25 years and Tacoma has not put money into their obligation for satellite rearing. He asked what can you do to help the fry in the upper watershed so there are greater adult returns and fishing opportunities. He urged Tacoma that they should invest now in meaningful actions or they will have to pay more during relicensing.

Comment: Randy asked for an update on the chum project. **Response:** Todd was happy to report that they are moving forward. They have a consultant under contract and are moving forward with some initial analysis. They will meet with everyone involved next month.

Comment: Greg emphasized that the SARs numbers are terrible for the Cowlitz. He emphasized his concern with predation, referencing birds, and asked why USFWS and NOAA are not more involved with FTC and addressing predation issues. He emphasized that this is an expensive program not to be seeing better results. He repeated his discomfort with adaptive management from his earlier comment.

Comment: Larry asked Eric what he meant when he said Tacoma is meeting their broodstock goals? What are their goals? How do they select fish for broodstock? Referring to Jenise's and Scott's report on coho NOR based on collected fish SARs,

Larry commented that 5-7 smolts collected per female release was a good report. He also agreed with their conclusion that the upper Cowlitz and Tilton are not as productive as previously thought, which he had previously suggested might be happening. He suggested that FTC looks into gravel augmentation in the Tilton River to improve habitat. He asked if FTC is interested in increasing harvest. He noted the Upper Cowlitz harvest numbers are a bit better than the Lower and suggested that recycling coho may improve the harvest rate in the Lower Cowlitz. **Response:** Eric responded to the question about broodstock. He explained they set broodstock goals every year by proportion of males, females, and jacks. They do not sort by size or age class beyond that. They don't sort for physical characteristics unless to distinguish spring and fall Chinook. They also aim to collect a percentage of NORs and collect temporally across the breadth of the run to represent the full spectrum of the population. They usually achieve those goals.

Meeting Evaluation

What went well? What can we change or improve in the future?

- Strong attendance
 - Good engagement and discussion throughout. It was nice to hear different perspectives.
 - Engagement was strong on content and process steps related to various agenda topics.
 - Extremely high quality content throughout the agenda.
 - This is how we get to where we want to go by hearing different perspectives and keeping focused on our end goals.
 - Flexibility to accommodate different schedules.
-

Josua's Inspirational Quote

"I have always felt that laughter in the face of reality is probably the finest sound there is and will last until the day when the game is called on account of darkness. In this world, a good time to laugh is any time you can." — Linda Ellerbee

Closing Remarks

Everyone expressed gratitude for all the hard work that went into the presentations.

**Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Draft Meeting Summary**

November 4, 2025 from 9:30am-2:40pm

FTC Representative Attendees

Tacoma: Melora Shelton

ECY: Andrew Luymes

WDFW: Bryce Glaser

TU: Jonathan Stumpf

YN: Bill Sharp

Additional Attendees

LC: Ann Weckback

LCPUD: Joe First, Laura Wolfe

LCFRB: Steve Manlow

Tacoma: Jenise Bauman, Sam Gibbons, Scott Gibson, Sean Luis, Matt Peter, Eric Shoblom, Chris Vaughn

WDFW: Brian Gale, Todd Hillson, Josua Holowatz, Peggy Miller, Larona Newhouse, John Serl, Sean Toomey

Facilitator: Jennifer Arnold, Reciprocity Consulting, LLC

Public Attendees: Jack Tipping (Coastal Conservation Association) and Larry Pryor (Northwest Fisheries Enhancement)

Remaining 2025 FTC Meeting Dates: Dec. 2 (in person)

Approval of Last Month's Meeting Summary

The revised version of the October FTC Meeting Summary was reviewed and approved with clarifying edits and will be posted on the public website.

Review of Agenda and Action Items

We reviewed the agenda and action items, then proceeded with the meeting.

Updates

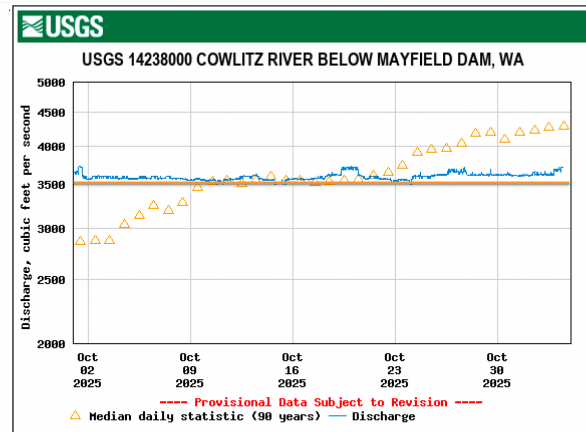
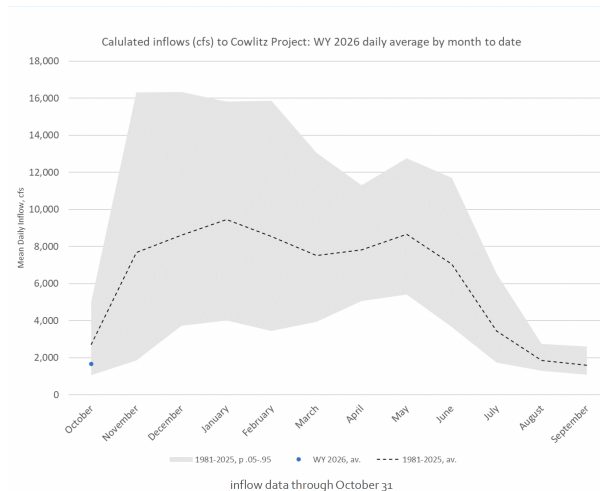
Announcements

- M. Shelton acknowledged that federal partners are not present due to the federal government shutdown.

Hydro Operations Update by Melora Shelton (Tacoma) (emailed 11/3)

- Low inflows through October
- Fall precipitation has arrived.
- Reservoir remains near record low, fill anticipated in the next week.

- Considerable November forecast uncertainty.
- Maintain discharge near minimum flow until we see outcomes from next rain event, evaluate potential increase next week.
- November flow changes will affect winter minimum flows.
- Climate outlook tilts above average for precipitation.



Current (11/3) 3,590 cfs. Min 3,500 cfs, 1 deviation.
Ramping: at 1 in/hr 24 hr through 10/31, now 2 in/hr 24 hr. No deviations.

Water Quality and Related Projects Update by Matt Peter (Tacoma)

- M. Bleich is out until Nov 17. M. Peter is covering for him for half of that time.
- B. Caviness is out on paternity leave through early January. M. Peter will field any questions you might have for B. Caviness in the meantime.
- There have been no spill events and no water quality compliance issues.
- Temperature monitoring is ongoing at the same locations: Copper Canyon and Lake Scanewa Boat Launch.
- Tacoma is compiling co-variate water quality data as part of the Cowlitz Falls Downstream Passage Study and continuing water quality monitoring as part of the Mayfield Downstream Passage Study.

Related Projects

- North Taidnapam Boat Launch Improvements Project – The parking area, fishing trail and lower courtesy dock anchor are complete. The boat passenger ADA loading ramp for wheelchairs is expected to be complete February 2026.
- Kosmos oil clean up monitoring is on-going.
 - The Remedial Investigation (RI) report is in the final approval process with Ecology. Tacoma received a conditional approval.
 - Tacoma is already beginning work on a Feasibility Study (FS), which includes draft of alternatives and is due to Ecology 120 days after the RI report is accepted.

- The Feasibility Study will help inform the schedule for Riffe Lake Initiatives.
- After the Feasibility Study, Tacoma will create a draft Cleanup Action Plan (dCAP) followed by an Agreed Order Final Cleanup Action Plan.
- Tacoma has continued biweekly monitoring, which has turned up nothing new.
- The Onion Rock Bridge pier repair – Phase 2 (armoring to prevent future erosion) is in permitting. Tacoma is expecting US Army Corps of Engineers NWP coverage letter by next week. The project has ESA coverage under RRMP Programmatic BiOp. Tacoma is now only waiting on Mason County permits.
- Riffe Lake Fishing Area at Mossyrock Dam – There are concerns about rocks falling onto areas where people fish. Tacoma continues to assess mitigation options.

Fish Facilities Update by Eric Shoblom (Tacoma) (emailed 11/6)

Separator Returns:

Currently at the separator there are spring Chinook, fall Chinook, Coho, summer steelhead, cutthroat trout, and a few chum, sockeye, and pinks returning. The majority of the fish returning currently are coho, now near the fall peak or on the downhill side of the peak. Winter steelhead are expected any day, and the goal is to start collecting broodstock on December 1.

The coho hatchery is now a single, integrated program with an integration goal of 50% pNOB, which means Tacoma will transport integrated Coho to the Tilton and the upper Cowlitz basins. With the two hatchery programs in the past (Tilton segregated and upper Cowlitz River integrated), all of the integrated UCR fish went to the upper river and hatchery fish above hatchery need, went to the Tilton. Now, with the single Coho program, the integrated Coho will be transported to both the Upper Cowlitz and the Tilton. The transport goal is still to get up to 12,000 HORs to the Tilton. All NORs, other than brood needs, are shipped to their respective tributaries.

Cowlitz Release Sites:

All of our release sites are currently operational.

Update on the Mayfield Net Pens:

WDFW and Tacoma are on schedule with Phase II with plans to stock Coho in December.

Capital Projects: Cowlitz Trout Hatchery Remodel:

Tacoma is finalizing documents in the Water Supply Alternative Analysis. The consultant is working on some additionally requested reports as well as the report on the head tank and intake alternatives.

Working with their consultant, Tacoma hopes to have a decision on the water supply alternatives and which combination of approaches to move into design by Jan 15.

Monitoring & Evaluation (M&E) Subcommittee by Jenise Bauman (Tacoma)

Mayfield Net Pen Assessment

C. Vaughn is taking the lead with the Phase II study design for assessment of the Coho net pens. S. Gibson is assisting, and both are organizing the marking and tagging of Coho in November so that they are ready to transfer juveniles into the net pens in December 2025.

Spring and fall Chinook DNA Collection

Staff are using best practices for collecting scale and DNA samples during broodstock collection. WDFW is currently reviewing a decision-tree to adaptively manage broodstock collection.

Transition Plan Updates

Tacoma is finishing up with the Coho transition plan presentation this month, and next month, WDFW will lead the first transition talk on steelhead.

Fall Chinook Limiting Factor Analysis

The M&E Committee is working on two initiatives, which will become FTC agenda items as their work develops:

- a framework for limiting factor analysis to understand influences on SARs. C. Vaughn is adapting a framework developed from NOAA data from a similar species in California.
- release strategies to minimize windows of high *C. shasta* infection rates, also led by C. Vaughn.

Life Cycle Model (LCM)

Tacoma has an open Request for Proposals (RFP) through November 18 for a third-party consultant to develop a LCM. Tacoma will work with WDFW to review proposals and select the consultant.

Tacoma and WDFW are making progress creating a centralized database. Tacoma is organizing what they have and asking what additional baseline data is needed. They will bring it to the M&E Committee for further development.

TWG Subcommittee Update by Jenise Bauman (Tacoma)

Downstream Adaptive Management Plan (DAMP)

S. Luis is leading the work to refresh the findings and actions in DAMP. This work will not change the decision-making framework. It was not ready yet to present this month, but expect to see this topic on the December FTC agenda.

Acoustic Tag (AT) study

They are organizing the data and discussing analysis methods.

Alternate Tagging

John Best is looking at incorporating alternate tagging strategies into his model.

Barrier Dam

TWG is discussing the electric fish fence on the barrier dam.

2026 Evaluations

This topic was originally on the agenda to discuss today, but it will be postponed to a future meeting so that TWG members have time to review and provide comments.

Cowlitz Restoration and Recovery (CRR) Update by Melora Shelton (Tacoma)

The Hatchery Associated Production (HAP) subcommittee has not gotten any requests for HAP proposal support, but they are available if needed. They received the near final 2026 calendar from LCFRB. Once it is final, they will distribute it. They are not planning to meet in December unless there is a request.

A Process Note about Subcommittees by Melora Shelton (Tacoma)

M. Shelton reminded people that each subcommittee creates their own meeting summaries using the same template for consistency and those are distributed to the FTC. The FTC can rely on those documents in order to keep the FTC meeting summaries high level. She will send these out and include reminders of upcoming meetings.

Action Item: M. Shelton will send subcommittee meetings summaries and upcoming meeting dates to the FTC. *(done)*

Downstream Adaptive Management TWG – Cowlitz Falls Fish Facility (CFFF) Summer Collection Summary by Sean Luis (Tacoma) *(emailed 11/6)*

S. Luis presented collection data from this summer. They have data from across the year, but they are only presenting summer data since the spring collection data were presented previously.

This presentation includes results but not interpretations. Tacoma's consultant Four Peaks will prepare the final report, which will include an in-depth analysis and interpretation of results.

Coho Transition Plan: Determining Transition Triggers by Jenise Bauman and Scott Gibson (Tacoma)

J. Bauman and S. Gibson gave this presentation acknowledging that S. Luis and C. Vaughn worked with them to develop it and that many others were helpful in reviewing and improving it, including B. Glaser, T. Hillson, J. Serl and P. Rigdon.

Tacoma clarified that the Coho transition plan data and summary statements they presented last month were in draft form and the data is currently in review with WDFW. Next steps also include:

- working collaboratively to craft management actions and next steps
- reviewing suspected barriers and follow established barrier classification protocol
- developing a population Assessment Criteria.

L. Newhouse asked about the table that showed spring Chinook in Tilton. J. Bauman clarified that this table was cut and pasted from the Lower Columbia Recovery Plan and that just the starred rows are the ones that relate to transition planning. S. Gibson and B. Glaser clarified that the Lower Columbia Recovery Plan recognizes a spring Chinook population designation in the Tilton River however Tacoma is not transporting spring Chinook to the Tilton at this time.

B. Glaser recognized that he missed part of last month's coho transition plan presentation and appreciated the opportunity for WDFW to review the SARs and smolt production data, summary statements and next steps that was presented last month. He also said he was hopeful that as the Life Cycle Model is updated, they can establish biological reference points, like R_{max} , to see if it lines up with the recovery plan or newer objectives. It will be important to look at that before making recommendations and changes.

S. Manlow shared their recently completed region wide barrier inventory and prioritization project, which could help with assessment of open versus blocked habitat quantity and quality by species. <https://www.estuarypartnership.org/lower-columbia-barrier-assessment>

LCFRB also shared their decision support tool, designed to identify the most important individual barriers for correction. https://cdn.lcfrb.org/docs/library/LCEP_LCFRB_Lower-Columbia-Barrier-Inventory-Decision-Support-Too...

J. Bauman thanked everyone who has been involved – staff at the separator, field staff and analysts – recognizing it has been a big lift over many years.

LCPUD updates

Presenter: Joe First

- Cowlitz Falls Units 1 and 2 are both back in service and operational.
- They are removing the baffle panels today in front of spill gates 2 and 3.
- There has been a slight increase in flows with the rains, but no debris at all in the trash racks. Usually the first fall rains bring debris or floating logs.
- The Packwood USGS gauge was not accurate by 4,000 cfs or more during the high flow event. LCPUD will contact USGS to check if it needs recalibration or what the problem might be.

Downstream Adaptive Management TWG – Discussion of draft charter by Jenise Bauman (Tacoma) (emailed 10/28)

J. Bauman walked through the draft DD 2025-08 for the TWG charter explaining that it follows the same structure as the M&E charter that the FTC recently approved. She had not received any comments or feedback since last month and will bring a final DD to FTC in December.

B. Glaser asked if the charter is a separate document or just embedded in the DD? M. Shelton confirmed that the charter is embedded in the DD, just like the M&E charter. She explained it is easiest to track if it is just in one place.

M. Shelton reminded everyone that this step of adopting charters is to formalize how the subcommittees work in alignment with FTC protocols. We will plan to revisit each charter annually. Updates to membership won't need a new DD, but we would want to initiate a new DD if there are big shifts.

Satellite Rearing Proposals (emailed 10/30) Presenter: Sam Gibbons (Tacoma)

S. Gibbons walked through the draft DD 2025-07 and the satellite rearing program details document for CFFF extended collection period, raceways at the CFFF and the Mayfield net pens. He noted that there is an update with the start date for the first option. The CFFF extended collection period currently in the DD starts on March 15, 2026 and continues through December 23, 2026 as conditions allow. This is an extension of the current collection window of March 15th through September.

B. Glaser clarified that all future years the extended operations would be expected to start by March 8 and that they adjusted the timing for 2026 to start on March 15 for staffing reasons. He requested that the language in the DD and program detail be adjusted to state the regular start date as March 8 and then call-out any specific deviations, such as March 15 for 2026, and acknowledge that there may be other deviations in the future.

L. Newhouse asked about potential conflicts with the satellite rearing proposals and hatchery operations. E. Shoblom emphasized that they would aim to avoid or work through any potential conflicts with current hatchery operations. He said they still need to discuss the details with the M&E subcommittee and HOM group.

B. Sharp emphasized that the additional months of October, November and December are important for collecting various life stages.

- B. Glaser emphasized the importance of the Program Details document for 2 reasons:
- It lays out the initial action for each of the 3 proposals, the why and the expected outcome for each.
 - It describes adaptive management for each, specifically how the initial action could change over time based on data and conditions. For the CFFF extended operation, we want to tie it into the DAMP framework that TWG is developing.

S. Manlow responded to the first proposal that he likes the extended collection window because it provides a wider breadth of life history diversity and more outmigrants. However, he added it is unclear how FCE would be improved – how many fish released translate to how many are caught.

A. Luymes asked a clarification on the timing for proposal 2, raceways at Cowlitz Falls. S. Gibbons clarified that Tacoma would work to try to complete the FTC approval and permitting process so that they could start implementation on December 1. He emphasized that they hope this is possible, but they have no control over how long it might take to get approval from dam safety and FERC.

A. Luymes also asked whether proposal 3 is essentially continuing Phase 2 of the Mayfield Net Pen project into year 3 and beyond. S. Gibbons confirmed.

Discussion of proceeding with a decision given uncertainty with the federal shutdown

M. Shelton explained that she sent an email to Brad Thompson (USFWS) and Jennifer Quan (NOAA) on October 31, 2025 describing the situation that the Cowlitz FTC has been working toward a decision on satellite rearing. She provided materials and an invite to this meeting or any other follow-up meetings so that they are aware of the situation and our process to attempt to make a decision in December. She explained that they are willing to do an additional 7 days after the standard 7-day notice for a decision, but it is unclear how long the furlough will last or what their capacity is to manage pending issues. She will continue to keep them updated on this topic throughout the federal government furlough.

A. Luymes shared that he talked with Chad Brown, who offered his perspective. He felt that if the decision was less consequential then it could proceed, but if the decision was crucial to the functioning of the dam and the agreement, then it should be postponed as much as possible to allow for the federal services to participate in the decision. A. Luymes reflected that this is an important decision and asked what are the risks if we postpone it until the furlough is over and federal representatives can be informed on the issue?

S. Gibbons responded that it is difficult for Tacoma to invest in infrastructure and staffing to move these proposals forward without a clear decision. For the second

proposal, permitting and construction of the new water line would be delayed. CFFF extended operations and the Mayfield Net Pen probably have more flexibility, but it is good to plan even a year in advance for staffing and coordination with current operations. With less planning time, it might be harder to start implementation in 2026. Sam also described the importance of advanced notice to hatchery managers as these decisions significantly impact marking strategies, space planning and broodstock collection.

B. Glaser asked if the part of the Settlement Agreement on satellite rearing speaks specifically to the role of the federal services. P. Miller and others didn't think that the federal services were named specifically in the FERC agreement, or Settlement Agreement.

B. Glaser emphasized that the longer this decision and its implementation is delayed, the less benefit there will be for recovery. He also noted that the federal services have had limited capacity to engage even before the federal furlough and that they have selectively engaged in the topics that were of highest priority to them. He noted it is important to keep Brad Thompson and Jennifer Quan updated and continue to provide opportunities for them to weigh in on how we should proceed.

B. Glaser stated that the DD includes the language 'pending approval of FERC and the federal services.' He asked if Tacoma would be willing to move forward with the investments and implementation with the risk that the services would come back and ask for changes?

M. Shelton agreed that each FTC member organization wants to be able to speak for themselves and not assume what other FTC voting representatives would say.

M. Peter responded that we are keeping the services leadership apprised of the situation and FERC is the senior regulator in this situation. Tacoma has gotten internal and external legal advice that we can proceed with the additional 7-day extended voting period. It would be up to FERC to review this and be the stop if they are not comfortable moving forward.

M. Shelton thanked everyone for engaging in this discussion and being so thoughtful about how to proceed given the federal shutdown. She encouraged everyone that there are still some areas to continue digging into and to contact herself or S. Gibbons to join those meetings.

Action Items

- Tacoma and WDFW will continue to develop the program details for the 3 proposals. A. Luymes (Ecology) will join them. Other FTC members are welcome to join and should contact M. Shelton or S. Gibbons for meeting info.

- E. Shoblom will meet with anyone who has questions or would like more information on the proposals.
- S. Gibbons will incorporate feedback into DD 2025-07 and supporting documents to send to the FTC before the December meeting.
- M. Shelton will keep Brad Thompson (USFWS) and Jennifer Quan (NOAA) apprised of our progress with satellite rearing and opportunities to participate throughout the federal shutdown.

Public Comment Period #1 - Agenda related

L. Pryor shared a few comments:

- He shared his perception that the satellite rearing discussion seems rushed, which is complicated by the federal shutdown but still seems strange after 25 years of trying to figure it out. It feels like there is not enough time to digest the options.
- He appreciated J. Bauman's and S. Gibbison's presentation and looks forward to seeing more of the data. He asked if they compare their SARs to others in the Columbia basin or coastal areas for coho.
- He went fishing a couple of weeks ago, launched from the boat launch below the barrier dam. There were only a dozen or so people fishing and no other boats. C. Vaughn reported 6-15% for Coho harvest at the September FTC meeting, but L. Pryor feels it is probably lower. Also, people fishing that he talked to noticed the percentage of jacks seemed high. He looked it up and, in the last few years with Coho, the jacks have been 40-77% of adults. In wild populations, it should be about 3-5% jacks. This needs to be figured out.

Jack Tipping shared a few comments:

- He expressed his agreement with 2 of the satellite rearing proposals – the Cowlitz Falls rearing and Mayfield net pens – but he felt the extended collection at CFFF was not commensurate with the agreement.
- He asked what happened to the proposal for a chum spawning channel. There was a meeting with WDFW 3 years ago, when they said an assessment was imminent.
- He shared that one CCA member is a guide for spring-run cutthroat, who said it was the worst year in recent memory. They are all hoping rearing conditions will improve.
- He stated that E. Shoblom said because of returning numbers of hatchery fall Chinook, the Cowlitz is closed again for fall Chinook retention. Then, why was there a gill net below the mouth of the river? He saw an agency letter that justified it because there were no CWTs recovered in the mainstem.

Responses

- T. Hillson responded that the chum project is in the scoping phase. It is moving and is under contract. There will be a public meeting later this month, and J. Tipping's name is on the invite list along with other interested members of the public.
 - S. Gibson responded that they realize fall Chinook adult returns and SARs are significantly low. They are in the process of working with the M&E subcommittee to look at reasons why and different release strategies or sites of release to address it. They have to do the full assessment before they make changes to show that they are expected to produce benefits. They are well aware of the problem and working toward solutions. E. Shoblom added they put CWTs on fall Chinook annually.
 - B. Glaser confirmed that is what the agency letter stated and that gillnet fishing was allowed in the mainstem because none of the Cowlitz CWT fish showed up there. It could be because they weren't caught, they weren't there, or the timing was off.
 - M. Shelton responded on the timing for satellite rearing. She explained that Tacoma has been working diligently for over a year to come up with these 3 proposals for satellite rearing, including collaboration with WDFW and others. However, she acknowledged that the public wouldn't have known that because the topic was just included in the FTC agenda in October. She explained that they are following the 3-meeting protocol for making a decision and it is not their intention to rush it. They are hoping to make a decision within the 3 months so that they can start implementation in 2026 rather than waiting another year. That timing is complicated by the federal shutdown. She thanked L. Pryor for sharing his perception.
-

Topics for December 2, 2025 FTC Meeting on Teams

Steelhead Transition Plan; Final DDs for: Satellite Rearing & TWG charter; draft DD for TWG 2026 Evaluations and Usual Updates: Hydro Status, Water Quality, Fish Facilities, M&E, TWG, HAP, and LCPUD

Public Comment Period #2 – Any topic

L. Pryor shared several questions and comments:

- He asked about the FHMP. M. Bleich recently submitted an annual report to FERC, which L. Pryor reviewed. On page 12, M. Bleich noted that FERC had not approved the FHMP, which M. Bleich signed in 2020 and filed with FERC. What happened that it's been 5 years and hasn't been approved? When is the next one due? Is it every 6 years?
- He reviewed the CRR Presentation by M. Shelton to the TPU Board on 10/22/25. It was a great report. He was just curious about the funding awarded to date. The

Cowlitz Tribe received \$3.7 million of \$4.9 million awarded. Only two grants were awarded to Lewis County groups, none of which were local groups. Cascade Forest Conservancy, based in Vancouver, was one of them. Isn't it strange that so much funding went to the Cowlitz Tribe when they are suing Tacoma?

- He emphasized his concerns about too much focus on pounds of fish produced or fish released instead of harvestable returns. You could produce millions of pounds of fall Chinook, spring Chinook or steelhead and still not see an increase in harvestable returns. He would like to see more focus on SARs.
- He emphasized his concern about seal and sea lion predation in the months of March through June. Will there be any changes in release strategies to try to minimize predation?

Responses

- M. Shelton responded about the CRR funding that all applicants go through the same process established by LCFRB. The funded organizations are selected based on the likelihood of benefit to salmon. Cowlitz Tribe has been successful partnering with the US Forest Service on very large scale projects. Other sponsors work at much smaller scales. Recovery benefit comes with a diversity of project scales. All proposals go through the same vetting and approval processes. The HAP Subcommittee provides hatchery associated project development support for any eligible organization.
- M. Peter and E. Shoblom responded that Tacoma submitted their FHMP but do not have control over final approval from FERC. For the FHMP, they received a verbal approval. They did their due diligence and moved forward in 2020 with implementing the plan with transparency with FERC. S. Gibbons responded that he believes the FHMP needs to be updated every 10 years.
- S. Gibson responded that they are aware of the problem of seal and sea lion predation, but similar to his earlier response, they need to wait and evaluate all parts of their programs before making changes to their rearing and release strategies. Because of all the work that is needed for this step, they likely won't be able to make changes in 2026. They are looking into it and will work to address it.

Meeting Evaluation

What went well? What can we change or improve in the future?

- Helpful feedback for the facilitator on approving meeting summaries.
 - Flexibility on the timing of topics to accommodate different schedules.
 - Helpful feedback on presentations and draft DDs.
 - Thoughtful conversation about decision making during the federal shutdown.
-

Josua's Inspirational Quote

"Patience is not simply the ability to wait – it's how we behave while we're waiting." – Joyce Meyer

Closing Remarks

M. Shelton emphasized gratitude for all the thoughtful conversations today. It has been so helpful to talk through issues and put forth the best solutions. She expressed appreciation for everyone's time attending these meetings.

**Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Draft Meeting Summary**

December 2, 2025 from 9:30am-2:45pm

FTC Representative Attendees

Tacoma: Melora Shelton

ECY: Andrew Luymes

WDFW: Bryce Glaser

TU: Jonathan Stumpf

YN: Bill Sharp

USFWS: Jeff Garnett

Additional Attendees

BPA: Michael Boyles

LC: Ann Weckback

LCPUD: Joe First, David Plotz, Laura Wolfe

LCFRB: Steve West

Tacoma: Chan Ankeny, Missy Baier, Jenise Bauman, Matt Bleich, Sam Gibbons, Scott Gibson, Sean Luis, Jamie Murphy, Matt Peter

WDFW: Brian Gale, Todd Hillson, Josua Holowatz, Larona Newhouse, Phil Sandstrom, John Serl, Sean Toomey, Kris Warner, Kevin Young

Facilitator: Jennifer Arnold, Reciprocity Consulting, LLC

Public Attendees: Greg King (Friends of the Cowlitz, formerly Cowlitz River Advisory Group), Randy LeDuc (Coastal Conservation Association), Fred Ming (Friends of the Cowlitz), Jack Tipping (Coastal Conservation Association) and Larry Pryor (Northwest Fisheries Enhancement)

2026 FTC Meeting Dates: Jan 6, Feb 3, Mar 3 (in person), Apr 7, May 5, June 2 (in person), July 7, Aug 4, Sep 1 (in person), Oct 6, Nov 3, Dec 1 (in person)

Approval of Last Month's Meeting Summary

FTC members reviewed and edited the November FTC Meeting Summary for clarity. It will be posted on the public website.

Review of Agenda and Action Items

We reviewed the agenda and action items, then proceeded with the meeting.

Steelhead Transition Plan Overview by John Serl (WDFW) (emailed 12/5/25)

J. Serl emphasized that this transition plan is a product of the FTC and represents collaboration among partners. FTC held a workshop where they developed the material,

and P. Sandstrom did much of the work 3 years ago. This presentation follows the template from the other overview transition plans. It is the fourth transition plan presented at the FTC meetings.

He provided a synopsis of the winter steelhead transition plan. (See slides for more detail).

Discussion after the presentation emphasized a few points:

- B. Glaser: Transitioning to new programs in the upper basin, we've prioritized demographic replacement allowing mining rates and allowing pNOB (percentage Natural Origin Broodstock) rates to be variable to make sure we are getting enough fish into the upper areas to seed as much habitat as we can as part of the recolonization phase. As we move into the local adaptation phase, priorities would shift to focus on pNOB and PNI. Not overmining the upper populations was a key piece of the transition plan. We used a sliding scale with the integrated program production knowing that if we were short on broodstock, we could compensate by increasing segregated program production. It took a lot of work and discussion to get to that point. It is a unique program. We've been doing it for several years, and now it's starting to pay back.
- M. Bleich: It is a lot of work to summarize all of this. This presentation speaks to the importance and context of this work and the partnership among agencies that has made it possible.
- J. Holowatz: We've done genetic analysis to examine whether the early returns have any introgression with the Chambers Creek stock and the results came back favorably. WDFW has emphasized meaningful fisheries earlier in the winter. If they return early but don't spawn right away, they are more catchable.

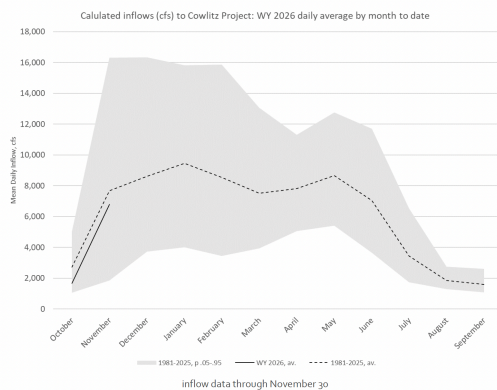
Updates

Announcements

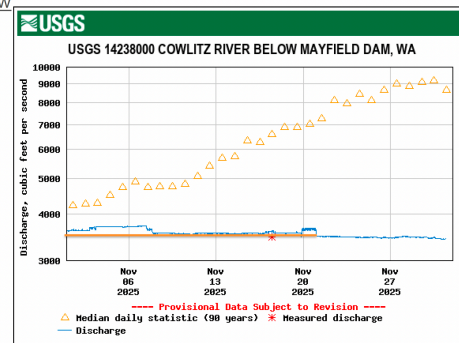
- M. Shelton will send an updated link for 2026 FTC meetings and put the updated link on the website.
- M. Shelton invited everyone to review the 2025 work plan as we prepare for 2026 work planning at our January meeting.
- The federal furlough is over. Federal partners are trying to catch up with their backlog of work.

Hydro Operations Update by Melora Shelton (Tacoma) (emailed 12/2)

- Inflows increased in early November but declined throughout the month
- Reservoir remains below average, fill anticipated in the next week
- Relatively constant discharge near 3,500 cfs
- Winter minimum flow reset to 2,664 cfs
- Substantial rain in forecast starting Friday
- Plan to maintain discharge near 3,500 cfs until increasing to manage sideflows
- Climate outlook tilts above average for precipitation and below average for temperature



Outflow



Current (12/1) 3,440 cfs. Min flow: 3,500 cfs through 11/20, 11/21 start 2,664 cfs.
Ramping 2 in/hr 24 hr. 1 flow and 0 ramp deviations.

Follow-up discussion: What is the defined 'active spawning period' in the FERC license?

- M. Shelton explained the language is vague. In the past, it was interpreted as a set date of November 21. Tacoma considered more current information for Fall Chinook and extended it through November 30 with a 5-day average through December 4.
- J. Serl and B. Glaser agreed that we now better understand that spawning goes later with fall Chinook in the mainstem and chum and Coho in side channels.
- B. Glaser asked for clarity on how the minimum flows are calculated. M. Shelton briefly explained and will share it with WDFW after the meeting. She emphasized that Tacoma may not have much opportunity to exercise flows down to the minimum.

Action Item: M. Shelton will send the minimum flow calculation to WDFW.

Water Quality and Related Projects Update by Matt Peter (Tacoma)

- B. Caviness is out on paternity leave through early January. M. Peter will field any questions you might have for B. Caviness in the meantime.
- There have been no spill events and no water quality compliance issues.
- Temperature monitoring is ongoing at the same locations in perpetuity: Copper Canyon and Lake Scanewa Boat Launch.
- TPU is compiling co-variate water quality data as part of the Cowlitz Falls Downstream Passage Study and continuing water quality monitoring as part of the Mayfield Downstream Passage Study.

Related Projects

- North Taidnapam Boat Launch Improvements Project – The parking area, fishing trail and lower courtesy dock anchor are complete. The boat passenger ADA loading ramp for wheelchairs is expected to be complete February 2026.
- Kosmos oil clean up monitoring is on-going.
 - The Remedial Investigation (RI) report was approved by Ecology last week.

- Tacoma has 120 days to complete a Feasibility Study (FS), which includes draft of alternatives.
- The Feasibility Study will help inform the schedule for Riffe Lake Initiatives.
- After the Feasibility Study, Tacoma will create a draft Cleanup Action Plan (dCAP) followed by an Agreed Order Final Cleanup Action Plan.
- Ecology's toxics program will take the lead on that, but Andrew will check-in with them after the feasibility study is completed.
- The Onion Rock Bridge pier repair – Phase 2 (armoring to prevent future erosion) is in permitting. Tacoma has completed almost all of the permitting and is now only waiting on Mason County permits.
- Mossyrock Dam remains closed. A vehicle went through a barrier and into Riffe Lake. Global Diving is working to remove it, which would fall under their HPA. TPU is looking at the potential for the vehicle to impact any flow to units as well as environmental impacts.
- TPU has installed the Mossyrock camera, and it is now actively monitoring the boat launch. See live stream on YouTube [here](#). It will also be up on the MyTPU site soon, and TPU will promote it on social media. There is also an option for a camera facing up into the parking lot if TPU has the bandwidth. Everyone applauded this new safety feature, which has been planned for a while.

Fish Facilities Update by Jamie Murphy (Tacoma) (emailed 12/5)

Separator Returns:

Currently at the separator there are mostly Coho with a few fall Chinook, cutthroat trout, summer steelhead and winter steelhead. (See slides for more detail.)

Cowlitz Release Sites:

All release sites are currently operational.

The US Forest Service and LCPUD are currently working on a pathway for permitting a second release site across from the existing site.

Update on the Mayfield Net Pens:

Phase II is on schedule currently tagging and stocking the net pens with Coho. Four thousand fish were caught yesterday, and 500 fish were put in each of the 8 pens to compare with the survival, body condition and growth of those in the raceways.

Capital Projects: Cowlitz Trout Hatchery Remodel:

Tacoma is working with their consultant to finalize the Ozone Plant Review Report and the Water Supply Alternatives Analysis Report.

Discussion:

- B. Glaser commented that returns might be low because of the integrated program, which provides greater opportunity for harvest.
- Do Coho returns to the separator include jacks? No, just adults.

Monitoring & Evaluation (M&E) Subcommittee by Jenise Bauman (Tacoma)

Life Cycle Model (LCM)

Tacoma has proposals to review for a third-party consultant to develop a LCM. Tacoma will work with WDFW to review proposals and select the consultant, then move into contracting once a successful candidate is identified.

Tacoma and WDFW are making progress creating a centralized database. Thanks to WDFW for providing winter steelhead data and Tacoma for building the scaffolding for data sharing. Tacoma and WDFW will pilot the data sharing and transfer this month, then bring it to the M&E Committee to reflect on how it went and develop next steps.

Spring and fall Chinook DNA Collection

Tacoma and WDFW are digging into the management plan and discussing how to manage theoretical data, including their roles and responsibilities as two different entities and how to coordinate at the collector and understand morphologies.

Transition Plan Updates

There was an excellent presentation on steelhead today. Next, we will look at data, data gaps, and how we might fill those gaps and build out the LCM during the February 2 FTC meeting.

Mayfield Net Pens Assessment – Phase II

Coho are now tagged (Dec 1 and 2) and will be transferred to net pens (Dec 2 and 3). WDFW updated the study plan to make sure next steps are clear as Tacoma and WDFW analyze the data.

K. Warner thanked J. Bauman, her team, and the hatchery staff for working quickly under tight timelines to make the Phase II a success. Everyone has put in so much work.

B. Glaser noted that FTC had an outstanding action item to get the Mayfield Net Pen Phase I summary out, which they successfully did with the materials for this meeting, thanks to collaboration with Tacoma staff.

Cowlitz Annual Program Review and Science Conference

J. Bauman is beginning to plan for the science panel and Annual Program Review (APR) in April. They will discuss possible dates in the M&E Committee and avoid conflicts with other meetings, such as the WA-BC American Fisheries Society meeting April 6-9.

TWG Subcommittee Update by Jenise Bauman (Tacoma)

Acoustic Tag (AT) study

S. Luis has been working on analyses for both mark-recapture and telemetry study components.

2026 Evaluations

This topic is on the agenda for today.

Fish passage survival with extended seasons

This topic came to TWG, and they just started talking about it. It is now a standing item on the agenda – how to handle extended seasons when the situation arises.

Downstream Adaptive Management Plan (DAMP)

An update on this topic is on the agenda for today.

Coordination with Lewis County PUD

They had a conversation with Laura Wolfe preparing for 2026 operations to coordinate between LCPUD and Tacoma and understand the needs for fallbacks.

TWG Charter

This topic is on the agenda today to approve the charter.

Cowlitz Restoration and Recovery (CRR) Update by Melora Shelton (Tacoma)

The Hatchery Associated Production (HAP) subcommittee has not met. M. Shelton is preparing the 2026 calendar and will distribute before the end of the year. She is also preparing grant materials, similar to LCFRB. The HAP subcommittee is looking forward to working with Laura Wolfe to refine the LCPUD project, which they are anticipating coming back. FTC will have an opportunity for a 30-day review of the annual report in late February or early March with the final scheduled for June.

Downstream Adaptive Management Technical Work Group: 2026 Evaluations by Jenise Bauman (Tacoma)

J. Bauman presented the four evaluation studies proposed by TWG for 2026:

- Alternate tagging strategy, a continuation from the past 2 years
- CFNSC Acoustic Telemetry study, a continuation from this year
- DAMP updates/refresh
- Mayfield Dam juvenile coho aging validation – involving training and fish scale collections to validate methods. If the method proves successful, this aging validation method would become standard practice at Mayfield.

Discussion:

- J. Serl and B. Glaser asked about including coho parr tagging on this list. The large number of parr from last year should come back as adults in 2027. If they

return as adults, we want to evaluate it as it will affect our assumptions and evaluation of productivity. Can we put developing a study plan on the list for 2026 with implementation in 2027?

- M. Bleich asked whether that decision was made in a past DD. He emphasized that we don't want to have the same decision folded into multiple DDs, which could lead to confusion.
- J. Serl responded that he remembered the past decision was to move the parr but did not include whether there would be some evaluation.
- J. Bauman will put it on the December TWG agenda to discuss and decide what to include in the draft DD to discuss at January's FTC meeting with a final DD planned for February.

Downstream Adaptive Management Technical Work Group: DAMP Refresh by S. Luis (Tacoma) (emailed 12/5)

S. Luis explained that the Downstream Adaptive Management Plan (DAMP) describes a strategic approach for improving fish passage survival in order to achieve goals set forth in the FERC license. It was developed before the North Shore Collector was built. In his presentation, he shared a timeline of program developments, investigations, and operational changes that have occurred before and after DAMP was created in 2014 and Cowlitz Falls North Shore Collector construction was complete in 2017.

The refresh will reflect current conditions and what was learned from past studies. He presented a proposed updated table of contents, explaining which sections will be updated or added. He will move any outdated sections to a historical background section. There will not be any proposed changes to the adaptive management framework, which is the heart and soul of the plan.

Discussion:

- There was confusion about whether the "D" in DAMP stands for "draft" or "downstream." M. Bleich confirmed that it refers to "downstream."
- B. Glaser asked a process question: Will the refresh be finalized in TWG or brought to the FTC for approval?
- M. Bleich shared some historical context. The DAMP was necessary because it preceded the collector. Tacoma has a commitment to meet their license requirement for downstream fish passage. Tacoma developed this DAMP to address the question of how to design a collector to achieve their goals. Tacoma did not approach it as build it and they're done. They wanted to meet their objectives and recognized they might need to adaptively manage operations at the collector to optimize passage survival and efficiency over time. It took a lot of energy and partnership. Implementing the DAMP in collaboration with the TWG and FTC to achieve license goals was a business decision for Tacoma, but not a FERC requirement. M. Bleich emphasized that it represents a way of doing business together that Tacoma is committed to in order to meet the FERC requirement together. It's up to the FTC how we finalize it. He agreed that it's not

great, to call it a draft forever. It is good to refresh it, now that it's out of date. He posed the question back to the group: What is the most effective way for us to refresh or update this plan and use it moving forward?

- B. Glaser responded that he would like to see FTC review it and make any tweaks before approving it in a DD. The TWG can discuss it and prepare the draft DD for FTC. He felt like this step is important because we are tying the satellite rearing options to this framework. He emphasized that WDFW needs it to be an FTC decision for them to feel comfortable with satellite rearing options.
- In the future, B. Glaser and P. Miller would like to return to the discussion about whether the DAMP fulfills FERC license requirements or not.
- M. Shelton and others agreed to proceed with a decision in the FTC.
- M. Bleich emphasized that not many people were here when FTC created the DAMP, which is why this conversation and the refresh are so important.
- S. Luis will discuss next steps with TWG and share an update at the January FTC meeting.

LCPUD Updates by Joe First (LCPUD)

- Cowlitz Falls Units 1 and 2 are both available.
- There is about 5' of debris behind the trash racks more than 100' below the surface. LCPUD will hire a contractor March 2-27 to get it to zero.
- Tacoma removed debris behind their debris barrier upstream, so the reservoir is clean.
- No other projects that impact the reservoir.

Discussion

- A. Luymes asked: In an average year, how often does LCPUD use the sluice gates? He explained this relates to an off-topic conversation he and P. Miller were having.
- J. First responded that they use them during every drawdown over 15,000 at Randle. Historically, this has happened about 3 times each flood season, but since 2015, it has been much more limited. There have not been many floods since 2016, so they are using them less. The other change is that before 2015, the spring runoff used to be on average 12 days over turbine capacity and would spill. Most years since 2015, they haven't even spilled an hour. The flow patterns coming off the hill have really changed.
- M. Bleich echoed that some of that is due to the changing seasonality of runoff, but some is also due to partnership with TPU and LCPUD. There has been increased flexibility since 2015, and it has helped tremendously toward meeting Tacoma's license goals and efficiency goals.
- J. First agreed that they have been able to put a portion of the flow that they can't use for generation through the North Shore Collector and collect downstream smolts, which reduces the need to spill as often as they did before.

Satellite Rearing Proposals by Sam Gibbons (Tacoma) (emailed 10/30)

S. Gibbons reflected that he joined the FTC as a technical representative in 2015 when the Cowlitz FTC had a reputation for getting stuck on things. Since then, the FTC has created a lot of trust and cohesion that has opened up more opportunities. Satellite rearing is a prime example of that. After more than 20 years, we will be able to celebrate a decision and a path forward.

S. Gibbons had conversations with WDFW since the last meeting, which resulted in some minor edits that S. Gibbons walked through. These included clarifications in wording and a shift in emphasis to where fish passage survival is a metric of success instead of fish collection efficiency.

Discussion

Risk of Disease Transmission

- J. Garnett asked: What practices are currently in place or intended to address disease transmission into wild stocks?
- S. Gibbons responded: The net pens are just upstream and adjacent to the Mayfield Dam, so there is a good current that reduces risk of disease. Also, during the timeframe, which is typically December through May, water temperature and quality is good for raising fish and reducing risk of disease. Fish Health staff also check fish health when fish go into the pens as part of standard procedures. This first year, there were no disease outbreaks. Mortality was half that of fish raised in the hatchery. The pens are well monitored, and they use the same water plumbed into Cowlitz Fish hatchery, just downstream. The pens are also stocked at a conservative density rate.
- K. Warner responded that if there was an outbreak, they would be able to use treatments in the net pens.
- J. Garnett expressed appreciation for these considerations.

Timing

- L. Newhouse asked why fish were transferred in December for rearing at Cowlitz Falls.
- S. Gibbons explained that December is the preferred month for biological reasons because the fish do better when the water temperatures drop and water quality is good. It could be late November, but not too early because of the water temperatures. As long as L. Newhouse is coordinating with the Cowlitz Falls staff, they can make that adjustment.
- B. Glaser asked if we should change the wording and date to provide flexibility? M. Shelton, M. Bleich and B. Glaser felt comfortable leaving the date as is, but leaning on adaptive management in the APR to adjust as needed.

M. Shelton shared that once the DD is approved it will be posted online as a single pdf with all of the supporting documents, including the program detail, the summary of the Phase I evaluation, and the Mayfield Net Pen Plan.

DD 2025-07 was approved by FTC voting members present and will be sent out for electronic approval by FTC voting members not in attendance.

M. Bleich emphasized that this is a historic moment and that meaningful action wouldn't have been possible without so many people caring and putting their energy into making it work. This has been something that Tacoma has wanted to do for the last two decades. We have come a long way. He thanked everyone for their partnership and S. Gibbons for taking the lead.

M. Bleich explained that once the DD is officially approved, Tacoma will write a letter to FERC. FERC will already see the support of FTC members in the DD, but he encouraged voting members to write an organizational letter of support on their letterhead. In his experience, FERC can take a very long time – years sometimes – to approve things. When Tacoma shows that other agencies and tribes support something and have those letters of support, he's seen the approval process move forward much faster. He will submit that letter to FERC before the January FTC meeting.

Action item:

- M. Shelton: Send out DD for 7-day electronic approval. (done)
- Voting members: Consider submitting letters of support to FERC on organizational letterhead for the satellite rearing options.

Downstream Adaptive Management TWG – Discussion of draft charter by Jenise Bauman (Tacoma) (emailed 11/25)

J. Bauman referenced the final DD 2025-08 for the TWG charter explaining that it follows the same structure as the M&E charter that the FTC recently approved. J. Bauman did not received any comments or feedback since last month.

M. Shelton reminded everyone that this step of adopting charters is to formalize how the subcommittees work in alignment with FTC protocols, which FTC has talked about doing for some years. We will plan to revisit each charter annually. Updates to membership won't need a new DD, but we would want to initiate a new DD if there are big shifts.

Discussion

- J. Serl reflected that the TWG originally formed to just focus on Cowlitz Falls and now it has expanded to include Mayfield. There is overlap, so it makes sense.
- B. Glaser clarified that the purpose is to work toward consensus in TWG but that TWG is not a decision-making body. TWG makes recommendations to FTC, and FTC makes decisions. However, he clarified that there are some types of in-

season implementation decisions that TWG can make if they fit within an approved plan. He complimented J. Bauman for doing a nice job explaining that context in the document. Referring to the example of DAMP, he emphasized that TWG can make implementation decisions themselves, but if there are bigger questions, FTC needs to decide.

DD 2025-08 was approved by FTC voting members present and will be sent out for electronic approval by FTC voting members not in attendance.

Action item:

- M. Shelton: Send out DD for 7-day electronic approval. (done)

Public Comment Period #1 - Agenda related

J. Tipping asked about conversations a year or so ago about grading spring Chinook and winter steelhead.

- J. Bauman responded that there is interest and it is in the cue of topics for the M&E committee to work on. She added that there are some things that need to come first with the trout hatchery remodel and marking and tagging strategies. The hatchery remodel doesn't affect spring Chinook directly, but staff still need some time to adjust to new routines and have other topics to address first. It will be a couple of years before they get to this, but it is still on the list.

L. Pryor shared a few comments:

- For Coho, jack returns were about 73% compared with 6% jacks in the wild population. What is going on?
- This is the only place he's heard of where springers are counted past June. BPA doesn't. Fisherman would maybe call them spummers. With his calculations, he suspects harvest impact is 20%.
- He has been making comments about SARs for years. He emphasized two points: 1) It's not fair to the hatchery staff not to include harvest impact in SAR calculations. 2) It's important to compare hatchery SARs with wild populations and also other basins. Why aren't you doing this? He recognized it is harder to do comparatives with fall Chinook.

G. King shared a few comments:

- He thanked S. Gibbons and Tacoma for their hard work on satellite rearing. It has been a long time coming. Many people have pushed for this. He remembered Bob Reeve and Don Glaser who are no longer with us but would've been glad to hear this.
- How is the trout hatchery remodel coming?

- S. Gibbons shared that they are little over a year into a 2-year planning process for the first phase. They are working with a consultant to develop a 10% design for Phase 1. The bigger lift has been done, and now they are looking at a ground water alternative analysis for water sources. They have been doing some drilling for this. After this step, they will work toward a 30% design, then 60% and 90% in subsequent phases before they move to construction. They meet every other week with the consultant. There is some general information on the [website](#), but S. Gibbons encouraged G. King that he can call directly if he wants a more detailed update.

Topics for January 6, 2025 FTC Meeting on Teams

The potential topics for January include: the Annual Work Plan, Steelhead Transition Plan follow up, 2026 TWG Evaluation draft DD, and the Usual Updates: Hydro Status, Water Quality, Fish Facilities, M&E, TWG, HAP, and LCPUD.

M. Shelton added that it might be a good time for a more in-depth update on fish facilities as the FTC said they would like to see briefer updates each month with more in-depth discussion periodically.

B. Glaser asked if we could push the steelhead follow-up transition talk to February due to the holidays since they would like to have the M&E team review it before it comes to the FTC. M. Shelton confirmed that would be fine.

M. Shelton said we could cover two transition plan topics in one meeting. Everyone also agreed that we can be flexible with scheduling the follow-up topics. M. Shelton emphasized that the presentations are designed to get greater engagement and level-set with a baseline understanding of the plans. She reminded the group that 2025 was a chance to experiment with highlighting each of the transition plans over 3 months. Now, we can look back at how it went and figure out what would be useful in 2026. It might be useful to have a visual or infographic tie it all together. We will set aside some time to talk about this in January or a future meeting.

Public Comment Period #2 – Any topic

J. Tipping commented that he would like to expand summer steelhead fishing until mid-September and would like fish to be recycled twice before they are destroyed. Last year the recycled numbers were considerably lower than the 6,000 fish standard/limit. He would like to increase harvest opportunity on the river.

- B. Glaser responded that WDFW and Tacoma have submitted HGMPs to NOAA. They have to look at their constraints. Recycling twice is probably easier than expanding into September because of the potential for fish ending up on the spawning grounds if there is a rain. He said they can revisit it again.

- J. Tipping responded that it would be great to see some data.
- B. Glaser responded that they have data to reinstitute recycling and expand it from the fillet tagging and radio telemetry. They have estimates of pHOS. They could summarize it in a presentation in the future.
- John S. asked if he would be interested in recycling twice earlier in the season, and J. Tipping responded yes.
- M. Bleich emphasized that this clear request is helpful as they prep for the APR.

L. Pryor shared several comments:

- He referred to the Fish Disease Management Plan from 2023 and expressed concern about *C. shasta* as high as 78%. Is that still the case?
- He noted there were only 43 wild returns on winter steelhead to the collector and asked: What is success? From his perspective as a member of the public and as a fisherman, he sees declining fisheries, harvest participation, and returns, which makes him feel like the FTC is not effective. How do we change that? Members of the public come to participate but only have a few minutes to speak.
- He asked about progress with the FTC protocol for public presentations, which he has been asking about for two years. M. Shelton responded that they are still planning to bring forward a protocol for public presentations to the FTC but that there have been delays in getting the FTC voting representatives together to discuss it.
- L. Pryor ended on a positive note that R. LeDuc and other fisherman have been catching more Coho this season, so maybe integration is doing well.

Meeting Evaluation

What went well? What can we change or improve in the future?

- Great preparation and presentations.
- The pizza was on time.
- The room was chilly. People wore their jackets.
- The hybrid experience was positive. People online could hear everyone in the room.

Josua's Inspirational Quote

"Sunshine is delicious, rain is refreshing, wind braces us up, snow is exhilarating; there is really no such thing as bad weather, only different kinds of good weather." - John Ruskin

Closing Remarks

This meeting marked a historic moment for satellite rearing. Everyone echoed thanks and recognized that it is a milestone that deserves celebration.