

**Cowlitz Hydroelectric Project**  
**FERC No. 2016**  
**Cowlitz Fisheries Technical Committee**  
**Cowlitz Salmon Hatchery**  
**Final Meeting Summary**  
December 3, 2019 from 9:30 – 3:30

**Attendees:**

Travis Nelson	TPU
Bryce Glaser	WDFW
Carol Serdar	WA Dept. of Ecology
John Serl	Tech Rep for WDFW
Peggy Miller	Tech Rep for WDFW
Josua Holowatz	Tech Rep for WDFW
Matt Bleich	Tech Rep for TPU
Eric Shoblom	Tech Rep for TPU
Melora Shelton	Tech Rep for TPU
Phil Sandstrom	Tech Rep for TPU
Chris Foster (by phone)	Tech Rep for TPU
Laura Wolfe	LCPUD
Steve West (by phone)	LCFRB
Ann Weckback	Lewis County, Tech Rep for TPU
Rudy Salakory (by phone)	Cowlitz Indian Tribe, Tech Rep for TPU
Bill Sharp (by phone)	Yakama Nation
Lyn Wiltse	PDSA Consulting / Facilitator

**Proposed 2020 FTC Meeting Dates:** Jan. 7 (Public Meeting), 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 Item: Travis: Send out meeting invites for 2020 dates, including FHMP workshop dates.

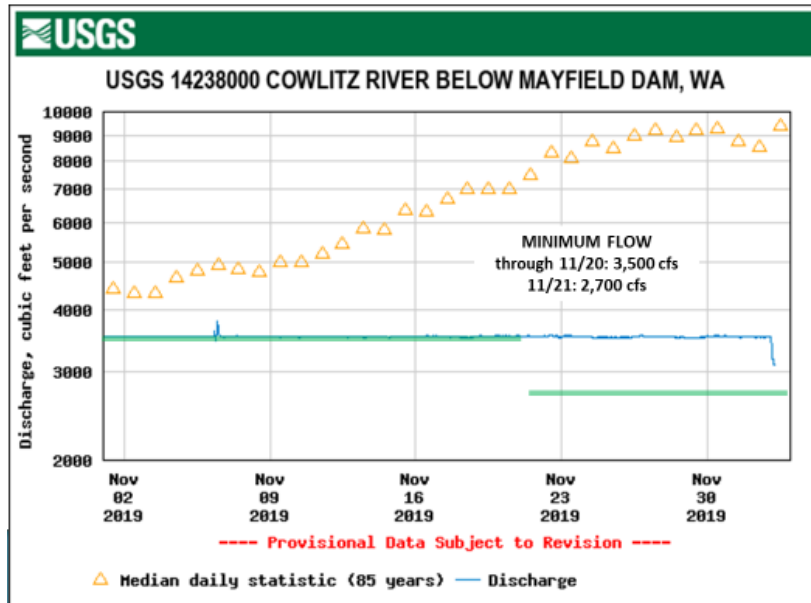
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**Updates**

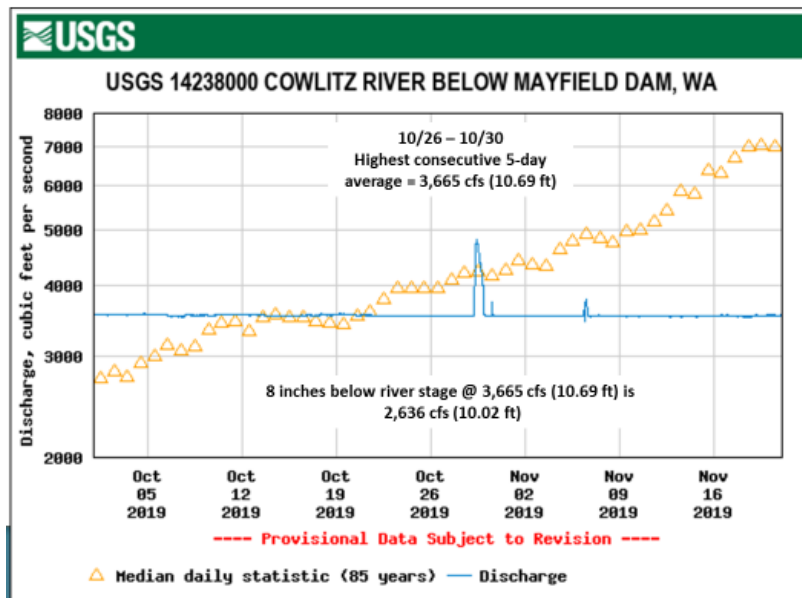
Hydro Operations: Melora reported inflows to Riffe Lake at 1,500 cfs. Storage is low, at 710', as is snowpack. Outflows for November were consistent at 3500 cfs (with no ramping or minimum flow exceedances, see outflow slide). The outlook remains dry. Inflows into Riffe are expected to be 1,500 - 1,800 cfs. Precipitation may come in the form of snow at higher elevations, potentially delaying its infill contribution.

Minimum flow change: The minimum flow reset to below 2,700 cfs on November 21, based on 8" below the average of the highest consecutive 5-day average that occurred between October 1 and November 21 (License Article 13, see minimum flow reset slide). TPU proposes to implement that at 2,700 cfs. As of the date of this meeting, TPU has reduced outflows from 3,500 cfs to 3,000 cfs (2.6" drop in elevation). Reduction to 2,700 cfs would be another 2.4" drop, a total of 5" inches from 3,500 cfs. TPU survey crews are monitoring for potential impacts to shallow water redds. Travis will share the findings of these surveys and how TPU implements the flow reduction.

## Outflow



## Minimum Flow Reset



Link to the USGS real-time Cowlitz River hydrograph:

[https://waterdata.usgs.gov/wa/nwis/uv/?site\\_no=14238000&PARAMeter\\_cd=00060,00065](https://waterdata.usgs.gov/wa/nwis/uv/?site_no=14238000&PARAMeter_cd=00060,00065)

Water Quality: Carol reported that she looks forward to receiving the 2020 Annual Work Plan that Matt Peter is drafting as Ecology is charged with writing a legislative report that includes the Project plan. Matt is also working on the Water Quality summary reports for the boat launch extension and the tire removal activity. TPU has hired a geotech consultant to assess the contamination within the slope that has oil oozing into Rainy Creek. (Sometimes Riffe Lake backs up into Rainy Creek and covers that area.) An emergency temporary cap is being installed which will involve pulling back some of the material and characterizing it before removing it (Alternatively, they may perform an excavated haul). Water quality sampling will include sampling for diesel, gas and eight typical metals. Carol continues to December 03, 2019 FTC Meeting

work with Matt Peter on the Water Quality Protection Plan. The long-term clean-up will require Ecology's Toxic Cleanup Program to write an Agreed Order for TPU based on Model Toxics Control Act (MTCA), as diesel and Bunker C are present in the soil and discharging to Rainey Creek. Carol closed by thanking Eric for taking her out to the tire washing location.

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

**Presenter: Bryce Glaser**

Bryce announced there is currently a shortfall of Coho returns to the Lewis River. As WDFW is under a legal obligation to fulfill requirements outlined in the US v. Oregon Management Agreement, which usually comes from the Lewis and Washougal rivers, they are looking at options to fill the shortfall. Such options may include shorting other programs to meet that obligation, which could trump meeting in-basin program needs. WDFW operates many hatchery programs on the lower Columbia River. Programs at Kalama, the Washougal, and the Cowlitz (both programs) are on track to meet broodstock needs. The goals of these programs are to support harvest and recovery. In addition to these programs, the State is responsible for a 3.5 million release in the Klickitat River as part of the US v Oregon Management agreement. Concerns about not being able to meet these obligations has prompted the closing of the fishing opportunity for Coho in the Lewis and Washougal; reducing bag limits on Cowlitz and Kalama Rivers down to one fish; and working to collect all excess fish returns from the sites with surplus.

In late November, WDFW reached out to TPU describing the Coho shortfall and requesting to potentially fill the shortfall with some of the extra hatchery-origin fish from the segregated program at the Cowlitz Salmon Hatchery that were destined for transport to the Tilton River. Fulfilling the US V. Oregon Klickitat Coho program is a high-profile topic at the Production Advisory Committee (PAC) who asked WDFW to consider all options to meet program needs. TPU is currently holding some (50-100) segregated fish from the segregated program (Tilton) to possibly be reallocated to the Lewis, based on WDFW's need. TPU is also currently following the handling protocol to move fish from the integrated Coho program into the Upper Cowlitz Basin.. Matt noted as TPU is focused on building abundance in the Upper Basin, they are not in favor of making the integrated program fish available for back-fill purposes. Bryce acknowledged this and explained further that ideally, there will soon be sufficient returns to meet the in-Basin need for the Lewis, eliminating the need to use any of the upper Cowlitz fish. It would be WDFW's last resort to try to adjust the handling protocol to move some of those fish out of the Basin. It will be clear in the next few days if there is a need for TPU to continue to hold the Tilton fish.

#### **Action Items:**

- Bryce: Provide an update on this by December 9 to Travis so he can send it out to all and also set up an FTC single-topic conference call if needed.
- Bryce: Contact Bill Sharp if it appears a conference call with the FTC is needed.
- Bill: Send his contact information to Travis to be added to the FTC distribution list.

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### **M&E Subgroup Report**

**Presenter: Phil Sandstrom**

Phil reported that at the last FTC meeting, he was asked to come back to the group with a revised draft decision document that addresses impact concerns and includes a transition plan to return the marking operation to Mayfield. There were concerns with the degree of

impact / stray rate to the fish being removed from the Tilton River population and moved up to the Upper Cowlitz. NMFS' involvement is another concern. Phil will bring the revised draft decision document to the FTC for review in early 2020. If teed up as a February FHMP Workshop topic, marking at the Mayfield Counting House would be deferred to the end of March/early April of 2020. There may need to be discussion about fallback potential and impacts to LCPUD's BIOP fallback requirements. This needs to be looked at through the lens of recovery; through building abundance.

Tilton Release Site: Eric explained that the grounds work was completed last week and TPU has determined the need for two modifications: moving the anchor point farther up the road and installing two bump stops to keep the truck from rolling into the river. There is currently an excavator on site, and they are dropping in the concrete blocks today. Eric will be on site tomorrow to help address an issue with the chute that might harm fish. The installation should be complete by mid-December. They are developing the testing protocol and impacts to fish after they have gone through the system. They will use segregated Coho (10-30 fish) for those tests. They will review the M&E recommendation on steelhead (putting a closure around the site). In the meantime, the Gus Backstrom site is available as needed.

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## **Gravel Augmentation**

**Presenter: Melora Shelton**

Melora reviewed the revised and simplified version of the 2019-11: Temporary Strategy for Gravel Augmentation Decision Document. Melora thanked WDFW for their clarifying edits to the document which calls for deferring gravel placement this year and for a 2020 draft work plan to be brought to the FTC for review at the January FTC meeting. Carol observed that there is no need to get a new 401 Water Quality Certification as it is included in the license. When Matt Peter writes the Water Quality Protection Plan for this Carol will ensure he notes this is covered in the license and outside the project boundary.

Travis explained that TPU is seeking to identify willing landowners who could provide access to suitable locations for gravel placement. Carol cautioned that it is imperative that landowners, even with best intentions, don't take matters into their own hands.

This revised version of the decision document, with WDFW's clarifying edits and Melora's correction to the math in one of the columns in the table, was approved by consensus.

### **Action Items:**

- Travis: Send out this decision document to voting members who are not in attendance at this meeting for approval within one week (per FTC Protocols).

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## **Cowlitz Restoration & Recovery (CRR) Fund: 2020 Program**

**Presenter: Melora Shelton**

Melora announced that letters on behalf of the FTC were sent out to participants in this year's process. Florian and Melora had a conference call with Peggy to discuss the work that it will take to update the materials to address issues identified in a review of the 2019 process. TPU will step back and come up with a plan to address this in a way that allows enough time to cover everything necessary to build a robust process for the future (without being tied to the LCFRB grant schedule). At the January FTC meeting, they will present more specifics on what 2020 will look like. She announced the first annual FERC Report on the 2019 grant round will be out shortly after that meeting and is due to FERC in March 2020. There is an annual allotment to the CRR fund which would continue to accrue if not

used in any year. While some will be disappointed if there is not an opportunity to participate in a grant round in 2020, there would be no need for a decision document as Peggy noted the license only requires grant funding rounds to be conducted every two years. The extra time will allow the opportunity to host some early application workshops – for the next round and for working with people in the future. It will also allow for better CRR/FHMP alignment, particularly on the hatchery side.

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## **Downstream Adaptive Management TWG**

**Presenter: Matt Bleich**

Matt described the Adaptive Management Plan as a living document. The CF Northshore Collector (CFNSC) was constructed in 2017 and the first couple of years of operation were treated as baseline years. Through data collection, they have identified areas to target for improvement. Goals for the plan include:

- Promote recovery of Upper Cowlitz salmon and Steelhead
- Remove passage bottleneck
- Fish Passage Survival
- Working toward performance standard of 95% for Coho, Steelhead, and Chinook.

While Fish Collection Efficiency (FCE) data from 1996-2019 show a lot of variability, 5-year trend lines are positive relative to water years. 2019 FCE was similar to the past two years with good results for Coho and Steelhead. At their peak collection efficiency, Chinook performed well early in the season, then trailed off. Turbine cycling with a 2' band for reservoir operations (p. 5 and 6 ) may be a contributing factor.

Acoustic-tagged Chinook behavior differed by zones:

- Discovery Efficiency: Nearly perfect
- Entrance Efficiency: Needs improvement. Heat signature seems to be a factor
- Retention Efficiency: Mid-to-low 90s (percent)
- Capture Zone Retention Efficiency: Mid-to-low 90s

Acoustic-tagged Steelhead are friskier and have more ability to leave if they choose:

- Discovery Efficiency: Nearly perfect
- Entrance efficiency: In the 80s (percent)
- Retention efficiency: Mid 60s to low 90s
- Capture zone retention efficiency: In the 50s

Recommendations:

1. Understand how Spring Chinook contribute to recovery in the Upper Basin
  - Operate the CFNSC in an expanded timeframe (February - November)
2. Design a study to better understand adult returns.
  - The decision document will include development of that study design in concert with the new consultant they are hiring for that work.
3. Assess the benefit of testing the hypothesis that Spring Chinook outmigrants are moving on the increased hydrograph for storm events.
  - Work with consultants to do opportunistic testing at 750 cfs during the spring period. Matt observed this makes for a “logistically artful” study design. This option would reduce spill in the springtime by 250 cfs.
4. Modify the geometry of the capture zone floor to change the velocity that flows through the system.

- What changes will benefit Steelhead and not adversely impact the capture zone efficiency of the other species.
5. Address pump-back diffuser discharge
- Configure it to entrance directed discharge with the hope that additional flow into the entrance can help improve the entrance facility. Do this with a block study (e.g., off one week/on one week) throughout the Chinook season).

**Action Item:**

- Matt: Send out decision document for review prior to January meeting.
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**Mayfield Juvenile Collector**

**Presenter: Matt Bleich**

Matt explained the focus for this collector is the Tilton River watershed (vs. Upper Basin) and this has its own license article and its own 95% Fish Passage Survival (FPS), entrance to the dam, all routes, with a focus on recovery and harvest.

Or In Lieu:

- High enough to support self-sustaining populations
- Fish migrating downstream has been maximized by all reasonable measures
- Adjustments to hatchery production (existing facilities) and/or habitat measures as required

He described the fish passage route which includes louver bays (popular in the 1960s) with gaps that are bigger than the fish (making them volitional). Fish can pass in three ways:

- Though spillway (very few)
- Through juvenile bypass structure (~2/3 go through this pathway, the preferred pathway) Survival is 99% for Steelhead; 80% for Coho; 50-75% for Fall Chinook
- Through the power tunnel/the turbines (~1/3 pass through, with 75-99% survival.)

Strategy: Improve FPS through the juvenile bypass structure

- After collection survival 50% for Chinook
  - 2 main problems: Dewatering (secondary separator); and the suspension bridge

Near-term Plans 2019-2020: If fish are successful going through the louver bays they go through the secondary separator. It can get crowded there. TPU previously conducted a block study and found that flushing the secondary separator was effective so now they are designing how to automate the flushing sequence (as the manual process is cumbersome).

Suspension Bridge – TPU hired a suspension bridge consultant to determine options.

- Structural engineering assessment – 2019
  - Options and costs to correct the sag in bridge (causing fish to hold and, in many cases, meet their demise) will vary depending on results
  - Design in 2020 and construction in 2021.
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**FHMP Update**

**Presenter: Matt Bleich**

Matt reminded everyone of the February 18 and 26 stand-alone FHMP workshop dates. These will be held at the Cowlitz Salmon Hatchery from 10am-2pm. Topics for the initial workshop may include:

- CWT marking strategy for Coho

- Overall marking strategies for all species
- Paul's alternative strategy topic - better addressed sooner than later. Perhaps move this to the second workshop if Paul is unavailable for the first.

Request for Extension of Time (EOT): Travis put together the supplemental information requested by FERC to show the work that has been done by the FTC to continue with recovery effort in the Cowlitz Upper Basin from 2011 until now. This is undergoing internal review at TPU and they hope to send it out by December 6.

**Action Item:**

- Travis to reach out to Paul about his presenting at the January Public meeting and how to ensure there is TU representation at the February workshops.
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**Review of FTC Protocols**

**Presenter: Travis Nelson**

Travis discussed the draft edits he made to the protocols, based on input he received at the November FTC meeting, including starting with the purpose of the FTC. The schedule doesn't yet mention the public meetings which are occurring quarterly. All agreed there is a need to be more intentional about sharing presentations and materials from the meeting within 5 days, as defined in the protocols. It is also important to ensure subcommittees are working under clearly defined charters and a basic agenda that subcommittees can follow because notes are not always taken. Subcommittee would develop their work plans and present them to the FTC for feedback, affirmation of priorities, etc. Include life expectancy for each task. FTC should look at a subgroup as an employee. Still to define: How signatories participate. As TPU's technical advisors? What about non-signatories?

**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 latest revised version of Protocols for all to review this draft, mark it up in track changes, and send it back to Travis. Include ideas on how to formalize the participation of non-voting signatories, technical reps.
  - Travis: If possible, send out Protocols showing earlier edits in track changes.
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**Approval of Meeting Summaries**

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

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**Meeting Evaluation**

- Good discussion on protocol.
  - Josua shared the following quote: "Trust is involved in all the basic elements of a healthy relationship: namely, love (respect and consideration for another person), communication, commitment and honesty." - Harold Duarte-Bernhardt
  - It was another long meeting, and everyone stayed engaged!
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**Potential Topics for January 7 Public FTC Meeting**

- Updates incl. Hydro Ops, Water Quality, Out of Basin Transfer
- Coho Fishery in Riffe: Queue up Assignments to Subgroup

- M&E Subgroup
    - CWT at Mayfield Decision Document
    - Alternate Tilton Release Site (Video/Photos)
  - Gravel Augmentation Work Plan
  - Downstream Adaptive Management TWG
    - Decision Document
  - FHMP Update
    - FERC's Response to EOT Request
    - TU's Alternate Recovery Strategy for Upper Basin
  - Cowlitz Restoration & Recovery Fund 2020
  - FTC Protocols
  - Satellite Rearing (?)
  - Set Topics for February 4 FTC Meeting
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### **Parking Lot**

- Review Steelhead Recycling Program