

## **WDFW Cowlitz Ad Hoc Group Draft Meeting Notes**

August 4, 2017 from 1-4 PM

Cowlitz Salmon Hatchery

### **Attendees**

Hank Emond, Tony Crocco, Stan Bartle, Dan Tudor, Jim Cline, Jon Vigre, and Greg King (WDFW Ad Hoc Group), Carl Burke (Contract Lobbyist), Larry Pryor (NW Fisheries Enhancement, Friends of the Cowlitz), Randy LeDuc (WDFW Ad Hoc Group and CCA), Bob Reid (WDFW Ad Hoc Group and CPR Fish), Buddy Rose (East County Journal), Keith Underwood and Eric Shoblom (Tacoma Power), Pat Frazier, Tom Wadsworth, and Sam Gibbons (WDFW), Lyn Wiltse, facilitator (PDSA Consulting)

### **Action Items**

- Eric S: Work with Eric K. on investigating 8 ponds in Toledo as possible locations if we hit pinch points in hatchery expansion.
- Tom W: Send out WDFW website link to all to access poundage release information from the hatchery for the past few years.

### **Welcome / Introductions**

Pat Frazier welcomed everyone. August 17 will be his last day at WDFW and he will be relocating to Bend. His replacement is not yet named. They are recruiting for the position.

Pat assured everyone that the Cowlitz is a high-priority basin for WDFW and they want to continue to engage with Friends of the Cowlitz and other groups. They have rearranged how the District biologists are deployed. There is now one biologist whose sole focus is on the Cowlitz and Lewis basins. He introduced Tom Wadsworth to the group. Tom is the new technical support person to the regional program manager for the Cowlitz and Lewis. Tom has been with WDFW for 1.5 years and is very committed to doing a respectable job for this group. He will provide technical assistance and will be a point of contact for this group.

#### Tom's contact information:

Tom Wadsworth, WDFW

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### **Update on Hooking Mortality Study**

Pat reported that WDFW has identified the Cowlitz as an ideal location for such a study with the Barrier Dam as a collection site. He confirmed that WDFW is done collaborating with TPU in this study. He reviewed the five objectives of the study:

1. Estimate short- and long-term mortality of salmon and steelhead released from angling gear relative to un-angled controls
2. Estimate the effects of anatomical hooking location on mortality
3. Estimate effects of gear type on mortality rates

4. Estimate effects of water temperature and fight duration on mortality rate
5. Use data in combination from existing studies to build a predictive model including above variables to enable the application of appropriate release mortality rates to specific fisheries that reflect the characteristics of those fisheries.

They are doing this with a treatment-control study design. For treatment, they are using specific fishermen catching fish below the Barrier Dam and downriver and tagging fish using Floy tags. They capture and tag control fish at the Barrier Dam and release them downstream. They recover tagged treatment and control fish at the Barrier Dam. They place a portion of the treatment and control fish in brood holding to observe their long-term survival. They put another portion of these fish in-river (species-specific typical release locations) and monitor their long-term contribution to fisheries.

The control and treatment sample size goals are independent of one another (don't need to be equal but ideally would be). Initial goals for treatment fish per year of study: 235 summer steelhead, 197 winter steelhead, 87 coho, 87 spring Chinook, and 65 fall Chinook.

The initial goals for control fish: 20-30 summer steelhead per week for a period of 8-10 weeks; salmon goals are TBD. Control release sites are above traditional recycling sites: Barrier Dam boat launch, Blue Creek boat launch, and Mission Bar. They are using multiple sites so they can estimate the effect of the release site on recapture rates.

If they get enough summer steelhead late in the season they will recycle them down at I-5. They need to ensure the recycling doesn't impact their ability to meet broodstock goals. 150 summer steelhead did get recycled on the front end of the run. Currently, the hatchery is prioritizing the fish for brood.

There is concern that summer steelhead runs are dwindling over time.. Sam reported they are tracking 1500-1600 fish back to the separator. For the last four weeks, this was very consistent. WDFW recently reduced the summer steelhead retention limit from 3 to 2 fish. It looks like they will get their brood.

Will there be increased opportunity for summer steelhead in the next few years? Last year's plant was down. One of the things they are seeing this year is a lower return among summer steelhead all across the Columbia. This indicates ocean conditions for those fish were poor. Next year will likely be a poor return as well. We are not sure how much the warm water 'blob' in the ocean affected steelhead. A couple of years from now, the ocean conditions may return to normal and we will see the numbers of returning steelhead bounce back up.

Keith assured all there will be more trend data going forward via weekly reports that will be shared with the Ad Hoc Group.

Can we adjust our release numbers depending on ocean conditions? It is a timing issue. Accurate forecasting of the weather and ocean three years in advance is not currently possible. The ocean can only support so many fish. Putting more fish into an unhealthy ocean could actually result in a lower return rate as there would be more competition for (limited) food.

This study is funded through a grant from Columbia River Endorsement Fund.

It was suggested that there be additional education about this effort. This could include leaving leaflets at Mary's Corner and using Facebook. TPU is looking into using Facebook as a way to let people know

about the importance of returning tags. Telephone apps are also being considered. They just need to be sure they have the resources to maintain the apps before they begin using them.

TPU wants to help augment the hooking mortality study. They are looking at sponsoring a tournament this fall and doing it with fall Chinook. They hope to do a similar tournament next year for summer steelhead.

Currently, the probability of making brood plus buffer is very high (95%). Our max broodstock goal is around 900. They are now planning the control releases for fall salmon. Minimum sample size = 100. Ideally 200-400 per species for coho and Chinook spread across return period and three release sites. Greater sample size = greater probability of sufficient statistical power to conclude the study with fewer years of data collection.

Pat explained that, in addition to steelhead, WDFW also plans to do studies with fall Chinook and coho this year with a minimum sample size of 100 fish for control releases. The ideal size would be 200-400. They would be spread across the return time and be spread across the same three sites. This will be at least a two-year study.

### **Steelhead Production Numbers**

Pat distributed two handouts with information explaining that more summer steelhead were released from the hatchery ponds in 2017 than were put into the ponds, some potential explanations for why this occurred, and how the release numbers were adjusted. He and Keith explained they have been struggling with providing a decent estimate when they have an obviously wrong number. There have been numerous discussions between TPU and WDFW. Currently, it appears that the best they can do is to provide a range of numbers to folks. Keith said the margin of error has already been there. To come up with an estimate that was more realistic than the counter, they looked at how much they overcounted and then allowed that they could have undercounted by the same amount. They also decided to look at the pond mortality rate and apply a bird predation rate to that. They used information from the Columbia for the conservative predation rates.

WDFW takes the counters to the manufacturer for calibration. The Andy Applebee and Jack Tipping study was done with a different model counter (a different technology). Might the older counters be more accurate? Next year Keith wants to improve the methods to control for error and get better estimates. During the hatchery remodel, they will be reconfiguring the ponds and will consider an alternative improved counting methodology and infrastructure. He wants to do it by each pond instead of one large collective. They are also considering having back-up counters. Keith suspects that the counters may have been undercounting last year because the counters weren't sensitive enough. Smith-Root recalibrated the counter and then maybe they made it too sensitive and that resulted in the overcount. Sam explained that multiple fish can go through clumped together and be counted as a single fish. The fish tend to move at night and they also seem to favor certain tubes.

### **Spring Chinook Plants**

There were overages on the fry at the Cowlitz Salmon Hatchery the last time we met (260K extra Chinook fry). The decision was made to mark them and put them in the upper watershed (Cispus and upper Cowlitz). These fish are rearing and 80K have been collected at Cowlitz Falls Facility. They were

released at 72 fish/lb. It appears they are growing. The fish that come out of the collector go to the stress relief ponds for 24 hours and then are released.

They are currently replumbing the raceways so they can be used for rearing.

Are spring Chinook really being captured in August? There is concern about water temperatures. They need to learn about the right time to move the right fish. In the Lewis, they stopped moving fish in the summer, because the survival was poor. We will be learning and debating and trying to figure out the right way to do this. Note: They are keeping the acclimation pond idea in mind for Spring Chinook.

### **Coho Plants**

There are also additional coho fry. They marked their programs to ensure the inventory was there. 100K were overage to onsite production. They had a pump inadvertently shut off, resulting in the loss of 40K in a trough. That left 62K fish that were put into Riffe Lake as fry plants (83/lb.).

The on-station programs are whole.

### **Nutrient Enhancement**

While there are differing opinions about the health of the upper watershed, all agree that more nutrients up there wouldn't hurt. The biggest challenge is collecting those fish and getting them out safely so they can return. Concern was expressed about selling the fish to Canadian American (CA), when we could use them to enhance the tributaries. Pat explained that there are also other segments of society that have a need for those fish, including food banks. A high priority for WDFW is to provide fish for foodbanks. Also, only certain fish can go upstream – those fish that have been inoculated are excluded. Sam explained that the excess fish go to the foodbank or are disposed of. If designated for foodbanks, CA processes them accordingly. The foodbanks contract directly with CA. WDFW does not. Any revenues from the fish are reinvested through regional fish enhancement groups which implement fish habitat improvement actions. Some of these projects have been done in the Cowlitz.

### **Salmon Creek**

The question was raised about whether we can supplement this creek with adult coho or chum? What adults would we use to do this? Early time run? Hatchery fish? One of the challenges of increasing the number of hatchery fish on the spawning grounds is we are limited for the entire lower basin. We are required to look at the HOR to NOR ratio on the spawning grounds. There are policies and guidelines that drive this. Adding hatchery coho to Lower Cowlitz tributaries would be a problem. There was discussion about possibly using coho NORs. We need to know what's limiting production in the basin. There isn't great habitat in Salmon Creek. It might work to build a chum spawning channel. They could discuss this with the LCFRB. That could be a path forward.

### **2016 FHMP Schedule Update**

Keith explained that Tacoma is completely revamping the FHMP (Fisheries Hatchery Management Plan). It will include a more robust public process that measures progress against goals. He announced that the August 1, 2017 deadline for submitting this plan to FERC has been extended until mid-February of 2018. He assured everyone that there will be an official 30-day public review period prior to the plan being

finalized and submitted. This group can expect to see some drafts to review around the Thanksgiving timeframe.

Keith has been talking with the County Commissioner about building more of a watershed-level group with all the jurisdictions in the room working a variety of issues, fish, recreation, etc. The commissioner is warm to this idea. Keith is now considering how best to move forward. He will also be getting together the signatories of the Settlement Agreement to discuss these issues. This could be another forum to discuss fish issues within the broader watershed context.

### **Future Meetings**

Pat thanked everyone for participating in the meeting and expressed appreciation for the frank discussions. As this is his last meeting with this group, Pat assured all that he would pass the Ad Hoc Member Distribution List to Tom and that Tom would be in touch with all regarding future meetings.

We thanked Pat for his many years of work with this group and wished him well in the next chapter of his life.

### **Handouts**

- Agenda for this meeting
- Meeting notes from April 12, 2017 Cowlitz Angling Community Discussion (hosted by TPU)
- Press Release on the Cowlitz Trout Hatchery counter issues
- Q&A paper on the same

### **Parking Lot**

Cowlitz-specific data on economic impact of summer and winter steelhead