

Cowlitz Hydroelectric Project
FERC No. 2016
Cowlitz Fisheries Technical Committee
Final MS Teams Public Meeting Summary
March 1, 2022, from 9:30 – 2:30

FTC Representative Attendees:

| | |
|---------------|---------------------|
| Travis Nelson | TPU |
| Anne Baxter | WA Dept. of Ecology |
| Bryce Glaser | WDFW |

Additional Attendees:

| | |
|-----------------|-------------------------------|
| Josua Holowatz | WDFW |
| John Serl | WDFW |
| Peggy Miller | WDFW |
| Sam Gibbons | WDFW |
| Brian Gale | WDFW |
| Todd Hillson | WDFW |
| Larona Newhouse | WDFW |
| Matt Bleich | TPU |
| Eric Shoblom | TPU |
| Chris Foster | TPU |
| Phil Sandstrom | TPU |
| Tim Hoffnagle | TPU |
| Jamie Murphy | TPU |
| Melora Shelton | TPU |
| Steve West | LCFRB |
| Ann Weckback | Lewis County |
| Debbie Carlson | BPA |
| Lyn Wiltse | PDSA Consulting / Facilitator |

Attending Members of the Public:

Larry Pryor, Randy LeDuc, Greg King, and Jack Tipping

2022 FTC Meeting Dates: Apr. 5, May 3, June 7 (Public Meeting), (no meeting in July), Aug. 2, Sept. 6, Oct. 4, Nov. 1, and Dec. 6 (Public Meeting)

Approval of Last Meeting Summary

The February FTC meeting summary was reviewed and approved with edits and will be posted for public review.

FTC Annual Protocol and Work Plan Approval
Presenters: Travis Nelson and Melora Shelton

Protocols: Travis didn't receive any additional feedback from the last meeting. Minor updates included these meetings being held virtually, etc.

Work Plan: The gravel long-term plan will be included. A copy of the plan will be sent out after today's meeting. Travis expressed appreciation for Peggy's comments and edits which are being incorporated into the plan.

Bryce suggested separating the protocols from the work plan. The work plan will be treated as a living document and reviewed periodically. We will defer approval of the work plan until the next meeting.

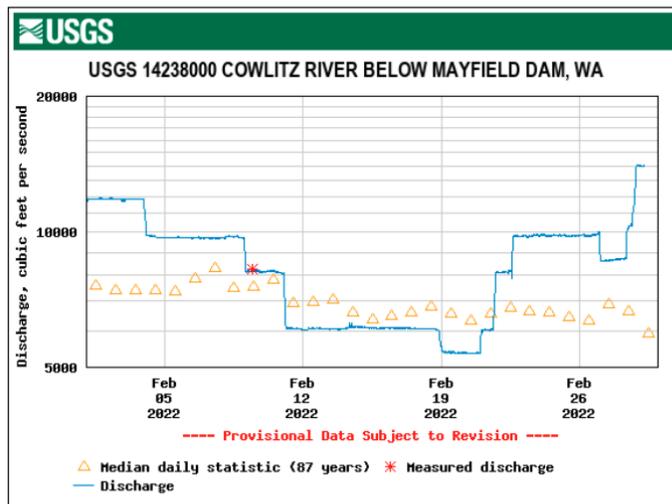
Updates

Hydro Operations

Melora reviewed the PPT emailed out just prior to the meeting.

- Inflows: While January was at 143% of the historical average, inflows for February were at 66% of the historical average due to little precipitation and low temperatures. February was pretty dry until the end when the warm/wet precipitation hit (steep increase in inflows, side flow management). There is a lot of variability in inflows – following a typical pattern. She showed hydrographs from three major tributaries which illustrated the impact of the recent rain event.
- Storage: Riffe Lake is a bit low for this time of year (was at 719.6' elevation on February 28) for the long-term average, but above the average since 2017. Mayfield has been operating in its typical band of 420'-424'.
- Snowpack: After a lot of variability early in the season, as of March 1, snowpack is near normal.
- Outflows: Started the month at 12K cfs and are currently at 14K cfs. Outflow varied with inflows and load requirements but were consistently above the minimum flow of 5K cfs. Zero daytime ramping below 6,000 cfs began on February 16. There were no ramping exceedances or other events.
- 10-Day Forecast: The outlook is for a little more rain as the current event wraps up, then it will be cooler and drier.

Outflow



3/1 14,000 cfs. Minimum flow 5,000 cfs. No exceedances.

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/Monitoring

Matt Bleich will ask Tacoma's Matt Peter to join these meetings in the future to provide Water Quality reports as Anne gets up to speed in filling Carol's shoes.

Tacoma has been in close coordination with Ecology on their Kosmos Project and Barrier Dam (including gravel augmentation) project – going into year 2.

Action Item: Matt - Put Matt Peter in touch with Anne Baxter. *(Done on 1/3/22.)*

Fish Facilities: Jamie reported July 15 is start date for the Barrier Dam project.

The Cowlitz fish ladder (at Mayfield Dam) was shut down February 14-18 for annual maintenance. This time period was chosen as it had the least impact to fish. Instead of the usual two days, this shutdown was extended to accommodate additional work such as upgrading the electro-anesthesia basket, inspecting the crowders at the separator and holding pools. All infrastructure looked good, and no blockages were observed. As the separator was operated before and after the outage, there was a minimal gap in collection. There have been lower than average returns to the separator over the last few weeks. 21 winter steelhead returned between February 29 and March 1.

Broodstock: In the lower Cowlitz broodstock collection for winter steelhead began in December, which is earlier than in past years. The broodstock goal is 148 males and 148 females. There are currently 75 fish, 63 of which came in before February 1.

Genetic screening: Josua worked with WDFW's Thomas Buehrens to assess if Chambers Creek winter-run steelhead were among those initial 63 fish. They tissue sampled and floy tagged those fish and created an electronic copy of the data to send to the WDFW lab. The report back from the lab indicated two of the 63 had Chambers DNA in them. One of the fish was unable to be assigned. These three fish were removed from the Cowlitz broodstock. The goal was to have under 10% Chambers Creek stock. It looks like they are off to a great start.

Fishing Regulations for spring Chinook: Josua shared a fact sheet on this at the last FTC meeting. He announced new rules went into effect as of today (March 1) and will remain in effect until April 30 at which time they will be reevaluated. Lower Cowlitz limits include up to three steelhead and one Chinook. Boundaries have been moved to 400' mark. He explained WDFW is starting out conservatively because there are not a lot of fish returning to the Upper Basin at this time and we need to have a balanced approach to fisheries, broodstock collection and upstream transport.

Cowlitz Falls Fish Facility: Jamie reported smolt collection activities will start March 15 using the Northshore Collector. Tacoma is still hoping to fill a night seasonal shift vacancy by then.

Gravel Augmentation: Travis and Melora appreciate the input they have received on this from Peggy and others. Melora noted they will distribute a draft supplement to the Gravel Augmentation Plan in the next day or so. The supplement to the Plan is focused on the left side of Barrier Dam placement location and does not include other potential placement locations to which Tacoma lacks access. The Plan can be revised in the future to include other sites if/when they become available. Melora reminded everyone the supplement to the Plan includes all the work since gravel augmentation was halted in 2017 until the first placement last year in concert with the Barrier Dam work. The supplement to the Plan also captures the temporary strategy at Barrier Dam as well as the long-term plan at the same location.

Action Items:

- Travis: Send out the supplement to the Cowlitz Gravel Augmentation Plan for all to review.
- All: Review plan and send any comments to Melora, copying Travis by noon on April 4.

2022 Annual Program Review Process: Matt reported Phil is taking the lead on this and is putting a schedule together, including pulling the data together, scheduling the Science Conference and review, public meeting, and public input re modifications. This is an important step to take once the transition plans are in place as it will help with adaptive management. At this point, it looks like the Science Conference will take place in the April/May timeframe. The meeting will likely be virtual. Phil intends to get an agenda out 2-4 weeks in advance. Even when we return to in-person meetings, Tacoma will make a virtual platform available.

Monitoring & Evaluation Subgroup

Presenter: Phil Sandstrom

Phil reported they postponed the February meeting due to schedule conflicts. Their next meeting will be on March 16 and will focus on the prioritization process for monitoring needs. John organized data to develop preliminary estimates for 2021 adult fall Chinook abundance in the Lower Cowlitz. The Subgroup is making good progress and working well together on a number of projects.

Downstream Adaptive Management Technical Work Group

Presenter: Matt Bleich

This DD was presented at the last meeting. Looking for approval at this meeting. The Subgroup has the workplan for adaptive management recommendations. Experts from NOAA and WDFW are part of this group. The proposed decisions in the DD have been discussed for the past several months. Matt shared DD 2022-1 in track changes with Peggy's clarifying edits.

Matt briefly reviewed the four recommendations:

1. Opportunistically evaluate increased flow April – June from 500cfs to 750 cfs (same as last year).
2. Target modified floor geometry – capture zone – with focus on steelhead.
3. Improve spring Chinook entrance efficiency –pumpback discharge structure – changing hydraulics into the collector, doing a block study (biggest opportunity for improvement).
4. Extend operations mid-March through October to better understand collection for spring Chinook outmigrants – See how historical run timing might change as we continue to increase collection for these fish that are added to the operation.

There was consensus approval of the DD among FTC voting members and Matt will send the updated DD with edits accepted to Travis to email out for final approval.

FHMP Transition Plans

Presenter: Matt Bleich

At the last FTC meeting Matt presented a draft DD without knowing what public comments would be received. Since then, he has received public comments and is taking time to work through them and develop responses/recommendations to the FTC accordingly. He noted some of the public comments may be a better fit in the Annual Program Review (APR). Bryce noted WDFW has a few small edits to the initial version of the DD. He will see they are sent to Matt. Matt closed by noting Tacoma has met its obligation to FERC by submitting the FHMP. The transition plans show the various implementation strategies and will be posted for public review. The transition plans are an extension of the FHMP, but not a formal FERC requirement. Tacoma will send FERC a notice that plans are completed and available.

Action Items

- Matt: Send out summary of public comments and corresponding recommendations to the FTC by March 15.
 - All: Review and provide feedback / additional thoughts by March 22 with the idea of approving the DD at the April 5 FTC meeting.
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Satellite Rearing

Presenters: Phil Sandstrom and Chris Foster

Phil reported Chris has been leading this effort by evaluating the potential development of sites on the Upper Cowlitz (Packwood and Cispus areas). Chris has reached out to landowners about partnerships to develop some of these sites. Landowners so far are open to the idea. Tacoma engineers will conduct site visits to review the feasibility of various sites, production capability, estimate costs, etc. There will be an hour-long update on this at the April FTC meeting. This will also be added to the next M&E agenda. Phil concluded by noting Tacoma is making great progress, sticking to the original timeline, and keeping lines of communication open.

Bryce noted WDFW supports building one of these sites this year if it can be shown there is a significant biological benefit. Otherwise, they would prefer the money be saved for a different project next year.

Eric reported little progress has been made on the hatcheries alternative piece. There will be more to report on this at the April meeting. Between now and then he will coordinate with Brian and Sam.

Matt reminded all that the FTC elected to take parallel paths on the satellite rearing strategy:

1. What alternatives might look like – satellite rearing vs other options including hatchery
2. Tacoma has committed to build a satellite rearing facility while alternatives are being evaluated.

Bryce reiterated WDFW wants to be sure there is a clear description of the bio benefit we expect to get for building a satellite rearing facility.

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

Presenters: Travis Nelson, Melora Shelton, and Steve West

Melora started by reminding all that on February 23 Tacoma filed their 2021 Annual Report for the Cowlitz Restoration and Recovery Fund. She also announced they have signed a grant agreement with the Cowlitz Tribe for Phase 3 of the Cispus Yellow Jacket project which was awarded to the Cowlitz Tribe in 2019. There will be an update on that project in April.

Steve West provided the following update while simultaneously responding to last-minute questions from project proponents as LCFRB draft proposals are due this day (March 1). For 2022 the LCFRB anticipated four applications: three are CRR only and the last one is for joint funding:

1. Upper Cowlitz Culvert Assessment – including the Barrier Dam and above (Lewis County Conservation District)
2. Kiona Creek Design (Lewis County PUD and Lewis County Conservation District)
3. Upper Cowlitz Tributary Restoration – around Camp Creek, Crystal Creek with in-kind match from the USFS (Cascade Forest Conservancy)
4. Cispus Yellow Jacket Project: Phase 4 – includes USFS and private land (Cowlitz Tribe)

HAP Subcommittee: The initial meeting of this group (with reps from Tacoma and WDFW) included discussions on how to bring a hatchery-associated project forward. Meetings are open to the entire FTC and participation is encouraged. The group will continue to meet on a regular basis. They are also putting together a scope and charter document in a DD format and anticipate getting a draft of this to the FTC in April. The second meeting is immediately following this meeting, at 2:30. There will be a standing meeting after the FTC meetings and if needed on the third Wednesday of each month.

Action Item: Travis - Send out meeting dates along with Teams link to the FTC.

Topics for April 5 2022 FTC Meeting

- Review/ Approval of 2022 FTC Work Plan
 - Usual Updates: Hydro Ops, Water Quality, Fish Facilities, etc.
 - LCPUD Dam Ops
 - Downstream Adaptive Management Technical Work Group
 - FHMP Transition Plan: DD Approval
 - Planning for 2022 APR Process
 - Satellite Rearing Program
 - CRR Program
 - Monitoring & Evaluation Subgroup
 - Gravel Augmentation Timeline
 - Preview May 3 FTC Meeting topics
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Public Comment Session (*FTC responses appear in italics.*)

Jack: What are the numbers from the Mayfield Migrant Trap?

Matt: This trap has been shut down since end of 2021. Tacoma is still compiling the numbers which will be listed in the downstream report and be shared with the FTC and the public.

Larry: What water quality testing is being done at the Hatchery and for the satellite rearing facilities?

Eric / Larona: NPDES effluent testing is done as required by Ecology. We check dissolved oxygen and saturations. For NPDES testing we run effluent samples through the filters, send them to a lab for evaluation and the results are sent to Ecology.

Larry: What about testing for water hardness? 100-130 hardness is best for salmon.

Eric: Well water tested was found to be 38-45 parts per million (ppm); the river was found to be 20 ppm.

Larry: What are the impacts of high/low water on fish health?

Larona: Typically, fish hunker down in turbid environments. While this makes it harder to feed the fry, smolts do fine. We may see more breakup from pathogens in the water. We are doing more vacuuming to keep ponds as clear/clean as possible.

Greg: Why haven't any satellite rearing ponds been constructed yet? This is an obligation in the FERC license. Why not use the old FOC net pen area as a satellite facility? Time is of the essence as permitting will take a lot of time. Funding shouldn't be an issue. There currently aren't any sportsman projects on the Cowlitz. This is a big concern. Be aware that there are sportsmen willing to put boots-on-the-ground to help.

Travis: There has been a lot of great work on the satellite rearing ponds. We are making good progress toward fulfilling those obligations.

Bryce: WDFW sent a letter to Tacoma re satellite rearing ponds, suggesting it is worth taking a deeper dive into the value of the original strategy proposed 20 years ago and considering also where we are in the recovery process. The sea-run cutthroat program has not been cancelled. We just haven't been able to find a net pen location in the lower river. I have been trying to contact new leadership in FOC. After meeting with them once, I haven't heard anything back from the FOC/Fred Ming after reaching out multiple times. Can you help?

Larry: As a member of the FOC, I agree they have functionally dissolved for now. The CCA is the only group active that I know of currently.

- **Action Item:** Greg – Send FOC contact information to Bryce so he can contact them.

Larry: What's happening with the CRR program?

Travis: Tacoma has started this program over and are moving toward implementing Hatchery associated requests for proposals. We are currently set up with an agreement with the LCFRB who is implementing the habitat restoration program on behalf of the FTC. Other hatchery associated project proposals come to the FTC directly.

Jack: What are the metrics for success for fish production for the Yellow Jacket Project? I'm concerned that a lot of money is being spent for little or no benefits.

Travis: Other than baseline presence/absence escapement information, spot checking is a metric. I am not aware of anything other than using best available science for the structure – pool habitat and habitat complexity.

Larry: Can we apply some of what they are doing at Priest Rapid hatcheries, broodstock management and the successful return over 75K Fall Chinook to the Hanford Reach in 2020? This is run by Grant County PUD and is a WDFW program. Their SARs were 1-2%.

- **Action Item:** Lyn – Forward Larry's email with the link to the Priest Rapids Hatchery Monitoring and Evaluation Annual Report to the FTC (*Done on 3/1/22.*)

[https://www.grantpud.org/templates/galaxy/images/images/Downloads/ResourceCommittees/OtherDocuments/2021_12_09_Grant - Priest Rapids Hatchery Monitoring and Evaluation Annual Report for 2020-2021 Final Dec 8 2021.pdf](https://www.grantpud.org/templates/galaxy/images/images/Downloads/ResourceCommittees/OtherDocuments/2021_12_09_Grant_-_Priest_Rapids_Hatchery_Monitoring_and_Evaluation_Annual_Report_for_2020-2021_Final_Dec_8_2021.pdf)

Greg: Chum would be a great nutrient for the lower river. Are you looking for side channels?
Bryce / Todd: Bryce agreed that there is a section in the FHMP about the ability to at least accommodate a chum program. While this is on WDFW's list, WDFW is currently focused on monitoring and increasing the fall Chinook program. Todd Hillson used to run the regional chum program. Todd affirmed it is a goal to have a chum population in the Cowlitz. We just haven't gotten to this yet. The main problem is determining the appropriate broodstock. We would be starting with either a small population or bringing in an outside basin stock. Summer and fall chum seem to be very closely related.

Larry: In reviewing fish health reports and examinations, I found a 2014 report on acoustic tagging at Mayfield Dam. The commentary said it had a hard time finding fish without parasite infections in gills/gut. Is that still the case? Does FTC get fish health reports? I'd like to see fish health report information shared with the public.

Travis: Tacoma contracts with WDFW when fish health concerns come up. Sam Gibbons can describe fish health reporting. The Hatchery Coordination team meets weekly to discuss fish health, which is an ongoing battle. (Eric gave his number to Larry so he can follow up.)

Randy: How much longer before we can meet in person again?

Travis: That is undetermined at this time, subject to the policies of the City on in-person meetings. That said, I am optimistic that we will meet in person in June or September.

Travis offered to follow up with any member of the public regarding any of the issues raised at this meeting. If unable to answer questions directly, he will be happy to put people in touch with those able to do so.

Meeting Evaluation

- Technical issues with MS Teams were experienced by many
 - Good turnout and participation despite the tech difficulties
 - Appreciate everyone attending – great conversations
 - Josua's Quote: "My humanity is bound up in yours, for we can only be human together." – Desmond Tutu
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Closing Remarks

Travis Thanked everyone for attending this meeting and contributing to the good discussions. He also encouraged everyone to spend time with people important to them during these times of angst in the world.

Parking Lot

- Presentation by Tacoma's Power Management Group
- Review Steelhead Recycling Program