

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

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

FTC Representative Attendees

Tacoma: Melora Shelton

WDFW: Bryce Glaser

ECY: Andrew Luymes

TU: Jonathan Stumpf

Additional Attendees

BPA: Michael Boyles

ECY: Anne Baxter

LC: Ann Weckback

LCPUD: Joe First, Laura Wolfe

LCFRB: Steve Manlow, Steve West

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

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

Facilitator: Jennifer Arnold, Reciprocity Consulting, LLC

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

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

Approval of August Meeting Summary

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

Review of Agenda and Action Items

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

Action Item

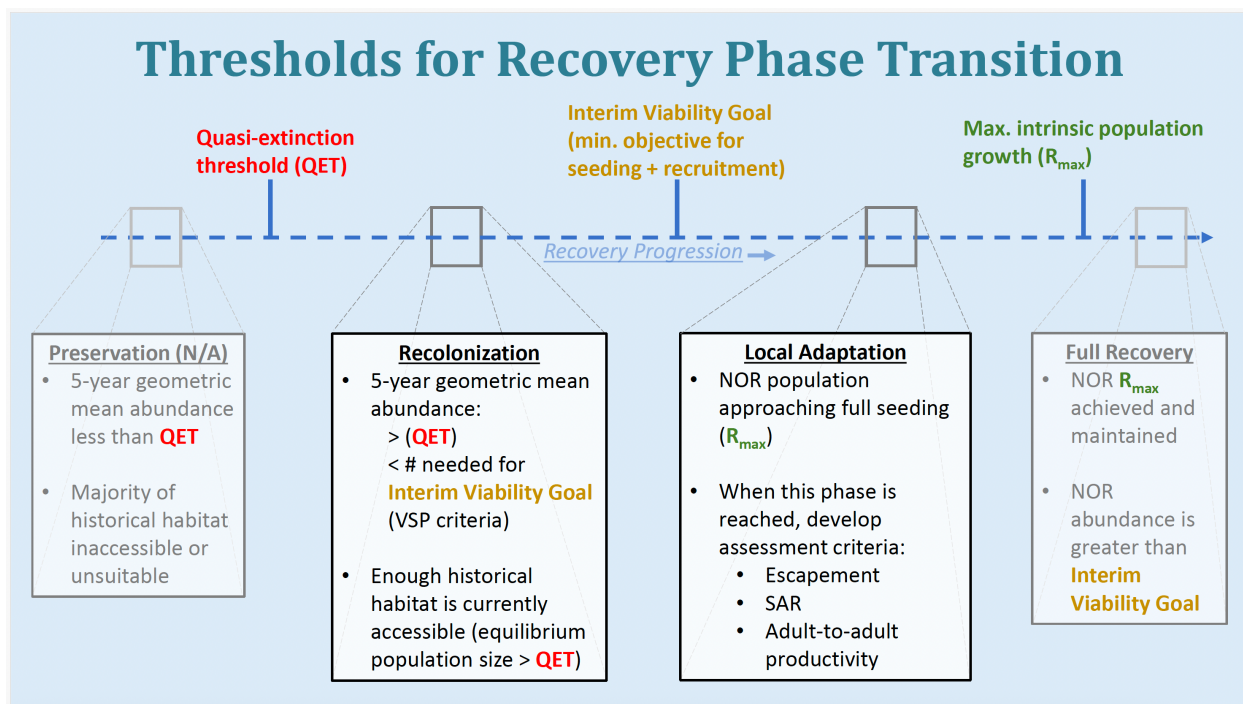
- Tacoma will internally review the potential functionality and utility of the password-protected website and bring back suggestions to a future FTC meeting.

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

Presenters: Chris Vaughn and Sean Luis (Tacoma)

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

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



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

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

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

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

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

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

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

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

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

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

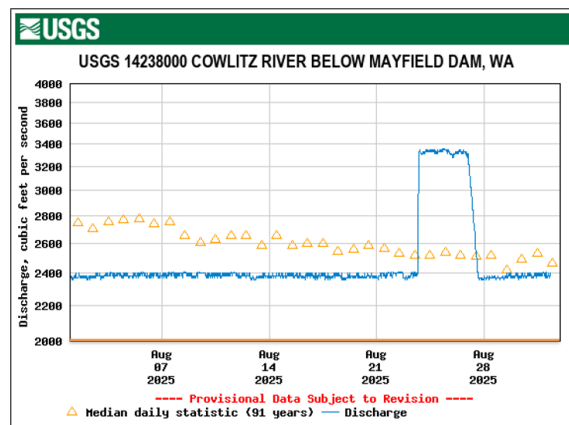
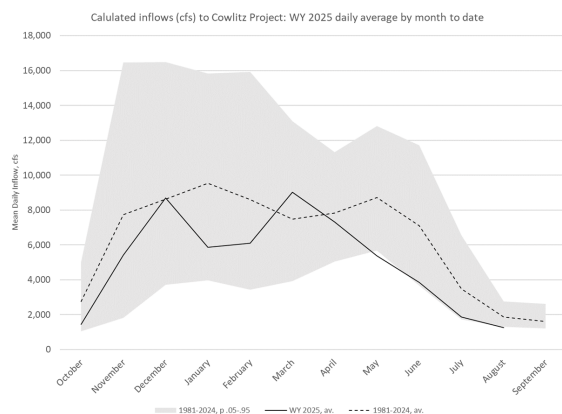
Updates

Announcements

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

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

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



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

- Ben reviewed water temperature profiles and their monitoring locations.

Related Projects

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

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

Separator Returns:

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

Cowlitz Release Sites:

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

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

Rainbow Trout Plants:

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

Update on the Mayfield Net Pens:

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

Capital Projects: Cowlitz Trout Hatchery Remodel:

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

Climate change report: Cowlitz Trout Hatchery

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

Hatchery tours

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

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

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

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

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

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

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

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

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

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

Fish Collection: Periodic Updates

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

Adult Fish Collection

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

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

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

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

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

Summer steelhead – Collection is currently underway.

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

Downstream Passage at Mayfield and the CFFF

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

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

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

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

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

LCPUD updates

Presenter: Joe First

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

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

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

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

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

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

CRR Program Updates

Grant Round Funding

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

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

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

Action Item

- Anyone who has comments on draft DD 2025-06, please reach out to Steve West in the next two weeks, so he can make changes before distributing the final DD in advance of the October FTC meeting.
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Public Comment Period #1 - Agenda related

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

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

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

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

Topics for October 7, 2025 FTC Meeting on Teams

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

Public Comment Period #2 – Any topic

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

Meeting Evaluation

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

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

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

Closing Remarks

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