

## Cowlitz Annual Program Review and Science Conference Q&As

Wednesday, May 19, 2021 | 10 AM to 4 PM

### Questions about the Annual Program Review Process/FHMP Transition Plans

**Q (Jack Tipping):** Can you recycle summer-run steelhead later in the season, like in September? Research shows that is an effective time.

**A (Bryce Glaser):** We might be able to extend our current program to end of August. The later we move into September, the higher chance we have of early fall rains, so that's when fish push into tributaries, and we can get into pHOS trouble. Need to keep an eye on stray rate control. The earlier months are the larger catch months, so that's been our focus. We have room to look at the back end a bit, but there are also some ESA constraints we'd have to look at.

**Jack:** Why not do a test – tag a couple hundred fish and see what happens?

**Bryce:** We could potentially put that in the transition plans for the future. Also, it depends on how many summer-runs come back. We hear the strong desire to recycle more, we should be able to achieve that this year depending on how many returns we get.

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**Q (Jack Tipping):** I have heartburn with Tilton River fall Chinook program. Why not tag Chinook coming through the Mayfield fish collector, then place the returning adults into the Tilton River so we know what's going on?

**A (Matt Bleich):** We have been talking about that quite a bit, and in fact, that's included as part of the transition plan. We agree with you that we need to work through that strategy. We need to better understand impacts from Tilton on different populations.

**Jack:** We need to try to determine escapement rates, too. We can't harvest wild fish until we get that figured out.

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**Q (Jack Tipping):** I would like to see cutthroat raised in ponds and not the raceways. Research shows that if they're raised in ponds it improves their survival rate.

**A (Phil Sandstrom):** We are not opposed to that idea. The cutthroat have been raised in the raceways for the last four years, so we could look at the returns to see if there have been any detrimental effects.

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**Q (Larry Pryor):** What are your adult return goals?

**A (Eric Shoblom, Bryce Glaser, Thomas Buehrens):**

**Eric:** We focus on broodstock goals.

**Larry:** Why don't you set adult return goals?

**Bryce:** We are working on that – we're working through the transition plans. We are setting goals from a harvest perspective and other goals.

**Thomas:** We have some goals already, but we are operating multiple programs, so we need multiple goals. Healthy and harvestable goals already exist for NOR fish. Next steps include mitigation, production, working through the transition plans.

**Bryce:** Larry - we can address development of adult return goals as part of the transition plan updates during the APR discussions this afternoon.

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## Questions for the Fisheries Technical Committee

**Q (Chris Vandenberg):** Why can't we have every FTC meeting open to the public? I would like to see more transparency. I feel like there is stuff going on behind the scenes that I would like to have access to. I don't feel that there was enough public comment regarding the satellite facilities. How are you able to keep FTC meetings not public under the Open Public Meetings Act?

**A (Bryce Glaser and Matt Bleich):** We are open to opening more FTC meetings to the public.

**Matt:** We have scheduled quarterly public meetings right now, and the notes from every meeting are publicly available. Additionally, we we're all open to hearing your questions at any time, our phone numbers are available, and you can reach out anytime you like if you feel like you're not getting answers. I will bring this to the FTC and talk it through and continue that conversation.

**Bryce:** Please note that the next FTC meeting on June 1 is open to the public.

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**Q (Buddy Rose):** Have you made any more progress on the design of satellite rearing ponds? I heard that there was a design team working on this earlier this year.

**A (Matt Bleich):** That is not accurate – we do not have a design team in place yet. We put together a preliminary plan with the public for how to address the facilities. We received a letter from Rep. Herrera Beutler via FERC in which she asked about the status of the ponds. Our response described how we have a rough outline for a strategy for a work plan to address next steps based on the comments we heard about the draft plan. It's in my hands to put that draft work plan together, and to work with the FTC to make sure we can all agree with the schedule.

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## Questions about other topics

**Q (Larry Pryor):** How close are you to poundage numbers?

**A (Eric Shoblom):** I will get those numbers to you.

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**Q (Buddy Rose):** What's the latest update about Mossyrock Dam and when we'll be able to bring the lake level back up?

**A (Monika Sundbaum):** I will email you the latest update. It is posted here: [Mossyrock Dam/Riffe Lake Level Update – May 2021](#). More background information is posted here: [MyTPU.org/RiffeLake](#).

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**Q (Larry Pryor):** Melora - my questions have to do with the new climate change models - looking forward - there were some great presentations at the salmon recovery conference, last week's AFS conference, NW Power Council and on, all discussing potential impacts in water flow and temperatures. My questions are in regards to hatchery management and adaptive management - have there been discussions in regards to potential adaptation to water flow changes - maybe release dates, or more as well as Cowlitz Falls Collection facilities - what they may see - warmer temps may assist growth in the upper watersheds - to be seen?

**A: (Melora Shelton):** We are absolutely thinking about it. We are having conversations about it, and pulling it into our thought processes. We have good resources in-house, including a study that the UW Climate Impact Group prepared for us that gives us basin-specific predictions. We are already starting to see some signs of this – whether we receive or snow or rain, how quickly it melts, and how that will influence the longer-term challenges for how we manage reservoir operations.

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**Q (Larry Pryor):** Eric, have you done any water EDNA (environmental DNA) testing? It can be a relevant tool.

**A (Eric Shoblom):** We did two years of sampling at the ozone plant for EDNA. Reach out to me and I can give you the results.

**Larry:** I don't need to get a hold of you, but thanks.

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**Q (Larry Pryor):** Travis, we don't understand why you do gravel augmentation? Is it for spawning beds/potential spawning beds or just to replace displaced gravel from waterflow or ? I think I understand it's a licensing thing but why - I don't see it at other hydropower programs?

**A (Travis Nelson):** We do gravel augmentation to mitigate for material that otherwise would have been migrating downstream naturally. This is a license requirement resulting from our license negotiation. Gravel augmentation is a license condition for several hydro projects across the country. You see a lot of this in the licenses from the 2000s, but you don't necessarily see it as much in modern licenses.

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**Q (Chris Vandenburg):** We know there was a problem with some starter feed that WDFW used last year, did the Cowlitz program have any problems with that? I hope it doesn't affect the Buoy 10 fishery.

**A (Sam Gibbons):** There was a specific brand of starter feed that we had an issue with, but we don't use that brand at the Cowlitz Salmon Hatchery, so no issues.

**Chris:** The Toutle Chinook were affected – how does that affect WDFW's management of fall Chinook in the Toutle?

**Sam:** It did have an effect at the Toutle facility (a Mitchell Act-funded facility), which resulted in a reduced fish plant. It won't affect the Cowlitz program. Ocean survival could affect survival rates at the Toutle facility as well, but the fish are different ages, returning at different times, so that can help mitigate for any losses.

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**Q (Larry Pryor):** Have you started doing your SARs for the CFFF fish you released? If so how do the NOR SARs look?

**A (Chris Foster and Phil Sandstrom):**

**Chris:** We are evaluating SAR data – but we don't have all of it yet.

**Phil:** We haven't put it together yet. We are collecting scale, otolith, and returns from PIT tags, but we're just at the beginning. This data is useful for brood cohort reconstruction.

**Larry:** All the stuff that Chris is learning, is it being relayed to your management? NOR are a measurement for how to make your hatcheries successful. I did rough SARs estimates and they looked pretty good - about ½ to 1%.

**Chris:** We are still early with the new CFNSC. We are still gathering baseline data. It helps having the ability to operate outside of traditional April – August. timeframe. It's a highly variable system. We're doing lots of observations and learning quite a bit. It's only been operating for four years, so we're learning something new every year.

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**Q (Jack Tipping):** Please check the CWT database fall Chinook harvest rate; it shows that none were harvested in August, but catch record cards show that August is a popular time for harvest. The harvest rate is actually higher than what was depicted on the presentation.

**A (John Serl):** Thank you for that feedback – we do want to look at that to put together a more complete picture.

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**Q (Larry Pryor):** Catch record reporting comes in a couple years later. Your 16% coho rate seems much lower per my observation for what it's worth.

**A (John Serl):** There are so many coho returning that they move through the system really fast. Spring Chinook hang around longer. Coho aren't around as long, so there fewer opportunities to catch them.

**Larry:** Is the Cowlitz Trout Hatchery getting any steelhead back?

**John:** No - they're being collected at the Barrier Dam.

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**Q (Chris Vandenberg):** Do you think that the 2020 run numbers will be 2/3rds higher since they shut down the fishery due to Covid? It doesn't seem like the numbers are significantly higher even though there wasn't a fishery.

**A (John Serl):** The Covid closure will probably affect the graphic, but we don't have catch rate data yet.

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**Q (Larry Pryor):** The harvest rates seem to be higher in January and February for winter steelhead?

**A (John Serl):** We were surprised that the numbers were higher. The egg take timing on Cowlitz has been moved up, but it takes a while. Hopefully, we'll see dividends from that process in the next few years.

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**Q (Larry Pryor):** Are you taking into consideration spawning matrices?

**A (Thomas Buehrens):** No – we're looking for a data set that would be common across the entire database. That type of data is not readily available for this type of analysis. We want to get all of our data stored in one database.

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**Q (Jack Tipping):** How many redds per fish that you're passing above the weir are you observing?

**A (Thomas Buehrens):** For coho, our redds per female has been in the 0.48-0.6 range recently with 45% female, which translates to 3.7- 4.6 fish per redd (a bit higher than I quoted earlier). For steelhead, I don't have all of the years of data in front of me, but for 2019, the redds per female was 0.59 with 60% females, which translates to 2.78 fish per redd.

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**Q (Chris Vandenberg):** I have a question about carcasses. We see a lot of pre-spawn mortality on the Willamette.

**A (John Serl):** We open up the females to check if eggs are remaining. We don't tend to see a lot of pre-spawn mortality.

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**Q (Larry Pryor):** Any difference in emergence rates? Do you do generational investigations on NORs? Look at whether they are from tributaries vs mainstem?

**A (John Serl):** We just determine if they are NOR or HOR, but we don't look at how many generations they are away from NOR. We use a rotary screw trap, but that data doesn't indicate where they were produced.

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**Q (Larry Pryor):** Are you dialing water at the separator up and down to get more fish up the river? I don't see much info about broodstock management? Any program or directives for broodstock coming out of the separator? Are you selective for any particular type of fish? What parameters do you have for broodstock collection?

**A (Jamie Murphy and Eric Shoblom):**

Jamie: WDFW provides a broodstock collection schedule, we review and approve it. We do a random collection, unless a fish is sick or moribund, in which case we won't use it for broodstock. There aren't any particular parameters. It's a weekly schedule throughout the run timing of fish. We don't close or open the attraction flow depending on how many fish we need. It's pretty much open at the same percentage throughout the year.

**Eric:** A lot of hatcheries use effluent water as an attractant. That's what we're doing at the salmon hatchery. But it doesn't affect the volitional rate or amount of adults coming back. The old practice, which hasn't been used in years, was simply to attract fish to the top of the ladder vs. the bottom of the ladder.

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**Q (Thomas Buehrens):** Jamie - I find the table at the end of the Cowlitz Fish Report graphs very useful. I like looking at weekly averages, but could you add the annual averages as well, relative to where we're at for the year?

**A (Jamie Murphy):** Yes, I can add that.

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**Q (Larry Pryor):** Matt and Bryce, WDFW Commissioners adopted a new Anadromous Salmon and Steelhead Hatchery Policy- shifting away from the old hatchery reform policy, rather supporting good hatchery management. How will it change or impact your practices now- I still hear old policy language discussion.

**A (Bryce Glaser):** There are many things in the new policy that have not changed and we still have ESA requirements. The policy is quite new and we haven't had time to discuss its potential implications on the Cowlitz with Tacoma Power yet.

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**Q (Larry Pryor):** I always learn something at these meetings. How do you measure success?

**A (Phil Sandstrom):** Progress toward recovery. One way you can measure that is the number of returning adults. I love John's harvest numbers because you can link that with numbers in the basin and

see where returning fish are going (harvest/broodstock/transport). My Tacoma Power colleagues may have different views. We want to provide recovery in these basins and provide angling opportunity so we can all be successful.

**Larry:** My definition might be a bit different: When can we catch and retain NOR fish – that's when we'll be moving in the right direction.

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