

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Cowlitz Salmon Hatchery
Final Public Meeting Summary
January 7, 2020 from 9:00 – 3:15

Attendees:

Travis Nelson	TPU
Bryce Glaser	WDFW
Carol Serdar	WA Dept. of Ecology
Paul Sparks	WA Council of TU, TU, American Rivers
Rich Turner	Tech Rep for NMFS
John Serl	Tech Rep for WDFW
Peggy Miller	Tech Rep for WDFW
Brian Gale	Tech Rep for WDFW
Sam Gibbons	Tech Rep for WDFW
Josua Holowatz	Tech Rep for WDFW
Matt Bleich	Tech Rep for TPU
Eric Shoblom	Tech Rep for TPU
Phil Sandstrom	Tech Rep for TPU
Chris Foster	Tech Rep for TPU
Missy Bair	Tech Rep for TPU
Jamie Murphy	Tech Rep for TPU
Debbie Carlson	BPA
Steve West	LCFRB
Ann Weckback	Lewis County, Tech Rep for TPU
Ruth Tracy	USFS, Tech Rep for TPU
JD Jones	USFS, Tech Rep for TPU
Lyn Wiltse	PDSA Consulting / Facilitator

2020 FTC Meeting Dates: Feb. 4, Mar. 3, Apr. 7, May 5, June 2, July 7, Sept. 8 (Sept. 7 is Labor Day), Oct. 6, Nov. 3 (Election Day), Dec. 1

FHMP Workshop Dates: Feb. 18 (10-2), Feb. 26 (10-2), and for the first 1-2 hours of the FTC meetings in March-June (see above for dates)

- Action Items:
 - Travis: Send meeting invites for 2020 dates, including FHMP workshop dates.
 - All: Continue to identify issues that need to be resolved via FHMP workshops.

Updates

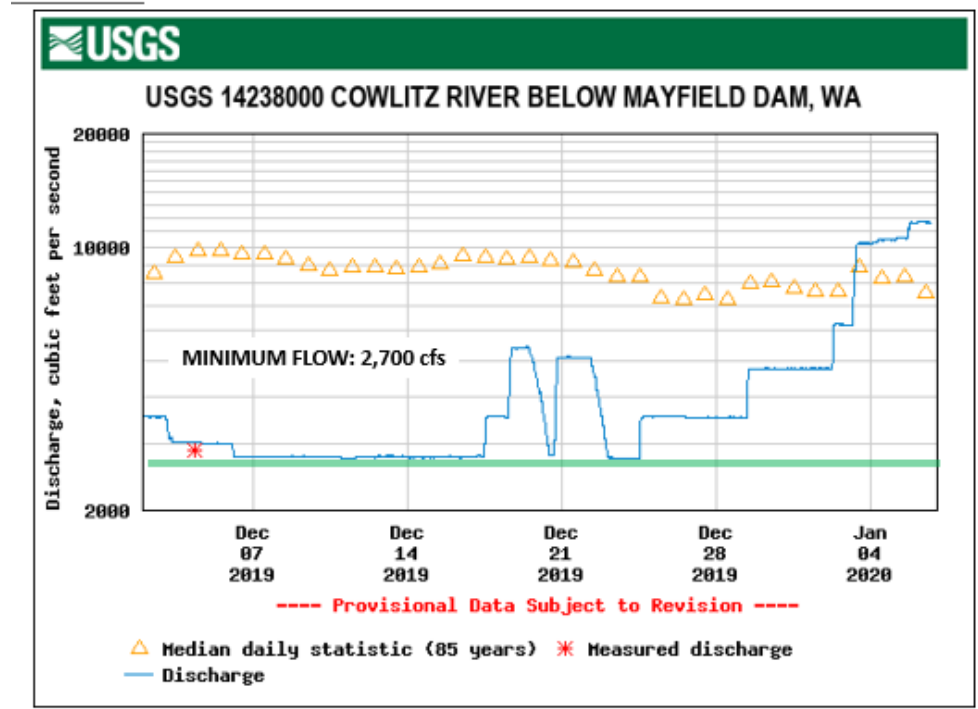
Hydro Operations:

- Inflows into Riffe Lake: December daily average at 6,312 cfs, at or above average with recent rains
- Outflow from Mayfield Dam: Continues at 2,700 cfs to meet minimum flow
- 10-day forecast Inflows 7-15K cfs through January 11, outflows 10-14K cfs
- Riffe Lake elevation: 737', with predicted rains elevation expected to reach 749' in the next 7 days.

- Snow water equivalent: Currently around half of average, likely increasing with forecasted rain

See presentation for additional information.

Outflow



Link to the USGS real-time Cowlitz River hydrograph:

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

Water Quality: Carol reported Tacoma is still working on two Project Water Quality summary reports from activities performed last year (summer 2019). Additionally, related to the Kosmos oil seep, oil absorbent booms remain across the creek or lake area where the Kosmos oil seep occurred. An emergency temporary cap has been completed. Long-term mitigation for this occurrence is being worked out. TPU will be working with Ecology's Toxic Clean-Up Program as well as with the Water Quality Program to properly characterize the site and ensure water quality is met. There will be an interim Water Quality Protection Plan in place this winter, with Ecology approval. Tacoma will conduct weekly observations for a sheen on the surface of the lake or creek. They will also monitor for dead, dying, and diseased fish / insects. Weekly inspection will ensure Best Management Practices are maintained properly and will require continual monitoring for additional seeps when lake level fluctuates over the winter.

Out-of-Basin Transfer of Coho to another Columbia System Program

Presenter: Bryce Glaser

Bryce was happy to report WDFW did finally get the anticipated push of fish into the Lewis River negating the need to use Tilton segregated Coho for the out-of-basin transfer. WDFW ended up using some of the Tilton segregated fish as a backstop to alleviate the shortfall. At that point, they notified TPU that there was no longer a need to hold additional fish and TPU returned to transporting additional fish into Tilton. The total egg take transferred was ~109K from 35 pair).

Subgroup Tasks re Coho Fishery in Riffe

Presenter: Bryce Glaser

The FTC will consider forming a subgroup to start to evaluate the Coho fishery in Riffe. While there is no direct Coho plant into Riffe, the fishery there is quite popular and angler expectations are high. It seems logical for this to start with the M&E Subgroup and later include the hatchery and passage groups as appropriate.

Action Item:

- Bryce: Work with others at WDFW to draft problem statement for this evaluation.

M&E Subgroup Report

Presenter: Phil Sandstrom

CWT at Mayfield: Phil began by thanking FTC members for reviewing the M&E Annual Report in time to accommodate the compressed timeline. The report was filed with FERC on December 26.

The CWT proposal for Coho at Mayfield is still being discussed by the subgroup. Two draft decision documents have been reviewed by the FTC but not finalized. There were outstanding concerns about the marking strategy (finer details) at Mayfield. The history of Coho Salmon in the Cowlitz and mixing of populations prior to hatcheries, the advent of mass marking via adipose fin clip and when CWT marking first occurred was described. The primary concern with marking fish at Mayfield is that some of the fish would go through Mayfield's turbines, survive, and return as unmarked fish to the separator. Unmarked fish that would be transported into the upper basin could be fish from upper basin, lower basin, or fish that went through Mayfield's turbines and survived to return from the ocean. If the potential mining rate were known for switching marking to Mayfield, some of those fish could be placed into the Tilton to make up for mining that would occur. This subgroup will meet again to work out the details.

The marking strategy should function in accordance with transitions to various recovery phases. When do we make those steps? The FHMP plays a critical role as it includes these defined phases. After some discussion, it was agreed this would be a good topic for the FHMP workshop in February. It may also be a good time to tackle marking for all species (short-term, long-term, etc.) After dealing with Coho, the group will begin to address other species, including a plan to assign Fall Chinook to population origin.

Tilton Release Site:

Eric explained that this site is at Bremer Bridge, on DOT property (downstream of the Gus Backstrom site). They will mount the chute at the base of the old cement bridge abutment. They have installed a gate and ecology blocks to maintain stability. They are putting the finishing touches on the chute before installation. These slight modifications include making it more fish friendly, tamper proof, and line up better with the truck. Some initial water tests were successful. By January 17, these modifications should be complete. After the installation, and if flows cooperate, they will conduct an evaluation the week of January 21. They plan to sew up a 50' seine net and tie off on the net upstream at a couple of points. They will collect hatchery origin steelhead from the Barrier Dam fish trap with a dip net and use electro anesthesia to inspect them noting any injuries incurred prior to transport and release at the new Bremer Road release site. After release, fish will be captured in the seine and inspected for injuries incurred through the release process. It would be good this

spring, to revisit the M&E Subgroup's recommended adult disposition protocols for Tilton release by location for the various species. WDFW will also need to establish a no-fishing area around the pool. The site should be operational by the end of the month.

Downstream Adaptive Management TWG

Presenter: Matt Bleich

Matt explained that they are developing a decision document which will be reviewed by the TWG and sent out in advance of the February FTC meeting. It will include:

- CF Adaptive MGGT strategy for 2020
- How to improve effectiveness
- 5 Decisions:
 - Moving off baseline evaluations and taking in more water during spring freshets (moving from 500 to 700 cfs) for Steelhead and Coho
 - Found Steelhead were rejecting in the capture zone – will make an adjustment to the geometry to that portion of the system and then retest
 - Determine if it's possible to start picking up a signal for life history strategies in areas outside of typical operating period (mostly aimed at Spring Chinook)
 - Spring Chinook: Will continue to look at life history strategies, successes in return to upper basin and whether these fish require different fish management strategies for recovery (will develop a study design)
 - Adjust the pump-back discharge structure to change the flow pattern to increase directional flow through that entrance to the facility

This group meets again January 28.

Action Item:

- Matt: Send out decision document for review prior to the February meeting.
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Gravel Augmentation

Presenter: Florian Leischner

Florian explained they are continuing to develop a work plan which will include timeline on site selection design and permitting strategy. They are also still working on securing access to additional sites – working with landowners on easements. There was disappointment that this plan is not yet ready for review and all look forward to seeing something at the February meeting. Travis committed that Tacoma would provide the plan by the February meeting.

Cowlitz Restoration & Recovery (CRR) Fund: 2020 Program

Presenter: Florian Leischner

Florian reiterated what Melora reported at the December meeting – that 2019 was a baseline year from which to learn and improve. They are taking time in 2020 to apply lessons learned and will be prepared to sync the timing of the next CRR grant round process with the 2021 LCFRB SRFB grant round. That allows adequate time for:

- Working through the partnership with the LCFRB
- Updating selection criteria and the RFP process
- Clarifying the function of the CRR Subgroup
- Putting the satellite rearing plan in place
- Alignment with the new draft FHMP

- Reaching out and providing in-depth feedback to applicants who participated in the initial CRR grant round
- Setting up workshops to provide better guidance for the applicants and help to ensure robust proposals are submitted

Florian also announced the first annual report should be out by the end of January 7 for a 30-day review.

The LCFRB has recently finalized the habitat strategy report for the upper basin. They may present this at the science meeting this summer. Link to the LCFRB's Upper Cowlitz-Cispus Habitat Strategy Report: <https://www.lcfrb.gen.wa.us/upper-cowlitz-cispus-work-group>.

Florian announced that there was an upcoming meeting between TPU and LCFRB to discuss the CRR partnership. There was a request from the group to see if LCFRB could present upper basin strategy at a future meeting.

FHMP Update

Presenter: Matt Bleich

Matt reported that TPU has submitted the supplemental information requested by FERC as part of TPU's request for an extension of time to file the updated FHMP and are awaiting FERC's response. FTC is reviewing the draft FHMP. Public review will follow. To meet the requested extended deadline of February 15, 2021, TPU is planning several workshops to address key unresolved issues within the FHMP (re: Coho and Chinook marking strategies).

The initial workshops are scheduled for February 18 and 26. Additional workshops will occur as part of the March - June FTC meetings. Any remaining unresolved topics by June will be developed into white papers to describe the different viewpoints, interim actions and plan to resolve.

Action Items:

- All: Continue to identify candidate issues for FHMP workshops and let Matt know.
- Paul: Let Travis know how to ensure TU is represented at FHMP workshops.

Trout Unlimited's Proposed Alternate Recovery Strategy for the Upper Basin

Presenter: Paul Sparks

Paul presented a PowerPoint presentation on an alternate strategy for recovery of Steelhead in the Upper Basin. The presentation included insights into possible failed strategies currently being employed along with cost estimates of the alternate strategy. While the goal of the SA is recovery, he sees current management strategies as favoring hatchery programs. He explained that TU's goal which has become narrowly focused in the last few years is recovery of steelhead. With climate change, they think the only species to survive are trout in headwaters and Steelhead in the upper basin. TU wants a full build-out of Steelhead from a habitat perspective.

The actions proposed by TU, WCTU, and American Rivers:

1. Determine if we can frame a recovery strategy based all or in part on resident rainbows interacting with our NOR steelhead.
2. Institute a moratorium on hatchery supplementation in the Upper Basin as part of an effort to assess the productivity of our recovery stock.

- Consider seeking outside help to weigh the benefits of continuing with the integrated program.
- 3. If the FTC opts to continue with an integrated program, consider strategic use of RSS devices in the upper basin as an alternative to pond or net pen reared smolts.
- 4. Consider adopting an intensive kelt reconditioning program based on that used by the Yakama Nation.
- 5. Investigate the feasibility of establishing a genetic driven monitoring program for the Upper Basin based on reverse engineering the approach used in the Hood River studies.

According to sources cited by Paul, both integrated and segregated hatcheries are harmful to NORs. Integrated hatcheries don't solve all the problems. Natural production will do better than hatchery and natural. In many Steelhead populations, 30-40% have at least one rainbow parent, generally, there will be many more Steelhead produced by these resident rainbow interactions than solitary rainbows that opt to migrate volitionally as steelhead. He further suggested that we lack the metrics to know how to manage this population. And while we don't want to make any major mistakes along the way the scale of the task should not be an excuse for not starting in the coming year.

Paul suggested the FTC meet with TU's John McMillan, who is a local expert on interactions between Steelhead and rainbow trout. Other outside experts can be consulted for analysis of the benefits and liabilities of continuing with an integrated hatchery program. Ideally, this would be coupled with a moratorium on hatchery supplementation in the upper basin. Paul further suggested this be done in a way that does not affect the lower basin / the Tilton.

He ended the presentation by saying if we have to continue supplementation, consider using Remote Site Incubation (RSI) devices as an alternative to hatchery reared smolts. These can be placed exactly where needed, have dramatically better productivity numbers than pond or net penned raised smolts, and, potentially, could be run by volunteers.

He encouraged the FTC to do everything possible to enhance the survival of the kelts – maybe even over-winter them in the hatchery, fatten them up, and then put them back in the river at the appropriate time. He also said each smolt is worth its weight in gold, as are the rainbows with whom they interact. To decrease this mortality, the trout fishery in the upper basin fishery should, in his view, be ended. He also suggested the FTC investigate the possibility of adding a parentage-based genetic driven system of monitoring to better understand to better understand the interactivity between as well as productivity of our NOR, HOR, and resident rainbow populations. He closed by emphasizing that if we set aside the integrated program, any of the strategies he suggested whether alone or in combination would save the Tacoma rate payers and Washington taxpayers several million dollars over the term of the new FHMP.

Feedback / Discussion

- John: Steelhead abundance became so low because the CE was not to the level of being self-sustaining. When you take CE down to 5% it puts such a hole in the population that it takes a long time to recover.
- Florian: RSI suggestion - Are we putting Steelhead juveniles in the upper basin? Not any longer – have discontinued the juvenile supplementation and are only putting adults in the upper basins.

- Greg: You're saying you hate hatcheries? Paul thinks we should shut down fisheries in the upper basin now. Why not the Tilton? Too political to tackle.
 - Peggy: Will it be worse if we stop supplementation? We have to rely on the rainbow trout. Paul replied if we had 100 years, we could recover that whole population. We need to do some snorkel surveys in the upper Cowlitz. John asked when you do those surveys and find a fish that is 8" long. Is it a resident adult? Or migrating?
 - Jack: There used to be 400K catchable rainbow put in the upper basin.
 - Paul: We need to assess how much damage that did. Usually the majority die off in the first winter.
 - Phil: A basic part of Paul's strategy is that every smolt is worth its weight in gold and that's the way to NOR abundance and locally adapted populations. TPU sees us in an adult abundance building phase. They are trying to build those adult abundances to get eggs in the ground, to get more juvenile Steelhead going out with enough age structure. Then you can start seeing that full life-history diversity expression.
 - Paul: Resident rainbows alone don't produce nearly as many smolts as the interaction between Steelhead and rainbows. He thinks part of the problem is we are releasing fish in a place that is distinct from the place the fish are that we want them to interact. Also, there is little long-term evidence that either integrated or segregated hatchery-based recovery programs have been successful for steelhead. In 1993 the Yakama abandoned their hatchery. Within 10 years, they doubled their NORs.
 - Paul agreed that we want our numbers up. We want to increase abundance. He agreed we need lead time on all of this. But that is not an argument for delay, some of this needs to be and could be started right now. He offered to pull together some experts for a discussion with the FTC in the next few months. There is a need to identify the data gaps and use enhanced assessment (possibly genetics, seeing where the spawning is, where we have resident rainbow populations, etc.)
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Review of FTC Protocols

Presenter: Travis Nelson

Travis released a revised draft of the FTC Protocols on January 6, before receiving WDFW comments on the prior draft. He agreed to integrate the WDFW feedback into a new revised draft that he will send out within two weeks of the February FTC meeting.

Action Items:

- Matt: Ask consultant to work on a standardized structure for all subgroups to use to report back to the FTC. (February/March timeframe)
 - Travis: Send out the newly revised version of FTC Protocols for all to review this draft, mark it up in track changes, and send it back to Travis.
 - Travis: If possible, send out Protocols showing earlier edits in track changes.
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Approval of Meeting Summaries

The December FTC meeting summary was approved with minor edits and will be posted to the public website.

Public Comment Session

Ruth explained that with limited resources, the Forest Service decided to put the Cowlitz System on the back burner. She was pleased to introduce to the group recently hired JD Jones, a fish biologist with expertise in the northwest. She explained they are figuring out

how best to participate in the FTC. They are most interested in the habitat pieces and the CRR group. A sad note (and no joke): Ruth is retiring April 1 of this year.

Greg King: We have a massive predation problem in the area. He doesn't see this issue being addressed. Terns are reported to have consumed 4.9 million fish from 2011-2014. Cormorants are another aggressive predator that is adversely impacting the fishery. Breeding pairs have moved up into the Cowlitz and the Lewis. It is no surprise WDFW is feeling stress around getting egg take. This is an issue that concerns agencies and fishermen alike. Peggy noted that the Governor's budget had an allocation for predation and encouraged Greg to lobby accordingly.

Jack Tipping: It's frustrating that the FHMP is taking so long to update. And now we are waiting to hear if FERC approves the FHMP extension request. The current Spring Chinook returns are dismal. Until the FHMP is completed, we can't change the current Spring Chinook hatchery program. He is expecting at least three more years of closure. The Riffe Lake Coho Fishery used to be successful and popular. In the 90s over 100K fish were caught each year, with that many angler hours. He hopes this fishery can be recovered. It would be good to do a literature search to research the case histories cited in Paul's presentation. Include Clackamas, Kalama River. Matt replied that they are continuing to work on improvements to the FHMP.

Meeting Evaluation

- USFS presence
- Good discussion of TU's Proposed alternate recovery strategy for the upper basin
- Good energy and discussions throughout the day
- Josua shared the following quote: *"After you've done a thing the same way for two years, look it over carefully. After five years, look at it with suspicion. And after ten years, throw it away and start all over."* - Alfred E. Perlman, July 3, 1958
- It was another long meeting, and everyone stayed engaged!

Potential Topics for February 4 FTC Meeting

- Updates incl. Hydro Ops, Water Quality, Kosmos seep
- Planning for low water/drought conditions in 2020 (e.g., as for the Nisqually)
- M&E Subgroup
 - CWT at Mayfield Decision Document
 - Alternate Tilton Release Site
 - Steelhead Presentation (?)
- Gravel Augmentation Work Plan
- Downstream Adaptive Management TWG
 - Decision Document
- FHMP Update
 - FERC's Response to EOT Request
 - List and prioritize issues to be resolved in Feb. 18 and 28 FHMP Workshops
- Cowlitz Restoration & Recovery Fund 2020
 - Report from LCFRB/TPU

- Recommendations from LCFRB's Upper Cowlitz-Cispus Habitat Strategy Report
 - FTC Protocols
 - Satellite Rearing (?)
 - Set topics for the March 3 FTC Meeting
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Parking Lot

- Review Steelhead Recycling Program