

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
January 10, 2024 from 9:30 – 2:30

FTC Representative Attendees:

Travis Nelson	TPU
Bryce Glaser	WDFW

Additional Attendees:

Peggy Miller	WDFW
John Serl	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
Jamie Murphy	TPU
Kris Warner	WDFW
Todd Hillson	WDFW
John Best	WDFW
Scott Gibson	TPU
Melora Shelton	TPU
Steve Manlow	LCFRB
Michael Boyles	BPA
Laura Wolfe	LCPUD
Russell Page	LCPUD
Bill Sharp	Yakama Nation
Ann Weckback	Lewis County
Katie Buchan	USFS
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor, Randy LeDuc

2024 FTC Meeting Dates: In-person meetings will include a remote option. Feb. 6, Mar. 5 (in person), Apr. 2, May 7, June 4 (in person), Aug. 6, Sept. 3 (in person), Oct. 1, Nov. 5, Dec. 3 (in person)

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

Hydro Operations – Melora (presentation emailed on January 9)

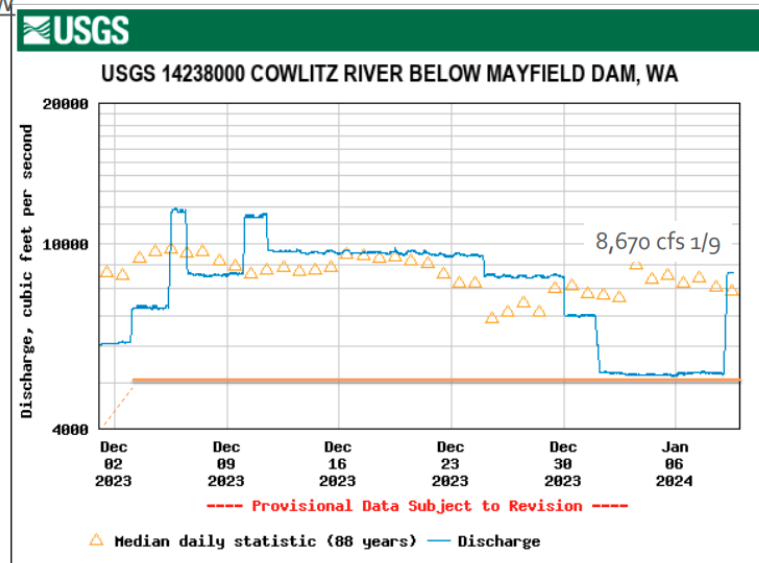
Meliora began by reminding everyone that things are very dynamic currently due to uncertain weather conditions.

- Inflows: These were generally below historical values, except for above average inflows in December. High storm inflows decreased into January. While December was wet it was also warm which impacted regional snowpack.
- Storage: Snowpack below average at Paradise (77%) and in general throughout the region; the average condition at White Pass is an outlier. Riffe’s elevation increased from about 700 ft

to 732 ft following the early December storm and is currently at 722 ft. Both Mossyrock boat ramps remain open.

- 10-day Forecast: Cold with the possibility of low elevation snow throughout the region along with around 6" of rain. Snowpack will continue to build. Outflows will be ~9-11K cfs and could be higher at times.
- Access to boat ramps is taken into consideration by Power Management along with planning for variable inflows and energy demand (load).

Outflow



Min stepped up from ~3,930 cfs on 12/1 to 5,000 cfs on 12/5.

Ramping limits 2 inch/hr day and night; no excursions.

Link to the USGS real-time Cowlitz River hydrograph:

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

Cowlitz Fish Disease Management Plan

The 5-year Article 8 Cowlitz Disease Management Plan has been submitted to FERC. Jamie shared the outline of that plan that Eric prepared per his action item from the last meeting to see if there is interest in having the author (WDFW fish pathologist Sean Roon) do a presentation at an upcoming FTC meeting. Jamie reminded all that the goal is to have appropriate levels of pathogens in the system. Further detections and recommendations are made for bacterial isolates displaying antimicrobial resistance and exotic regulated pathogens. The Plan also includes recommendations re nutrient enhancement.

Action Item: All to let Eric know by Jan. 30 if interested in having Sean do a presentation on this.

Water Quality/Temp Data

Matt P was out in the field and unable to attend the meeting. He sent the following update for Travis to share on his behalf:

- Riffe Lake Fishing Trail complete and open – no water quality concerns. The approved Water Quality Protection Plan (WQPP) was utilized.
- North Taidnapam Boat Launch Improvement Project
 - This will be completed once reservoir elevations and weather are conducive to construction. The approved WQPP is being utilized.

- Phase 2: The lower-level parking area associated with North Taidnapam Boat Launch is still in the design/permitting phase. It will include a WQPP.
- Temperature monitoring locations: Travis will set up a meeting with appropriate stakeholders to discuss how data is being reported and the need/want for additional monitoring locations.
- Matt met with Ecology on January 9 to discuss the next steps for Satellite Rearing at Energy Northwest's (EN) site. More information on this will be forthcoming.
- Cove Lane Culvert Replacement: This is still in the permitting/contracting phase. It will include a WQPP.

Action Item: Travis to set up a Teams call with interested FTC members to review and assess whether there are data gaps in water temperature data from regulatory and M&E perspectives, and if so, how best to address them.

Fish Facilities

Separator:

- Jamie reported on Eric's behalf that coho returns have dropped off with only 120 fish returning to the separator in the second half of December. Numbers leaned toward NORs and there were very few Lower River HORs that would go to the Tilton.
- 40 fish returned last week, 10 of which were winter run steelhead, and the others were coho.
- Only 9,079 coho were put into the Tilton. Only 8 coho returned to the separator since Christmas. The coho HOR target goal to the Tilton is 12,000 adults.

Broodstock Collection:

- 100 coho not needed for brood were released into Lake Scanewa.
- Steelhead HOR collections started December 9. Ten males and ten females were sent to broodstock collection as of yesterday. (The goal is 150 males and 175 females.)

Mayfield Counting House:

- While the Chinook juveniles had been looking great, mortality increased to 16% (caused by Copepods and Nematodes) over the last three weeks of December.
- Bypass mode began at the end of December and will continue through the end of March. During that time, migrating fish will be diverted into the counting facilities for a 24-hour period each month to see what is in the system.
- Clarification: During bypass mode all fish are passed downstream into the tailrace, passing through the louvers and to the secondary separator. They are not handled.

Cowlitz Falls Fish Facility

The facility is currently undergoing off-season maintenance (until March 15). Tacoma is currently hiring day and night technicians for the 2024 season and welcomes any recommendations.

Cispus Release Site (Tom Music Bridge)

Laura reported LCPUD is currently reviewing the response they received from the USACE to ensure their ability to comply. For the HPA, WDFW has questions re the special use permit that has now expired. This is between Tacoma Power and the FS. Jamie noted Tacoma is currently working on the Special Use permit and will send the documentation to Laura when complete so the PUD can finish the HPA.

Bryce asked if there is a checklist of what has been accomplished and what is outstanding. Is the special use permit all that remains? Laura responded the PUD plans to go through the SEPA process themselves. Their portion of that should take a week or two. Otherwise, with the Corps' Nationwide

permit, Ecology doesn't require a Water Quality Cert. They are now just needing to wait for the right timeframe to do the work there. During the permitting process, LCPUD and USACE discussed the work happening during the summer of 2024.

Bryce suggested looking at developing another site or interim action as it appears we will miss the spring Chinook period again (was really challenging last year). Laura explained the PUD is open to alternatives. While they are responsible for finding a release site, they are not required to actually release the fish. Perhaps we should form a subcommittee to consider some secondary options.

Laura reminded all the alternate release site at Copper Canyon continues to be a possibility in case the reservoir gets too warm. Also, the PUD is working with the FS to try to work on an alternate site on the other side of the river. Katie will help put Laura in touch with the Forest Ranger.

Action Items:

- Jamie: Send Special Use Permit documentation to Laura when complete.
- Travis and Bryce: Follow up with Eric, Jamie, and Scott about ideas alternate options.
- Katie: Help put Laura in touch with the FS Ranger on an alternate site.

Monitoring & Evaluation Subgroup

Bryce reported appreciating the detail provided by the consultant working on the M&E plan. The goal is to have a final draft out at the end of February. In the meantime, WDFW is providing additional input and will meet again to review the plan. Scott noted Tacoma has asked for more time to review WDFW comments. He hopes these can be addressed at the next meeting.

Bryce talked with Matt Bleich regarding the email distribution on offline discussion regarding fall Chinook transport and coho jack transport issues. Bryce sent out this information to the M&E distribution list, including Stephen Lewis. The goal is to keep working on the M&E plan over the next couple of months. The implementation timeline depends on when Tacoma can gain the resources to support this effort more fully. Following up on the need to develop a charter for the M&E subgroup as identified in the FTC protocols, WDFW will take the first shot at drafting a charter based on the CRR Subgroup charter and get it to the subgroup to review and then to the FTC.

Downstream Adaptive Management Technical Work Group (TWG)

John reported this group met on January 5 to review/finalize the DD with plans for upcoming season. He reviewed the recommendations outlined in the draft DD 2024 CFNSC Evaluation recommendations to try to improve fish capture efficiency (FCE) at Cowlitz Falls:

1. Develop an alternative study design for FTC performance monitoring that considers increasing the frequency of mark release events while decreasing the number of marks released at each event. This will also extend the performance monitoring period.
2. Develop a hydraulic temperature model in the Cowlitz Falls Dam forebay during the late summer Chinook salmon migration to inform adaptive management actions.
3. Perform retrospective analysis of acoustic studies to determine spatial and temporal patterns as fish first approach Cowlitz Falls Dam.
4. Evaluate management practices, develop a study design to evaluate a suite of upper and Lower Cowlitz River release locations for coho salmon parr that are collected at the Cowlitz Falls Fish Facility. Simultaneously develop a recommendation for interim management actions based on available information.

Bryce noted there are two other work products that have not yet been discussed by the TWG. These include updating the Charter and the Downstream Adaptive Management Plan. He suggested that it

may be more appropriate to include these two work products in the FTC workplan rather than in the DD with plans for the upcoming season.

Action Item: Travis to send the draft DD to Lyn to distribute to the FTC with the expectation that a decision will be made at the February FTC meeting.

2023 Gravel Augmentation Summary

On January 3 Travis sent out an email outlining implementation of SA Article 10 through 2023. Tacoma placed 800 cubic yards of gravel in 2023. They will continue placing at least 500 cubic yards annually, also making up the debt from not placing gravel in 2017-2020 (currently 713 cubic yards) by 2025 in line with the 2023 supplement to the gravel placement plan. Melora provided additional background on the 2023 supplement for newer meeting participants.

LCPUD Dam Operations

Presenter: Russell Page

Russell has been dealing with weather and power outage issues. Dam operations have been fairly normal since the early December flood when they passed 37K cfs at the project. High flows were accompanied by a lot of matted debris and silt which was deposited in front of their units. The District made an emergency declaration and is mobilizing to remove the sediment asap. They are erecting a crane today and hope to start debris removal shortly. They have notified Ecology, BPA, and other agencies that this is occurring. They will follow best practices re dumping site, material containment, etc. Russell anticipates the work will take two months, weather cooperating.

Drawdown for Debris Barrier moorage site will occur in early February, and they should be back to full pool the first week in March.

Debris Barrier work should occur in the fall after fish collection.

Anyone planning to show up onsite should let Russell know ahead of time so he can inform the contractors, etc.

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

Presenters: Melora Shelton and Steve Manlow

Melora noted that are in a slower period now after wrapping up the 2023 grant round the end of the year. The subgroup will begin looking at potential HAP projects at their next meeting on January 17 at 1pm. All are welcome to join.

CRR Program 2024: FTC Engagement

Grant Round

- April: draft applications (available)
- April/May: Applicant presentations and/or site visits (FTC invited, feedback)
- May: meeting, application updates
- August: meeting, proposals introduced to FTC
- September: meeting, funding recommendations proposed (draft DD)
- October: FTC meeting, FTC makes funding determination (finalize DD)
- November: FTC meeting, contingency for funding determination

Other

- March/April: FERC Annual Report 30-day review (6/1 to FERC)
- Q4: Updates to CRR Program Documents, , if needed
- Regular updates at FTC meetings
- Opportunities to join HAP Subcommittee meetings, *including next week (1/17, 1:30pm)*

LCFRB/SFRB Update: Steve noted the LCFRB is gearing up for the next grant round. This includes updating the grants manual to reflect changes from the last FTC meeting and also from the lessons learned process. They are also finalizing the grant calendar and will allocate one day for field review of CRR projects this year, there may also be virtual presentation for CRR and/or SFRB proposals. 2024 looks to be a robust year for CRR, SFRB, and riparian project funding, and additional targeting investment funding through the RCO. Steve is aware of at least one CRR proposal in development.

Public Comment Period #1 - Agenda related

Larry Pryor:

- How does the Disease Management Plan drive actions or treatments? (Thanked Travis for forwarding him a copy of the plan.)

Jamie: The plan addressed causes, treatments, as well as a path forward.

- What will the M&E Subgroup be monitoring and evaluating?

Bryce: This is prescribed in Chapter 10 of the FHMP and Appendix C that has summary of data gaps and future monitoring needs. There should be a baseline monitoring component. Each species section of the FHMP also includes monitoring needs by species. The existing monitoring being done is via task order from Tacoma to WDFW on adult abundance monitoring in the lower Cowlitz (Chinook, coho, steelhead). An example is the work to estimate Chinook abundance and percentage of hatchery vs. natural spawners. The plan will have details of how to prioritize these in the future and may also require some directed studies.

- How will these activities benefit the recreational fishery? What is success? What are the SARs in the Cowlitz (escapement plus harvest)? He doesn't think Hatchery managers know the current status of these things.

Bryce: The M&E Plan will touch on hatchery needs and that will also be covered in the annual operating plan. The SAR piece is ongoing. A lot of work has been around Spring Chinook. There is currently a focus on standardizing an approach to do SAR analysis that everyone agrees to.

Kris: WDFW is working in standardization and best practices for the western region.

- Larry's calculation for Fall Chinook SAR is .0040 based on numbers of releases from 2020. This means almost all the fish released are not returning back to the Cowlitz River. That needs to change.

Bryce: We are working to finalize the plan. A high priority is fall Chinook survival issues in the Cowlitz and the Toutle Basins. This has been identified for further evaluation. Bryce committed to connect Larry with Kris and also Anja (working on the Lewis).

- What is the proper way to address the FTC? Email to Travis?

Travis: Send it to me and I will follow up with you.

- Improving hatchery efficiencies and returns matters not only to recreational fishermen, but to the wild fish programs as well. Wants this to be an FTC priority.
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Topics for February 6, 2024 FTC Meeting

- Updates incl. Hydro Ops, Water Quality, Fish Facilities, Cispus Release Site, Marine Mammals Protection Act, Fisheries
 - LCPUD Cowlitz Falls Dam Operations
 - Preview of 2024 FTC Work Plan
 - Downstream Adaptive Management TWG
 - Monitoring and Evaluation Subgroup – Approve DD
 - CRR Fund / HAP Subcommittee
 - Preview March FTC (in-person) Meeting Topics
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Meeting Evaluation

- Appreciated flexibility with the agenda timing.
- Nice to get out early.
- Happy so many could attend on this date to avoid overlap with New Years' Day.
- Hoping for better attendance in February.

Josua's Inspirational Quote

"Life is full of beauty. Notice it. Notice the bumble bee, the small child, and the smiling faces. Smell the rain, and feel the wind. Live your life to the fullest potential, and fight for your dreams." – Ashley Smith

Closing Remarks

Travis ended the meeting by thanking everyone attending. He expressed appreciation for how supportive members of this team have been and continue to be of each other. It's always good to be nice to each other and enjoy each other.

Parking Lot

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

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February 6, 2024 from 9:30 – 2:30

FTC Representative Attendees:

Travis Nelson	TPU
Bryce Glaser	WDFW
Amy Kocourek	NMFS

Additional Attendees:

Peggy Miller	WDFW
John Serl	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
Jamie Murphy	TPU
Kris Warner	WDFW
Todd Hillson	WDFW
Kevin Young	WDFW
Matt Peter	TPU
Steve West	LCFRB
Michael Boyles	BPA
Russell Page	LCPUD
Stephen Lewis	BIA
Ann Weckback	Lewis County
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendee: Larry Pryor

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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.

Welcome!

- We were pleased to welcome to the FTC Amy Kocourek, from the WA Coast Lower Columbia Branch Base of NOAA Fisheries.
 - We were also pleased to welcome Kevin Young, who is WDFW’s new Region 5 Hatchery Operations Manager.
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Updates

Hydro Operations (presentation emailed on February 5)

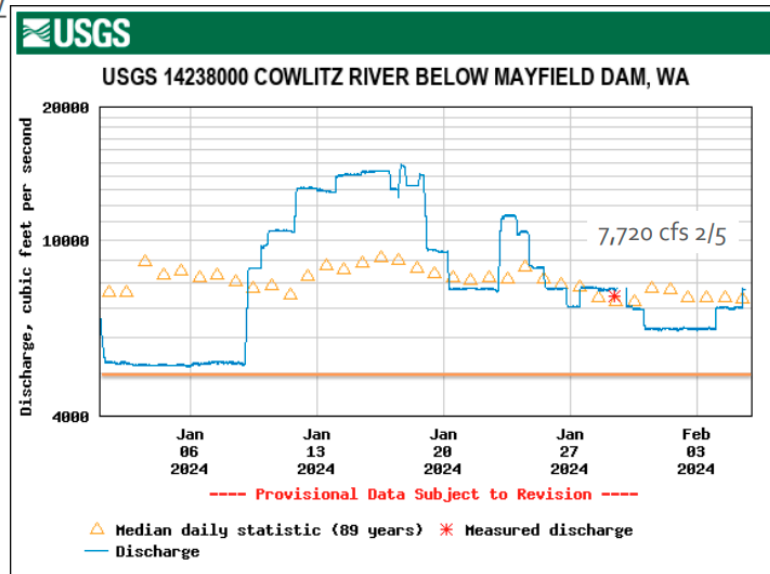
In Melora’s absence, Matt P described the following:

- Inflows: These have been near normal with largely variable weather in January for which inflows were at 107% of the historical average and 114% of average precipitation. Deep cold

events were followed by significant warming and atmospheric river. This contributed to snow melt.

- Storage: Snowpack at Paradise is only 77% of average while White Pass is 106% of average. Within the last two weeks, Riffe's elevation increased from 709 ft to 738 ft where it is currently. Both of the Mossyrock boat ramps are open.
- With flows less than 6K cfs ramping is currently 2" day and night. As of February 16, this changes to no daytime ramping.
- 10-day Forecast: Seasonal temperatures with below normal precipitation. Outflows are anticipated to be ~7.8-9K cfs.

Outflow



Min 5,000. Ramping limits <6,000 cfs 2 inch/hr day and night; no excursions.

Link to the USGS real-time Cowlitz River hydrograph:

https://waterdata.usgs.gov/wa/nwis/uv/?site_no=14238000&PARAMeter_cd=00060,00065
<https://www.mytpu.org/community-environment/parks-recreation/river-flows-lake-levels/>

Water Quality

Matt P gave the following brief update:

- North Taidnapam Boat Launch Improvement Project: This was completed to a certain point and is now on hold until reservoir elevations come down. Phase 2 of the project (the lower-level parking area and trail) is currently still in the design phase and will move to permitting shortly.
- Removal of derelict vessels / structures from Mayfield and Riffe Reservoirs and shorelines: Matt was pleased to report Tacoma is currently in the final permitting phase of this project which should be complete before summer. Removal would then occur as needed.
- Cove Lane Culvert Replacement: This is occurring in an unnamed stream that delivers to Mayfield. The project will eliminate an existing complete passage barrier. This project is in the permitting phase with construction anticipated to begin this summer.

Fish Facilities

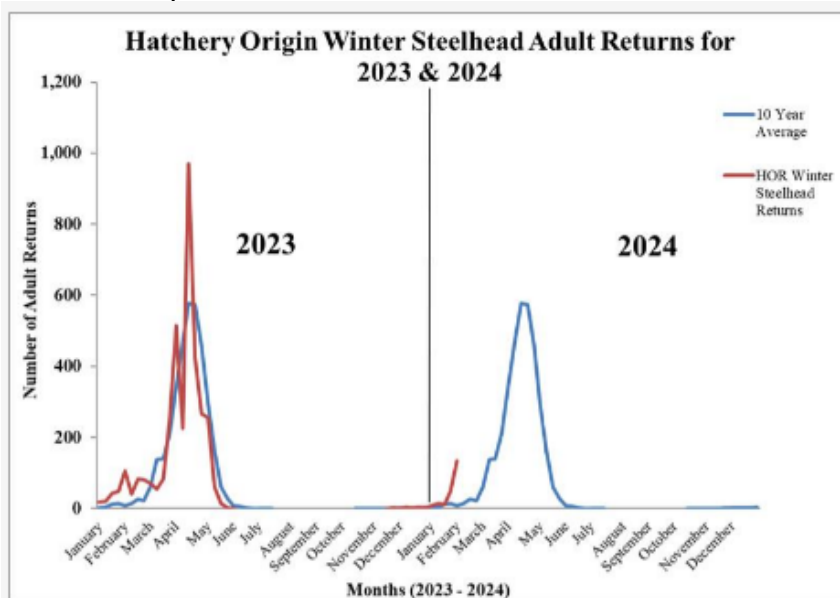
Separator:

- Eric began by reminding all this is a slow time of year. Coho returns stopped at the end of January (sooner than in prior years). A single spring Chinook showed up last week.

- A valve broke due to freezing conditions causing a 2-hour ladder outage on January 18 at the separator. Staff used the opportunity to perform the annual inspection during which no fish were found. They are now getting 11-33 winter run steelhead on a daily basis.
- The coho HOR goal for the Tilton is 12,000 adults. They have set up a transport curve to frontload transports to allow getting fish up there earlier in the season but did not reach the 12,000 cap this year. It has been a good fishery.

Broodstock Collection:

- The goal was to start on December 1 to advance the Lower Cowlitz program. So far, all steelhead HORs collected prior to February 1 were double floy tagged to maximize early return fish to advance the run. 129 males and 78 females had been collected by the end of last week, so we are close to goal. For every NOR taken to brood, two HORs are sent upstream for demographic replacement.
- Though it is still early in the season, we may be seeing an effect from our prior effort attempting to get winter-run steelhead a little earlier.
- Bryce noted he is excited about modeling work in the transition planning. As we move forward, hope the trend continues per the model.



Mayfield Counting House:

- Bypass mode began at the end of December and will continue through the end of March. During that time, it will open for a 24-hour period each month for spot checking for any abnormal migration behavior. The January spot check collected 13 juvenile Chinook and counted one coho juvenile during the 24-hour operation.

Cowlitz Falls Fish Facility

The facility is currently undergoing off-season maintenance (until March 15). Tacoma is currently seeking night technicians for the 2024 season and welcomes any recommendations. Awaiting approval of DD (likely at this meeting). The 2023 Annual Report for CF for 2023 will be to the FTC for 30-day review prior to the April FTC meeting.

Cispus Release Site (Tom Music Bridge)

Laura was unable to attend the meeting as she was helping with the Cowlitz Falls drawdown. She emailed ahead of the meeting that there isn't really an update to the release site other than Tacoma

and LCPUD are currently coordinating on permit timing. Eric added that though the Special Use permit that Tacoma was holding (covered upland access) has expired, all indications are that updating that permit should be easy. Tacoma staff visited the Copper Canyon Release site to see if it could be utilized during drawdown (which may last as long as Feb. 28). Unfortunately, they found it to be too shallow – fish would get stranded on gravel bars. Are there interim things we can do to get some temporary releases? Peggy asked if a second alternate whitewater release site downstream of Copper Canyon had been checked out. She noted it is "reservoirish" when at full pool. Note: Later in the meeting Eric put in the Chat that this secondary whitewater takeout site had been visited by Gabe McGuire who reported Tacoma fish trucks cannot get close enough to release adults at that site in the current conditions (20' drawdown).

Pinniped Response

Bryce noted an increased number of pinnipeds were seen last year in the Lower Cowlitz and they moved upstream further than had been seen in the past. Some sea lions made it all the way to the Barrier Dam. While the smelt return likely drew them in, and that is their primary food source, there has also been predation on adult salmonids. A few years ago, some changes were made at the federal level to the Marine Mammal Protection Act, giving additional management authority to the states. Some regulations to remove the mammals from below Bonneville Dam were modified to include lower river tributaries. Despite best efforts, WDFW has not yet received additional funding to respond as they would like. There is also the need to identify what would trigger the need for an emergency response in tributaries while funding for a more sustained effort is pursued. There is legislative support for this in the next WA State biennium - State Fiscal year 2025-2027. It also includes some support to address avian predation issues. Most of WDFW's regional focus is on the Cowlitz, Lewis, and Kalama currently. If funding is received, removal efforts could occur in the spring and fall. WDFW's Wildlife program will be the lead in putting the team together to address this. WDFW is also updating their website with talking points. Bryce will keep us posted on this.

- Action Item: Bryce to follow up with Randy offline and send talking point to the FTC along with link to WDFW's website. [Columbia River sea lion management | Washington Department of Fish & Wildlife](#)

Fisheries Update

Josua noted that every year since 2018, Region 5 staff puts together a Spring Chinook Fact Sheet for Cowlitz, Kalama, and Lewis Rivers. He walked through the report which was subsequently emailed out to the FTC. [2024 Cowlitz Kalama Lewis Spring Chinook Factsheet.pdf](#) The report highlights forecasts of Cowlitz, Kalama and Lewis spring Chinook returning to the mouth of the Columbia and their respective tributaries. Currently, this document highlights forecasts as an aggregate of Hatchery (HOR) and Natural (NOR) fish. Forecast returns to the Cowlitz River are 4,577 adult spring Chinook (more than the 5-year average, but less than the 10-year average). The document also shows long-term trends in hatchery releases and returns to the mouth of the Columbia.

He reminded all that the Cowlitz hatchery releases have been consistent except for the 2022 release year (did not make brood in 2020) so with coordination through the FTC, there was some backfill fish brought in from the Kalama. These fish were marked so they could be identified when they returned to the facility. Cowlitz fish were not adipose clipped (but received a CWT) and thus not available for harvest in mark-selective fisheries. He reported feeling confident that we have enough fish to prosecute a fishery. 4,577 spring Chinook adults are forecasted to return to tributary mouth, 13% of which are NORs. Over the long term, they are hoping to see more NORs available.

Permanent rules: The Cowlitz is currently open for two adipose-clipped spring Chinook. In early March, this will change to one Adipose + Ventral clipped adult (There will be a press release on this.).

Additional information on Columbia river spring Chinook forecasts can be found at:
<https://wdfw.wa.gov/fishing/management/columbia-river/compact/other-information#2024>

Link to on-station hatchery escapement needs for the Cowlitz and Lewis are defined in the US v. Oregon Biological Opinion issued by NOAA Fisheries: https://media.fisheries.noaa.gov/dam-migration/s7-usvoregon_2018-2027_mgmagmnt_final_signed.pdf

Monitoring & Evaluation Subgroup

Bryce reminded all this subgroup hasn't been meeting formally. They have been working with the consultant on the development of the M&E Plan and recently reviewed the latest draft of the plan. The consultant is currently working with Tacoma staff to address WDFW comments and then will share the updated draft. They have been dealing with emergent issues through an email chain.

Travis was pleased to report Tacoma has filled out all but one position in the science and research group. Good news! They are still interviewing for a fish passage biologist; but this means the M&E effort should "rev back up" with full engagement soon. Kudos to Scott Gibson for his wonderful support in the midst of being short staffed!

Downstream Adaptive Management Technical Work Group (TWG)

John once again reviewed the proposed studies for the coming season as listed in DD 2024-01 (emailed to all on December 30).

1. Up to 50 species per tag for each week – to more closely track environmental factors re Collection Efficiency (CE).
2. Reexamine collected temperature data with the previous CFD modeling to determine if it is possible to reduce water temperatures in front of the Northshore Collector during summers when Chinook are migrating.
3. Acoustic studies – reexamine previous studies to assess tagged smolt travel time from release to more closely assess how environmental factors affect collection at CF Dam and where smolts arrive at the dam.
4. Develop a study plan to determine the locations to release coho par that optimize adult returns.

Discussion:

Do the proposed studies have a correlation with Fish Passage Survival (FPS) estimate? There are no active studies planned for this year due to the drawdown at CF Dam. The TWG is looking at CE to ensure estimate of FPS is accurate. This year's proposed studies 1-3, are intended to provide direction in selecting actions that could improve FPS in future years. Amy would like to see a connection between the results of this monitoring and changes in management. The CF Adaptive Management Plan describes that connection more clearly than the DD. The draft of that Plan was completed in 2014 before the CF Northshore Collector (CFNSC) was built. The four study designs listed in the DD will include a link to management practices.

Bryce reminded all there are two other tasks that were not listed in the DD: Updating the Charter (to include authority and approvals between the FTC and the TWG, etc.) and the Downstream Adaptive Management Plan. He suggested that it may be more appropriate to include these two work products in the FTC workplan rather than in the DD with plans for the upcoming season.

After discussion, the DD was approved by present voting members of the FTC. Jonathan Stumpf of TU also concurred via email prior to the meeting as he was unable to attend.

Action Item: Travis to send out to absent voting members for 7-day electronic review/concurrence.

2024 FTC Work Plan

Presenter: Travis Nelson

Travis projected the draft plan that was sent out to all on January 30. This helps us to prioritize our meeting schedules. He updated the draft per suggestions that included adding Charter development for the TWG and M&E Subgroup to the “Scheduled Updates” section. All agreed that a periodic review of charters would be helpful. He also updated the quarterly in-person FTC meeting schedule showing the next meeting to be March (vs. April).

Action Item: Travis to follow up with Matt Bleich on timing for updating/completing the Downstream Adaptive Management Plan.

LCPUD Dam Operations

Presenter: Russell Page

Debris removal started at the beginning of January and will continue through the end of February. Periodic inspection is scheduled for early March. They will test gates and pass flow through all gates March 5-7.

The drawdown for the Debris Barrier Moorage Site Rehabilitation Project began Friday, February 2 and lasted through the weekend. Sunday pm they reached 842 ft and are holding steady. This allows time for the area to dry out before the project is complete. The work will begin February 7 and will be complete no later than March 1. The contractor is optimistic they will finish sooner and will then come back to full pool.

During the last high-water event in January, they lost their downstream turbidity monitor. They have an additional monitor which they will install on February 12 when flows passing through the project are at the proper level. All other turbidity monitors are operating. The District also purchased a new turbidity monitor which they will install so there will be one on each side of the downstream bank.

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

Presenters: Matt Peter and Steve West

Matt noted the habitat portion of the CRR grant round started on February 5. The HAP round will begin on February 7. Email distributions /notifications will go out. Letters of intent are due on March 4 (required). A pre-application meeting with a member of the HAP advisory group is required and is critical to project success. These pre-application meetings are offered February 12-March 24. Draft applications are due April 1 (required).

The HAP Subgroup has met twice in January – will meet again on February 21 to discuss lessons learned and how to move forward.

Action Item: Matt will see that the summary of HAP notes from the last meeting are sent out.

LCFRB/SFRB Update: Steve West shared the following links to new LCFRB website <https://www.lcfrb.org/> which include a new and richly detailed resource map and corresponding tutorial.

- Calendar link: [2024 LCFRB Salmon Recovery Grants Manual FINAL 2024-02-05.pdf](https://www.lcfrb.org/2024-LCFRB-Salmon-Recovery-Grants-Manual-FINAL-2024-02-05.pdf)
- New Resource Map: <https://www.lcfrb.org/salmon-resource-map>

- New Resource Map Tutorial:
https://drive.google.com/file/d/1_TMUZN5V2R3MI4BrIRpmSo72Pq0FZj8F/view

The LCFRB opened both the CRR and SRFB grant rounds yesterday (February 5th). The LCFRB updated the 2024 LCFRB Grants Manual Appendix D (CRR), to include changes to the CRR Implementation Strategy. These changes were approved by the FTC in 2023. Preproposals will be accepted until March 22. Site visit dates (virtual or onsite) will take place April 24-26 and April 30-May 3; May 9 is the date reserved for CRR site visits (in person and onsite). At this point, there are two pending proposals.

Public Comment Period #1 - Agenda related

Larry Pryor:

- What's the forecast for harvestable springers return this year?

Bryce: Due to a shortfall in a release a couple of years ago we did not ad clip hatchery origin fish. Only the 4-year-old Kalama fish will be eligible for harvest. In March WDFW will announce a fishing rule change that only allows harvest of adipose + right ventral-clipped fish. In addition to the 660 harvestable adults returning, 1,300 will be returning for brood. As many as 1,600 are forecasted to be used for upstream transport. In aggregate, 900K were released. The forecast is based on cohort regressions – not SAR. The challenge is the ability to detect the true number of jacks that may have been caught last year. Chinook come back as 3–5-year-olds. We have to wait until all adults come back from that brood before trying to do the math on the SAR. This is our attempt to implement a fishery based on the Kalama fish we brought over. We are planning to prosecute a fishery for the whole period on those ad-RV-clipped fish.

- At last April's meeting, we discussed the 200-300 seals that were lingering at the mouth of the Cowlitz. Looks like most of the fish released from the Cowlitz were in the same window (March -June). Do release dates take into consideration predation? Lots of seals hang out at the mouth of the Cowlitz.

Bryce: The majority of the pinnipeds are following smelt. These numbers quickly dissipated once the smelt runs dropped off. There are days/not weeks of time that we can manipulate the timing of hatchery releases.

- Hoping the M&E Subgroup has as its highest priority success for adult returns for the fishery. Hopes the aim is to improve on this in the future. The subgroup needs to function independently and tell an honest story. SAR calculations should be in accordance with the NW Power Council (SAR goals of 2-6%).

Bryce: The FTC's M&E Subgroup is focused on evaluating Tacoma's compliance with license requirement. They are also interested in fall and spring Chinooks survivals. Spring Chinook SARs resulted in management changes based on that analysis.

Travis: The M&E Subgroup provides technical expertise to assist Tacoma implement its license. They are working toward setting recovery goals along with making sure they have harvestable fish.

- 2015 was the best springer run. Things seem to have been on a downward trend since then.

After talking offline with Larry, Travis agreed to bring up something for the FTC to consider: Having a member of the public present at an FTC meeting or at an Annual Program Review. He asked everyone to be ready to consider/discuss this in March for possible presentation to the FTC in April or the Annual Program Review (APR).

Topics for March 5, 2024 FTC Meeting (In-person at the Veteran's Memorial Museum, Chehalis)

- Updates incl. Hydro Ops, Water Quality, Fish Facilities, Cispus Release Site, Mayfield Downstream Fish Passage Remodel
 - LCPUD Cowlitz Falls Dam Operations
 - 2024 FTC Work Plan
 - Ecology presentation on Kosmos Clean-Up
 - Downstream Adaptive Management TWG (Charter)
 - Monitoring and Evaluation Subgroup (Charter)
 - CRR Fund / HAP Subcommittee
 - Preview April FTC Meeting Topics
-

Second Public Comment Period

Larry shared his observation that sometimes it seems like these groups forget it's about the fishery.

Meeting Evaluation

- Welcome to Amy and Andrew!
- Appreciated flexibility with the agenda timing.
- Good sense of collaboration
- Awesome ice breaker (Thanks Todd!)

Josua's Inspirational Quote

Our parents and those who came before us made sacrifices for our benefit. This quote honors them. "If there must be trouble, let it be in my day, that my child may have peace." Thomas Paine

Closing Remarks

Travis thanked everyone for their participation. As he has said in the past, Tacoma couldn't do this without everyone's contributions (hard work, experience, intelligence, etc.).

Parking Lot

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

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
March 5, 2024 from 9:30 – 2:30

FTC Representative Attendees:

Travis Nelson	TPU
Bryce Glaser	WDFW
Amy Kocourek	NMFS

Additional Attendees:

Thomas Starkey-Owen	ECY
Cam Penner-Ash	ECY
Peggy Miller	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
Kris Warner	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Melora Shelton	TPU
Jamie Murphy	TPU
Matt Peter	TPU
Steve West	LCFRB
Steve Manlow	LCFRB
Denise Smee	LCFRB
Michael Boyles	BPA
Laura Wolfe	LCPUD
Katie Buchan	USFS
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor, Randy LeDuc, Chris Foster, Pete Barber (Cowlitz Indian Tribe)

2024 FTC Meeting Dates: In-person meetings will include a remote option. Apr. 2, May 7, June 4 (in person), Aug. 6, Sept. 3 (in person), Oct. 1, Nov. 5, Dec. 3 (in person)

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.

Announcements

We were pleased to welcome WDFW fish biologist Sean Toomey to the meeting. He reports to John Serl who was not able to be with us today because he, for some reason, preferred to be with his wife on the Caribbean celebrating their 30th wedding anniversary!

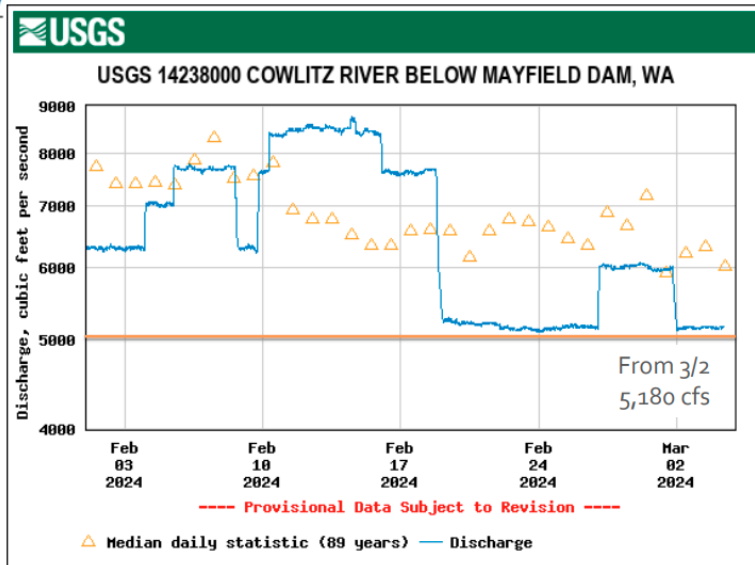
Updates

Hydro Operations (presentation emailed on March 4)

Melora described the following:

- Inflows: After the storm events in December and January, February inflows were 6,896 cfs (8412 cfs historical average). March inflows are above average to date. Overall, inflows water year to date are tracking with the long-term hydrograph.
- Storage: Snowpack has improved since January/February (Paradise 89% and White Pass 107% of historical average to date). Riffe Lake is at 738 ft. (higher than long term and recent averages).
- Outflows at Mayfield mostly have been near 5K cfs (current minimum). Down ramping is limited to 2”per hour at night only below critical flow (6K cfs).
- 10-day Forecast: Cooler with typical precipitation (~2” at Packwood after Friday). This should contribute to snowpack. Riffe will be relatively stable with inflows 4-7K cfs. Tacoma started weekly fish transport flows today and that continue through June at base flow below 8K cfs. Transport flows push 120% of base flow for at least 12 hours and typically occur on Tuesdays.

Outflow



Min 5,000. Down ramping limits <6,000 cfs 2 inch/hr (night only); no excursions.

Link to the USGS real-time Cowlitz River hydrograph:

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

Water Quality

Matt P gave the following update:

- North Taidnapam Boat Launch Improvement Project: This boat launch is currently closed due to construction. Phase 2 of the project (the lower-level parking area and trail) is going through design and permitting.
- Removal of derelict vessels / structures from Mayfield and Riffe Reservoirs and shorelines: Matt was happy to report permitting is complete and they are beginning to schedule the work.
- Cove Lane Culvert Replacement: This is occurring in an unnamed stream that delivers water to Mayfield reservoir. The project will eliminate an existing complete passage barrier. This project is still scheduled to begin this summer.
- Temperature monitoring is ongoing. Travis has scheduled a meeting on at 3:30 on March 13 with Ecology and WDFW to discuss.

- Kosmos Cleanup: As we will hear this afternoon from Cam Penner-Ash, Ecology is finishing up their review of the Remedial Investigation (RI) report. It will go to a 60-day public review which will lead to a feasibility study. Tacoma is continuing to monitor the site.

Action Item: Matt P to copy Thomas Starkey WQPP Plans along with Chad.

Fish Facilities

Separator:

- This is the slow time of the year for separator returns.
- Winter-run steelhead are the only fish returning right now.
- The weekly average for February was about 100 adult steelhead a week.
- The only Upper Cowlitz release site available for most of February was Franklin Bridge with the Scanewa Drawdown.
- Lake Scanewa was full again on Thursday (February 29) and fish were released there on Friday (March 1).

Broodstock Collection:

- Tacoma is currently collecting winter-run steelhead for the Tilton and the UCR Programs.
- To advance the Lower Cowlitz Program the goal was to start collection on December 1 rather than February 1. They have been collecting earlier the last couple of years and collection was completed for both males and females at the end of February.
- For both the Tilton and UCR programs only 10% of the NORs are collected to avoid over-mining the run (nine NORs need to go upstream before one can be collected to brood). Also, for every NOR collected for brood, two HORs need to be sent upstream for demographic replacement. Eric reminded all it's still very early in this run collection.

Mayfield Counting House:

- The Counting House was put into bypass mode at the end of December. It will be put back into normal operations again on April 1. Tacoma will open the facility for 24 hours each month during the off season to see what is coming through.
- For the February 24-hour operation, only six Chinook smolts and four coho smolts were collected, tagged, and released.

Action Item: Eric to check with Jamie re including in his weekly reports any deviations from the Adult Handling Protocol (AHP) so they can be included in the Annual Report. It would also be helpful to state whether any deviation was planned or not planned and any impacts.

Cowlitz Falls Fish Facility:

- Tacoma will begin their 2024 season with operations beginning on Friday March 15.
- Currently the TWG group has ongoing discussions on the feasibility of alternative study designs.
- Last season's Annual Report is currently with Tacoma for internal review and should be out to FTC before the April meeting.
- LCPUD will be continuing their debris cleanout in front of the units for another round beginning in mid-March and continuing for approximately four weeks. And although the CFFF will be operating, this is seen as a net positive as occlusion of the trash racks has been shown to be negatively associated with FCE.

Mayfield Downstream Fish Passage Remodel

Eric noted that after reviewing the three alternatives identified, the project team, working with their consultants has selected an alternative (3b) to move forward for internal review and approval. This process is ongoing and, if approved, will require spending authority and budget approval. The alternative selected involves moving the counting house and relocating the fish transport pipe. All changes are focused on the downstream side of the dam. The collection through the louvre bays, secondary separator, etc., will all remain the same. They will just be moving where the fish are processed.

Cispus Release Site (Tom Music Bridge)

Eric noted that due to LPUD's drawdown, the reservoir level has been too low to release at the Copper Canyon release site. Tacoma has submitted an amendment to the previous USFS Cispus Release Site Special Use permit for access to the river for LCPUD's maintenance permits and is awaiting USFS signatures. Kate reported that has been approved and they are reissuing that permit. She will confirm that it will be for a six-month period that includes June through September. Laura reported the PUD is still working on elements for the HPA and that should complete the permitting process.

Monitoring & Evaluation Subgroup

Bryce reported this group still has not met. While Tacoma continues to hire key personnel, the current work is occurring through offline discussions and email exchanges outside the subgroup, with consultant Four Peaks. Current efforts are to get the next draft of the M&E Plan out for FTC review. Travis reported that all vacant positions have now been filled except for the fish passage biologist. Tacoma's new Science Manager starts on March 25 and another hire starts March 11.

Downstream Adaptive Management Technical Work Group (TWG)

This group last met on February 27. Their meeting notes sent to the FTC on March 1 detailed their discussions on the CF Northshore Collector (CFNSC) and Mayfield Operations, CF Dam Operations, and the 2024 DD review. The expectation is for the CFNSC Downstream Passage Annual Report to come out for a 30-day review before the April FTC meeting. Bryce reminded all FCE is a very important concept and must be properly calculated.

Coho Net Pen Project

Eric noted this (existing) net pen array is at the downstream end of Mayfield Lake. The FTC approved a DD on this project as part of the APR DD last fall. Some of the language in that document is ambiguous and has led to differing assumptions of some of the survival monitoring for those groups. Bryce said WDFW assumed there would be an evaluation of survival of groups of fish at juvenile and adult life stages – as is done at the hatchery for other programs. Tacoma's understanding was that the evaluation would only focus on juveniles and not include adults. (Tacoma has indicated they believe there are challenges with CWT tagging being available for the hatchery group.) We need to agree on what we will do for this year. This may mean revising the DD to add more detail for determining what we will do this year and what criteria would be used to determine if the net pen project would be extended for another year. Tacoma thought the pilot project intent was to ensure in-pen survival and in-hatchery survival were similar enough to continue beyond a pilot phase and therefore did not anticipate the evaluation including long-term adult survival in this phase. WDFW will evaluate Tacoma's proposal to use existing tags. Funding will extend to both years if the initial pilot proves successful. Bryce requested that Tacoma put together the criteria and decision points they plan to use to determine if the net pen pilot would move forward to the second year of implementation and bring that update to the FTC's next meeting. Eric indicated he would work on that and wanted to work collaboratively on developing that information.

Action Item: Eric to continue the discussion with WDFW (Kris and Bryce) and provide an update at the April FTC meeting.

2024 FTC Work Plan

Presenter: Travis Nelson

Travis projected the updated draft plan that was sent out to all on February 27. A few additional edits were made to the timing of the Downstream Adaptive Management Plan and also to the Mayfield Downstream Fish Passage Remodel. He also changed the schedule for the APR which, due to a lack of staffing, will occur in September instead of the usual April.

FTC Protocols: The FTC has been asked to consider allowing members of the public do presentations at FTC meetings. Travis said he is supportive of this idea and noted if there is agreement among FTC members to allow this, it would be helpful to have guidelines for them to follow. Bryce agreed guidelines would be good and said WDFW would support this occurring during the second public comment period. Travis suggested, these could mirror those set by the Commission for WDFW. How much time for a presentation is enough/too much? Are there topics that would be off limits e.g., harvest management?

Action Item: Travis to follow up with Bryce and Josua, Peggy, and Eric re proposed guidelines for public presentations to the FTC. These would include how far in advance they would have to request time to give a presentation, the structure of the presentation, etc.

LCPUD Dam Operations

Presenter: Peggy Miller

Russell was unable to attend the meeting due to a FERC Part 12 Inspection. Peggy participated in a meeting with Joe First and Ecology on March 1 and was able to provide the following update:

Debris Removal at Trash Rack: The contractor was not able to complete the work by the end of February, so LCPUD has hired a different contractor with a more skilled crane operator to continue the work. The work is scheduled for the week of March 13 through April 2024 for 4 weeks. If the work cannot be done in March, it may be done September through October. They will coordinate with Tacoma and this work will not require a drawdown of Lake Scanewa.

Debris Barrier Repairs: During the February drawdown sediment was removed around the blocks that support the Debris Barrier at the moorage site in preparation for the recoating work. The Debris Barrier will be floated to the moorage site July/August 2024 at full pool. The drawdown will occur the first part of September for the recoating work and will last for 2 months. It will be a 20-ft drawdown to 840 ft elevation and may fluctuate up to 844 ft. The recoating work is scheduled to be completed by October 26, 2024. There will be a WQPP for this work,

Sluice Gate Replacement: The current sluice gates are not effective and can only be used under certain conditions. The new gates will be able to be used more often to move suspended sediment to Riffe Lake. The work is likely to occur in 2027. The replacement of the gates will require a full drawdown of Lake Scanewa to riverine conditions. This work will require a variance from FERC for the drawdown.

Boat Barrier Replacement: This work is currently in the design phase and will require FERC review. Construction is estimated for October/December 2024 timeframe. This will not require a drawdown. It will include new anchors placed on the banks approximately 15 ft from the reservoir.

Update on Kosmos Clean-Up

March 5, 2024 FTC Meeting Summary

5 of 9

Presenter: Cam Penner-Ash

Cam is the Cleanup Project Manager for Ecology's Toxics Cleanup Program and the Site manager for the Kosmos Cleanup. He described the timeline from when Tacoma submitted a Draft Remedial Investigation (RI) report at the start of this year, to a revised Draft RI, a few weeks later, to next steps which include:

- Ecology finishing their review of the revised Draft RI
 - Errors, data gaps, appropriateness of report limits
 - Whether they can use the RI to guide the alternatives selected in the upcoming Feasibility Study
- Tacoma addressing Ecology's comments / requested changes
- Tacoma working on the Feasibility Study document to work to address areas of concern

Preliminary findings (only one year of data so far) were fairly positive, with very few readings above limits defined in the Model Toxics Control Act (MTCA).

- Groundwater – shallow and deep wells. Diesel and oil range total petroleum hydrocarbons (TPH) detected above screening levels in shallow wells.
- 193 soil samples were collected. Everything is fairly shallow (5-18 ft). Gasoline, diesel, and oil range TPH was detected above screening levels in a few places but appears to be somewhat vertically constrained. Additionally, benzene was observed above screening levels in one location.
- Sediment samples indicate that the cap installed as part of the emergency interim action is effective.
- Surface water – of the six samples collected, all were below the Water Quality Protection Plan (WQPP) indicator levels.

Matt was pleased to report that the sheen that was visible on the water at the site for the first few years hasn't been observed in the last couple of years.

Timeline: Cam's questions on the RI should be done by end of March. Kevin Smith from Tacoma will be ready to receive. Matt P confirmed their consultants are starting to work on the feasibility study.

Cowlitz Restoration and Recovery Fund / Habitat and Production (HAP) Subgroup **Presenters: Melora Shelton and Steve West**

2024 Grant Round (HAP): Melora reported no interest has been expressed this year. The deadline for required letters of intent was March 1, but she will hold off on making any changes to the website for now and wait a bit longer in case of any late USPS deliveries. The HAP Subcommittee will come to the FTC for an update in the May/June timeframe.

2024 Grant Round (Habitat): Steve W reported this is in the pre-proposal stage. Two potential sponsors have expressed interest so far. Draft proposals are due April 8. Site visits for CRR project proposals will be onsite on May 6 (FTC invited). The rest of the site visits will be virtual.

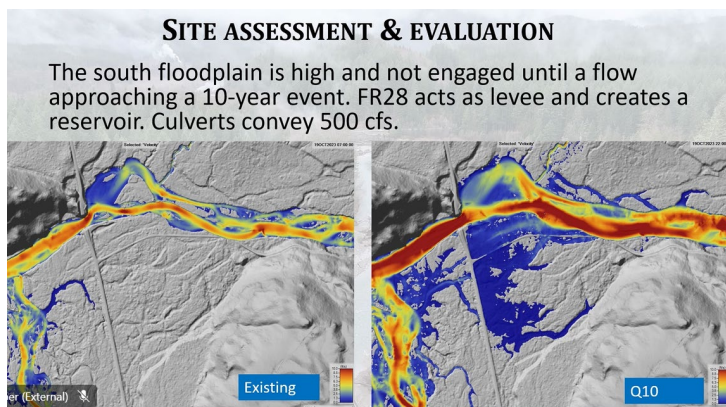
Project updates: The Cowlitz Indian Tribe has requested a time-only extension for Cispus Yellowjacket Phase 3 and will wrap up vegetation work this year.

Upcoming Amendment Request, Cispus Floodplain Reconnection Project:

Peter Barber, Habitat Restoration Program Manager for the Cowlitz Indian Tribe gave a presentation on a proposed amendment to incorporate additional geotechnical field work into the design phase of

their currently funded, ongoing project. This request has been reviewed by the LCFRB's TAC and has received their support.

Peter provided background on the habitat restoration work already completed, underway, and planned for the Cispus/Yellowjacket confluence area to provide context for the Floodplain Reconnection Project. The current design Project has evaluated and will provide a preferred design for floodplain reconnection upstream from the confluence in vicinity of the Tom Music Bridge. He described the need for, scope, and scale of the preferred design, including arrays of engineered log jams and replacing sections of the existing FS2801 road with up to 3 bridge spans (similar span length to Tom Music Bridge) to withstand 100-year floods.



The funding requested is for \$168K to cover the completion of three borings upstream of each bridge to a depth of 75 ft with a sonic drill rig. The Geotech information will inform bridge footings. The amendment request includes a scope and cost increase (adding borings targeted for summer 2024) and a time extension to complete design by mid-2025.

Melora noted the Floodplain Reconnection Project aligns with one of the strategic actions in the Upper Cowlitz and Cispus Habitat Strategy. It also has the ability to support other actions already occurring or planned to occur within that reach. This is also a request for a time extension. Peter is hoping for this drilling to begin in late summer or early fall and for design to continue through May 15, 2025.

Next steps: Because this amendment covers both scope and budget, we will mirror the FTC decision draft process for funding decisions. Following today's presentation, a draft DD describing the scope expansion and timeline extension will be sent out for review, discussed at the April FTC meeting, and a decision taken at the May meeting. The DD will include current balance on the CRR fund and amount already allocated to grant awards to date.

Action Item: All send any questions about this to Steve West and copy Melora.

Public Comment Period #1 - Agenda related

Larry Pryor: Can members of the public give presentations to the FTC?

Travis: This is being worked on and will likely be similar to the WDFW Commission protocols.

Topics for April 2, 2024 FTC Meeting

- Updates incl. Hydro Ops, Water Quality, Fish Facilities (including an update on fish runs), Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project
- LCPUD Cowlitz Falls Dam Operations

- FTC Protocols – Guidelines for public presentations (20 min)
 - Downstream Adaptive Management TWG (Charter)
 - Monitoring and Evaluation Subgroup (Charter)
 - CRR Fund / HAP Subcommittee
 - Preview May FTC Meeting Topics
-

Public Comment Period #2 – Any topic

Randy: I am still just here for the fish. Can we include an update on fish returns (projections vs. actuals) at these meetings? This would tell us how the fish are doing and help us see successes and expand on them as well as make any course corrections. Can we add this topic to FTC agendas?

Eric: I will begin providing an update on fish returns once again (something we used to do regularly).

Larry: This is more than fish back to rack. It also involves SARs, comparatives, how the hatcheries are doing. Pulling from Josua and John's presentation at the APR meeting last year, Larry would like to present his ideas about how to move forward by starting with where we are currently and show how we might improve. This would include HSRG guidelines in comparing hatchery to natural SARs. How do you do adaptive management if you don't have adult return goals?

Denise: As Announced by Steve W at the February FTC meeting, LCFRB has a new Salmon Resources Map for the entire Lower Columbia with lots of data and features which is accessible from the LCFRB website. She encouraged those interested to take the tutorial on the site. She demonstrated how to access the many layers to the map. The intent behind the map was to create one stop shopping for this information which includes viability, polygons from the Upper Cowlitz Cispus Habitat Strategy – linked to the state's Salmon Recovery Portal as well so you can view all projects. Some lidar data is also available. There is also a draw feature, and you can print your map. This is an especially valuable resource to those who don't have GIS capabilities. The nationwide viability update for all salmon and steelhead stocks is also on the LCFRB website. It shows how we are doing at achieving broad based regional goals for salmon recovery. <https://www.lcfrb.org/salmon-resource-map>

Meeting Evaluation

- It was good to be together again.
- More drum rolls.
- Technology worked better this time. The Owl moved less and focused on motions.
- Good participation
- Pretty magical having the two Steves together in one place
- Need more extension cods
- Good sense of collaboration

Josua's Inspirational Quote

We seem these days to want everything faster and faster. This is in contrast with living things which proceed at nature's pace. We need to keep the big picture in mind. "Learning patience can be a difficult experience, but once conquered you will find life is easier." Catherine Pulsifer

Closing Remarks

Travis thanked everyone for their participation. As he has said in the past, Tacoma couldn't do this without everyone's hard work and commitment.

Parking Lot

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

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

FTC Representative Attendees:

Travis Nelson	TPU
Bryce Glaser	WDFW
Amy Kocourek	NMFS
Jonathan Stumpf	TU

Additional Attendees:

Anne Baxter	ECY
Peggy Miller	WDFW
Josua Holowatz	WDFW
John Serl	WDFW
Kris Warner	WDFW
Todd Hillson	WDFW
Kevin Young	WDFW
Sean Toomey	WDFW
Jamie Murphy	TPU
Matt Peter	TPU
Eric Shoblom	TPU
Steve West	LCFRB
Steve Manlow	LCFRB
Denise Smee	LCFRB
Michael Boyles	BPA
Laura Wolfe	LCPUD
Joe First	LCPUD
Katie Fielding	Cowlitz Indian Tribe
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor, Randy LeDuc

2024 FTC Meeting Dates: In-person meetings will include a remote option. May 7, June 4 (in person), Aug. 6, Sept. 3 (in person), Oct. 1, Nov. 5, Dec. 3 (in person)

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

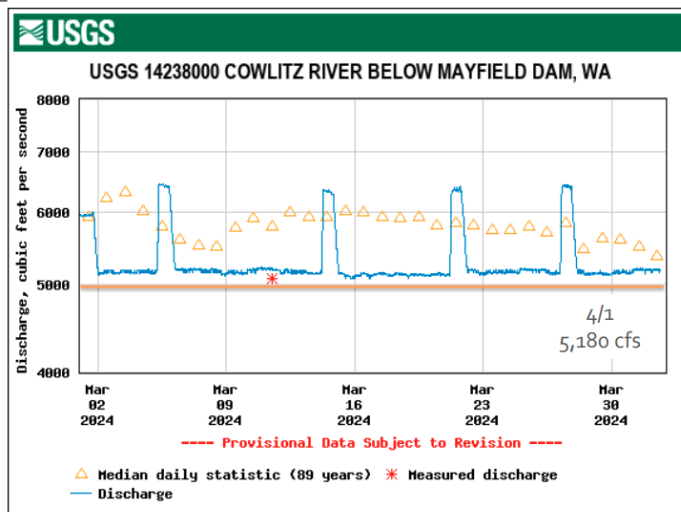
Hydro Operations (presentation emailed on April 1)

Matt described the following:

- Inflows: March inflows were at 92% of the historical average with the Cowlitz Basin receiving 64% of average precipitation. Overall, inflows water year to date are 91% of average precipitation.

- Storage: Snowpack is currently at 84% of average at Paradise and 106% of average at White Pass (higher than long term and recent averages). This is likely due to early snow melt. Mossyrock ramps are open. North Taidnapam will reopen later this week. John asked about the snow level at the Pigtail Peak monitoring site which is near the White Pass East monitoring site but shows different snow levels. Matt will follow up.
- Outflows at Mayfield mostly have been ~5.2K cfs. Down ramping is limited to 2" per hour at night only below critical flow (6K cfs).
- 10-day Forecast: Variable with typical precipitation. Riffe Lake inflows will be 5-6K cfs. Outflows will be at 5.2K cfs and weekly fish transport flows will continue through June.

Outflow



Min 5,000. Down ramping limits <6,000 cfs 2 inch/hr (night only); no excursions.

Link to the USGS real-time Cowlitz River hydrograph:

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

Water Quality

Matt P gave the following update noting there hadn't been any spilling:

- Boat barrier and north and south debris deflector: Tacoma is currently collecting temperature data. When they remove the debris barrier, they will be very intentional about how the temperature loggers are moved. Anne suggested taking this opportunity to see if the debris barrier is impacting temperatures in a way that influences fish outmigration and collection efficiency at the CFNSC. Matt assured her a temperature model will be discussed as part of the M&E work. They will likely attach a buoy with a temperature monitor further upstream. John agreed the Cispus River water stays low and doesn't mix well with the warmer Cowlitz River water.
- The WQPP for the unnamed tributary to Mayfield Lake went out last summer and construction is scheduled for this summer.
- The Gravel Augmentation WQPP will be out next month.
- North Taidnapam Boat Launch Improvement Project: The WQPP has been completed. The project is in the final stages pending FERC approval. The ADA improvements to Phase 2 of the project (the lower-level parking area and trail) is going through design and permitting.
- Removal of derelict vessels / structures from Mayfield and Riffe Reservoirs and shorelines: Tacoma is coordinating with other agencies for this work.

- Kosmos Cleanup: Tacoma expects to get comments back from Ecology on the Remedial Investigation (RI) report by the end of this week. Tacoma’s feasibility study is being drafted.

Fish Facilities

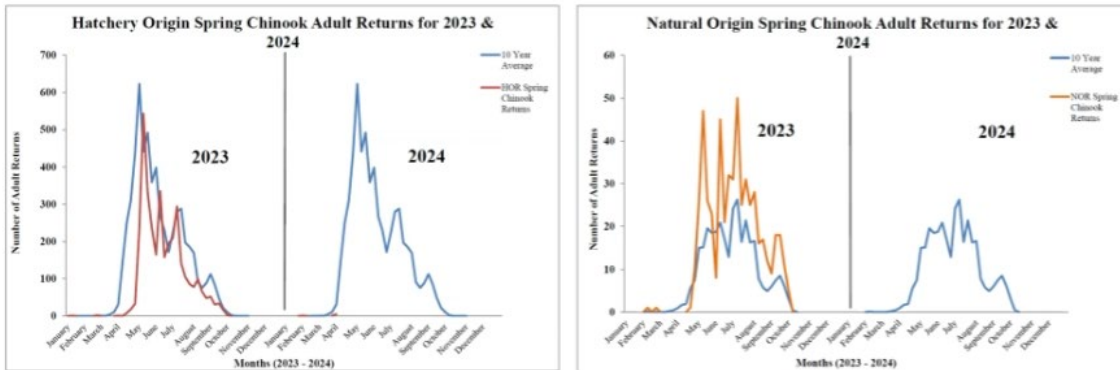
Separator:

- Eric noted returns are picking up and the numbers of HOR and NOR winter-run steelhead are above average.

Winter Steelhead: Hatchery and Natural Returns to date

Run Timing: November 2023-July 2024			
Week Ending	Total		
	Returns	Hatchery	Natural
Season to date	2,153	1,729	424
29-Mar	474	382	92
Weekly 5-Year Average	409	354	55
Season 5-Yr. Average to Date	1,374	1,168	206

- Five HOR Spring Chinook have returned so far.



Broodstock Collection:

- Collection of winter-run steelhead brood for the Tilton program is on schedule with males and females and the UCR Programs (running a little behind).

Mayfield Counting House:

- The Counting House began operating again on April 1. Per the 2024 Protocol:
 - Chinook and coho smolts receive snout CWTs.
 - Steelhead and cutthroat receive dorsal sinus CWTs.

Rainbow Plants:

- 13.6K catchable trout (6.8K lbs) have been planted to date between Swofford Pond near Riffe Lake and South Lewis County Park Pond in Toledo.
- In April 13.6K trout were planted at Mayfield.
- A total of 50K lbs of trout are planned to be planted annually to support local fisheries.

Cowlitz Falls Fish Facility:

- Tacoma kicked off their 2024 season with operations beginning on March 15.
- Spillway flumes were brought online March 25.
- Tagging is occurring Mondays and Thursdays, per the DD.

- Last season's Annual Report is undergoing final review by Tacoma and should be out to FTC in the next week or so.
- Smolts to date:
 - 124 steelhead
 - 32 cutthroat
 - 28 Chinook
 - 25 coho
- Fry Collection:
 - 1,752 Chinook
 - 1,210 coho

Mayfield Downstream Fish Passage Remodel

This is still undergoing management review at Tacoma. Stay tuned.

Coho Net Pen Project

This will be discussed at the May meeting after Eric has discussed details about the CWT strategy with WDFW.

Cispus Release Site (Tom Music Bridge)

Eric was pleased to announce Tacoma has secured their USFS Access Agreement from Special Uses Program Manager Joel Nowak for the maintenance work on the Cispus release site. A 14-day SEPA review is underway. The HPA is written and ready for attachments and a 45-day review. Permitting may be complete as early as the end of May. Next steps include securing a contractor for work in late July if all goes according to schedule.

Monitoring & Evaluation Subgroup

Bryce noted the subgroup has not met in some time. He and Todd have been working with the consultant on the M&E Plan and hope another draft will be out for FTC review in the near future. Travis reported that all vacant Tacoma positions have now been filled except for the fish passage biologist. Tacoma's new Science Manager started on March 25. She will attend next month's meeting.

Downstream Adaptive Management Technical Work Group (TWG)

John reported at the last meeting for this group they discussed mark recapture efforts for this year. They are now tagging up to 50 fish twice per week. They have been able to get some tags out to spring Chinook yearling smolts. This should improve FCE efforts going forward. The CFNSC Downstream Passage Annual Report should be out to the FTC shortly for a 30-day review.

2024 FTC Protocols

Presenter: Travis Nelson

Travis reported on his initial thoughts around what the protocols might be for the public to do presentations at FTC meetings. He is getting feedback from Bryce and Josua, Peggy, and Eric on this and welcomes input from others as well. He will have something more formal to share at the May meeting. He shared the following initial suggestions:

- Presentations occur during second public comment period
- Presentations limited to a maximum of 10 minutes
- Request must be submitted to FTC 2 months in advance
- Presentation to be considered for approval by FTC 1 month in advance

- Presentation must be ultimately approved by FTC 2 weeks prior to intended date of presentation
- Subjects must be related to topics included in the Settlement Agreement

Peggy suggested expanding the Settlement Agreement topic to include the license itself, and possibly the Bi-Op as well. Bryce offered that perhaps the chairperson or a subgroup of the FTC be designated to review the presentation ahead of time to ensure it is appropriate - is related to license documents, etc. He also suggested expanding the 10-minute limit to 15-20 minutes to allow time for comments/discussion. This discussion will continue among the group via email.

LCPUD Dam Operations

Presenter: Joe First

Joe provided the following update:

Debris Removal at Trash Rack: When Advanced American finishes with the debris barrier, the District will get a contractor on board to remove debris – could be as soon as June. They will coordinate with Tacoma and this work will not require a drawdown of Lake Scanewa.

Debris Barrier Repairs: Everything is proceeding on schedule. They are currently prepping the interior upper chamber for coating. They still plan to move the debris barrier in late July to mid-August. After the fish facility closes on August 31, the District will lower the reservoir for 8-10 weeks. During this time the contractor will put some new cathodic protection on the debris barrier. In planning this work, they are aware this is a lower-than-normal water year.

Boat Barrier Replacement: This should be at 100% design in 2 weeks. There will be anchor points on the north and south side of reservoir. Construction is anticipated to occur in the October/December 2024 timeframe. This will not require a drawdown.

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

Presenters: Steve Manlow and Steve West

Steve M walked through the proposed DD amendment (amendments go through the same process as DDs) for an increase in cost, scope, and time as requested by the Cowlitz Indian Tribe (CIT):

- Initial Project Cost (IPC): \$194,200
- Requested Cost Increase (RCI): \$168,000
- Requested project end date be extended from 12/31/24 to 3/15/25.

Steve M reviewed the goals and objectives of restoring Cispus flood plain connectivity. The additional funding would be used to complete sonic borings for each of the three proposed bridges on the Cispus Road per the preferred alternative. He further explained it was more effective and efficient to do the additional geo tech work now vs. later. This will result in a more robust preliminary design and shorten the timeline for completing a more robust preliminary design, and securing implementation funding.

All were asked to send any edits/comments to Melora and Steve by April 23 to allow for time to integrate them into the version we will review to approve at the May meeting. Bryce noted much appreciation for how thorough the DD is.

Steve W reported they are heading into the last week 2024 grant round for habitat projects. Draft proposals are due April 8. Site visits for CRR project proposals will be onsite on May 6 (FTC invited). So far there are three potential CRR-specific projects:

- Cispus Phase 5
- Hall Creek Construction
- A potential habitat or hatchery project on Silver Creek

Action Item: All send any questions about this to Steve West and copy Melora by April 23.

Public Comment Period #1 - Agenda related

Larry Pryor: Thank you very much for the great hydro operations reports. He is concerned about hydro and water quality. Fish are impacted particularly in the Upper Cowlitz by water hardness and other chemistry changes that give fish signals to move into smoltification, fish growth, health, etc. He recommends the work on this by Dr. Jesse Trushenski, Director of Science at Riverence Holdings. Eric: Water hardness changes with rain events, etc. It is pretty dynamic. After 16 years of managing hatcheries, he isn't aware of any hatchery facilities reacting to water chemistry changes. He welcomes Larry to follow up.

Randy: Thanked Eric for the presentation on the fish returns. It's nice to keep the fish top of mind, especially the returning fish.

Larry: The M&E group - he hopes they are independent and not trying to defend past activities. What comparatives are being used? Priest Rapids Hatchery/M&E efforts are to be lauded. SARs follow HSRG standards.

Todd: We are setting up our baseline and directive studies based on discussions with WDFW and Tacoma. After we get our numbers in line, we can then look at results in terms of SARs and then we can compare ourselves to other programs, recognizing it's never apples to apples.

Bryce: This group is working on developing the M&E Plan (a Tacoma responsibility). They are very interested in monitoring key components to allow for adaptive management in the future.

Topics for May 7, 2024 FTC Meeting

- Updates incl. Hydro Ops, Water Quality, Fish Facilities (including an update on fish runs), Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project
 - LCPUD Cowlitz Falls Dam Operations
 - Per the Work Plan –
 - FTC Protocols – Guidelines for public presentations (20 min)
 - Downstream Adaptive Management TWG (Charter)
 - Monitoring and Evaluation Subgroup (Charter)
 - CRR Fund / HAP Subcommittee – DD Amendment
 - Preview June In-person FTC Meeting Topics
-

Public Comment Period #2 – Any topic

Larry: NOR SARs collection releases coming out of CF. Most coho are 1+. In 2021 36K coho were released into the upper basin. In 2023 163K 1+ coho were captured. Catching 16 fry per female. He calculates 5.5% SAR Coho NORs. How many to take upstream for a sustainable fishery?

Larry: Managing adult returns/SARs. In 2021 a letter was sent to FERC by Jamie Herrera Butler complaining about the decline of the fishery. Tacoma's response included looking forward to working

with the public on this. Their response also listed a commitment to improving survival rates for NOR and NOR fish and to adaptively manage the resource.

Randy: Thanked Travis for help in getting the dock put into Riffe Lake. He requested frequent updates on boat access to the lake. This will be a continuing problem. Some anglers are giving up. He doesn't want to see that happen. In some cases, fishing is all they have to look forward to.

Travis: Yes, he will see that boat access is added to the Hydro Operations report.

Randy: Is there a Plan B for predators at the mouth of the river this year or will it be a wait, and see?

Bryce: WDFW is working to get additional funding for the next biennium. There is also interest in broadscale predation mgt along the Columbia – not sure if this would impact the tributaries. The current focus is what would trigger an emergency response. Bryce will follow up by giving Randy the names of the folks in the WDFW wildlife program who are more familiar with this. Currently no hazing program has been planned.

Steve M (via Chat): WDFW and CRITFC are asking Congress for a \$5 million appropriation for the pinniped work as well.

Larry appreciates hatchery folks working on fish health including Kris Warner and Jesse Trushenski and Beaver Creek. He is interested in a new feed product that moves fish into smoltification.

Randy: There are so many fish issues that are too numerous. He requested a subgroup be formed that has to do with strictly fish issues. This group could provide reports on things that are most concerning to the angling community, who would appreciate getting more direct information on a regular basis.

Eric: Will add a link to the FTC site to the weekly fish report, which currently gets 4K plus hits.

Larry has yet to meet anyone who works in hatcheries that doesn't want to do a good job. There is a need to shift from a production model to adult returns. What's the problem?

Meeting Evaluation

- Good presentations
- Well attended with good participation
- Strong sense of collaboration

Josua's Inspirational Quote

This winter was pretty mild. The last six months have been long and wet. The recent brief glimpses of spring seem so sweet. "If we had no winter, the spring would not be so pleasant: if we did not sometimes taste adversity, prosperity would not be so welcome." Anne Bradstreet

Closing Remarks

Travis thanked everyone for their participation. – especially Randy and Larry carrying the torch for the public. As he has said in the past, Tacoma couldn't do this without everyone's hard work and commitment.

Parking Lot

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

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
May 7, 2024 from 9:30 – 2:30

FTC Representative Attendees:

Travis Nelson	TPU
Bryce Glaser	WDFW
Amy Kocourek	NMFS
Jonathan Stumpf	TU
Anne Baxter	ECY
Bill Sharp	Yakama Nation

Additional Attendees:

Thomas Starkey Owens	ECY
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Doug Robison	WDFW
Kiza Gates	WDFW
Melora Shelton	TPU
Matt Peter	TPU
Eric Shoblom	TPU
Missy Baier	TPU
Saul Villarreal	TPU
Hien Ho	TPU
Linda Shmait	TPU
Steve West	LCFRB
Michael Boyles	BPA
Laura Wolfe	LCPUD
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Jack Tipping and Larry Pryor

2024 FTC Meeting Dates: In-person meetings will include a remote option. June 4 (in person at the Veteran Memorial Museum in Chehalis), Aug. 6, Sept. 3 (in person), Oct. 1, Nov. 5, Dec. 3 (in person)

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.

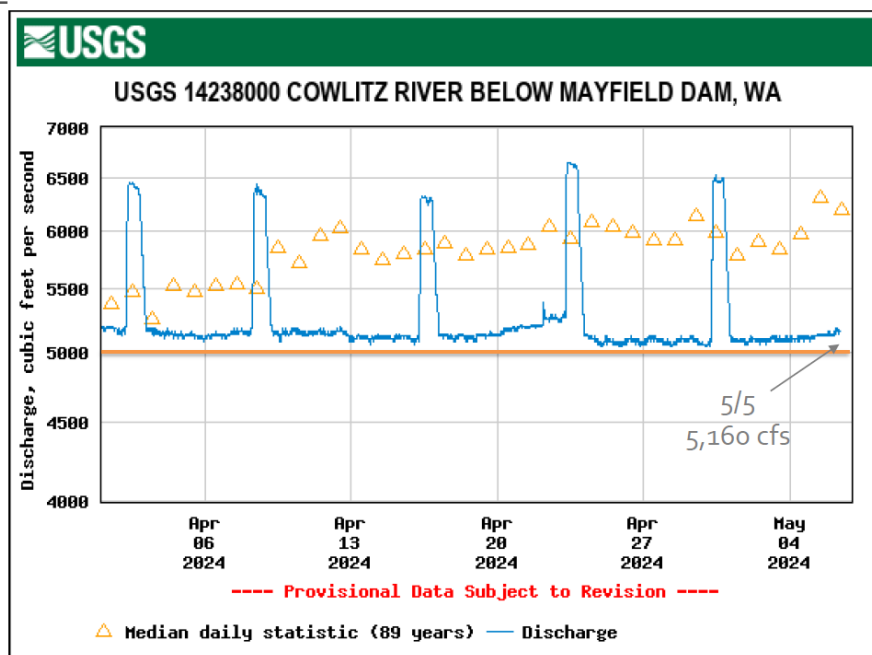
Updates

[Hydro Operations \(presentation emailed on May 6\)](#)

Melora described the following:

- Inflows: April inflows were at 67% of the historical average with a daily average of 5,201, while precipitation in the Cowlitz Basin in April was half of average. May inflows have also been low to date.
- Storage: Snowpack also below average and has already begun to melt. Riffe Lake elevation is currently 739 ft (slightly below the long-term average). Saul Villarreal will speak to refill next.
- Outflow: Yesterday they were discharging 5,100 cfs.
- A -0.5 in/hr ramp excursion occurred early on April 21 during a planned unit transfer that was initiated during nighttime hours. This will be included in the Article 402 Annual Report to FERC. Tacoma is formalizing procedures to minimize excursion risk during future unit transfers; these will also be included in the 402 report.
- 10-day Forecast: Warm and dry with the snow level increasing from 5K ft to 12.5K ft. Inflows are expected to be 5-9K cfs, slowly increasing storage at Riffe Lake, as the snow melts. Outflows will be 5.2K cfs plus weekly fish transport flow.

Outflow



Min 5,000. Down ramping limits <6,000 cfs 2 inch/hr (night only).

Link to the USGS real-time Cowlitz River hydrograph:

https://waterdata.usgs.gov/wa/nwis/uv/?site_no=14238000&PARAMeter_cd=00060,00065

<https://www.mytpu.org/community-environment/parks-recreation/river-flows-lake-levels/>

DD 2024-03: Flow Reduction (emailed on May 6)

Melora reminded all the license provides for the reduction of minimum flow per Article 13 to assure spring refill. This DD outlines a proposal to, based on current and forecasted watershed conditions, reduce the required minimum flow in the Cowlitz River from 5,000 cfs to 3,000 cfs on May 15. The proposed operation is to reduce average daily discharge to approximately 3,500 cfs (including fish transport flows) to substantially improve refill probabilities and begin summer low-flow period with as full a reservoir as possible. The draft DD includes three different alternatives for accomplishing this for consultation with the FTC at today's meeting. It acknowledges potential for additional fish

stranding risk during flow changes below 5,000 cfs and that they will discuss the need for fish stranding surveys with WDFW.

Saul Villarreal introduced himself as Tacoma’s new Hydro Resources Operations Manager, filling the role formerly held by Leah Marquez-Glynn. Saul was previously part of the Resource Planning Team at Seattle City Light. After introducing members of his team: Hien Ho and Linda Shmait, he walked through a presentation with detailed background information as well as refill probabilities under the different approaches. The original presentation was distributed to the FTC on April 28, updates were distributed following the meeting.

Cowlitz Refill Conditions to Date:

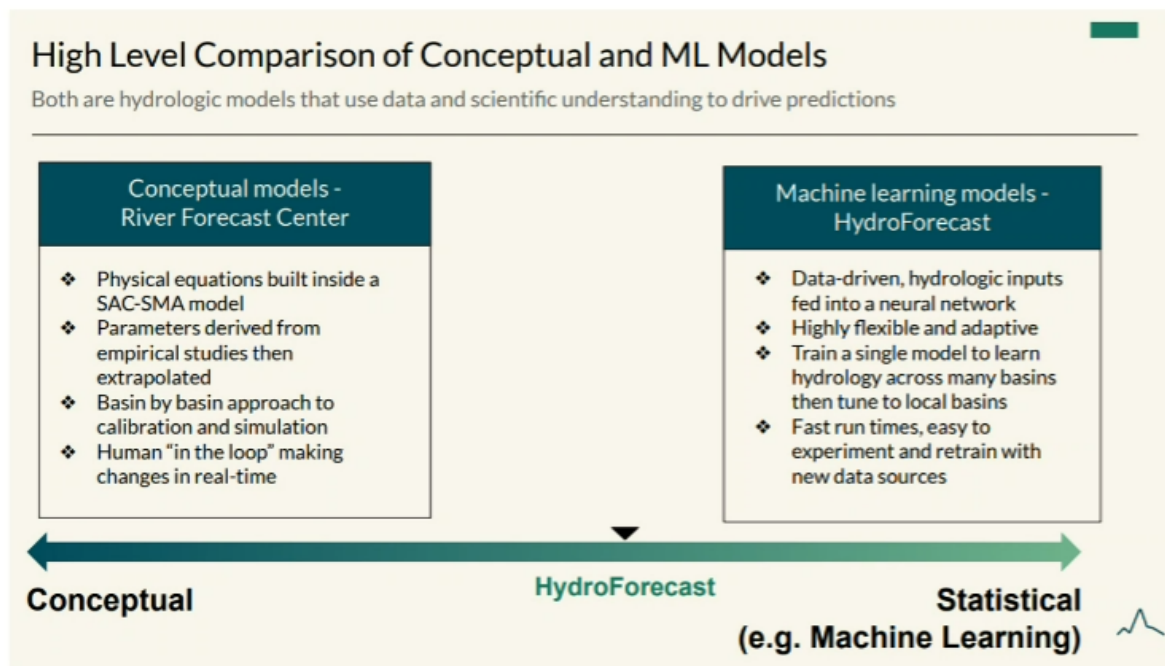
April 2024 is close to the 6th percentile of inflows (1981-2023). Since February, flows into Riffe Lake have been below average. Precipitation is a major driver for spring flows with near the 10th percentile. WA state declared statewide drought on April 16. The below average soil moisture conditions are similar to 2023 when above average snowpack resulted in lackluster runoff. Since February 19, they have been operating at minimum flow plus weekly fish transport flows. Mayfield discharge is running below the historic median.

Current Forecasts:

Tacoma has recently been using two forecast services: NOAA River Forecast Center and HydroForecast. They are currently showing very different inflow forecasts, with much lower inflows predicted by HydroForecast. A study conducted by HydroForecast from April to July showed their forecast has been more accurate than the River Forecast Center during Spring of 2024. This is why refill probabilities are based on HydroForecast for planning the proposed flow reduction. Saul shared updated inflow forecasts and refill probabilities as of May 6 with and without a flow reduction.

Forecasted Conditions

Upstream Tech Forecasting Methodology



Minimum Flow Scenarios and Refill Probabilities:

May 7, 2024 FTC Meeting Summary

The draft DD addresses ongoing evaluation of watershed conditions and forecasts throughout the proposed reduction period as well as plans for FTC coordination throughout. All have similar average discharge and improve refill and end of June reservoir elevations.

Discussion:

- Clarification that HydroForecast takes climate conditions such as El Niño into consideration, while NOAA RFC uses historical years that are equally weighted in their forecasts.
- Refill for this analysis is defined as achieving 748 ft by June 30, but the end of June elevation is also important. This is illustrated well in the refill probability traces. The mean of all traces is still below 748 ft, even with a flow reduction. Adjusted full elevation is 749 ft due to seismic limits.
- Alternatives 1 and 2 have 90% of refill, while Alternative 3 increases to 92.5%. Tacoma prefers Alternative 2 because a major rain event in May could change things. There will also be impacts of snow melt. All most scenarios draft below 748' before the end of June.
- Clarification that the 749' seismic limit currently is a hard elevation boundary due to cultural resource and Kosmos concerns.
- Anne asked about how each alternative would impact fish habitat and had additional questions regarding whether any side channel habitat would be available during a reduction (vs. single thread channel). Melora said that there would be, but that some areas do start to dewater as flows go below 5,000 cfs and can become completely dewatered and/or disconnected as flows further decrease Ecology would like more information and more time to review the DD before supporting any one scenario.
- Bryce noted that being able to achieve minimum flows for spawning is one of WDFW's biggest concerns in the fall. He suggested editing the DD by adding to the first paragraph that achieving full pool to the greatest extent possible gives the best chance of this through summer and fall.
- Bryce also noted that improved understanding of the benefit of fish transport flows, including benefit compared to detriment at low flows, is among the top priorities for the M&E team to evaluate.
- Salvaged fish would be returned to the free-flowing portion of the river per the M&E plan protocol for fish stranding surveys.
- The prior DD can give us guidance for language on stranding surveys and reports. It would also be good to include some language about regrouping to discuss next steps if refill is achieved sooner than expected. We also want to be mindful and learn from past experience.

Wrap Up / Next Steps: Tacoma proposed to reduce the required minimum flow on May 15 and start implementing one of the three alternatives at that time. To allow the FTC more time to review the DD before making a decision, they instead plan to meet again with FTC reps next Monday and potentially delay the flow reduction to the following week. Melora reminded all that Tacoma will stay in close touch with the FTC throughout the flow reduction process as well as coordinate internally with Resource Operations to manage the uncertainty around inflows and refill.

Action Items:

- Melora: Review the prior DD for language around coordination to include frequent discussions, weekly reports on stranding surveys following fish transport flows, including maps of dewatered reaches (if possible), and what action to take once substantive refill has been achieved.

- Melora: Coordinate the editing of the DD in track changes to include impact on fish habitat and coordination piece. Update refill probability percentages with Resource Operations.
- Travis: Set up a Cowlitz Flow Teams Meeting with FTC reps on May 13 at 3:30 re flow reduction alternative. Send out Saul's PPT (which will be updated again in time for the May 13 meeting).

Water Quality

Matt P gave the following update noting there hadn't been any spilling:

- Debris Management: Tacoma is developing a strategy for handling the wood in all their systems (burning less, donating more, using LWD for habitat improvements, etc.). The focus is on taking a more environmental approach.
- Boat barrier and north and south debris deflector: Tacoma is continuing to collect temperature data at the boat barrier and debris deflectors.
- The WQPP for the culvert replacement at the unnamed tributary to Mayfield Lake went out last summer and construction is scheduled for this summer.
- The Gravel Augmentation Long-Term Plan: The WQPP is out and permitting is underway.
- North Taidnapam Boat Launch Improvement Project: The WQPP has been completed. Matt reminded all there are two phases to this project. Some of the work is on hold pending FERC approval. Phase 2 (to improve ADA access in the lower-level parking area and trail, etc.) is out for permitting.
- Kosmos Cleanup: Tacoma continues to work on their feasibility study. They are still in the midst of the Remedial Investigation (RI) report with Ecology.
- CFNSC: Tacoma will send out weekly reports that include release site temperature data.

Fish Facilities

Separator:

Eric noted spring Chinook numbers are picking up and winter steelhead numbers are starting to drop.

Winter Steelhead: Hatchery and Natural Returns to Date

Run Timing: March 2024-October 2024			
Week	Total		
Ending	Returns	Hatchery	Natural
Season to date	491	467	24
3-May	241	232	9
Weekly 5-Year Average	141	122	19
Season 5-Yr. Average to Date	213	182	31

Winter steelhead NORs are improved this year. All summer steelhead are being retained for recycling; could start in mid-May.

Spring Chinook: Hatchery and Natural Returns to Date

Run Timing: November 2023-July 2024			
Week	Total		
Ending	Returns	Hatchery	Natural
Season to date	3,300	2,590	710
3-May	112	96	16
Weekly 5-Year Average	248	214	34
Season 5-Yr. Average to Date	3,859	3,393	466

Spring Chinook HOR return numbers are above the recent 5-year average and NORs are lower than the 5-year average. Staff are front loading broodstock collection one week ahead of the schedule.

In the chat, John thanked Eric and observed that “the hatchery steelhead seemed to have a bit of an early timed return this year as well.” He likes to see that and is “hoping for an even bigger early bump.”

Mayfield Counting House:

- The Counting House began operating again on April 1. Eric reported strong juvenile numbers so far. Steelhead numbers are increasing, and they expect coho to do the same in the next couple of weeks. Per the 2024 Protocol:
 - Chinook and coho smolts receive snout CWTs.
 - Steelhead and cutthroat receive dorsal sinus CWTs.

Rainbow Plants:

- 40K have been planted to date to the tune of 15.6K lbs between Swofford Pond near Riffe Lake and South Lewis Co. Park Pond in Toledo.
- May: 25K more will go to Mayfield (in addition to the 13.6 planted there in April).
- 5K will be reserved for the derby.
- 13.6K catchable trout (6.8K lbs) have been planted to date between Swofford Pond near Riffe Lake and South Lewis County Park Pond in Toledo.
- A total of 50K lbs of trout are planned to be planted annually to support local fisheries.

Cowlitz Falls Fish Facility:

- Operations began on March 15 and spillway flumes went online on March 25.
- 14K smolts have been collected to date along with 5.7K fry and 111 adults.
- Fry collection is a little slow.
- Steelhead Fish Capture Efficiency (FCE) is looking pretty good so far.

Hatcheries

- Coho released
- Spring Chinook released
- Winter steelhead released
- Summer steelhead released

Though they lost 7.3K summer steelhead juveniles, they still released above program goals.. WDFW has evaluated the circumstances that led to the loss and made corrections to protocols for future releases.

In future presentations Eric will add FCE numbers for Cowlitz Falls. Gabe is happy with steelhead FCE. This year we had some additional releases on the shoulder seasons. John noted they are getting an indication of what is happening before and after the run.

Mayfield Downstream Fish Passage Remodel

Tacoma is currently conducting survey work. This proposed project is on hold until the approach and funding is approved by management. Stay tuned.

Coho Net Pen Project

This will be discussed at the June meeting after Eric has discussed details about the CWT strategy with WDFW.

Cispus Release Site (Tom Music Bridge)

Laura reported the HPA is in review and should be complete at the end of June. Next steps include securing a contractor for work in late July if all goes according to schedule.

Monitoring & Evaluation Subgroup

Todd reported that while regular meetings of the subgroup have yet to resume, progress is being made on the overall M&E plan via email. There is hope the meetings will start again before long as Tacoma has now filled the Science and Research Manager position.

Downstream Adaptive Management Technical Work Group (TWG)

John reported they had a season update on how the new collection paradigm is going in terms of improving spring Chinook FCE. The LCPUD debris deflector will be undergoing maintenance at the end of May. This means losing the ability to collect fish at CF after Labor Day this year. LCPUD has delayed their sluice gate update until 2027. This should allow for active tag studies in 2025 and 2026, with the potential of using recaptured tagged smolts in downstream fish transportation flow studies.

2024 FTC Protocols

Presenter: Travis Nelson

Travis reported discussions with Bryce and Josua, Peggy, and Eric on potential protocols for members of the public to make presentations to the FTC are ongoing. Stay tuned.

LCPUD Dam Operations

Presenter: Russell Page

Russell provided the following update via email. He welcomes any questions.

Current Conditions

- Cowlitz Falls is currently generating 40MW with a reservoir elevation of 861.5.
- Forecast flows of 9,800cfs, close to full load, by May 13th.
- We don't anticipate spilling at this point.

Outage

- Our current outage on U-2 is scheduled for July 15th, however, it is flow-dependent, and we will adjust the outage based on flows dropping below 5,000 cfs.
- Last 3-4 years, flows have been dropping off before July, and have not seen dual unit generation past July 2 since 2019.
- Historical flows prior to 2020 were generally higher through July, however, this lower pattern of flows has become more of the norm lately and we do not expect this year to be different.

Current and Upcoming Projects

- Debris Barrier Rehabilitation and Cathodic Protection
 - Current work is ongoing off the dam top deck and will continue throughout this month.
 - The tentatively scheduled debris barrier move is for mid to late August.
 - Our drawdown to below 845 is scheduled for September 1, with an anticipated reservoir level of 845 at noon on September 3. This could change slightly \pm 1 day.
 - The drawdown will last approximately 8-10 weeks.
- Concrete Defect Mapping
 - Coinciding with the drawdown for the debris barrier, CF will collect data on concrete defects both upstream and downstream.

- Cleaning of the dam concrete will occur between now and September on the exposed concrete and once the drawdown is complete, additional cleaning will take place on the additionally exposed concrete before Data collection.
- Downstream Tailrace Survey
 - The downstream tailrace Sonar survey will occur in early to late fall once flows are between 5,000cfs and 8,000cfs and the tailrace can be raised above 770'.
 - Survey will cover all underwater areas from the Cowlitz Falls outlet works downstream 750'-800'.
- Boat Barrier Replacement
 - Design is 100% complete and has been submitted to FERC.
 - Anticipate construction in late fall or early winter.
 - Design includes placing an anchorage in the middle of the reservoir upstream and two additional anchorages on the north and south bank.
 - The new Boat Barrier will be more robust and should be able to remain in place for flows above 35,000cfs.
- Sluice Gate, Gantry Crane Rail Extension, Spillway 4 Stability improvements
 - Current Design, DDR, and Stability Analysis is 100% complete and submitted for FERC review.
 - We anticipate being ready for solicitation for bids in early 2025 with construction activities commencing in 2026 through 2027, however, this is highly dependent on Permitting and contractor availability.
 - Schedule and determination of drawdowns will be communicated at a later point.

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

Presenters: Steve West and Melora Shelton

Steve W reported on the project site visits and presentations that took place yesterday. The day started at the Cowlitz Salmon Hatchery. These included:

- Tilton River Knotweed by the Lewis Conservation District
- Cispus-Yellowjacket Phase 5 Design by the Cowlitz Indian Tribe
- Silver Creek Restoration Opportunity Identification by the Cascade Forest Conservancy (A private landowner is interested in Habitat and HAP.)

Next up: Final applications are due in late June and the TAC will score and rank the projects and turn it over to the FTC. Steve extended special thanks to Josua and Anne who attended the site visits and be part of the feedback process for the applicants.

Approval of DD 2024-02 Cispus Reconnection Amendment: This is an amendment to DD approved back in 2021. At the April FTC meeting, where we reviewed the draft DD, all were asked to send any edits/comments to Melora and Steve by April 23. Some minor comments were received from WDFW and were incorporated into the version reviewed at this meeting. The amendment includes cost (increase of \$168K), scope (to include sonic borings), and duration (extended from end of 2024 to March 15, 2025).

Remaining in the CRR grant fund is nearly \$18 million. The FTC has approved \$3.8 in CRR Grant funding so far.

Public Comment Period #1 - Agenda related

Larry: In low-water years, how will water quality/flows impact fisheries, and spawning grounds impact spawning, fish migration, etc.? Would be good to get a heads-up regarding releases. There is a need to educate folks on how water quality (temps, chemistry, etc.) impacts fish growth. We all need to learn about why Larry is asking about this.

Jack: Wants updates (old vs new methodology) on the 2023 fall Chinook escapement.

John provided peak aerial count numbers (7,135 NOR and 297 HOR) and carcass mark-recapture estimates (14,054 NOR and 775 HOR). He also noted the final fall Chinook estimates will all be included in the Annual Report that will be out at the end of June.

Jack: Are we getting closer to allowing harvest in years of abundance on the Lower Cowlitz River?

Bryce: The challenge is being able to update permits with NOAA Fisheries regarding ESA coverage to allow non-mark selective fisheries. WDFW is in the process of updating FMEPs. They have the staff on board to do this and the Lower Columbia River FMEP is their highest priority. WDFW hopes to submit a draft to NOAA Fisheries by the end of this year (December) before the end of the biennium in June 2025. They are not sure about the time NOAA will need to review and address this. Thomas Buehrens is working on a model for a management strategy evaluation approach that will be the basis of the FMEP. While WDFW only received one-time funding for this work, they are hoping to get ongoing funding to continue this work.

Jack: What is the status of chum assessment project? Was there an agreement to substitute a spawning channel for satellite rearing? This is something that CCA supported in lieu of a satellite rearing pond elsewhere.

Todd: Yes, the contract is in place. They are currently getting set up with the subcontractor.

Jack: What is the status of the satellite rearing pond at the hydro facility in the upper basin?

Eric: Tacoma is working with EN and Ecology re permitting needed for EN. The next step is working with the rest of the FTC to address their concerns.

Jack: Have we terminated releases of sea-run cutthroat from the Cowlitz Salmon Hatchery?

Eric: No. We release 120K each year.

Jack: Mayfield CWT numbers for 2022 CWT numbers in the RMIS (Regional Mark Information System) database show they are not valid tag numbers. One even showed it had been previously used in release from CSH in 2020.

Travis and Jamie Murphy are working on addressing the email Jack sent on this. Last year they tagged only one species per tag code – so this will be straightened out. In the past, there were a few species per code.

Jack: Has Gil pushed the updates to the RMIS database yet? It doesn't appear so.

Bryce: This has been done – it should show up very soon.

Jack: What is the status of netpens going into Mayfield for coho Juveniles?

Bryce: The pre-pilot study is on track. Details include how they would be monitored and the roles of DFW vs Tacoma. It is important to have an approach to get some CWTs for the different densities that would be reared there and what the evaluation would conclude to determine if we move forward with a full pilot next year. The pre-pilot is set to occur this fall (transfer 100K in early to mid-Dec. for release in May). Filling four net pens with two different densities will allow us to see what works better.

Jack: On the upcoming recycling this summer, Bryce had alluded to expanding recycling into September (September recycled fish had higher harvest rates).

Bryce: This is a potential topic for the M&E Team once it reconvenes. The idea was to expand recycling from mid-August to the end of August.

Larry: On April 24, Randy, Jack, and I met with Tacoma's Board to discuss our concerns. We got a good reception. He thinks the FTC has lost its mandate as advisory to Tacoma. Much of the information he has shared has been out there for a while. Why isn't it being used?

Topics for June 4, 2024 FTC Meeting at the Veterans Memorial Museum in Chehalis

- Updates incl. Hydro Ops, Water Quality, Others per the Work Plan
- Update on Flow Reduction
- Fish Facilities (including an update on fish runs), Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project
- LCPUD Cowlitz Falls Dam Operations
- FTC Protocols – Guidelines for public presentations
- Downstream Adaptive Management TWG (Charter)
- Monitoring and Evaluation Subgroup (Charter)
- CRR Fund / HAP Subcommittee
- Preview July FTC Meeting Topics

Public Comment Period #2 – Any topic

Larry: The modern training that is now available needs to be implemented to drive success.

Meeting Evaluation

- DD was approved by all voting FTC reps actually present!
- Good path forward to address the Flow Reduction DD
- Good discussions and presentations
- Nice to see use of the live PPT

Josua's Inspirational Quote

Josua mentioned he was pleased to be able to attend yesterday's CRR applicant tour. It was great to see the site locations and meet with the applicants. Slide decks are great, but nothing beats an onsite visit. "Vision without action is merely a dream. Action without vision just passes the time. Vision with action can change the world." Joel A. Barker

Closing Remarks

Travis asked all to be safe in the midst of the warmer weather. Use sun screen and if on the water, remember it is still very cold. And he thanked everyone for their participation and commitment to these meetings. As he has said in the past, he noted Tacoma couldn't do this without everyone's hard work and commitment.

Parking Lot

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

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
June 4, 2024 from 9:30 – 2:30

FTC Representative Attendees:

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

Additional Attendees:

Thomas Starkey Owens	ECY
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Doug Robison	WDFW
Larona Newhouse	WDFW
Kevin Young	WDFW
Chris Vaughn	TPU
Matt Peter	TPU
Matt Bleich	TPU
Eric Shoblom	TPU
Scott Gibson	TPU
Saul Villarreal	TPU
Steve Manlow	LCFRB
Steve West	LCFRB
Michael Boyles	BPA
Ann Weckback	Lewis County
Laura Wolfe	LCPUD
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor, Jack Tipping, Randy LeDuc, Steve Emrich, and Carol Serdar Tepper

2024 FTC Meeting Dates: In-person meetings will include a remote option. Aug. 6, Sept. 3 (in person), Oct. 1, Nov. 5, Dec. 3 (in person)

Quotable Quote: “There’s no good reason for anyone to jump out of a perfectly good plane!”

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.

Announcements

- Matt Bleich announced that Travis Nelson’s employment with Tacoma Power ended on May 17. Matt will be working quickly to back fill the position of FERC License Coordinator and is acting in that role on an interim basis. He welcomes any suggestions of candidates. In the meantime, Melora Shelton will be assuming the interim FTC Coordinator duties. In this role she will be Tacoma’s voting member, facilitate the meetings, coordinate with FTC members during and outside of meetings and be Tacoma’s point of contact as questions arise.
- We were pleased to welcome Chris Vaughn to the FTC. Chris has been hired into Tacoma’s Science and Research Group and will be helping to coordinate the M&E meetings. His Manager Jenise Bauman will also be joining us at future meetings.

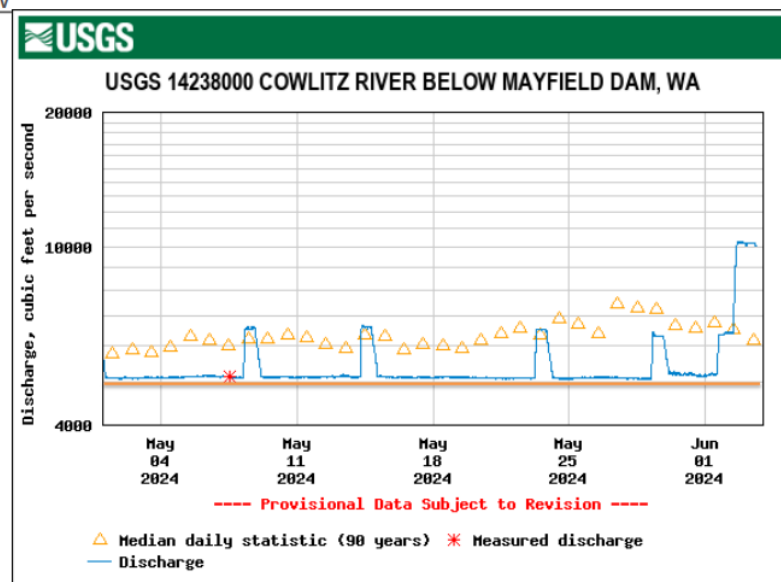
Updates

Hydro Operations (presentation emailed on June 3)

Melora described the following:

- Inflows: April and May inflows were extremely low (67 and 70% of the historical average).
- Storage: Snowpack is below average and rapidly diminishing. Riffe Lake elevation is up to 746 ft, above the recent 5-year average. Both Mossyrock ramps and North Taidnapam are open.
- Outflow: Tacoma had been operating near the minimum flow of 5K cfs since February (plus fish transport flows). On June 1, they shifted to water management mode and are currently running at 11K cfs.
- 10-day Forecast: Transitioning to warm and dry after the current storm, with increasing snow levels. Inflows are expected to peak at ~20K cfs and then decrease. Riffe Lake will be managed at just 749 ft and then drafted as slowly as possible. Outflows are expected to be 10-14K cfs, and then decrease toward the 5K cfs minimum. There will be no reduction in outflows. Minimum flows drop to 2K cfs starting July 1.

Outflow



Min 5,000. Down ramping limits <6,000 cfs 2 inch/hr (night only).

Link to the USGS real-time Cowlitz River hydrograph:

https://waterdata.usgs.gov/wa/nwis/uv/?site_no=14238000&PARAMeter_cd=00060,00065

<https://www.mytpu.org/community-environment/parks-recreation/river-flows-lake-levels/>

Water Quality

- Matt P began by noting that while Tacoma got water quality monitoring equipment in place anticipating needing to spill, no spilling actually occurred.
- Tacoma is continuing to collect temperature data at the boat barrier and north and south debris deflectors in Lake Scanewa. They will share these data (from April to August) at the August FTC meeting, along with data collected at the fish release locations.
 - Bryce reiterated WDFW's request for a map of all temperature monitoring locations along with the data in a central location and updated regularly. Matt P will follow up.
- Upcoming passage studies will include additional water quality work.
- Kosmos Cleanup: This is one of the reasons for keeping the reservoir (Riffe) elevation down, Matt was pleased to report there have been no observations of any sheen or petroleum products since the capping was complete. Tacoma is working with Ecology and is still in the remedial investigation phase. On June 5 they will meet with Ecology to ensure they are using the appropriate sediment screening/cleanup level indicators. The Remedial Investigation (RI) plan is going out for 30-day public review. Once complete (by June 28) Tacoma will move into development of the draft Feasibility Study (FS) phase for the site.
- Energy Northwest (EN) Site: They are still collecting data at the site in consultation with Ecology.
- Tacoma has secured permits for the replacement of four unpassable fish culverts on an unnamed tributary to Mayfield Lake. Construction is set to begin this summer.
- Gravel Augmentation: This is proceeding per the updated plan and in accordance with the WQPP.
- North Taidnapam Boat Launch Improvement Project: Phase 1 is ready to go pending FERC approval. This initial phase requires low lake levels, so that work will likely be done this fall. Phase 2 (to improve ADA access in the lower-level parking area and trail, etc.) is out for permitting and also dependent on FERC approval timelines.
- Debris Management: Tacoma continues to assess how they manage the collection and disposal of wood – assessing the collection and disposal, seeking to do so in a more environmentally favorable manner. They are working with project folks on this and will be developing management plans and associated actions. Steve M offered LCFRB resources to help with this process. Matt will follow up with him.

Fish Facilities

Separator:

- Hatchery spring Chinook returns are slightly higher than the weekly 5-year average. We are currently on schedule for spring Chinook broodstock collection which runs through the end of July.
- Winter steelhead are at the end of the return. HORs started strong and then dropped off sharply, falling below our recent averages. The NORs are faring much better than the 10-yr and 5-year ave. NORs did really well 758 so far (above 5-year average of 510).
- Summer steelhead returns are above the 5- and 10-year averages. Broodstock collection starts in July. All summer steelhead are currently being recycled -66 have been recycled so far.
- Cutthroat returns have barely begun: Zero HORs and 2 NORs.

Hatcheries: They are releasing fall Chinook now and are waiting on final summer and winter steelhead release numbers. They are tracking to exceed release goals.

Trout Hatchery Program Phases: Eric noted there will be regular updates on this to the FTC. Tacoma just got their contractor on board. He provided detail on the first of the four phases planned:

Phase 1: Planning to 10% design 2024-2026

This will include Investigative activities, such as a ground water study followed by decisions around water supply and specific hatchery components. All of this analysis is needed for construction. The overall goal is to get clean and reliable water for fish health.

Bryce noted it feels like we are starting over. A lot of work has already been done on this. Eric responded they will be conducting all of the survey work required for construction and performing investigative drilling to better understand their suite of options. They will also be looking at climate change models. Matt B emphasized this is a major step that is worth celebrating. This is the biggest capital project that Tacoma has right now.

Phase 2: Design and permitting 2026-2028

Phase 3: Go/No Go for construction phasing 2027-2029

Phase 4. Phases Construction Commissioning 2029-2032

Some construction may start as early as 2027.

Mayfield Juvenile Collection: This started April 1 and is going well in accordance with 2024 protocols. Fish health is excellent. We are currently in the middle of coho outmigration.

Rainbow Plants:

- 40K have been planted to date to the tune of 15.6K lbs between Swofford Pond near Riffe Lake and South Lewis Co. Park Pond in Toledo.
- In May 25K more will go to Mayfield (in addition to the 13.6K planted there in April).
- 5K will be reserved for the Lion's Club derby.
- A total of 50K lbs of trout are planned to be planted annually to support local fisheries.

Cowlitz Falls Fish Facility:

- Operations began on March 15 and spillway flumes went online on March 25.
- No outages – expecting a capacity event today – running 750 cfs through NSC tailrace gates.
- More than 137K smolts have been collected to date along with 6.1K fry and 460 adults (including winter steelhead kelts and spring Chinook fallbacks).
- Fry collection is a little slow.
- Steelhead FCE is looking pretty good so far.
- Historical Tagging is occurring during peak and supplemental tagging (outside of the peak).

Mayfield Downstream Fish Passage Remodel

Tacoma has wrapped up alternatives analysis and are still awaiting approval from Tacoma management. Bryce noted the FTC had been hoping to see the alternatives. Per the FTC work plan this was supposed to be presented already. He also expressed concern that there has not been any opportunity for input on this so far. Matt B responded that he will look into a presentation of the alternatives being considered at a future FTC meeting.

Mayfield Coho Net Pens

Tacoma and WDFW have come to agreement around defining roles and responsibilities along with timelines for major decisions, including what will be monitored and how the program will be evaluated. The initial phase will be four pens with 2 pens at one density and 2 pens at another. We plan to populate the net pens this December. Tacoma is currently procuring materials for this project. Eric will provide regular updates to the FTC.

Bryce was pleased that we came to an agreement to implement CWT's in the two groups in order to be able to do an evaluation of survival, SARs (Smolt-to-Adult Ratios).

Cispos Release Site (Tom Music Bridge)

Laura reported LCPUD got the draft HPA on June 3 and it looks good. They will be starting work on the site in August and hope to finish in September. They anticipate that the site will be functional for fall and winter. There was great rejoicing as this has been a long time coming!

Monitoring & Evaluation Subgroup

Scott reported a subset of the subgroup has been meeting with the Four Peaks Environmental Science & Data Solutions consultant and they are now going into the final review phase of the M&E Plan which they will get back from the consultant on June 17. There will be at least a 30-day review period. The aim is to have a final review of the plan complete before the end of this year. Anyone from the FTC is welcome to join the subgroup at any time. Just let Matt B know.

Downstream Adaptive Management Technical Work Group (TWG)

Chris provided the following report:

Facility Operations and Evaluation Updates:

- Differential pressure on Unit 2 is high, exceeding 2022 levels at similar discharge.
 - LCPUD plans to resume cleanout of Unit 2 ~June.
 - Tentative clean out agreement between TPU and LCPUD – awaiting review.
- LCPUD is waiting for a permit for sediment removal at CF Day Use Park / release location. They are planning to move the debris barrier in the last few weeks of August. Their sluice gate replacement will likely occur in 2027, though it may begin as soon as September 2026.

Chinook Tagging – Power Analysis:

- Four Peaks and UW completed a power analysis to determine the effects of adjusting tagging strategy from 100 x 1/week to 50 x 2/week starting with spring Chinook. A summary of the analysis was sent to TWG members and other Tacoma staff to review.
- The TWG is recommending moving forward with this tagging strategy with spring Chinook beginning July 2024. If all goes well with this trial, it may be expanded to include coho and steelhead in 2025.

2025-2026 Acoustic Telemetry Studies:

- Since LCPUD's sluice gate replacement project has been moved to the fall of 2026 or 2027, Tacoma is moving forward with these studies based on lessons learned from the 2019 study:
 - Steelhead rejecting NSC flume. They would enter the NSC and then reject it. Adaptive management actions were taken, which led to increased FCE.
 - Chinook subdued entrance efficiency (60-70% FCE), requires further evaluation. This study will focus on Chinook entrance efficiency (EE).

- A block study for Chinook will evaluate EE under three different operational treatments. There will be a control group. They will block a portion of the NSC entrance and open the tailrace gates to allow for 750 cfs to flow through to change the hydrology in the discovery zone.
- The ultimate fate and time-to-event analyses of sub-efficiencies will be primary response variables. 3D telemetry will inform entrance, retention, and rejection behavior of these fish. Chris notes this is all still in the early stages of design.

Matt B expressed excitement about this opportunity to make a positive difference with Chinook in this area. He reminded everyone that acoustic telemetry work has a lot of coordination needs – early orders, expensive decisions that are made early on. The TWG has an annual process that allows for review by the FTC early on. It is imperative that decisions be made on a timely basis.

Josua suggested it may be possible to do some radio telemetry in the lower river. There is much to consider. When you double use tags, there is only so much battery life left. This would be a coordination issue therefore a standalone acoustic or radio tag study may be preferred

Bryce noted it is unfortunate we are lacking new information on fish impacts in the lower river from flow reduction periods and how flushing flows impact fish and long-term survival. There are lots of opportunities to learn more about the lower river and fish behavior. Matt B agreed and recommended adding this topic to the next TWG agenda.

2024 FTC Protocols

Presenter: Melora Shelton

FTC Work Plan: Melora acknowledged the need to ensure FTC meetings are proceeding according to the Work plan. Per Bryce's suggestion, Lyn will add that to the second page of the FTC agendas, following the Action Items.

FTC Protocols: Travis had reached out to Bryce and Josua, Peggy, and Eric on potential protocols for members of the public to make presentations. There is also a good list generated at the April FTC meeting to use as a starting place. She will meet with these folks to discuss protocols with the idea of presenting a recommendation at the August meeting.

Matt B reminded all TPU is part of the City of Tacoma and also a public agency. Members of the public who attend FTC meetings have engaged the Public Utility Board. Based on feedback from members of the Board, Chris Robinson, (GM and Superintendent of Tacoma Power) recommended that fisheries-management-related topics be directed to Natural Resources staff at Tacoma and/ or the FTC. The Public Utility Board is not a co-manager and can't speak to co-manager responsibilities. It is more appreciated and appropriate to bring those issues to these meetings where topics include the FHMP and associated transition plans.

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

Presenters: Steve West and Melora Shelton

Steve W reported final applications are due June 24 and the TAC will meet July 31 to rank the list of projects before sending it to the Board on August 9. The LCFRB will send out the list and links to project information to the FTC for review. Steve will present an overview of the project scoring at the August FTC meeting with a draft Decision Document with funding recommendation to follow in September.

Melora noted there is currently nearly \$18 million in the CRR Fund. So far, all distributed funds have been spent in support of habitat projects. Melora reviewed the work of the HAP subgroup to re-boot the program and outlook going forward (presentation distributed after meeting). The HAP subgroup can now shift its efforts toward supporting project development as well as supporting current and planning future grant rounds. This will include encouraging proponents to use the project information form designed to be a useful tool to evaluate project ideas. They will also add a second workshop opportunity that folks can attend apart from an official grant round to discuss project ideas. In the meantime, The group will continue to work under the existing charter with its updated timelines and work plans, meeting monthly with additional meetings as needed. Melora will introduce updates to grant round materials at the August FTC meeting, the 2025 grant round opens in February. Final materials will be out in October. She closed by expressing much gratitude to members of the subcommittee – Brian, Peggy, Matt P, and Eric, others who have provided input and assistance during the re-boot period, and members of the original CRR Program subcommittee.

LCPUD Dam Operations

Presenter: Laura Wolfe

As Russell was unable to attend this meeting, Laura provided the following update on his behalf:

Outage: The outage on Unit 2 is scheduled for July 1 if flows drop below 5,000 cfs.

Current and Upcoming Projects

- Debris Barrier Rehabilitation and Cathodic Protection
 - The tentatively scheduled debris barrier move is for mid- to late-August.
 - The drawdown to below 845 ft is scheduled for September 1, with an anticipated reservoir level of 842 ft at noon on September 3. This could change slightly \pm 1 day.
 - The drawdown is expected to last 8-10 weeks during which time CF will collect data on concrete defects both upstream and downstream.
 - Downstream Tailrace Survey
 - The downstream tailrace Sonar survey will occur in early to late fall once flows are 5K to 8K cfs and the tailrace can be raised above 770 ft. The survey will cover all underwater areas from the Cowlitz Falls outlet works downstream 750-800 ft.
 - Boat Barrier Replacement
 - The 100% design has been submitted to FERC and they anticipate construction in late fall or early winter.
 - Sluice Gate, Gantry Crane Rail Extension, Spillway 4 Stability improvements
 - Current Design, DDR, and Stability Analysis is 100% complete and submitted for FERC review. They anticipate soliciting bids in early 2025 with construction in 2026 and 2027.
-

Minimum Flow Reduction

Presenters: Melora Shelton and Saul Villarreal

Flow Reduction (update emailed on June 3, presentations distributed after meeting)

Melora announced that given the current hydrologic conditions, including the ongoing late season atmospheric river event, Tacoma is no longer pursuing a spring minimum flow reduction. This was also emailed to the FTC the day prior to the meeting.

Melora reviewed the FTC consultation for the proposed minimum flow reduction (presentation shared after the meeting). In late April Tacoma shared concerns about the potential for extremely low reservoir elevation prior to the end of June, especially considering the statewide drought. On April 28

they sent out a slide deck to the FTC describing the forecasting tools, refill probabilities, how they might use the flow education and various scenarios for performing a flow reduction. This was discussed at the FTC meeting on May 7 with updates to the slide deck and draft Decision Document focusing on a mid-May minimum flow reduction. As there was no consensus by voting members of the FTC at that meeting, Tacoma convened a smaller group of key stakeholders on a Cowlitz Flow call on May 13 and provided an updated DD incorporating feedback from WDFW. At that point they deferred the decision to initiate a reduction until May 28 based on improved conditions. They agreed to continue to monitor conditions and meet again on May 24. On May 17 Tacoma sent out information on storage in acre/ft to the group to address concerns from NOAA and Ecology. They then sent out another email cross-walking prior communications to make it easier for members of the smaller group to track. At the May 24 Cowlitz Flow call, based on improved conditions and a slower draft, they decided to defer making any decisions until possibly this meeting or mid-June. They also provided copies of the technical information that was part of the relicensing study regarding the impacts of a potential flow reduction on downstream habitat availability for juvenile salmonids.

The recent atmospheric river has radically changed conditions to the point that Tacoma has shifted to water management mode and is no longer pursuing a minimum flow reduction. Matt B thanked everyone for their participation in this process. This is what consultation looks like on a changing landscape. Tacoma wanted to get in front of this in a more proactive way than they had in the past. He asked for feedback on how that process felt so they can improve in the future.

While appreciating the good sharing of information, Bryce expressed concern that this is becoming a more frequent need for discussion. There seems to be a lack of new information to inform impacts of reduced spring flows. It would be helpful to know what management strategies might reduce the need to even have these conversations in the future.

Saul Villarreal shared a presentation that consolidated key information shared in slide decks since April 28, including the May 7 FTC meeting and the Cowlitz Flow meetings on May 13 and 24). New information in this presentation was in Part 4. The presentation was distributed after the meeting.

The June and seasonal outlook from the two models Tacoma uses were very similar. After below average flows in April and May, June is average or slightly above average driven by the atmospheric river. Tacoma ran the project conservatively all spring as they were expecting dry weather. Current storm inflows peaked on June 2 and reservoir is still filling; they expect the reservoir elevation to be 744-748 ft at the end of June.

Discussion:

Anne: Did Tacoma consider El Niño as they operated over the winter when there was above average precipitation?

Tacoma uses two forecast services for near- and long-term planning: NOAA River Forecast Center and HydroForecast. Only HydroForecast takes El Niño into account. There was a big inflow event in late January that put them up above their long-term average. Because of El Niño, Tacoma was conservative in its response and ran at minimum flow since mid-February even with a relatively full reservoir due to the likelihood of lower snowpack and lower precipitation throughout spring.

Anne: Can we have a presentation on how the forecasting models integrate with the operations models?

Thomas: Are worst case scenarios being considered when decisions are being made? How are hydropower interests balanced with fisheries interests? There are water quality questions on how monitoring is done downstream of the project.

Amy: NOAA was opposed to reducing the flows as doing so would dewater downstream side channels and negatively impact juvenile listed fish there. It would be helpful to have information on how proposed flow reductions correlate with losses due to dewatering of downstream side channel habitat - correlate flow reductions with reductions in side channel habitat.

Steve M: There is a relationship between flows and fish productivity. Mid-high-level flows are critical when it comes to mid-channel and side channel habitat. Physical habitat simulation (PHABSIM) analysis would be necessary to understand the connection to productivity and progress toward recovery.

Josua: There is an 82% chance of below average flows through the summer. The average is 2.5K cfs while the minimum flow is 2K cfs. That doesn't leave much wiggle room.

Melora reminded all the license provides for the reduction of minimum flow per Article 13 to assure spring (March 1 – June 30) refill. After that 2K cfs is the required min flow until the potential for minimum flow reset starts in mid-August followed by base flow increases. Tacoma typically operates slightly above 2K cfs in the summer for a variety of reasons. The license does not allow for a minimum flow reduction in the fall in the same way as the spring. If resources were limited Tacoma would operate to avoid re-setting the minimum flow during the fall until fall or early winter rain started in earnest.

Public Comment Period #1 - Agenda related

Carol: Regarding the flow reduction discussion, remember that it's about water quality – not generation. She thanked everyone for the work they are doing. She was sorry to hear we are in the same place as 4-5 years ago and hopes something can be put in place, so this group doesn't have to keep having the same discussions.

Jack: Looking for update on chum spawning assessment surveys.

Bryce: This is under contract with a scoping meeting soon, in partnership with the LCFRB.

Jack: What's the update on the EN Satellite Pond Rearing Facility?

Eric: We are working on water quality monitoring and applying for an NPDES permit. We are also drafting an operation agreement for Tacoma and EN along with legal reviews.

Jack: What is the data on adult returns from the Mayfield tagging project?

Scott: We only started tagging at Mayfield for Chinook and coho in 2022 so there's not a lot of data yet. This year will be the first return of fall Chinook adults. Spring Chinook are not marked in the Upper Basin.

Jack: Mayfield CWT numbers for 2022 CWT numbers in the RMIS Database show they are not valid tag numbers. Hope we haven't lost a whole year of data.

John, Chris, and Scott will query the RMIS Database to investigate this.

Jack: For the upcoming summer steelhead recycling, Bryce mentioned possibly recycling some fish into September as part of the M&E Study Plan. Has such a plan been devised?

Bryce: This is on the agenda for the M&E team to address.

Larry: Today's Hydro Ops and Water Quality reports seem to be focused on generation. What about the impact of water quality, turbidity, temperatures, chemistry changes, etc. on fish? Water hardness at the hatcheries also matters.

Larry: Last week's escapement report shows 40% of adult returns are jacks already. Why are you spawning jacks for springers?

Larry: Are you all watching for parasites infestations for Chinook and other fish?

Larona – C. Shasta is an issue in the summer with water temps at 55. Hatchery staff double up on the vitamin packs they use, and this allows the fish to get strong enough to gain immunity. This year's fall Chinook, springers, and coho all went out healthy.

Melora said she would share some reports with Larry this week.

Eric: Water Chemistry parameters were tested and identified to be in an acceptable range at the Trout hatchery.

Larry: Concerned about the ability to meet Chinook adult return goals.

Larry suggested reducing coho production as only 13-17% of those fish that return to the river are harvested. Currently more are being surplused than being harvested.

Scott: A large portion of coho returning are NORs that are not harvestable.

Topics for August, 2024 FTC Meeting

- Updates incl. Hydro Ops
- Water Quality – temp data April – August
- Satellite Rearing Ponds, Mayfield CWT Juvenile Returns, September Recycling, Chum spawning locations
- Fish Facilities (including an update on fish runs), Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project
- LCPUD Cowlitz Falls Dam Operations
- FTC Protocols re public presentations
- Downstream Adaptive Management TWG
- Monitoring and Evaluation Subgroup
- CRR Fund / HAP Subcommittee
- Preview September FTC Meeting Topics

Public Comment Period #2 – Any topic

Larry: The modern training that is now available needs to be implemented to drive success. There is a need for more modern advanced fish culture training for hatchery managers.

Randy: Asked for status on improving access to Riffe Lake for older fishermen. This is an issue that impacts their quality of life. What ideas are being considered? Would it be possible to cut a new side channel?

Matt P: Acknowledged this is an important issue. Phase 2 of the North Taidnapam Boat Launch Improvement Project will address this. It is in the permitting phase and should begin in 2025.

Matt B: Tacoma wants to get the water levels back up. That is the long-term solution. Hoping to do this in 2030.

Randy: Would love to see more fish coming in. Is there any way CCA's thousands of members can help support such an effort?

Matt P: Thanked Randy and noted there are many opportunities for those of us in the room to collaborate together to work toward common goals.

Randy: The pinniped issue seems to only be getting worse. He has tried calling the people suggested by Bryce, but no one returns his calls. Bryce will follow up. Email may be more effective.

Larry: Utility Board Comment – Members of the public don't feel like they have been heard. Larry has been asking for permission to do a presentation to the FTC for months now and is tired of waiting for a response. In his experience of the Utility Board meetings, there was more interaction and support than he gets from the FTC. He is concerned about the poor fish return to the Cowlitz. The hatchery model won't solve all the problems. There is a need to apply modern science. He doesn't see any accountability. In the long term, fishermen all want to see improved adult returns. Relicensing will start again (was a 35-year license) and the public will be heard on this.

Meeting Evaluation

- Great attendance! And nice so many could meet in person.
 - A laptop dedicated solely for the projector would have been helpful
 - Melora did great as assistant facilitator as well with other duties including but not limited to handling the microphone.
 - Good dialogue among the stakeholders
 - The extra power strips were much appreciated
 - Good presentations
-

Josua's Inspirational Quote

Josua noted it was raining hard on the way up here. Was happy to see Carol and Matt B – great blast from the past. "There is no friend like an old friend who has shared our morning days, no greeting like his (their) welcome, no homage like his (their) praise." -- Oliver Wendell Holmes Jr.

Closing Remarks

Melora thanked everyone for their participation and commitment to these meetings.

Parking Lot

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

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
August 6, 2024 from 9:30 – 2:30

FTC Representative Attendees:

Melora Shelton	TPU
Bryce Glaser	WDFW
Amy Kocourek	NMFS

Additional Attendees:

Thomas Starkey-Owens	ECY
Peggy Miller	WDFW
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Kevin Young	WDFW
Jenise Bauman	TPU
Chris Vaughn	TPU
Matt Bleich	TPU
Eric Shoblom	TPU
Scott Gibson	TPU
Denise Smee	LCFRB
Steve West	LCFRB
Ann Weckback	Lewis County
Bill Sharp	Yakama Nation
Laura Wolfe	LCPUD
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor and Jack Tipping

2024 FTC Meeting Dates: In-person meetings will include a remote option. Sept. 3 (in person), Oct. 1, Nov. 5, Dec. 3 (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.

Announcements

- We were pleased to welcome Jenise Bauman to the FTC. She is the Manager of Tacoma's Science and Research Group and will be helping to coordinate the M&E meetings. Welcome Jenise!
- Tacoma is seeking to fill two positions in Natural Resources and appreciated any referrals:

- License Coordinator <https://www.governmentjobs.com/careers/tacoma/jobs/4517396/license-coordinator>
 - Fish Passage Biologist <https://www.governmentjobs.com/careers/tacoma/jobs/4520140/fish-passage-biologist-natural-resources-analyst-principal>
 - The Cowlitz Annual Program Review and Science Conference Meeting will be September 4 from 10-5 at the Veterans Memorial Museum, 100 SW Veterans Way, in Chehalis.
-

Updates

FHMP Transition Planning

Matt B proposed to reengage with regular FHMP updates, per the Work Plan, with intentional focus on Transition Plan updates. He anticipates a monthly cadence with corresponding content/species focus for each meeting. WDFW is supportive of this concept which is a similar approach to the M&E Plan deep dive updates – with clearly defined decision points and next steps. Matt B invited anyone interested in helping do this to contact Melora.

FTC Work Plan/Protocols

Matt thanked everyone for their thoughts about expanding engagement with the public and how we can be both intentional and responsive as we discuss potentially bringing some public presentations to these meetings. Melora is setting up a meeting with FTC voting members about this and there will be an update on this at the September meeting.

Mayfield Downstream Fish Passage Remodel

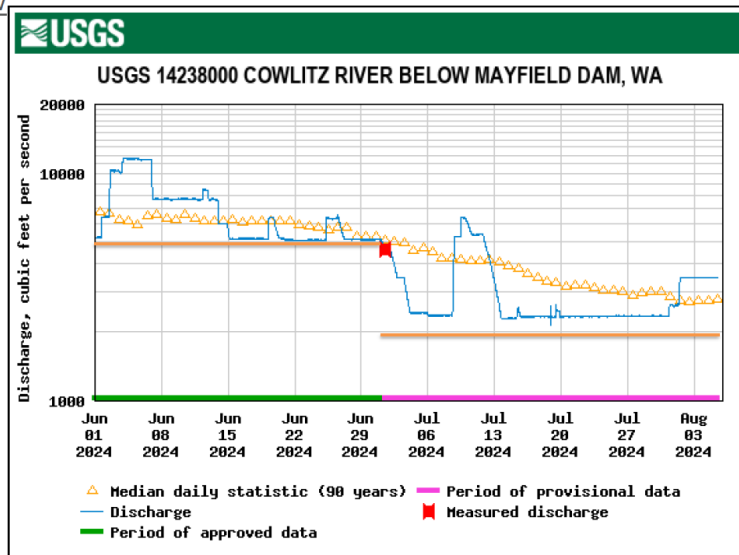
Matt explained that there will be an update on this with a timeline, likely in Q4 of this year. Internal discussions are ongoing as solutions are being evaluated that require intentional communication with the Dam Safety side of FERC before Tacoma is permitted to have public discussions. Stay tuned.

Hydro Operations (presentation emailed on August 5)

Melora described the following:

- Inflows: Inflows April – July were very low (56-70% of normal), even with a big rain event in June; July also was very warm.
- Storage: Riffe Lake filled in mid-June and then drafted to 742 ft (3 ft above the recent 5-year average). Both Mossyrock ramps and North Taidnapam are open.
- Outflow: Near the minimum flow of 5K cfs (June) and 2K cfs (starting July 1), except during June water management. Discharge increased to about 3K cfs in August. Small ramp exceedances after a July 18 unit trip (transmission line disturbance); no flow excursions, flow stabilized within an hour. This will be included in the annual Article 402 report.
- 10-day Forecast: Warm and dry. Inflows below 2K cfs; discharge is expected to increase up to 6.7K cfs and then back to 4.8K cfs through the heat. La Niña condition is anticipated this fall, persisting into January. They anticipate operating near minimum flow until precipitation comes in this fall, except as needed for load.

Outflow



Link to the USGS real-time Cowlitz River hydrograph:

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

Water Quality

- As Matt P was unable to attend, Melora shared preliminary water temperature profiles at Cowlitz Falls locations. Slides will be distributed.
- As reported in June, Tacoma secured permits for the replacement of four culverts on an unnamed tributary to Mayfield Lake. Culvert construction has begun.

Fish Facilities (presentation will be distributed)

Separator:

- Hatchery spring Chinook numbers are declining now. The return has been twice as high as the weekly 5- and 10-year averages. Tacoma ceased recycling the Kalama AD-RV spring Chinook on July 30. A total of 806 were recycled. On August 1 they went into the fall management timeframe and the Lower Cowlitz was closed to Chinook retention.
- Per the protocols, they are sending spring Chinook to Copper Canyon Creek and Franklin Bridge release sites each week as Scanewa is too warm and the Cispus Release site is not yet operational.
- Summer steelhead returns are above the 5- and 10-year averages with 4,575 returns to date. To date, they have recycled 4K summer run steelhead. All previously recycled fish are sent to a local foodbank. They easily met brood requirements.

Brood Collection:

- Fall Chinook returns are just beginning. They are continuing with demographic replacement and a 1:3 mining rate per the protocol. There will be an update for these, coho and cutthroat at the next meeting.
- They will start collecting coho brood in September. The first coho showed up yesterday.

All HOR fall Chinook and a proportion of NOR fall Chinook will be retained for broodstock. NOR fall Chinook that are not retained for broodstock will be transported and released into the Tilton River.

Mayfield Coho Net Pens:

Eric noted some materials have already been purchased. The roads are in good condition for the planting trucks. Tacoma is also securing in-water nets and predator netting. The plan is to transfer 98K fish to the four net pens in December at ~35fpp. They will be released on May 1 at 15fpp.

Rainbow Plants:

- 87K have been planted to date to the tune of 41K lbs between Swofford Pond near Riffe Lake and South Lewis County Park Pond in Toledo.
- In August 16K more will go to Mayfield.
- 5K will be reserved for the Lion's Club derby.
- A total of 50K lbs of trout are planted annually to support local fisheries.

Trout Hatchery Remodel:

Tacoma is evaluating water supply options which will drive the design for alternatives going forward. Eric encouraged everyone to monitor progress on the remodel through the Trout Hatchery remodel website which will be updated approximately every two weeks: <https://www.mytpu.org/community-environment/fish-wildlife-environment/cowlitz-river-project/cowlitz-fisheries-programs/cowlitz-trout-hatchery/cowlitz-trout-hatchery-remodel/>

Tacoma has submitted paperwork for short-term water rights and a geophysical survey to inform the remodel alternative analysis. That survey is occurring today. Due to these activities, camping at the Blue Creek Boat Launch area was closed today but should open back up August 7. LWD placement at Trout Hatchery scheduled for today has been postponed due to rising river levels. Pump tests will occur in early October.

Mayfield Counting House (presentation will be distributed)

Chris Vaughn gave an overview of the current tagging protocol and fish health. Staff is doing bio-sampling on 30 Chinook and coho and parasite analysis on up to 30 Chinook coming through the facility per week). Compared to the 5-year mean, Chinook numbers are slightly higher, coho are about average and are tapering off, steelhead are currently 1.5K above, and the cutthroat capture is right on. We are hovering right around the 5-year and historical mean for the cumulative smolt return to Mayfield.

Cowlitz Falls Fish Facility (presentation will be distributed)

Chris began by noting this has been a high debris year. Dam/passage operations will cease on September 1 when the Lake Scanewa drawdown begins. The last tagging date will be August 23.

Approximate collected to date:

- 175K coho – still getting good numbers
- 14K steelhead
- 10K Chinook
- 1K cutthroat

Approximate FCE (FCE trials will end with the Lake Scanewa drawdown)

- Coho 78%
- Steelhead 77%
- Chinook 45%
 - The alternative tagging strategy of 50 twice a week (vs. 100 once a week) began after July 4.

Over 1,100 Chinook fallbacks were sent back upstream.

The fall operations have been effective in collecting spring Chinook outmigrants since the Northshore collector has been in place. With the Lake Scanewa drawdown, those operations won't be happening this fall. We can compare this to the years when we didn't have those operations. Chris will follow up with Gabe to get this put on the TWG agenda. It is also important to address secondary collection again.

Bryce noted we want to try to minimize the adult fallback numbers. They are released to the reservoir until we reach temperature thresholds (which were met a month ago). They are now going to the Copper Canyon Creek release site. These fish haven't been marked. Chris will discuss this also with Gabe.

Cispus Release Site (Tom Music Bridge)

Laura reported LCPUD has hired a contractor to do this work which will occur in early September and likely take 3 days. The site should be functional for fall and winter. Many thanks to Laura and others who participated in making this happen!

Monitoring & Evaluation Subgroup

Scott reported the subgroup has been meeting monthly and making a lot of progress on the M&E Plan with the help of a consultant. The draft plan is currently being reviewed by WDFW. When the subgroup meets again on August 21, they will address comments and create a final draft for the FTC to review.

Downstream Adaptive Management Technical Work Group (TWG)

Chris noted the outmigration updates already given. The new tagging strategy recommended by the TWC for spring Chinook is underway. At the last meeting of the TWG, LCPUD gave a presentation on the Cispus Release Site. The debris barrier will be moved on August 19. Related work will likely extend through October. Chris provided an update on the Acoustic Telemetry Study set for 2025 and 2026. He also discussed the need to evaluate the efficacy of various tagging strategies.

WDFW Follow-Up

Chum spawning locations: Bryce noted WDFW is working on this through an external grant from the LCFRB. They have a signed contract and are beginning to work on study design. There will be further updates on this in the future on preferred site selection, etc. and then eventually the design.

September steelhead recycling: WDFW supports moving deadline for recycling from August 15 to August 31. WDFW may support expanding this recycling further into September. Expanding into September would need to be done along with an evaluation of the straying issue. The concern is that in September there are increased chance of freshets. Straying will also affect PHOS issues in the tributaries.

Invalid numbers in the RMIS database: Kris Warner has been researching this issue with the CWT data. Some tag codes came back as invalid query fields. These will need to be resubmitted for the database queries to function properly. These codes will have to be submitted with suffix to differentiate coho from Chinook tag groups. They will have to specify queries – stay tuned. Kris thanked Jack for raising this issue and John for his help. They need a pre-season plan for CWT application that can be reviewed by the FTC or subgroup to ensure we are following best practices and that they line up with RMIS submittal. This is related to determining the origin of fish as Tilton or Upper Cowlitz basins. John assured everyone all of the data are in the database. They are just hard to pull out at this point.

Steelhead recycling for the fall will be a topic for the M&E Subgroup.

LCPUD Dam Operations

Presenter: Russell Page

Unit 2 maintenance: (debris removal should be complete this week. The crane will be removed on August 9. They are currently at normal operating levels and are working with Tacoma on a cleanout agreement going forward.

The debris barrier will be moved to the moorage site and a 20-foot drawdown is scheduled for September 1 to facilitate repairs. The drawdown will likely extend through October. During that time, the PUD has hired contractors to do baseline defect mapping of cracking in the concrete at the dam.

He reminded everyone that last fall the PUD installed an additional turbidity sensor so now they have one on each side of the downstream bank. They also get regular readings from a dissolved oxygen sensor.

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

Presenters: Steve West and Melora Shelton

Habitat Grant Round (presentation will be distributed): Two projects will be coming to the FTC for funding through the 2024 CRR habitat grant round. Proposals and associated materials are in the Google Drive folders the links to which were emailed out last week. Of the three proposals received, the TAC recommended that the following two projects be funded. Only CRR funds are being requested (no SRFB funds).

- Silver Creek Restoration Opportunity Identification: \$233K
 - Proposal will assess and document restoration opportunities as well as landowner willingness to implement Silver Creek (mainstem) restoration projects and create a conceptual design for one restoration project. There is also the potential for a hatchery project there in the future. The upper watershed is almost exclusively managed by the USFS who have indicated they are open to additional work upstream.
- Cispus Yellowjacket Phase 5 Design: \$345K
 - The proposal will develop preliminary designs to increase floodplain connectivity and in stream structure in 1.2 miles of Yellowjacket Creek a tributary to the Cispus River. Phases 1-3 are complete. Phase 4 is in process now – with construction expected in 2026.

Steve reviewed the TAC scores for the CRR and SFRB projects together. Cispus-Yellowjacket Phase 5 Design was the top project in the region; Silver Creek also scored in the top third of projects. The LCFRB Board will meet on August 9 to decide on their recommendation which will be reflected in the draft DD that will be presented to the FTC in September.

HAP Subgroup: The manual has been updated for the 2025 grant round as described in June. Melora will send out clean versions to the FTC. In June, they received a project information form (used for preliminary evaluation of a project idea) from Jack Tipping proposing a study to evaluate different rearing strategies and corresponding survival rates. Discussions on this will continue with the subgroup and others as they look for ways to align it with the CRR priorities. The fall workshop will be another potential engagement point. The Subgroup meets again on August 21.

2024 APR Process (presentation will be distributed)

Presenter: Eric Shoblom

Eric reminded everyone that all production goals are set through FHMP plans. The hatchery programs offer some flexibility and can be adjusted to fit within available space and can also shift between species. The Annual Program Review meeting is also used to gather feedback for program improvements now and the future.

No production changes are being proposed for this year.

The Net Pen Coho Pilot Program will shift some of the coho out of the hatchery to create space for larger spring Chinook. Adaptive management is built into the plans. The draft APR DD will be out soon. Eric noted we usually hold the APR meeting in early spring. This year, we are doing it in late summer/early fall based on availability of Tacoma staff. The hope is to return the timing of this meeting to spring starting in 2025 (which will be a quick turnaround from this session). The plan is to also pair the APR meeting with the Science meeting next April. The draft agenda for the Science meeting is out for review. WDFW has a new communications lead in Region 5, this person can help with outreach for the Science meeting. WDFW offered to help with public outreach. If Tacoma takes WDFW up on their offer, Jenise will follow up to help get notice out from WDFW and Tacoma concurrently.

Public Comment Period #1 - Agenda related

Jack: Supports the assessment being done on recycling steelhead in September. When the study was done in the 1990s, the September fish had the highest numbers of harvest.

RMIS database: Need M&E Subgroup oversight on tag codes. Three of them used at Mayfield had been used on the Cowlitz for fish released in 2018, 2019, and 2020.

Fall Chinook: For the APR process we need recovery to be the first priority. Spring Chinook also require additional resources.

M&E Plan: When can this be shared with the public?

Matt/Scott: Yes, all plans, once finalized, become public documents. The finalized M&E Plan is expected to be out within the next couple of months.

Larry: What all is included in the annual M&E Report? What are the parameters? He is concerned about adult returns.

Bryce: The M&E Plan is described in the FHMP. The scope is included there (prioritized monitoring needs for each species). The reporting for the M&E Report is part of the pieces of work WDFW does under contract with Tacoma and Tacoma does their own reports as well. They are all available on TPU's website.

Larry stopped by the Salmon and Trout Hatcheries in the last few weeks. Staff there are working hard to do a good job. At the Salmon Hatchery they discussed water, water quality, and flows, and the associated challenges. Staff reported not always being notified of fluctuations in flows. Low flows result in higher temps and other concerns. Fish culture practices for the Cowlitz should be updated.

Eric: Sometimes flows change rapidly and they haven't always gotten the word out in a timely manner. Such communication is prioritized. They are now better at alerting staff of flow changes.

Larry: He looks forward to attending the APR meeting. He knows the Fish Production Plan will be discussed and hopes discussions also include adult returns and how success is measured.

For the Coho Net Pen Program: Is the focus on early or late fish return?

John: Before the Transition Plan, the Cowlitz hatchery reared segregated and 100% pNOB integrated coho. The segregated coho typically returned about one to two weeks earlier than the integrated coho. This year will be the first year of adult returns from the new integrated coho program at 50% pNOB.

Bryce: Recovery objectives are outlined in the license, FHMP, and are to provide harvest mitigation.

Topics for September 3, 2024 FTC Meeting

- Updates incl. Hydro Ops
 - Water Quality – temp data April – August
 - Update on Chum Channel (Bryce and Todd)
 - Satellite Rearing Ponds
 - 2024 APR Process – Draft DD
 - Fish Facilities (including an update on fish runs), Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project
 - LCPUD Cowlitz Falls Dam Operations
 - Downstream Adaptive Management TWG
 - Monitoring and Evaluation Subgroup
 - CRR Fund / HAP Subcommittee – Draft DD
 - Preview October FTC Meeting Topics
-

Public Comment Period #2 – Any topic

Larry: What is success as we move into the Annual Program Review? Fishermen see success as adult returns. The modern training that is now available needs to be implemented to drive success. There is a need for more modern advanced fish culture training for hatchery managers.

In attending Tacoma Public Utility Board meetings, he has been directed to go through Matt B with FTC concerns. He appreciates the interest from John O’Loughlin who just moved into the Chair role. A revision of the Fish Hatchery Management “Piper Manual” is underway.

Meeting Evaluation

- Great attendance once again.
 - Melora did great as an assistant facilitator and providing technical support
 - Good dialogue among the stakeholders
 - Good presentations
-

Josua’s Inspirational Quote

“The environment is where we all meet, where we all have a mutual interest; it is the one thing all of us share.” – Lady Bird Johnson

Closing Remarks

Melora thanked everyone for their participation and commitment to these meetings. Referring to Josua’s quote, she referred to a Venn Diagram with intersecting interests and a shared dedication to the environment. She is excited about using updates to the Transition Plans to show all of our work on moving the needle forward. Matt also thanked everyone for their collaboration in doing this.

Parking Lot

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

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

FTC Representative Attendees:

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

Additional Attendees:

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

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

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

Approval of August Meeting Summary

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

Updates

Hydro Operations (presentation emailed on September 2)

Melora described the following:

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

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

Water Quality

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

Related Project Updates

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

Fish Facilities

Separator:

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

Broodstock Collection:

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

Mayfield Coho Net Pens:

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

Trout Hatchery Remodel:

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

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

Discussion:

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

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

Mayfield Counting House

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

Cowlitz Falls Fish Facility

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

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

Approximate FCE:

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

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

Monitoring & Evaluation Subgroup

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

Downstream Adaptive Management Technical Work Group (TWG)

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

WDFW Chum Project

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

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

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

LCPUD Dam Operations

Presenter: Russell Page

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

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

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

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

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

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

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

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

Presenters: Steve West and Melora Shelton

Habitat Grant Round:

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

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

HAP Subgroup:

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

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

Suggested next steps for FTC input included:

- Continue using existing CRR HAP materials and pathways

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

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

2024 APR Process

Presenter: Eric Shoblom

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

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

Public Comment Period #1 - Agenda related

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

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

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

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

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

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

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

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

When does Bryce think the Chum Study might get underway?

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

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

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

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

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

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

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

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

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

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

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

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

Topics for October 1, 2024 FTC Meeting

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

Meeting Evaluation

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

Josua's Inspirational Quote

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

Closing Remarks

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

Parking Lot

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

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
October 1, 2024 from 9:30 – 2:30

FTC Representative Attendees:

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

Additional Attendees:

Thomas Starkey-Owens	ECY
Josua Holowatz	WDFW
Brian Gale	WDFW
John Serl	WDFW
Kris Warner	WDFW
Peggy Miller	WDFW
Kevin Young	WDFW
Todd Hillson	WDFW
Sean Toomey	WDFW
Chris Vaughn	TPU
Ben Caviness	TPU
Eric Shoblom	TPU
Scott Gibson	TPU
Stephen Lewis	BIA
Steve West	LCFRB
Ann Weckback	Lewis County
Michael Boyles	BPA
Laura Wolfe	LCPUD
Lyn Wiltse	PDSA Consulting / Facilitator

Public Attendees: Larry Pryor and Jack Tipping

Remaining 2024 FTC Meeting Dates: Nov. 5, Dec. 3 (Vets Memorial Museum with remote option)

Approval of September Meeting Summary

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

Updates

Hydro Operations (presentation emailed on September 30)

Melora described the following:

- **Inflows:** Inflows continue to be low. September (lowest inflow month) was 72% of the historical average, with a mean daily flow of 1,294 cfs and only 43% of average precipitation and warmer than usual temperatures.

- Storage: Riffe Lake drafted from 732 ft on September 1 to 720 ft the end of the month (on par for average since 2017).
- Outflow: See [hydrograph](#), minimum flow 2K cfs, 3.5K cfs as of 10/1. No flow or ramp exceedances. Coordinate with USGS to ensure ability to meet minimum flow.

10-day Forecast: Warm and dry. Inflows remain well below normal, continued draft. Outflows will be maintained at 3,600 cfs. Mossyrock short land and N. Taidnapam may close this week or next. Melora will notify WDFW of the closures and also post on Tacoma's website.

Gravel Augmentation

Ben Caviness was pleased to join us to report this took place September 16-19 per License Article 10 and in accordance with the timing of the HPA. Ben performed the permitting for this project. Flow was 2,360 cfs when 1,062 cubic yards were placed into the Cowlitz River from the left bank just downstream of the Barrier Dam. Melora thanked everyone for helping this to be successful. Improvements to this year's placement included installing rubber belts on the conveyor and reorienting the truck so gravel landed closer to the existing island (reduced turbidity). They only had to pause operations twice (between 9 and 10:30am) on day 1 due to turbidity concerns. Ben showed before and after photos of the placement. After this year's placement only a deficit of 151 cubic yards remains. Tacoma's current priority is getting caught up with the required amount of gravel which will occur in 2025.

Action Item: Melora will send out the study plan along with Ben's presentation.

Fish Facilities

Separator:

- Eric reported that coho, spring Chinook, cutthroat, and fall Chinook are all returning. This weekend with returns of 500 fish for five consecutive days they began 7-day/week operations.
- The spring Chinook return is nearly over with 6,627 (over twice the 5-year ave.). Brood collection was completed in July after a few more females were collected due to low fecundity. They finished spawning on September 24.
- Summer steelhead returns are winding down and well exceeded the 5- and 10-year averages! Only two NORs were collected.
- Recycling: Summer steelhead recycling concluded at the end of August. 4,597 were recycled. 808 Kalama spring Chinook were also recycled. They easily met broodstock requirements.
- Weekly returns of coho are well above the 5-year average so far for both HORs and NORs. They are expected to increase now through November. 10,466 have been received to date.

Broodstock Collection:

- This is going well. Half of the broodstock are NORs. The goal is to transport 12K HOR coho to the Tilton by the end of the season. They are also sending many fish to the Upper Cowlitz and Cispus sites. Eric reminded all these stats are available in the weekly report.
- Cutthroat returns are at 160, though the size of the run is actually larger as many are returning to the Blue Creek at the Trout hatchery. All separator returns are collected for brood.
- Fall Chinook is at 856, better than last year, but below the 5-year average. Starting Sept. 16, protocols changed to demographically replacing each unmarked to brood with one HOR upstream vs. 2 HORs. They also reduced the NOR mining rate from 1 in 3 to to 1 in 10.

Bryce questioned seeing spring Chinook so late in the season. Are there issues in distinguishing between spring and Fall Chinook? Is there a need to tighten up identification criteria? Should we add verification in our assignments or implement some cutoff dates? Josua noted WDFW seeks to

maximize the opportunity to collect fall Chinook brood with every one being transported to the Upper Tilton. WDFW fisheries rules will remain in place.

Action Item: Eric to talk with Jenise about adding the issue of spring Chinook identification to the agenda of the next M&E meeting and the next Hatchery Operations & Maintenance (HOM) meeting (both on Oct. 16).

Cowlitz Trout Hatchery Remodel:

Eric reported Tacoma has finished the groundwater mapping study. They have posted signs with QR codes for the public. They will be flow testing each of the pumps at the south wells. They have identified areas on the north side for potential hatchery water. They will drill up to four test wells in each with 3 monitoring wells. They are working with McMillen on revisiting the bio programming. They will meet with WDFW on Oct. 16 to discuss approach, communication channels, schedule, etc. For updates: <https://www.mytpu.org/community-environment/fish-wildlife-environment/cowlitz-river-project/cowlitz-fisheries-programs/cowlitz-trout-hatchery/cowlitz-trout-hatchery-remodel/>

Mayfield Coho Net Pens: They have transferred the coho to stress relief ponds. All have been tagged per the plan. They will be released in December and our pilot will begin.

The Salmon Hatchery and Trout Hatchery launches have been dredged.

Tacoma updated access hours/signage for the Cowlitz Salmon Hatchery (to address security concerns). This information will also be broadcast on social media.

Cispus Release Site: Work on this site was completed the week of September 9 and the site is now operational, and Tacoma began sending fish there on Sept. 16 with daily releases that total nearly 2,400 fish! Everything is working well at the site. We will see how the site responds to the winter flows. There is a need to coordinate with the USFS re access to the site for maintenance. The access road has been slated to be decommissioned. John, Josua, and Sean visited the site on the Sept. 17 and installed some fishing boundary signs. They spoke with a happy angler while there.

Mayfield Counting House

Chris reported juvenile Chinook, coho, steelhead, and cutthroat were all being tagged (all juvenile life stages except fry). As reported last month, there was a slight increase in mortality coupled with increased fish presence. All morts are inspected by a WDFW pathologist. Safeguards taken include parasite monitoring, secondary separator autoflush, and water quality monitoring. In general, outmigration numbers are similar to the 5-year average, though Chinook numbers are a bit low. He invited everyone to let him or Melora know if they would like to receive these reports.

Cowlitz Falls Fish Facility

Chris announced the collector was shut down Sept. 1 due to the drawdown at Lake Scanewa. Smolt return totals at 204.5K are slightly above the 5-year average for all fish.

FCE: Steelhead 78%; Coho 75%; Spring Chinook 48%

The acoustic telemetry study will begin in 2025 and will look specifically at Chinook. They will be testing three operational strategies. Preparations to the unit for the occlusion strategy (creating a higher velocity into the unit) started yesterday. Refill from the drawdown set to begin Oct. 24 with hydraulic testing of the collector to follow.

Monitoring & Evaluation Subgroup

Presenter: Scott Gibson

Scott noted the M&E Plan has gone through multiple iterations. The Subgroup meets again Oct. 16 (10-noon) and will likely send the Plan out to the FTC for a 30-day review before the November meeting. A DD will follow to formally approve the plan.

Downstream Adaptive Management Technical Work Group (TWG)

Presenter: Chris Vaughn

Chris referred to the presentation John Best (WDFW) gave at a recent TWG meeting on alternative tagging to allow for more fish collection. This year, tagging was expanded to earlier and later in the year, into non-peak seasons and a wider range of conditions. He showed charts on how that translates to recapture. John's graphs show how the recovery matches an expanded distribution of discharge. The issue of the reduced Chinook FCE season came up. The TWG will discuss.

Action Item: Chris and John to add Chinook FCE to the agenda of the next TWG meeting.

LCPUD Dam Operations

Presenter: Russell Page (submitted by Russell before the meeting)

Cowlitz Falls Reservoir Drawdown is continuing for the Debris Barrier Rehabilitation Project. The Drawdown started on September 2 and is expected to last another 3-4 weeks through October. Information on the drawdown is listed on the PUD website. The coating mitigation process on the Debris Barrier is complete and the crews are starting the re-coating process now. We expect the work to be complete in late October. On September 27, Cowlitz Falls requested a temporary modification to the 1,000 cfs minimum downstream flow requirement from WDFW to help facilitate refilling the reservoir after the Debris Barrier work is complete. The request was to lower the flow requirement to 500 cfs beginning as soon as the work is complete and lasting until the reservoir is refilled. This will benefit the river system by allowing an earlier release of fish at the Day Use Park.

Cowlitz Falls intends to replace the Boat Barrier located approximately 1,000 ft upstream of the project in early 2025. This is a public safety improvement for Lewis County PUD and will help to ensure public safety during recreation activities in Lake Scanewa. The project has been awarded and the contractor will begin preparing the mooring blocks on the North and South side of the reservoir this fall. The replacement of the boat barrier has not been scheduled but once the extent of the procurement process is understood, it is intended that it will be replaced prior to summer of 2025.

Cowlitz Falls is still in outage on Unit 2 and awaiting some final testing to occur in October. They intend to release the clearance by the end of October and be ready for full operations prior to the fall runoff. Currently the river system is hovering around the 600-1,000 cfs through Cowlitz Falls. They are still working through the FERC review process for their Sluice Gate Replacement Project and currently do not have any updates on that project or the timeline for construction. When confident, they will disseminate that schedule.

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

Presenters: Steve West and Melora Shelton

Habitat Grant Round: No comments were received since the updated DD was sent out on September 9. Steve reviewed the DD that included funding the Cispus Yellowjacket Phase 5 Design and the Silver Creek Restoration Opportunity Identification. After a brief discussion, DD 2024-04 was approved by consensus. Melora thanked the LCFRB for their great support through this process.

Action Item: Melora will ensure the attachments are included with the DD when sent out for official 7-day review/approval by FTC voting members.

HAP Subgroup: Melora reported the subgroup reconvened after the FTC discussion and have put together some specific questions for Jack regarding his steelhead rearing proposal. The CRR calendar includes options for workshops on Oct. 22 at 10:30 or Oct. 23 at 1:30. FTC members are welcome to attend. This timeline is consistent with the 2025 grant round.

2024 APR Process

Presenter: Eric Shoblom

No comments from the FTC were received since the updated DD was sent out on Sept. 9. After a brief discussion, DD 2024-03 was approved by consensus.

Eric reported they received written comments from Jack and Larry. They also got comments from other members of the public related to Tacoma operations and fisheries programs during the meeting on Sept. 4. The summary of responses not addressed today is non-APR related and came in during the public comment period of the science meeting that day. Melora noted all feedback has been captured and is being written up. A description of the two program-specific recommendations (from Larry and Jack) were added to the DD:

Two members of the public provided comments regarding APR program changes. The first comment was regarding shifting to a later timed coho program. This recommendation was considered to have already been implemented via the Transition Plans that call for a single, integrated program that by default incorporates later timed NOR returns. The second recommendation was for reducing the Fall Chinook program in favor of additional Spring Chinook and shifting the broodstock source to Lower Cowlitz Natural Origin stock. This recommendation was not adopted as the FTC maintains that there has not been enough time since the Transition Plans and nearly released M&E plan to evaluate the hatchery program or returning adults from the recent switch to marking at Mayfield. The HOM and M&E groups will return at the next (2025) APR process with a plan and timeline for adequately evaluating these changes.

Discussion:

Larry's suggestion to shift to a later timed coho program was already implemented per the Transition Plan. The program has shifted to a single integrated program from the Upper Cowlitz. The broodstock and collection curves mirror the bimodal return timing of the natural origin population. This shift also addresses the concern about number of surplus fish as more hatchery fish will be transported to the Upper Cowlitz. So far, there hasn't been much of a shift in returning hatchery adult run-timing.

Jack suggested, with recovery being a priority, shifting fall Chinook production to spring Chinook. Bryce noted that while the concept of shifting production between programs is within the objective of the APR to ensure we achieve our recovery and harvest opportunity objectives, WDFW thinks it is a bit premature to make such shift in production at this time.

- The FTC has just recently implemented the new fall Chinook program in the Tilton, and we are just now starting to see returns from that shift. We need more time to understand how that shift is performing.
- Understanding NOAA's perspective on the Hatchery Genetic Management Plan (HGMP) program that has been submitted for consultation will be important moving forward.
- Evaluating the impacts to fisheries outside of the Cowlitz from a reduction in fall Chinook production will need to be completed to inform a future decision, especially in light of recent reductions in overall Columbia River Tule fall Chinook production required under the Mitchell Act Biological Opinion.

- WDFW is working to submit a new Fisheries Management Evaluation Plan (FMEP) to NOAA fisheries. Modeling is not yet complete and although hopeful, we are unclear how much opportunity may become available in a non-mark selective fishery.

It is also important to better understand how the proposed program shift is being supported at the CCA statewide level and CCA's response.

WDFW recognizes that current performance of the fall Chinook program is a concern and supports identifying some clear next steps and timelines for evaluating the current program and identifying potential improvement actions. Particularly -

- Understanding the origin (i.e., Tilton vs. Lower Cowlitz) of unmarked Chinook returning to the separator.
- Completing life cycle models (i.e., Integrated Population Models) to better understand key biological reference points, including estimates of capacity and productivity.
- Updating analysis of SARs using a standardized approach and conducting an evaluation of contribution to fisheries.
- Identifying potential limiting factors (both in and out of hatchery) affecting fall Chinook survival and developing directed studies to inform potential management actions.

These will be addressed through the HOM and M&E Subgroup. There is more work to be done. A shift in the future might be warranted. The HOM and M&E groups will return at the 2025 APR process (next spring) with a plan and timeline for adequately evaluating these changes.

Action Item: Eric will update the DD as discussed and send it out for official 7-day review/approval by FTC voting members.

Public Comment Period #1 - Agenda related

Jack: Will the public get to review the draft of the M&E Plan? Anglers should get to weigh in.

Scott: The draft version will be reviewed by the FTC. The final will be shared with everyone.

Bryce: There was public input on the FHMP. The M&E Plan is being written in line with the FHMP.

Action Item: Melora to check with SA protocols/FHMP re document-specific guidance.

Jack: Are coho being tagged (not mentioned in Chris' presentation on Mayfield tagging)?

Chris: Yes, coho and Chinook are both receiving snout CWTs.

Jack: Can Salmon Hatchery access be extended to 8pm for winter steelhead glow ball fishing?

Eric: it's dark at 4:30 in the winter so glow balls can be used. There are serious security concerns after dark. Five individuals were just arrested poaching in the fish ladder.

Bryce: There will be no change to WDFW permitted fishing hours.

Jack: Got an angry phone call from a guide for cutthroat fishery complaining about no cutthroat. They are currently being raised in raceways instead of rearing ponds where they grow better.

Eric: They understand the advantage and that's why they made the shift to benefit winter steelhead. They hope the remodel allows enough space for all programs to be put into some form of a rearing lake. Brian concurred and noted last year, there was a record number of cutthroat trout returns, and they all came out of the raceways. Currently they are still coming in at a rate of about half of the 10-year average. Josua noted most people are currently fishing for coho. Bryce: We need to better understand the cutthroat fishery. This is identified as a need in the FHMP.

Jack: An assessment has not been done on this program since 1981.

Larry: At the APR, there was much conversation. How does this get entered into the public record?
Larry: Can coho be better managed with a later run timing? This would benefit harvest. Production numbers are meaningless to him as a recreational fisherman. Releasing 2 million fish and getting back only hundreds is unacceptable. There is a need to manage toward adult returns. How has fisheries participation followed the adult returns?

Bryce: Creel numbers are currently used to estimate mortality of natural origin fish released in the fishery, but don't produce estimates of angler effort.

Larry: How do flows and temps affect parasites (*C. shasta*, etc.) at the intake into hatcheries?

Eric: Per the Science Conference presentation on *C. shasta* at the salmon hatchery intake, dredging has no impact. Temperatures do have impact. The warmer the water the more spores of *C. shasta*. High scouring flows are less conducive to the parasite.

Larry: Has the Packwood satellite rearing site been abandoned as an option?

Eric: No. We will bring a full suite of options for the FTC to evaluate, including some that may be more likely to be successful.

Topics for November 5, 2024 FTC Meeting

- Updates incl. Hydro Ops, Water Quality
- Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Coho Par Study design alternatives, Trout Hatchery Remodel
- LCPUD Cowlitz Falls Dam Operations
- Downstream Adaptive Management TWG, Monitoring and Evaluation Subgroup
- CRR Fund HAP Subcommittee
- Mayfield Downstream Fish Passage
- Preview December FTC Meeting Topics - at Chehalis Memorial Museum

Meeting Evaluation

- Well attended
- Tech issues with access to the Chat and to the Teams meeting
- Very productive - approved 2 DDs!

Josua's Inspirational Quote

"Then the trees, after their long silence, began to talk again, in yellow and red. And the days began to shrink under one's very eyes." Hope Mirrlees.

Life is fragile. Make sure to wear your PPE when on or near the water.

Closing Remarks

Melora thanked everyone for coming today and being willing to engage with each other including members of the public. There is a lot of serious conflict in the world right now. She is happy we all get to come together to work collaboratively on supporting the resources we care about.

Parking Lot

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

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final Meeting Summary
November 5, 2024 from 9:30 – 2:30

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Melora Shelton	TPU
Bryce Glaser	WDFW
Andrew Luymes	ECY
Bill Sharp	Yakama Nation

Additional Attendees:

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

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

Remaining 2024 FTC Meeting Date: Dec. 3 (Veterans Memorial Museum with remote option)
Proposed 2025 FTC Meeting Dates: Jan. 7, Feb. 4, Mar. 4, Apr. 1 (no joke), May 6, June 3, Aug. 5, Sept. 2 (day after Labor Day), Oct. 7, Nov. 4, Dec. 2

Approval of October Meeting Summary

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

Updates

Hydro Operations (presentation emailed on November 4)

Melora shared two changes for updates in WY 2025. 1) Shift to WY 1981 – prior water year for historical reference for mean daily flow by month. 2) Add 5 to 95 percentile range to the chart for WY monthly inflows and historical mean daily flows by month.

- Inflows: Low inflows since July, very low in October (53% of average) due to below normal precipitation.

- Storage: Riffe Lake drafted from 720 ft the end of September to 705 ft the end of October (8 ft below the 2017 – 2023 average). Consequently, Mossyrock ramps and N. Taidnapam are both closed.
- Outflow: Consistent outflow around 3.6K cfs ([hydrograph](#)), minimum flow is 3.5K cfs as of October 1. Downramping limits <6K cfs changed from 1 in/hr. to 2 in/hr. (24 hours) on November 1. There were no exceedances.

10-day Forecast: Typical temperatures and consistent rain beginning on Friday. Snow level is between 3K and 7K ft. Inflows initially 2.5-3.5K, may increase to >6K cfs. Riffe will continue to draft somewhat and then may begin to refill. Outflows will be maintained at 3,600 cfs unless side flows rise over the weekend. Minimum flow will reset on November 21 to about 4,300 cfs based on the 5-day average rule, potentially higher if water management occurs between now and then.

Discussion:

The Settlement Agreement states Tacoma will make a good faith effort to keep lower Cowlitz River flows between 5,000cfs and 8,000cfs to protect spawning habitat from November 1-20 when flow resets). WDFW would like more context for not providing the 5-8K flow identified for spawning and have the FTC informed of tradeoffs/risk evaluation as part of making that good faith effort. An example would be how much additional reservoir storage would be used to provide 5,000cfs of flow, and additional 1,400cfs, for the November 1-20 time period? What are the impacts of this lower reservoir elevation? Tacoma responded that it will always be a challenge to commit to higher discharge before fall inflows have come up with the risk of deeply drafting the reservoir (digging a hole) and limiting flexibility.

Action Item: Melora will reach out to Resource Operations and then share information around Tacoma's risk evaluation and rationale for their planned operations.

How does Tacoma calculate their inflows to the project? Tacoma uses an operations model that includes volumetric storage for the reservoirs to calculate the natural inflows to the entire project (not just Riffe Lake). Side flows are included in the calculation.

Fish Facilities

Separator:

- Eric reported that coho, cutthroat, fall Chinook, summer steelhead and winter steelhead are all returning. Recently, returns to the separator have been averaging 900-1,300/day. There have been two NOR winter steelhead arrivals so far.
- The spring Chinook return was fairly decent at 4,381. Eric noted that it is difficult to distinguish spring from fall Chinook at this time of year. This was discussed briefly at the last M&E meeting and is on the agenda for the next meeting. Jenise noted DNA analysis may help with this.
- Summer steelhead returns are twice as high as 5-year average.
- Coho are well above the 5-year average. Brood collection is going well. To date, half of the broodstock are NOR.
- Fall Chinook are below the 5-yr average with 2,119 to date. Brood collection has ended and is far behind the goal.
- Cutthroat trout are well below 5-year average with 735 to date. Eric noted many are returning to the area near the Trout Hatchery vs the Salmon Hatchery.

Regarding the shortfall in fall Chinook broodstock collection, Bryce noted we made a choice to adjust our demographic replacement rates. This has been helpful in broodstock collection and has increased the number of NORs being placed in the Upper Tilton. The Transition Plans identified 1K fish as the minimum transport goal. We are on the cusp of moving into the normal range. Eric agreed and said he appreciates all of the coordination on this.

Release Sites:

- We are currently using the Cispus Release Site. The site has held up well. Anglers also seem to like it. Noting the importance of giving fish sufficient space and time to disperse, Josua asked Eric to have the fish truck drivers to watch for missing fishing boundary signs. He is happy to provide replacement signage as needed.
- 8,455 coho NORs have been transported to the Tilton Release Site to date.

Mayfield Coho Net Pens: The new nets were fit-tested by WDFW hatchery staff and passed with flying colors! All necessary supplies are in hand. The pilot project coho currently reside in the stress relief ponds and will be transferred to the net pens in early December for release in May,

Cowlitz Trout Hatchery Remodel

Tacoma held a partnering meeting with WDFW to review the remodel plans and establish communication channels and protocols for issues /concerns going forward. He shared a photo of the South Wells CCTV (closed-circuit television) which is being used to assess the condition of the south well supply line. It did not find any indication of leaks or biofouling. Great news! The line held static pressure for 6 days. This is due to the pipe's design (steel in the center with concrete on the inside and outside). So far, they have drilled 5 of 12 test wells. Aquifer testing will occur mid-November through mid-December. The Kiosk that says "no parking" will be removed for a few weeks to accommodate the drilling. There will be fencing and tape around the drill rig for public safety.

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

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

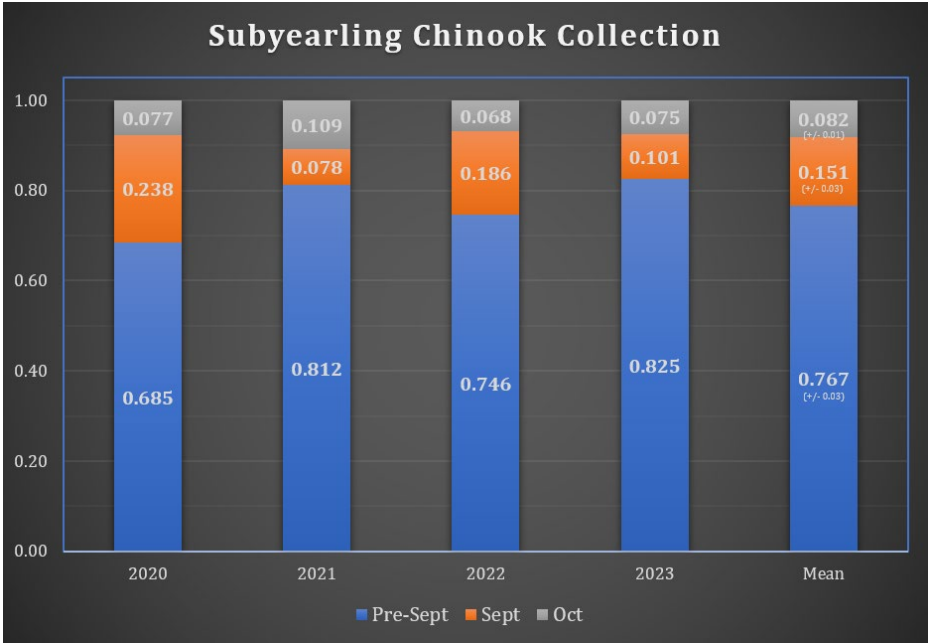
Mayfield Counting House

Chris noted we ended up close to 5-year average with the exception of Chinook. We were also a little low in cumulative smolt returns. Mortality within the Mayfield secondary separator was higher during flushing operations. However, we've seen mortality fall since initiating twice-per-week flushes of the secondary separator.

Cowlitz Falls Fish Facility

Chris reported the CFNSC 2024 Summer Summary report has been sent out to the TWG for review. Discussion of the alternative tagging strategy will inform actions in 2025. Internal contracting and SOW development are underway for the CFNSC acoustic telemetry study. The supplemental tagging study concluded last week, and the data are being processed. They will start ADV (Acoustic Doppler Velocimetry) testing to account for how hydraulic behaviors could affect fish entrance and retention.

He shared a graph showing the impact of the early (Sept. 1) shutdown of the collector due to the Lake Scanewa drawdown on sub-yearling Chinook collection.



pre-Sept 2024	12,620
Calculated total	16,454
Calculated Sept	2,485
Calculated Oct	1,349
Calculated Sept + Oct	3,834

Bryce thanked him and noted our challenge is we should be looking at FCE vs. averages based on the last 5 years. FCE loss potential is ~9%.

Monitoring & Evaluation Subgroup

Presenter: Scott Gibson

Scott reminded all that the updated draft Plan was sent out for FTC 30-day review (due end of day Nov. 6). He walked through the DD that was sent out Oct. 29. He covered the basic objectives of the M&E plan which was designed to track population status for recovery objectives and to inform the Annual Program Review. The M&E Subgroup is asking for this DD to be approved so implementation can begin. The final version of the plan will be attached to the DD which will be on the December meeting agenda for final review and approval.

Downstream Adaptive Management Technical Work Group (TWG)

Presenter: Chris Vaughn

This group will meet again on November 26 and will discuss Coho Parr Study design alternatives. Notes, agenda, and the proposal from 4 Peaks Consulting will be out the end of this week. Chris will integrate TPU and TWG Subgroup input regarding the design into the proposal with an eye toward balancing out operational needs, etc.

LCPUD Dam Operations

Presenter: Joe First

Joe was pleased to announce that the Debris Barrier Rehabilitation Project is now complete. This involved recoating the entire interior of the debris barrier. Refill began Oct. 31, and the reservoir was back to full pool on Nov. 3. They will reattach the debris barrier to the front of the dam on Nov. 7 and the Day Use Park will reopen to the public on Nov. 8.

On Nov. 12 they are meeting with the contractor to discuss the schedule for replacing the boat barrier in front of the dam. New anchors will be poured in December. The flotation portion of the boat boom will be delivered in February and the installation is scheduled to be complete in March, prior to fish collection season.

The maintenance on Unit 2 has been completed. They are ready for flood season!

Cowlitz Restoration and Recovery Fund

Presenters: Melora Shelton and Steve West

HAP Subgroup: Following September FTC guidance for some high-level answers to key questions, Melora reported on subgroup meetings and coordination with Jack regarding his steelhead rearing study idea. This included document revision and a workshop on Oct. 23 where discussion included current rearing practices and potential marking strategies. Updated materials will be distributed along with the request for additional FTC input for discussion at the December meeting; outcomes will inform Jack's next steps and assist with process and resources for support and eventually evaluation. They proposed inviting Jack to participate in the conversation at the December FTC meeting, the focus of which would be support for the development of an idea. Bryce concurred that discussion including Jack would be beneficial. Follow-up discussion would occur in January and February, ahead of the 2025 grant round.

Habitat Grant Round: Steve noted CRR grant round site visits will occur on May 8. The grant round will open in February, pending approval by their Board. All are invited to attend the next TAC meeting on Nov. 13 which will feature a couple of related presentations. Melora will send out the TAC invite.

Action Item: Melora will send out the information packet for Jack's idea and her PowerPoint presentation describing the FTC ask, and the invitation for the Nov. 13 TAC meeting.

Public Comment Period #1 - Agenda related

Larry: RMIS.org shows 2024 steelhead releases from the Cowlitz Trout Hatchery as 52.8K for summer steelhead and 299.6K for late winter steelhead. Are these numbers correct?

Bryce: Maybe those numbers only reflect the tagged steelhead. RMIS is a repository for CWT information – not WDFW's formal database for hatchery information.

Bryce will check this against the latest annual report from Tacoma (sent to WDFW in September) for release numbers to see if there's a disconnect.

Jack: Re the Mayfield migrant mortalities, what did the pathologist report say?

Chris: All we have heard is the parasites (copepods and nematodes) as expected this time of year.

Jack: Hopes the releases and returns at Mayfield migrant traps will be discussed at the December FTC meeting. Regarding Cowlitz River fall Chinook, when the 35% exploitation rate says 440 fish were harvested outside of the basin (.5% of the 82K), that does not bode well. Will there be no sport harvest allowed on fall Chinook for a number of years? We need to get beyond that.

Scott: Keep in mind, these are 4-year-olds. We have seen 20 adult Chinook from those releases returning this year. More information on this will be shared at the December meeting.

Bryce: This has been identified as a key need to be referred to the M&E Group. WDFW will coordinate with Tacoma on what can be presented in December.

Larry: Regarding coho management, the NORs seem to be biting, whereas the HORs aren't. This program doesn't seem to be successful. Integrating NORs and HORs seems to fix the issue.

John: People are catching more coho in the lower section of the lower Cowlitz this year. And yes, we are moving toward an integrated program.

Topics for December 3, 2024 FTC Meeting

- Updates incl. Hydro Ops, Water Quality
 - FTC Work Plan / Protocols incl. Public Presentations to FTC
 - FHMP Transition Plan Implementation
 - Fish Facilities, Satellite Rearing Ponds, Cispus Release Site, Mayfield Downstream Fish Passage Remodel, Coho Net Pen Project, Coho Parr Study design alternatives, Trout Hatchery Remodel
 - LCPUD Cowlitz Falls Dam Operations
 - Downstream Adaptive Management TWG, Monitoring and Evaluation Subgroup
 - CRR Fund HAP Subcommittee
 - Mayfield Downstream Fish Passage Remodel
 - Preview January FTC Meeting Topics / Confirm 2025 Meeting Schedule
-

Public Comment Period #2 – Any Topic

Larry: Noted Priest Rapids has had good results from changing their broodstock management. Fall Chinook programs are related to broodstock. He sees success as adult returns back to the river and is happy to see the FTC leaning in that direction. Relicensing is coming up in only 10 years.

Meeting Evaluation

- Well attended once again

- Tech issues continued with access to the Chat and to the Teams meeting. Thanks, Melora for using email as back-up for Chat. In 2025 there will be a new Outlook entity. This should resolve such issues.
-

Josua's Inspirational Quote

Fear less, hope more; eat less, chew more; whine less, breathe more; talk less, say more; hate less, love more; and all good things are yours. – Swedish Proverb

Closing Remarks

Melora thanked everyone for participating in these license implementation meetings, she was especially appreciative of the reminder to breathe! It is so helpful that we all are working collaboratively toward common ends to support the resources we all care about.

Parking Lot

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

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

December 3, 2024 from 9:30 – 2:30

Veterans Memorial Museum, 100 SW Veterans Way, Chehalis and via Teams

FTC Representative Attendees:

Melora Shelton	TPU
Bryce Glaser	WDFW
Andrew Luymes	ECY
Bill Sharp	Yakama Nation
Amy Kocourek	NMFS
Jonathan Stumpf	TU

Additional Attendees:

Thomas Starkey-Owens	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
Matt Bleich	TPU
Jenise Bauman	TPU
Chris Vaughn	TPU
Eric Shoblom	TPU
Larona Newhouse	TPU
Ann Weckback	Lewis County
Laura Wolfe	LCPUD
Lyn Wiltse	PDSA Consulting / Facilitator

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

2025 FTC Meeting Dates: Jan. 7, 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

Quotable Quote: “It takes a college degree to get a sunburn.”

Approval of November Meeting Summary

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

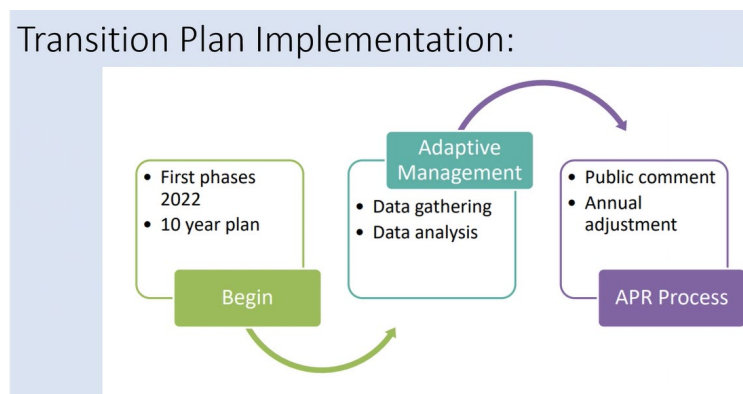
Proposal For FHMP Transition Plan Update

Matt recounted Tacoma’s license obligation to have the FHMP in place for recovery programs and harvest opportunity. The initial version of the Plan was last updated in 2022. This is the time to recognize improvements/next steps. He suggested that starting in 2025 the FTC meetings include

regular FHMP updates. Jenise described the proposal for the FTC to consider in terms of how to interject the transition plans in a way that helps us all to work together more effectively. Bryce noted several years ago FTC meetings included quarterly FHMP report outs. This is a good opportunity to get into a rhythm of bringing back progress updates and how we are moving forward with implementation and where things are going well and where the challenges are.

Jenise provided a review of FERC Article 6 and how we got to this point in transition planning. This FERC obligation was formed collaboratively for the purpose of recovery of salmonid populations to healthy and harvestable levels. The focus is on best strategies, relying on high quality data, overseen by the FTC. She thanked all the collaborators and contributors that came together to make this happen. The M&E Plan provides protocols and framework for monitoring and analysis toward goals. This is done within the context of a regulatory framework and includes Transition Plans for coho, fall Chinook, spring Chinook, and winter steelhead. Summer steelhead and cutthroat trout are managed without Transition Plans as they are harvest driven programs and not specifically related to recovery objectives.

Back in 2020 the template for the Transition Plan was developed by the FTC. Public review and comment took place in Feb. 2022. The plans were finalized in March of 2022. She reviewed the overarching goals for each population.



Starting with Fall Chinook at the January FTC meeting, Transition Plan updates will include a review of the past 5-10 years (problems, successes, data gaps, etc.), and use decision rules to determine critical thresholds to shift recovery phases to direct management action. Other updates will take place in March, May, July, and September as we review the process and agree on next steps. She thanked again all the partners who have helped in this collaborative process, including the public feedback received.

Updates

Announcements

- RMIS Database: Kris reported the wide discrepancies in the steelhead release data have been resolved. There may still be some differences between RMIS and the independent estimates like those reported by Tacoma. All records are available now on RMIS for summer and winter steelhead Cowlitz Trout.
- New Riffe Lake Restoration Website: There will be an official rollout of this new website next month. Melora will notify all when that occurs. The website will be available to all.
- 2025 Changes to FTC Communication: Melora asked all to be watchful for new FTC meeting invitations to come out. They will be issued from CowlitzFTC@CityofTacoma.org. Matt assured

all that they are still welcome to contact Tacoma staff directly for any reason. This new invitation should result in making the Chat function of Teams meeting accessible again.

- New Tacoma Fish Biologist: Yesterday was his first day. We look forward to meeting him!

Hydro Operations (presentation emailed on December 2)

- Inflows: Came up in November and continue to increase in December, but relatively speaking, they are still low for this time of year. November ended at 70% of average (1981-2024). Overall normal precipitation and temperature in November, but variable within the month contributing to lower inflows and early snow build.
- Storage: Riffe Lake elevation has increased to 715 ft on December 2 and is below the recent and long-term averages. Snowpack is starting to build at Paradise and White Pass. The long ramp at Mossyrock is now open.
- Outflow: Consistent outflow around 4.2K cfs since Nov. 20 ([hydrograph](#)) when minimum flow increased from 3.5K cfs to 4.2K cfs. Minimum flow is adjusted to flows eight inches of river stage height below the highest consecutive 5-day average flow during which active spawning occurred, as measured at the USGS gauge (Station #14238000) below Mayfield Dam (Settlement Agreement License Article 13). Downramping limits apply above 6K cfs. There were no exceedances.
- 10-day Forecast: Below normal precipitation with variable temperatures. Inflows likely will remain below normal levels until we see consistent winter precipitation. Outflows are expected to stay at 4.4K cfs unless sideflows come up over the weekend.

Discussion around potential minimum flow reset for “active spawning” under Article 13(e) after Nov. 21. Tacoma has applied the reset based on flow into early December in the last 2 years, in part informed by ongoing carcass surveys.

Peggy mentioned that Howard Hanson Dam is using FIRO (Forecast Informed Reservoir Operations) to manage their reservoir operations and asked if Tacoma might consider using this tool for their water management.

Action Item: Matt B will follow up.

Fish Facilities

Separator:

- Eric reported that coho, cutthroat, fall Chinook, summer and winter steelhead *are all returning*.
- The spring Chinook return was fairly decent at 6,636 vs 3K as the 5-year average.
- Winter steelhead: It's very early in the season. There are only 6 pair on hand currently. Collection for Lower Cowlitz brood started Dec. 1. For the Upper Cowlitz program, they will collect a handful between Dec. 1 and March 1 and then extend through mid-May.
- Coho are well above the 5-year average – on target for 60K adults. They are maintaining 50% pNOB (natural origin broodstock). Collection will continue into January.
- Fall Chinook are below the 5-yr average. Brood collection has ended and is far short of the goal.
- Cutthroat trout are at about half 5-year average with 1,121 to date.

Release Sites: Eric was pleased to report they are using all available release sites including the Cispus Release Site which is holding up well.

Mayfield Coho Net Pens: The net pens are all set up and Tacoma fish trucks will begin transferring the fish on Dec. 4. This will kick off the two-year coho pilot study where they will use four pens to test fish performance under two different densities. Monitoring will occur per the plan, and they hope to make a decision on the densities for next year. Eric will provide regular updates and WDFW will be in charge of operating the net pens.

Cowlitz Trout Hatchery Remodel: Eric announced the project manager (PM) in charge of this project is no longer with Tacoma. This position will be advertised in the near future. In the meantime, the website for the remodel may not be updated as regularly as it has been in the past. They are well on their way with the groundwater survey. They used ground penetrating radar imaging to understand the densities and the soil types and are drilling 13 observation wells and 4 test wells. As of Dec. 1, they started pumping water from the test wells and monitoring impacts to the aquifer. Testing (for quantity and water quality) will take place through December. There will be more updates at the January meeting. A full groundwater study report will be included in the project deliverables, which should be out in a couple of months.

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

Mayfield Counting House

Chris reminded all we ended up a bit below the 5-year average due primarily to low fall Chinook outmigration which is likely due to low adult return numbers in recent years. Coho parr outmigration has been low which could be due to less impetus for coho parr to move out because of the low overall numbers across species.

They are continuing to track parasite loads and plan to start reporting them relative to fish size. The high mortality in sub-yearling Chinook is due to continued elevated parasite loads. Chris is working with Jamie to report mortalities as a percentage of weekly catch.

Cowlitz Falls Fish Facility

Chris reported their contractor conducted the ADV (Acoustic Doppler Velocimetry) testing near the CF Northshore Collector entrance to better understand how necessary acoustic telemetry project infrastructure affects flow behavior within the unit.

Downstream Adaptive Management Technical Work Group (TWG)

Presenter: Chris Vaughn

This group last met on November 26 and discussed Coho Parr Study design alternatives. More to come next month when they introduce the associated DD with an eye toward approval at the March meeting.

LCPUD Dam Operations

Presenter: Laura Wolfe (on behalf of Joe First)

The Debris Barrier Rehabilitation Project is now complete, and the debris barrier is back in place.

Boat barrier replacement: New anchors will be installed in Jan/Feb 2025. The new boat barrier is scheduled to be installed in late March.

Removal of debris in front of trash racks is also scheduled for March.

Mayfield Downstream Passage Remodel

Presenter: Matt Bleich

Matt reviewed the background, project scope, and details of the preferred alternative (3B). The FERC license goal for Fish Passage Survival (FPS) is 95%. FPS is derived from when fish enter trash racks until they get released into the tailrace.

In 2018 Tacoma analyzed why they were falling short of the goal and focused on the turbine, Juvenile Bypass System (JBS), and the spillway. While the number that go through the JBS was the highest, the survival was the lowest. They found that there were impacts at the secondary separator and changed operations/flushing improvements to improve survival and reduce retention. He showed the existing JBS separator and the routing. There was a slope failure in that area decades ago that caused a sag in the rebuilt pipeline. That was found to be the second major problem area for fish.

Recommendations: Reroute the pipe to the south shore of Mayfield. There are major dam safety considerations so that is contributing to how long this is taking. They hope to attach a pipeline to the dam and reroute a pipe on a stable slope on the south side. At this point, Tacoma has been given permission by FERC to consider this. Relocating the counting house to the south side will allow for a larger footprint that will accommodate many more fish. Relocating the facility would benefit staff as well as fish as the present facility is not ergonomically friendly. They hope to make the pipeline shift and relocate the counting house at the same time. The current Counting House can handle 5,600/day. If relocated, it would be able to handle 26,400 fish/day.

At 25% design, Tacoma believes it looks like Alternative 3B is the right decision. There is a high cost to shifting the counting house to the south side, but that is the recommendation they are making because it would be best for fish survival. Matt showed details of the routing of the pipeline and the safer and more effective outfall - further downstream and articulating as needed to reflect water levels.

Next Steps: Tacoma will select a PM, secure funding, and establish timeline. All were asked to consider this between now and the January FTC meeting. Matt hopes they are on the right path and is asking for FTC reactions/support as they start to move forward. The project would need to be completed by 2028. This means they would need the design by 2026 and expect two construction seasons.

Discussion: Bryce thanked Matt for the presentation and explained that WDFW needs to get more detail on this to share with their fish passage folks before WDFW can offer support for Tacoma's preferred alternative. Fish passage folks at NMFS may also need to be involved in review. Bryce indicated that Fish Guidance Efficiency (FGE) remains a data gap. How can we better show how many fish are actually going through the facility versus those that go through the turbines? We assume the preferred alternative will result in better fish survival for fish that go through the facility versus those that go through the turbines. Knowing the current proportion of fish that use the facility versus those that pass through the turbines would allow for assessment of how much improvement can be gained from the facility rebuild. We need better data on how the current system is performing. Bryce hopes it is possible to fill that data gap while the process continues to unfold. Matt responded there is limited information on that. Consultants left the rate of fish going through the turbines as a flat rate. Fish passage criteria is front and center.

Andrew noted the pipe across the dam will be exposed to the sun which will warm the water. Matt thanked him and said it has been determined that that will not be an issue as flows will move through very quickly.

Cowlitz Restoration and Recovery Fund

Presenters: Melora Shelton, Brian Gale, and Jack Tipping

HAP Subgroup: Melora reminded all of the subgroup meeting and coordination with Jack regarding his steelhead rearing study idea since the last FTC meeting. Updated materials were distributed along with the request for additional FTC input for discussion at today's meeting. Brian introduced the study research questions and management implications at a high level to set the stage for Jack's presentation.

- Part A: Does the release size of Cowlitz Hatchery winter steelhead smolts influence the rate of adult returns?
- Part B: Does segregating and growth-accelerating smaller fish ahead of release improve their rate of returns?

Jack explained his professional background at WDFW, including his publication record. He provided background information on hatchery steelhead rearing as relates to adult returns and introduced a two-part study design focused on Lower Cowlitz winter steelhead that would occur over 3 release years. He concluded with a request for a cooperative investigation and co-authorship with WDFW and Tacoma staff.

Discussion: Melora thanked Jack and invited everyone to consider his proposal from policy, technical, and logistical perspectives. There were questions and discussion regarding Jack's proposal. Examples, how does this proposal fit with the CRR focus on recovery of Upper Basin fish? Discussion also included the fish per pound target for the lower Cowlitz program and the marking strategy for the study.

Bryce asked, given that this is being proposed for the lower basin program, if there is truly value in working to accelerate the growth of smaller fish for that program. Questions include: Does this fit under a directed hatchery study or a CRR study? What are the logistical constraints (e.g., Trout Hatchery remodel)? Is there a clear pathway as to how this would support recovery? Would marking these fish impact any of the other programs/current marking strategies? A left ventral clip (as proposed) on the upper basin fish could negatively affect survival of those fish, confounding the study. Part B with accelerated growth seems like a more valuable suggestion.

The M&E Subgroup will review this and say if it should be more of a directed study. Melora requested FTC approval for additional technical support from M&E folks (recognizing there is already a lot on their plate) and others as well.

Peggy noted that the CRR program includes eligibility for "other projects approved by the FTC," and that all CRR projects need to have linkages to priority population recovery.

Bryce asked if there is a data set out there that we haven't really mined. This might help us with Part A. We could also consider alternate technologies such as PIT-tagging – maybe can do it as part of the integrated program. Jenise will follow up with Scott on whether there is a size component to the PIT-tag data for the enumeration study. Melora noted that Scott prepared some feedback for this proposal that he can share with M&E.

The outcome was that the M&E Subgroup will review the proposal information and provide feedback at the next FTC meeting. The application timeframe calls for the proponent to submit a letter of intent to Tacoma and submit the study proposal by the end of February. The draft proposal would be out in March, and the final application would be due by the end of June. Feedback may include: CRR and/or M&E directed study, use of M&E study plan outline to characterize the proposal, availability of

existing data to inform Part A, use of PIT-tags instead of CWT (tagging would occur in the Aug/Sept timeframe).

Action Items:

- Melora to send out Jack's presentation to all.
- Melora to send all materials to Jenise for discussion at next M&E meeting
- Jenise to check with Scott on if there is a size component on existing PIT-tag data. Also be sure to include Jonathan Stumpf in M&E discussions re Jack's proposal.

Monitoring & Evaluation Subgroup

Presenters: Melora Shelton and Jenise Bauman

Melora briefly walked through the DD that was sent out Oct. 29 and again without edits on Nov. 26. The M&E plan is designed to track population status for recovery objectives and to inform the Annual Program Review. There was consensus among the FTC voting members to approve this DD. Matt thanked everyone for their coordination and collaboration in putting together this plan.

Jenise reported the Subgroup, as they pivot toward implementation will begin working on Charter development. They have begun lifecycle modeling and defining goals for best practices. They will invite WDFW modeling experts along with Tacoma data folks to participate in these activities, including how best to organize and share the data.

Fall Chinook SARs: They will look at new tagging strategies and examine past data from RMIS and spawning ground surveys. They will also compare these data with other fall Chinook programs.

There are overlapping return times for spring and fall Chinook. For 2025, they will be looking at DNA techniques to better differentiate those populations. They will also review and prioritize species-specific baseline studies from the plan. They will also follow up on whether we have PIT-tag data with a size component.

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

Public Comment Period #1 - Agenda related

Jack: Is the pathologist looking only at internal parasite loads? Some lethargy is from nematodes. It would be good to also look at internal parasites (nematodes).

John S believes that to be the case and will confirm with the WDFW pathologist.

Larry: What is the likelihood of survivability even if you capture 100% of the fish. What's the point in capturing all these fish if they aren't going to survive? (Larry was keying in on a mid-2010s acoustic telemetry study at Mayfield/Barrier Dam.)

Matt: The Barrier Dam study was on latent survival. It's not apples to apples. That study was coho and not Chinook that we are talking about. The flow conditions in that study were also different. Given this effort, we don't fully know the SAR impact of what we have today vs. the alternative. But we do know that when we delay Chinook in a man-made structure, the SARs go down.

Larry: What are the forecasts for adult returns?

Bryce: There are tributary-specific forecasts for coho and Chinook. There are none for steelhead.

Randy: CCA is supportive of Jack's proposal.

Randy: Once again, he is having to ask about Riffe Lake access. He and the many fisherman who ask him about this are looking for long-term repairs. The lake is not accessible. Bring the lake elevation up and/or facilitate access. We have a known process. Why does it have to be re-studied and re-permitted every year? Why waste time and energy for a solution that will be the same thing? Bryce acknowledged the frustration and also that it is a complicated issue.

Melora demonstrated that the new website will have information about the status of the effort to restore the lake level and access issues. It also has lake level information.

Randy: Can't we just install a new ramp that provides accessibility under those conditions?

Matt: Unfortunately, the bathymetry there doesn't allow for that.

Larry: Is anybody looking at SARs adult returns? How do you prioritize that effort?

Jenise: Yes, this is occurring in the M&E Group.

Bryce: WDFW is also working on this.

Matt: The priorities are always shifting. The Cowlitz has 15 distinct populations.

Topics for January 7, 2025 FTC Meeting

- Updates incl. Hydro Ops, Water Quality
- FTC Work Plan / Protocols – public presentations
- 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
- CFNSC 2025 Plans
- LCPUD Cowlitz Falls Dam Operations
- 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 February FTC Meeting Topics / Confirm 2025 Meeting Schedule

Public Comment Period #2 – Any Topic

Randy: What's the status of the Chum Project?

Bryce: We are working to get a preferred contractor onboard through the competitive bid process. The next step is the contract.

Randy: What about seals and sealions?

Bryce responded that ability for WDFW to fully engage in tributary pinniped management is still contingent on the legislative process to allocate funding. He will follow up to see if there are any updates.

Randy: Sorry to report this is the first year he hasn't caught a single fish in the Cowlitz River. The fish are there. They just aren't biting. Are there any studies in other places also having issues with low bite? It used to be nearly impossible to find a parking place at the Barrier Dam. Now it is deserted. He fishes the Chehalis and the Quinault and catches coho easily there.

John: Adults from the new coho program with 50% pNOB will be coming back next year. WDFW is not putting resources into researching biters vs. non-biters. They are working on recovery - healthy and harvestable populations. No one is willing to pay for biter/non-biter studies.

Matt: He shares the frustration, particularly with coho.

Randy: Could it be the narrowing of gene pools?

Matt: Our focus is on not narrowing gene pools. As we work to broaden the gene pools for recovery purposes, we are taking it out of the equation.

Larry: Are managing things to get numbers back or are we managing for the fishery/for the fishermen. The SA says the fishery is important.

Matt: This is a program. Things aren't black and white. We are trying to do everything for all the populations to the extent we can. The first step to recovery is abundance building. For many of our populations, that is where we have found ourselves.

Larry: Has been asking to make a presentation to the FTC for over a year. What is the process for a member of the public to make a presentation? Also, in visiting the hatcheries, it seems the hatchery staff aren't being kept in the loop on things.

Melora: Thanked Larry and explained the process for that is coming in 2025. As we tighten up how we share the information with the public and vice versa, we are also interested in improving how we capture public comments. She also assured him that if he noticed a disconnect in communication with hatchery staff it was most certainly an exception.

Meeting Evaluation

- Well attended once again.
 - Appreciate the Owl and the cords.
 - No audio issues this time!
 - Good facilitation team.
 - Good, open discussions.
 - Appreciate Tacoma getting staffed up. Kudos to Jenise and her team!
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Josua's Inspirational Quote

"We all have our time machines, don't we. Those that take us back are memories...And those that carry us forward, are dreams." Jeremy Irons

Closing Remarks

Melora noted the approval of the Cowlitz M&E Plan was momentous and something to celebrate. This is tied to the FHMP Transition Planning and kicks off the conversation and how we will spend time at these meetings. She also appreciated the conversation re the Mayfield Downstream Passage Remodel. She closed by thanking everyone for participating in these license implementation meetings, and she especially appreciated the reminder to breathe!

Parking Lot

- Review Steelhead Kelt Recycling Program