

Puget Sound Wild Steelhead Management Educational Workshop
Phinney Neighborhood Center, Seattle, Washington
July 13, 2015

Questions to Presenters

(Answers are paraphrased in italics.)

Statewide Steelhead Management Plan - Bob Leland

Questions:

1. Is the *Oncorhynchus mykiss* science document on website? I only found a draft. Is there a final form?
No, it's a living document.
2. How will we know if parts of the document will change?
You can track dated updates on the document.

Biology and Status of Puget Sound Steelhead - Neala Kendall

Questions:

1. Why are you focusing on the North Fork Skykomish and not the South Fork?
This will explained in upcoming presentations.
2. Are different types of habitat considered across the state? Are you considering one of each habitat type in each stock, or how are you looking at this?
We are gathering that information in the tables, criteria, and public comments to come up with which zones are best. We're looking for diversity.
3. How many different zones are you looking for?
A minimum of three, one in each major population group.
4. What is the status of the Scott and Gill(?) report?
The agency is updating that report. WDFW internal review is underway. The report will go to external review in the next few months and will then be released to the public.
5. Why are these decisions being made in advance of the report update?
The timings of these processes don't exactly line up, but we are very open to discussing the data and findings in the handout in more detail. Refer to the table in the handout. We can show you the exact methodology.

6. Some of the snow- and rain-and-snow-dominated watersheds are interrupted by dams, like on the Skagit. How does pre-smolt outmigration factor into this? Because they go through lots of different hydrologic conditions.
We look at freshwater, Puget Sound, and ocean phases for assessing adult productivity. The number of smolts produced by a given adult is considered.
7. Using metrics like habitat protection and percentage of watershed [in public land ownership?] seems like a course tool. What's the scale? Watershed? Upper or lower reaches?
I agree that it's tricky. We had to come up with criteria that we could apply across all populations. Comments like that are important.
8. Is there any kind of precedent for these criteria?
Wild steelhead zones have been established in Lower Columbia so we learned from that process. We haven't looked at all of these criteria elsewhere or done this before.
9. As you build a portfolio, given climate change, are you considering run timing? Early winter, late winter? This may affect which watershed you focus on.
Yes, run timing will be considered. We want comments on which populations are important because of run timing.
10. What are the limiting factors? Did you incorporate sediment studies?
We are incorporating limiting factors knowledge in this process, which includes things like sediment studies. This helps us understand the productivity of different populations based on their habitat.

ESA - Listing Status, Authorizations, and Recovery Plan – Steve Thiesfeld

Questions

1. Is fishing for wild steelhead prohibited? Why?
The NOAA permit for harvest impacts on Puget Sound wild steelhead is in the Puget Sound Chinook Biological Opinion. They have specific guidelines. The permit doesn't allow for directed fishing and catch and release directed at wild steelhead is directed fishing. NOAA indicated their comfort level with current level of fishing, which is where they got the 4.2 percent. There's not a specific "why."
2. Why did they adopt that number? Why did they use the Chinook plan?
The Chinook plan was a vehicle available to establish harvest terms for wild steelhead. NOAA hasn't addressed the steelhead specific plan. The only fishing impacts allowed on wild Puget Sound steelhead are

those with indirect impacts, as long as they meet the criteria. The only directed fishing allowed for steelhead is on hatchery steelhead.

3. Agencies are right now looking at the fish management plan for the Skagit. Is WDFW looking to potentially open up a fishery there?

Yes, WDFW is revisiting the plan. The Skagit has pretty good data. So we're trying to figure out what kind of harvest the Skagit population can handle.

4. Why gene banks?

There is a specific commitment for wild stock gene banks. They provide risk reduction for the impacts of hatchery fish.

5. Is there a size limit on abundance for populations to designate as gene banks?

This will be answered in upcoming presentations.

Benefits of Hatchery Programs – Steve Thiesfeld

Questions

1. The hatchery program on the Green River is meant to help rebuild wild population but there's no monitoring going on and no funds available. How can you operate something that you don't know is successful or not?

Steelhead on the Green went through some scary years. The hatchery program was initially for harvest augmentation, but it turned into a recovery program. More smolts are going out of the river and coming back. We're trying to get these fish to fill vacant habitat. We don't have very good return data. Steelhead don't die when they spawn so it's hard to monitor returns. We are looking at an increase in the number of spawner. The trajectory is going in the right direction. We can't say the program is causing that, but there's logic to suggest that.

2. There have been a number of hatchery reforms over the last decade. Do we know more about the results of those reforms?

Brian will cover that, but it is still early to tell.

3. How many hatcheries in Puget Sound are conservation-oriented and how many are harvest-oriented?

There is one conservation steelhead program on the Green River in Region 4. There are a few in Region 6: Puyallup, White River, Skokomish, Elwha – the tribal program is releasing wild broodstock fish.

4. There are no state hatcheries on the White River, right? Are tribal hatcheries held to the same ESA standards as the state?

Yes. Tribes need HGMPs also to obtain a federal operating permit.

Potential Risks of Hatchery Programs – Brian Missildine (sp?)

Questions:

1. What are the impacts of the reforms that have been implemented in last 10 years?
We need more time to tell.
2. Summer steelhead – What are you doing about that issue?
*The big question on summers is where are they going there to spawn?
There is evidence of genetic introgression in the Tolt.*
3. Do you integrate your analysis with tribal hatcheries?
I don't know of any tribal steelhead programs in Region 4. Genetic work has been focused on Region 4 and doesn't discriminate which hatchery the fish come from. On the White, we work closely with tribes.
4. Your work doesn't seem to integrate the whole genetics of the river.
We do genetics on tribal fish.

Risk of Hatchery Programs on Wild Steelhead Populations – Ken Warheit

Questions

1. Are you testing only adults or fry as well when determining PEHC?
Genetics would be totally different depending on life stage. We look at any life stage we can get our hands on. We expect higher PEHC on younger fish and lower PEHC on older fish are under a negative fitness effect.
2. Segregated vs. integrated hatcheries don't jive with native run timing. We have the lost the early-timed component of the run which was very significant in these systems.
Back in the day, timing was much earlier temporally. It's possible that that interaction could have caused extirpation. Hatchery fish may have replaced wild fish. I don't think that issue is relevant to understanding wild gene banks. It is relevant to understand erosion. That's the goal of the wild gene banks.

Run timing heritability – there's not a lot of clear data on that. It appears that only half is a genetic component. Rivers are different now. Hatcheries may or may not have contributed to that but there are lots of environmental factors.

We have systems where we have no hatchery programs – Nisqually, Snow Creek – and haven't for a very long time, if ever. We have good data from those areas. We can talk about mean spawn timing but I don't recall that being a pattern.

3. There haven't been hatchery plants in the Nisqually?

Not in 30 years.

4. Is it possible that the Cedar River broodstock exists in the system? Any difference between that fish and anadromous fish genetically?

We looked at genetic differences between rainbow and steelhead – there's not much difference.

5. Is the Cedar River run now basically extinct?

The run is very low. There's a resident population of rainbow trout.

Wild Steelhead Gene Banks – Annette Hoffmann

Questions:

1. Why is the Tolt on this list when it's rated "poor-poor-poor."

We began with the PSHACC recommendations. There is no hatchery program on the Tolt, and there is a summer run life history. You can refer to the final PSHACC report online. Since that report, we have learned more. We didn't take away from the PSHAAC list, but we did add some other populations.

2. What about the Skagit mainstem? What about the broodstock program? Why are you considering a gene bank there?

The consent decree in the settlement agreement was to not release early fish from the Marblemount hatchery for 12 years but allowed for development of an integrated hatchery program. If the Skagit were to be designated as a gene bank, an integrated program would be off the table.

3. Will future public meetings be management zone specific?

No, meetings will be identical.

4. The guidelines were to designate one wild steelhead zone but we're talking about more than that. Why?

The guidelines called for one WSGB per major population group and there are three major population groups

5. Are any tribes represented here? They are harvest-oriented.

We will be working with them.

6. How come Green River and Lake Washington are left out of this?
We started with the list that we got from our PSHAAC advisors. We had to make some hard choices. Genetic introgression was high on the Green, so it didn't seem like it was a good choice. There is a recovery program on Green that we don't want to discontinue.
7. How are economic inputs being considered right now?
We did an economic analysis with the advisory group that was based on completed successful trips using catch record cards and economic multipliers.
8. Do the economics of particular hatcheries affect these decisions?
That has not been looked at.
9. Are you looking at the negative economic effects of hatcheries on wild fish?
We want to use all of the economic tools that we have. Catch and release fishing trips on wild fish don't have catch cards so we don't have a way of tracking that activity. We will need to get that information.
10. You are not considering the cost of current hatcheries? That could be an important factor considering the amount of money saved by a hatchery that could be used elsewhere.
We are going to look at all the economic tools available.
11. What about the North Fork Skykomish? The timing of hatchery fish wouldn't overlap with wild fish.
There is no hatchery program there, but the population is small.
12. What about the South Fork Skykomish? Sunset Falls?
There's probably not a lot of difference between North Fork and South Fork. There's not a big effect from the winter program but there's a huge effect from the summer program. There are a lot of unmarked fish that weren't born in the hatchery but are of hatchery descent. The summer program is problematic.
13. What's the incentive to discourage tribes from building more hatcheries? Does the state have anything to say about tribes building more hatcheries if we're discontinuing hatcheries?
We're not trying to discontinue hatcheries. We want to partner with the tribes on WSGBs. Tribal hatcheries still need an ESA permit.
14. Is there funding to rehab the Sunset Falls lift system?
There is jobs money to develop new release sites. The current release site is deteriorating.

15. This is a big experiment. If this doesn't work, do you have a cut-off point?
That's a question to be considered in the future.
16. Would you consider pairing control sites where you are not doing a gene bank?
We have some defacto gene banks where there are no hatcheries, so controls exist now.
17. How will you address "no data"?
Much of our "no data" is with the summer populations for which it is hard to measure abundance. But we will look at all the metrics we have access to.
18. How will you determine how many WSGBs there will be?
It will depend on comments, tribal input, and economic data.
19. Regarding the Sauk and Skagit – you must have both of them if you are going to have one of them.
Those were separated by the advisory group. They are different Demographically Independent Populations (DIPs).