

Comments from Commissioner Mark Labhart relating to the April 22, 2022 Agenda Item

North Umpqua Summer Steelhead discussion among the Commission.

My comments are derived from reading and listening to various sources including but not limited to the 2022 Assessment of Naturally Produced Summer Steelhead in the Umpqua River Basin authored by seven biologists and PHD's, the March 19-27th Public Opinion Survey, the March 29th Public Workshop in Roseburg, the April 7th Public Webinar, the emails and letters we received in our Commission packets, personal conversations with interested parties, Input from five Tribes, the Umpqua Coalition and NW Steelheaders, public testimony, staff discussions and the staff report provided in our Commission packets. In other words, your opinions do matter and I listened to you.

Wild Summer Steelhead are what many of you say is the North Umpqua of that is self-evident. In accordance with the Native Fish Conservation policy, we are to prevent the serious depletion of native fish, maintain & restore naturally produced fish in order to provide substantial ecological, economic and cultural benefits to the citizens of Oregon and foster & sustain opportunities for fisheries consistent with the conservation of naturally produced fish & responsible use of hatcheries.

In addition, many recreational anglers say they would like an opportunity to fish and retain fin clipped hatchery Summer Steelhead. I am concerned as many of you about the current and future viability of all Summer Steelhead on the North Umpqua. We experienced a record low return of adult, naturally produced wild North Umpqua and hatchery summer steelhead in 2021. The escapement estimates of 449 wild summer steelhead for 2021 is unprecedented and more than 50% below the critical abundance threshold of 1,200 fish. It was the lowest escapement estimate on record for the period 1946–2021.

So, I ask what caused this major downturn in both hatchery and wild stocks and more importantly what can we do about it now and into the future to ensure these stocks don't wink out? This Commission has only so many dials we can turn to manage fish populations. Let me elaborate on that assertion.

The downturn in **both wild and hatchery stocks** in 2021 were unprecedented but appears very consistent with downturns in other summer steelhead populations in Oregon, Washington, Idaho and British Columbia. This downturn included the Umpqua, Columbia, Snake, Deschutes, Siletz and Umatilla Rivers in Oregon. Even the winter steelhead populations on the Umpqua are showing the same decline parameters. As many know the Rogue population which appear to turn south when they hit the ocean have not had the same downturn as the north migrating stocks and in fact the Rogue stocks have upturned considerably in the last decade. The Department Staff and the Assessment tells me that the Umpqua wild population exhibits high viability and is expected to rebound even more as environmental conditions improve. However, this expectation needs to be tempered based on what I see as both negative and positive ever complex changing conditions such as climate change, in-stream water temperatures, disease, wildfires, stream habitat, ocean food conditions, upwelling, poaching, predation by pinnipeds and birds, ocean harvest of these stocks, ocean temperatures, ocean hypoxia, non-native fish predation on outgoing migrating smolts and incidental mortality attributable to catch-and-release angling.

The dials we would have a tough time moving in a positive direction anytime soon could include climate change, in-stream water temperatures, fires, habitat changes, ocean food conditions, ocean harvest of these stocks, ocean temperatures, upwelling conditions, ocean hypoxia, habitat destruction and possible warming stream temperatures from recent fires.

The dial that the Umpqua Coalition and others want us to turn and the only dial to turn is based on the perception that hatchery fish in the Umpqua are the leading cause of this downturn and if we just stop putting hatchery fish into the North Umpqua the wild fish will respond accordingly. For sure, that's an easy dial to turn. We can stop putting a hatchery component into the river at any time from a policy perspective. But I ask, is this the right dial to turn and will it in fact have the result that some are asking for which is a viable and increasing population of this iconic steelhead species based upon what I read and heard from many of you including but not limited to the Department's Assessment and Tribal testimony?

So, let's dive into this assertion of stopping hatchery releases in some detail. As I mentioned above, the 2022 Assessment of Naturally Produced Summer Steelhead in the Umpqua River Basin Report stated that the trend analysis they conducted indicates significant downward trend correlations between North Umpqua summer steelhead and other summer steelhead populations in Oregon, Washington, Idaho and British Columbia meaning that these other populations in the last few years and in particular 2019 were experiencing similar declines, and suggesting that other factors like climate and atmospheric conditions, local physical and biological conditions and large-scale ocean climate drivers may play a substantial role in regulating returns. The somewhat good news is that ocean conditions in 2021 appear to be improving over previous years which hopefully indicates a positive trend at least in the short run. It needs to be said though that fresh water conditions I mentioned above in six of the last ten years in the Umpqua have been bad for both hatchery and wild stocks. Hatchery fish releases which are now less than ½ of what is allowed in the CMP which have included wild fish brood stock have been released in the Umpqua every year since 1958 or 62 years. No hatchery releases occurred in 2020 because of the Archie Cr. Fire so the hatchery returns in 2022 should be near zero which will mean numbers for that year will likely be below 10%. The 2021 adult hatchery returns of 180 fish were lowest on record. So, the question I ask myself does this lead me to believe that turning the hatchery fish dial down even more will have the effect on the wild stock that some desire.

Future population viability modeling from the Assessment indicated that this population is not at any immediate risk of extinction. No simulations they conducted fell below the critical abundance threshold of 1,200 fish. However, population simulations only periodically rose above the desired abundance threshold of 4,200 fish. But we also have to remember, this is a modeling exercise and this is a best guess based upon the inputs the model is given and the recent low return years were unable to be included in this specific analysis because all age classes from recent spawn years have not had time to return so they can't be included in the analysis yet.

The seven Assessment authors indicate the primary cause of the downturn in their opinion is low ocean survival due to poor marine conditions. The North Pacific Gyre Oscillation (NPGO) index recently declined to its lowest level observed in the last 70 years. NPGO is an indicator of a climate pattern that substantially influences ocean conditions and strongly correlates with steelhead recruitment according to the seven authors. The authors go onto to say the secondary cause is poor freshwater conditions that impacted survival during multiple years of juvenile outmigration and, likely during 2021 when adults were returning to spawn. The water temperatures on the mainstem Umpqua and North Umpqua rivers were particularly poor in 2021 when adults were returning to spawn which the authors say may have led to in-river pre-spawning mortality and/or re-entry into the ocean. Additional potential causes outlined in the Assessment are non-native fish predation on outmigrants, disease, and thiamine deficiency. **We have already turned the dial on the non-native fish predation and allowed a higher harvest level of non-native fish in the lower river for Small Mouth and Stripped bass.** The authors indicated that incidental

fishing mortality and predation by pinnipeds and avian predators does not appear to be significant factors. The seven Assessment Report authors indicate that the hatchery summer steelhead program has not negatively affected naturally produced summer steelhead, although there are more hatchery fish on natural spawning grounds than the management threshold currently allow.

Another potential dial turn relates to incidental mortality attributable to catch-and-release angling. The authors indicate this is likely low at 2% or less so I would not consider it as a potential dial turn. As we know current regulations of no retention of wild steelhead in portions of the Umpqua system are in place now and the Department has put in place temporary angling closures during periods of low returns or poor conditions such as high-water temperatures to minimize angling-related mortality on wild North Umpqua summer steelhead.

Another potential dial turn for us could be predation by pinnipeds or birds but the authors indicate this also does not appear to be a factor where they would recommend action to reduce the numbers of pinnipeds or birds in the lower estuary.

So, what about turning the dial on hatchery releases you ask? The seven authors indicate that the summer steelhead hatchery program does not appear to be negatively impacting natural production. They state the following:

- Hatchery smolt releases have:
 - a) no clear relationship with recruitment of naturally produced summer steelhead based on potential interaction at the smolt stage and
 - b) a marginally significant positive relationship with recruitment of naturally produced summer steelhead based on potential interaction at the adult stage.
- Model simulations indicate that the extinction risk of naturally produced summer steelhead is not affected by hatchery program size or the relative reproductive success of hatchery fish.
- Hatchery fish proportions to wild are near zero in the Steamboat Creek sub-basin, a preferred spawning sub-basin for over half of the wild spawners.
- The most recent “weighted” basin-wide pHOS estimate is 17% (9-year average). The weighted pHOS estimate is higher than the ≤10% target in the Coastal Multi-Species Conservation and Management Plan approved in 2014 by the Commission. Analysis indicate that reducing the 2022 hatchery smolt releases or removing more hatchery fish at Rock Creek Hatchery should reduce pHOS below the 10% target level.

It is also very important to me and I hope this Commission that we recognize and give significant consideration to the input provided by four Federally Recognized Tribes and our Government-to-Government relationship we have with them. The Cow Cr. Band of the Umpqua Indians Tribal Chair Dan Courtney summarized their input in the following sentence. “The Tribe supports no changes to the current hatchery summer steelhead program and would like to continue to engage in meaningful conversation about fisheries into the future.” The Confederated Tribes of the Coos-Lower Umpqua and Siuslaw, the Confederated Tribes of the Siuslaw and the Coquille Indian Tribe submitted one tribal unity letter and I will quote their summary. “We unite here in commitment of working with ODFW to change our flight path toward policy and financial support for successful hatchery programs that provide harvest opportunities for tribal and non-tribal fishers, using best-science techniques and state-of-the-art systems that minimize risk to natural salmon and steelhead populations.” “Our Tribes cannot support terminating or reducing

the North Umpqua summer steelhead program.” “We must pursue a shared new vision of abundant and harvestable summer steelhead in the North Umpqua, as well as steelhead and salmon in the Coquille, Siletz, Coos, and all of Oregon’s coastal streams now and into the future.” I understand we also have a letter of support for the current program from the Grand Rhonde Tribe too.

So, given all that, I would offer turning five dials we have the ability to turn to hopefully make meaningful positive change in Wild Summer Steelhead in the Umpqua River Basin while allowing for the continued recreational retention harvest on hatchery summer steelhead. It is very important to me that we get our pHOS levels back into compliance with our Coastal Multi-Species Plan for this basin. It is my hope that my fellow Commissioners consider these recommendations and that they will be put in place for a temporary three-year test period and evaluated for success or failure after the three-year test period. As part of Adaptive Management allowed for in the Rule, I propose the following.

1. **Continue the current permanent no retention of naturally produced fish (wild) and terminal gear restrictions.**
2. **Continue the temporary angling closures during low returns or poor conditions such as high-water and high stream temperatures.**
3. **The 2014 CMP, approved by the Commission in 2014, authorizes an annual release of 165,000 hatchery summer steelhead smolts to the North Umpqua basin. Allow for the 70,000 currently in the rearing ponds now at Rock Cr. to be released this year. This still results over a 50% reduction of what is allowed in the Commission approved CMP.**
4. **So, what about pHOS you ask? I propose we repair the fish trap at Rock Cr. Hatchery to capture hatchery fish that make it to the hatchery and restrict the majority of hatchery fish moving above the trap into the headwaters of Rock Cr. On page 58 of the 2014 Commission Approved Coastal Multi-Species Management Plan, it says: *North Umpqua. This population area supports the largest wild summer steelhead population in the SMU. The hatchery summer steelhead program releases 165,000 smolts into Rock Creek. To reduce the risk from the hatchery summer steelhead program on the wild summer steelhead population, hatchery summer steelhead adults will be removed at the new trap at Rock Creek Hatchery before they can spawn in the wild. In addition on page 174 of CMP it says: ODFW will make efforts to remove returning hatchery summer steelhead at the Rock Creek Hatchery trap to prevent them from spawning in the wild. Removing hatchery fish from Rock Cr basin (at the hatchery) would reduce pHOS in Rock Creek to near zero which would also reduce basin wide pHOS to less than 10% (because the vast majority of hatchery fish straying is occurring in Rock Creek). The concern here is the cost to fix the trap and more importantly how it’s going to be staffed. We have received a level of commitment from several groups that they will provide volunteers to help staff the trap and this commitment would be made for the three-year test period. This should reduce the trap maintenance costs to acceptable levels in my opinion. We need to get commitments for financial and volunteer help. There may also be a possibility that some groups might provide financial resources to repair and staff the trap but this still needs exploration and firm commitments.***
5. **We need more research on where these fish go in the ocean as we have just some general ideas and this could be a factor for marine growth and survival. Even though recent ocean conditions appear to be turning favorable the long-term future is that our oceans will warm and become more acidic. I’d suggest we ask the Hatchery Research Center to put more research emphasis**

on Steelhead smolt out-migration predation, ocean migratory patterns, disease prevalence, thiamine deficiencies and recreation impacts on fish holding in upper reaches.