

AGENDA

PSRFEF Oversight Committee Meeting

Natural Resources Building
1111 Washington St SE
Conference room 172

Jan. 14, 2019

3:00 p.m. – 7:00 p.m.

3:00 p.m. – 3:30 p.m.

Introduction

- Introduction of the two new PSRFEFOC members
- Review agenda
- Approve previous meetings' minutes

3:30 p.m. – 4:00 p.m.

Summary of HSRG final report

4:00 p.m. – 4:30 p.m.

Meet and greet with Director Kelly Susewind

4:30 p.m. – 5:30 p.m.

Program update

- 2019 legislative session update; Nelson Falkenburg
- 2017-19 BN Budget update
- Hatchery escapement report
- Outreach
 - November public chum fishing event and December JBLM squid derby
 - Sportsman Show Committee availability and theme discussion

5:30 p.m. – 6:30 p.m.

Other items

- Preliminary North of Falcon schedule and challenges
- Minter Creek hatchery fish loss event summary
- New electronic STR program
- Discussion of proposals for PSRFEF support

6:30 p.m. – 7:00 p.m.

Wrap-up

- Questions and answers
 - Date and location for next meeting
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1. Wayne Harmond – Gig Harbor, WA

a. Summary

- i. Born and raised in Washington and
- ii. Been fishing salmon in all of PS for 40+ years
- iii. Network of sport anglers including PSRFEFOC members
- iv. Produces fishing videos and writes fishing articles
- v. Currently owns environmental consulting Co.
- vi. Interim Chinook salmon enhancement director for a non-profit organization called Northwest Salmon Research

- b. Personal statement - I have seen and experienced the dramatic changes in our local environment and fisheries. Many of the most passionate, respected recreational fishing people I know (and/or meet), don't step forward to voice their views and opinions to policy makers or co-managers – even though they may carry significant weight in their recreational fishing “communities”. Encouraging those kinds of people to share their views and help make positive contributions toward the challenges we share (in fisheries management / opportunities), considering impacts on ALL “stakeholders”, better understanding the “whys” and communicating results and intended outcomes of the management policies, are vitally important. I would like to offer my time and efforts to help support the best management and enhancement practices for our recreational fishing communities.

2. Daniel Witczak - Sequim

a. Summary

- i. Born and raised in Washington
- ii. Lifelong angler across Puget Sound
- iii. Worked in canneries and on commercial salmon boats as a teen, then on to a career with DFW Hatcheries
- iv. Designed a captive breeding program for Dungeness Chinook
- v. Lots of outreach experience
- vi. PSA member since 1986 and helped build the Sequim chapter

- b. Personal statement - My interest in serving on a Fisheries enhancement committee would come from a lifetime obsession with salmon. I cannot remember a time when fishing was not always on my mind but I do remember the first salmon I ever saw and I can still see it as clearly as the first time. From that time until now salmon, especially Chinook, have become a life-long obsession and my favorite subject, favorite activity, lifelong journey to learn everything I can about salmon and how can I make a career out of working with fish. I have been retired comfortably for 5 years and my wife is retiring this year. I am in a good position to travel to meetings and speaking to any and all groups about my institutional knowledge.

PSRFE Oversight Committee Minutes, October 29, 2018

Note to committee members – if you know you made the statement, please put your initials in place of the question mark, and return it to Colleen. Thank you.

Present: David Stormer (DS), Colleen Desselle, Mark Baltzell (MB), Don Freeman (DF), Mark Riedesel (MR), Troy McKelvey (TM), Dave Puki (DP), Steve Stout (SS), Mike Gilchrist (MG), Gregg Williams (GW), Brian Missildine (BM), Jim Jenkins (JJ), and Dave Knutzen (DK), Kirt Hughes (KH)

Absent: Norm Reinhardt [tried to hook up via conference call], Art Tachell

DK: Introduction – Mark Baltzell introduced Brian Missildine – Team lead for the Hatchery Evaluation group.

MB: Review Agenda.

DK: Approve previous meeting's minutes – Motion to approve. Seconded. No opposition. Approved.

BN 17-19 Budget Development – DS

Budget – We have about \$140K positive variance. Brian had an internal meeting re concerns on the tagging programs for the agency. We may try to form a group of staff to provide thumbs up or down - deciding where the program makes sense, and where we need to start learning and coordinating efforts through the Hatcheries, Science, and Management Divisions. We are looking at the challenges we are facing, and Brian has put together a proposal. In addition, we have:

- a page from Gary [Marston] that speaks to the success on to where we are getting “bang for the buck” on our hatchery releases (sport), and where we are seeing the best adults per thousand released;
- an escapement report;
- a document on eggs that we have already taken, and production increases that we are doing for brood year 18. This is our response toward SRKW and what we can do this year, and
- a proposal from Art on a possible net pen project in the Point Defiance area.

?: – would like staff input on data gaps, where are the holes, are there other things like that we can funnel some funds into, and what can we do to increase sport opportunities?

MB: Volunteer Angler Report – has morphed. Some area have great information such as Area 13; Area 6 is not obtaining good information. It waxes and wanes. **MR:** I sent an email out regarding a possible creation of a MAP. I used the Hunter Master Program (MHP) as a guide for this program. This could fulfill data gaps, data collection, and increase angler opportunity not only from information gathered but also provide opportunity for anglers to go out and sample at certain points in season or maybe before the season opens. Maybe create bubble fisheries to increase opportunity. We also know that the test boat is very expensive to operate and maybe this could help by not incurring additional costs. **DK:** Would this be a complement to the professional sport fish...? **MB:** When we first started doing our Voluntary Trip Report (VTR) Program, we had a group of folks who had extra training; learned fish identification, handling procedures, and those kinds of things. We spread the VTRs everywhere we could.

What we found is that we were not really getting participation; even the specially trained anglers were not really helping. This could be a complementary data set or supplementary depending on the area where you want to get your estimate. I can see benefits, but there are challenges such as getting volunteers to do the work that we pay people to do is an issue because the union comes back with, “you’re taking work away from people we pay to do that job.” I am not saying it is impossible. There are enforcement issues such as knowing which of these anglers are fishing and when. This requires thinking through issues. It is probably going to take some time and effort to implement logistically and make it work efficiently. I am not sure we have the time to do that now. **MR?:** I am aware of the MHP, but I do not know the benefits and such. **?:** Some of the benefits of the MHP are that they may be selected to be able to go in and do a damage hunt, a controlled hunt, hunt a problem area, or an area with high population where they can be somewhat selective. They have been through extensive course work/training, and they have become a steward of the resource. That gives them some special opportunities to go do some of the things that are not necessarily available to an over-the-counter tag buyer. [For the MAP,] I envision this: where there is an increased opportunity for an angler, maybe DFW wants pre-season data in Area 9 for sub-legal fish; you can contact some of these anglers versus putting a test boat on the water – you might have 20 anglers who are qualified and have signed up for that area, but not everybody is available. You can use that resource and say, “okay, we have contacted these four boats and they will be fishing these dates to collect data (and the season is not open). Obviously, there are some constraints within Enforcement and managing that, but that would be an increased opportunity for them. That may be for the top 10% of the fishers; we have some anglers who excel and they are going to be the anglers who are more prone to go down with this MAP. So how do you couple that so that it benefits the regular angler? Using the data collected, it may show high impacts to the resource and we are not going to get much opportunity; or it may show that impacts on the stocks in these areas during these times are low, and therefore in the next handful of seasons the recreational opportunity will increase because of what the impacts show. What I do hear on this is that we do not have enough data. This is an idea to help the Department - not to detract from jobs but supplement them. You can take this out to rivers and other fresh waters, but for this group we would focus on salt water. That is the big picture. There is a ton of logistics and things to work out, but if we have extra funding. **DP:** Would there be an opportunity for Department personnel to collaborate with this pool of MAs? You could have one person from the Department on the boat with one or two other anglers who are part of the program to:

- provide some semblance that is a test fishery (the staff member would be wearing Department gear clearly identifiable by Enforcement from shore); and
- it would make the data, (I think), that much better, that is if you could actually pool a MA with Department guide so that the personnel is doing their job, but he or she has a better (or another) vehicle that does not cost as much money.

MB: I think there is potential, however I do not know from the legality standpoint on how that would work but... **DP:** One of the problems I have seen in the past, and I have seen it in crabbing. If somebody has pots in the water, or if somebody has a deer strapped to their vehicle, some others think that it is okay to go and do these things, so we get a lot of inappropriate activity because they see someone else doing it. **MB:** I think that those would be in the details of whatever you do so that it is clearly identifiable and obvious of what is in effect. Clearly identifying the gear/the boat, or the boat could have a special sticker. There are some solutions to that. Take the burden off the Department and put it more on the angler...train them how to sample (DNA samples, scale samples...). If part of the requirement was that these volunteers had to receive training through the Department to be able to go out and have these extra opportunities, I think people would; I would do it. I think the requirements are involved for Master Hunters, and I know you are doing some of this stuff already, but to increase participation requires a little more karat involved. That is the main complaint I hear about VTRs is that it is like, "well I filled this out, but it is used against me. I don't get any additional opportunity because of this." Whereas this is, "I get to go do something." It is outside the norm, an extra feature. **DP:** If there is a partnership between the MAP and the Department, they could co-mix to improve the quality of the data you receive. **MB:** Yeah, there would have to be some kind of partner in training, absolutely. **?:** I was thinking about the karat idea. Is there some way we could expand on what we have now for our VTRs where we could come up with some way to incentivize it somehow? **DK:** I think your issues are going to be the same. You can give someone \$1,000 or a VTR, they are still going to lie to you on what they caught. You have go back to this Master program, an elite class. The MHP is an elite class. They get to go on various things; you know deprivation hunts and things like that. They have to put in lots of hours, lots of training...what I am trying to say is that you might be better off with an elite program, something with a very limited number of people and you have a high scrutiny on what makes or breaks you. Treat it like a job. Also, I wanted to say is what you are proposing though, is...you talked about money and how to manage it, someone would have to define it all out – a budget for the program so it actually could happen; not just throwing another thing on the Department on how they could collect more data. It has always been interesting that fishing is the one thing that does not require much criteria. Every other thing requires a much higher criteria when you go out. **?:** Does this have to go through the Legislature? **MB:** It would be one of those things where we would want to identify those kinds of data needs far enough in advance so we could build in extra impacts into the pre-season planning model to account for extra data being collected in these times and areas, and when we are anticipating on doing it. We usually do pretty well about buffering our impacts especially when it comes to things like test boat accounting and that kind of thing. We could buffer up that test boat accounting in the pre-season planning model, and that would encompass those extra impacts we could see. **DS:** Accounting for these impacts in the harvest would have to occur, right? **MB:** Supposedly, we have to account for everything. **DP?** Based upon what you are reading is, the scale of it, with there being extra

data collected to advance things or...because unless you get enough sample size you would essentially be playing Russian roulette with your data. One bad trip and you have got your lower Hood Canal stock caught in area 11 or wherever, and that affects the data going forth. I am curious on how big it would have to be to be beneficial. **MB:** I think it would depend on the kind of questions we were trying to answer. You might have to think about doing it for multiple seasons before having any confidence in that data. One of the things we are hindsighting right now is that way back when we started test fishing, we never wanted anything and we never collected the tags on anything. Right now we are looking retrospectively saying that if we had collected tags on all those juvenile fish we intercepted, we would probably be better off in our modeling now, knowing the geographic distribution and what stocks we were intercepting where and when, but now again, sample size is everything. If we had been doing it since 2007, we would probably have enough tags to save something by now, however if you are just looking at it on a year-over-year basis, we probably do not get enough encounters on a yearly basis to make a bit of difference on anything. Our ultimate goal is to be able to collect enough data in those times and areas where we are lacking and it has the potential to increase fishing activities down the road. Maybe besides east Area 6 or the north end of Hood Canal in Area 9 in the summer. Can you think of other areas where we could expand time and area, opportunities within Puget Sound? **DK:** Let me ask you this. Other than Area 13, where are we fishing 12 months out of the year? I see lots of room for expansion. **MB:** Okay, point taken. **?:** Getting back to the value of something like this and to the lakes exactly, I thinking about the Skagit steelhead program last year, which almost did not happen because we did not have monitoring. If we had had a trained crew of 6-7 anglers that could do some of the monitoring, we could have expanded that fishery a little bit. The same thing with opening day lakes. We have a big battle every year getting people to get out onto these lakes. If you have a pool of anglers who are willing to do this, you know what I am saying. If there is opportunity there, and the people that do sign up for something like this actually do want to volunteer. It is not like a trip report where you are setting out this pile of papers where everybody is grabbing them and not even filling them out; people who fish and want to join something like this, I think they would be more diligent than that. **KH?** The MHP is part of the agency Administrative Code, so it is not in the RCW. **?:** I think a MAP would attract a higher moral compass, the higher moral standards, and that would be behind it and getting them into the program. Hopefully it would capture some highly accurate data. Some of the data we currently receive is cream-of-the-crop, coming from the best of the best anglers out there fishing, giving somewhat skewed high numbers as opposed to some of the real-world, average anglers. A program like this, where we are going to have some good anglers could potentially help correct that. **MB:** Remember when we are getting data from the VTRs and the charter anglers, we are not necessarily doing the full-meal-deal biological sampling getting lengths, scales, and that kind of thing. Essentially we are getting encounters by size and mark class; so legal, sub-legal, marked and unmarked. They are helping us apportion the whole pool of fish into those categories so we can come up with some idea of how big of an impact we are having

within any fishery. What I am hearing is that we would be asking these folks to expand and go more toward the biological data collection where we are getting lengths, scales; genetic samples. This is assuming that they would have stay within a legal limit for the day. They can still keep fishing and collect data, but they just have make sure to turn everything else loose.

DK: Unless you are having them collect coded-wire tags. **?:** That could be a karat for the program. Perhaps you can make a special exception such as “I really needed to collect accurate data from out of [Area] 8-2,” so you are allowed (for this timeframe) to wand them and if they have CWTs, bonk them on the head, and you have that data. There is your karat.

MB?: That would still require us to do an emergency rule that provides only that individual the authority to do that. **?:** So you would have to publicly announce that then? I am intrigued enough with the idea, and thank you for bringing it up. I think it is an interesting proposal. I am unclear on how it dovetails into our little stash and being able to tap into it. I wonder if there is opportunity for the staff to write up a couple of pages on what this would entail from an agency standpoint. The infrastructure, the costs, and... **DS:** I could look up the costs estimates. **?:** What it would be, and from your [agency’s] experience on how to program - if there is a staff member that has to oversee it, what that will take, all that. **MB:** We can come up with a couple of pages of information. **DK:** I would sum up that I think this is something we have talked about in the past, and there is some merit. If there is some extra dollars to put toward something, it makes it easier to do. We are a bunch of citizen volunteers and not experts on sampling or what statistics or data points you need. If we have opportunities to collect some data points causing an expansion or the ability to maintain our fisheries down the road, I would ask the Department to give that a good shake. What would a program like that look like? Then I hear you too, Mike, on you never know what you might find out there, but to me we should not be scared of finding out what might be right for the resource. If there is something that is right for the resource, we should be doing it. My assumption is that we will actually go more toward the positive. You get some of those wacky CWT recoveries that get stuck in the model for a long time and it is because of one data point. If there are more data points we have out there, it nullifies those wacky ones. Norm has been pinging me trying to get in, so I am going to get him on the speakerphone.

MB: This might be a good time to put forward the Hatchery HEAT unit proposal on how we may use some available funds. **BM:** The gentleman next to Dave mentioned CWT backlog. I want to address that too because they make some dollar signs within my mind. I just recently took over supervision with the CWT lab. We are still backlogged to sometime in 2017 with our basic hatchery heads. We have a list of priorities that we need to take care of such as test fisheries, Chinook, summer Chinook, etc. To help address some of that backlog, we received a one-time additional grant of about \$5,000 from PST to fund three additional temporary positions from August until December. That money is out in December, and I do not know if we are going to get anymore. We are certainly willing if this authority wants to fund a position there. We did that to try to get some of that backlog caught up, but you know as fish come in, we still have plenty of work to do. We can discuss this in detail if you would like.

I did not know this until recently, this group had funded a group of fish at Icy Creek. I think, up until 2 years ago we were looking at dropping what we were paying for the CWTs for that Icy Creek group, unless PSRFE wanted to pick that up.

We definitely want to keep the 100K yearling at Hoodspout, and we are looking to fund up to 200K of Tumwater Falls 450K groups - so there would be one early-timed release, two normal-timed releases, and one late-timed release. Those fish are already staggered on their releases so it would not take a lot of effort; just different tag codes for those fish. What we are looking at with early- and late-timed release is what do the returns look like? Are we getting the best smolt to adult return from the early, the normal, or the late? Are the fish coming back any larger from the early, normal, or late-time release? A reason why we are looking at that is the Governor's Executive Order to increase prey resources. Chinook salmon has that component in its survival - increased survival and increased size of Chinook upon return. This is a challenge. * Another is funding 200 sub-yearling out of Hoodspout. That is with the two 100 groups with the normal-timed release. We have some grant money we are hoping to receive in November as part of the orca research that would fund that additional \$100K. * I think we are doing something similar out of Chambers Creek. We have been doing that for a couple years and should start seeing some returns next fall. We are starting to see some jacks on those. * CWTs are an important component on looking at where our hatcheries are contributing to fisheries. For example, Wallace Chinook has a huge proportion caught up in the Canadian fisheries. We use this data to see where our fish are caught, what the smolt-to-adult survival rates are, and looking at what the size of the fish are on return. An example we are using for CWTs is out of Gorst Creek where we are definitely seeing Chinook returning at a smaller size over the last 10 years. We are also seeing a lot more 4-year olds with less 3- and 5-year-old fish returning back to Gorst Creek. That is some of the data used from CWTs. We are looking for some help with funding. Our budget is tight, and we feel all these studies are important. We want to get some long-term data sets and get some good information out of those.

That is a brief of my proposal to PSRFE. **JJ?**: When you are talking about late releases, these are late-timed releases that are going to be marine returning fish because a lot of our obligation is for blackmouth. You are not talking late enough to try to residualize these fish are you?

BM: For example, we have some of Chambers Creek program releasing them earlier in April, then our regular time would be May-June, and then the late time would be like August or September for those. So whether those fish could hang out and residualize in Puget Sound, I do not know, but that data would show eventually once those fish started returning up there.

They are caught in a blackmouth fishery if they are not caught somewhere else. I do not have a good answer for you for that one right now. **DK**: So \$100K in the head lab from August-

December, is that running through December? **BM**: The end of December, we will be down to

three less staff unless I can find other funding on it. **?**: Do you know how far along they will

be in the work load? **BM**: I am guessing we will still be working on 2017. There are many

heads out at Minter Creek and Lakewood. We, unfortunately, do not have a good inventory on what is out at other hatchery facilities. I am working on that to get a good idea so we can do a

better job at estimate proposals and as to when they might see some data from the CWTs at their facilities. That is part of the challenge as they keep blowing in. ? : I have a loaded question. How many more staff could you fit in there, what is your capacity for processing heads in there? **BM:** I think it is seven, and I think we are pretty darn close. We would have a tough time fitting eight in there. **DK:** How far behind in processing heads are you? **BM:** I wish I had a good answer. I do not even want to try to answer that. **DK:** How long have you been in charge? **BM:** Two weeks. **DK:** I was pleased and surprised to hear you say that this is in your wheelhouse now. **BM:** Yes, I would love to keep staff in there, but funding determines that. The longer we can keep them in there, the more heads we can get done. I do not know that we can ever get to the current year, but I think we are not working on 2016. ? : Do you have a goal moving forward to be more real-time in collecting that CWT data? **BM:** That is always a challenge. We actually do some real-time data out at White River for the spring Chinook program; sending a crew there 1-day a week for about three weeks, to go through those fish and real-time read those. More so, trying to do that would take several staff to do it because there are so many CWTs to read. Correct me if I am wrong, but I think that internally we have some other prioritization processing ocean tags, processing Puget Sound sport and commercial, before a certain point... With that kind of mix, we do have certain priorities test fisheries – high priority, ocean fisheries – high priority. We have a list of priorities of what we have to read and we may get a week’s notice stating, “Hey, we have this Columbia River contest fishery that we need read right away,” and in fact, this is a real scenario. They are coming in right now, so we have to stop whatever else we are doing, and get those read to get them the fastest data they can get to evaluate that fishery. **DK:** I am glad you brought that up because there is a lot more than just hatchery rack returns. Most of them are going to be the exact same code. They are sub-sampling now at hatcheries so they have fewer tags to read as well. My immediate thought on that is, is if this program wanted to help out the head lab there would be some benefit to it, but I would encourage this program to try to make it more efficient and improve the system and not worry about trying to get to the backlog. That will always be there. It will never get better until they make efficiencies within the program. **BM:** We are actually trying to work with our IT developers on the 6th floor to develop some apps so that we are not having to handwrite it, but just to scan the CWTs. It would be much quicker and much more accurate in the end. There are some efficiencies out there. We have two of them developing the hunting app for the public. Unfortunately, our CWT priorities were bumped down a ways. We would love to have own IT person developing that software to do that. Their AI, artificial intelligence (I think is what they call it) - I gave them a whole bunch of tags to read, and it starts reading the tags and identifying the numbers. Eventually it will read the CWT numbers, know exactly what it is, and give us a readout on wherever it came from and when it was entered into the computer system from the trailer. That would be great to have that done soon. **DK:** Thirty years ago, I worked at the Deschutes hatchery (here he describes the process for collecting tags having multiple staff repeating the same tasks, and states that it is the same process used today). What I am taking a long way of saying is one reading is

definitely an efficiency, but the bigger one would be at all the hatcheries, if you can do like the port samplers do: scan a bar code and beep, instantly it is on the computer. It auto populates this hatchery, this date, species...you type in male and the size and you send it on its way. In the head lab, they would go beep and it instantly populates the database and removes multiple interactions. That would really work, and it would get the Department into the modern edge.

MB: We are currently doing that in ocean and Puget Sound recreational fisheries. We have little yellow barcoded tag labels, and they are able to type it right into their iPads and it uploads nightly. **DK:** We should be doing that at Marblemount and Deschutes, and on and on. **MB:** I think we, basically, would use the same application in commercial fisheries sampling; the same thing we would use for hatchery sampling. Actually, for the co-managers, that is actually something they are very interested in as well. They are doing electronic fish tickets. **BM:** That is our main goal. **DK:** It is my understanding that this program already pays for the tagging at Icy Creek. **BM:** David pointed out that your group hasn't paid it for two years. PSRFE paid some of it, and we were paying for the other \$100K. We are just saying that PSRFE is not interested in that group, so we may drop that \$100K and put that money to other use somewhere else. **DK:** And then the same thing at Tumwater, maybe not. I know we do not have a program there, but I thought we were paying for the tags. **MB:** I do not know about paying for some Chinook tags. I know we have been doing some coho stuff in south Sound, but I do not think we pay for Chinook tags at Tumwater. **DK:** I guess I am not sure what we pay for. **MB:** Well, David has been kind of drilling down on that to see how this budget line item matches up with what we expected to spend and that kind of stuff. **DK:** I thought, we as a group, we had a tagging budget and it was to a certain degree up to the discretion of the Department on where there are data gaps. Deschutes is one where it is nice that we are getting tag groups out of there. It has been so long that we are not certain where those 25,000 surplus... **MB:** They are not sure if some of those fish are straying into the Nisqually, so we want to get to some of that data. **DK:** So if we get rid of Icy, are you saying drop Icy altogether as a tag group? **BM:** Um-hmm. **DP:** That is our yearling program. **DK:** That is like the only yearling program in southern Puget Sound. How would we ever know if the world changed and yearlings performed better than zeros? **MB:** It is just a suggestion, Dave. **DK:** Well, this is a question. **DP:** Good water, good hatchery, yearling program. **MB:** Maybe we just have not done it the past couple years because it is on the cycle of we are taking a couple years off and then re-implementing that. **BM:** We are taking a \$100K out right now, the state is not, but this group is. **DK:** I think it get backs to the Department. You all know better than we would on where we should be tagging, but yes, I would be a little bit concerned about not tagging a yearling group in Puget Sound. **MB:** For more than a couple of years. **?:** You're just talking about dropping the tagging, not releasing the fish? **BM:** Yes. **MB:** Do you have that sheet, David, on those tag groups and when... **DS:** I can bring it up. I do not have it to hand out. **MB:** David put something together about how the tagging groups that we found in the most recent years, like 5 or 8 years. We tagged them this year; we took a couple years off; tagged them this year... **DS:** I can send it out. **DK:** Then I guess we are going through all

the various proposals before we figure out what is going on. ? : Can you speak to the Hoodsport 100K? **BM:** I am sorry, this is something that my colleague came up with, and he is not here. However, I think we already are tagging 100K yearling out of Hoodsport, and we want to keep that program. This is more to remind me that we want to keep that. **DK:** So Mark, when you think about tagging (in general) do you think about our fisheries and limiting stocks? We all know the stocks are going to bite us in the butt down the road. Are there areas where more data would help in those regards whether it is a mid-Hood Canal, Lake Washington, the Stilly? **MB:** Like where are we having data gaps? Well this may feed more into the Pacific Salmon Treaty discussion later on, too. We had an internal staff meeting about implementation, and it certainly seems to me, we are going to have many challenges ahead of us with that. Apparently, there are going to be some Canadian Chinook stocks that we are now going to have to manage pre-season, for either exploitation rate or an escapement goal, so I am thinking, obviously in areas 3, 4, 5, 6, and 7 could be limiting there too. I do not know. I think the problem with Hood Canal is because we know where we get all those tags, and that is what bites us in the butt. The only two places we find those tags caught are in the Treaty troll fishery and Puget Sound sport fisheries. I do not know if having additional tag information about where to find those fish is going to be helpful. I have not really wrapped my head around that one too much. I am foreseeing some bigger challenges coming forward just trying to figure out what the new normal is going to be. What will the landscape of the new Chinook plan, having the new Pacific Salmon Treaty in place, and reducing northern fisheries - that is part of the PST plan, too? There is going to have be agreed-to reductions in the Alaska, the AABM, and the ISBM fisheries in place - kind of off Vancouver Island. There is going to be reductions in the north, both from Alaska and Canada. What is that going to mean for us after exploitation rates and for increased fish down here? It is going to change the landscape of what to expect other than expecting our fisheries to continue to get pinched. **DK:** That is why I was wondering about those data gaps. If it makes more sense to try to ramp up or it gets back to the MAP. **MB:** I think the biggest data gaps, and probably not the focus of this group, I see it being in the freshwater fisheries. We do not really have any creel or sampling programs to speak of in many of these freshwater rivers where we use them as indicator stocks for treaty implementation as well as management. Thinking specifically to, like some of those northern streams. I was thinking about like out on the coast: Queets and Quillayute – those do not have any freshwater fisheries sampling. We do have some sampling like at northern rivers such as Skagit. We do not regularly fish recreationally in the Stillaguamish. We do for game fish, and that is one of the other ones we get hammered on. The question is what are the impacts on salmon when you are fishing for game fish? To me, the big data gaps that we are facing right now are more the freshwater than marine. **DK:** I have two comments: 1) if that is what is hamstringing our fisheries, then maybe it makes sense for us to help them out, make sure there is less of a data gap, and therefore we do not get hamstrunged with our being in the salt water fishery; and 2) when you say Quillayute, Quinault... **MB:** that was just what came to the top of my head. One of the things, that is in the treaty is essentially we are not having to account

for both the marine and freshwater mortality on many of these stocks where we had not necessarily had the information to do that in the past. That is where I see us having to ramp-up sampling programs, especially in the freshwater. Even for marine, I am thinking about there are times like right now when we do not do an in-season estimate in Area 6 in the summertime. That is probably going to have to back to where we were doing an in-season estimate so we can have a better handle on mortality and even through the coho fishery to be able to account for those incidental mortalities while we are targeting coho too. We may have to re-ramp up or refocus some of our sampling area efforts in those 5, 6, and 7 area boundaries more so than we have in the past. I know Snohomish was one we were looking along with the Skagit and Nooksack. We need to get some freshwater information from those that we do not have. **?:** What kind of freshwater information are you... **MB:** Essentially we can get a catch through the catch record card system. We can get total catch, but we do not have any idea what effort is like. We do not have any effort matrix at all. We can get a catch number, but if we do not have effort we cannot really; it gets harder to calculate incidental mortality if you do not know how many people are participating. If we are not creeling, we do not really get freshwater tag recoveries from those recreational fisheries. We do get hatchery rack returns, but we do not get what our anglers caught in the freshwater. **DK:** So, according to this table, where we pay for Deschutes coho tagging, is that...? We have been doing that for nine years now and it is only a tag group of 4,000? **DS:** I can double-check. **DK:** It is only \$400, but I have a hard time believing that is making or breaking our fishery in Area 13 for coho. That almost seems like the wild stock tagging. **MB:** That is what I think it is. **DK:** Why are we paying for the wild stock tagging program? **MB:** I will ask Ryan.

AT's proposal – **DK:** what I remember in the email is that Art has been talking to various people (Metropolitan Parks which is probably the City of Tacoma...**DP:** No, they are different entities) **DK:** ...a local school there, the Puyallup Tribe and of course his marina. The proposal is to put a net pen at the marina. Through his various conversations, the Puyallup tribe has suggested to fill the net pen with White River spring Chinook (WRSC). He said that he has been talking to on the hatchery end of things, but talking about 50K in the net pen. Although he has funding, he would like to know if: 1) do we want to have some skin in the game and make it a little bit of our project? He did not talk about a dollar figure, but when I talked to him I asked him what he amount he was talking about. What would make him happy is ~\$5K. **DP:** Were they going to delay release those or what is the plan? **DK:** He was talking zero-age release, and actually I told him if we were to do it, I think it would be really informative to do larger zero-age release and then backfill that pen with some number, whatever that number is. Let us just say it is 5-10K yearling release as well, which complicates the program with the yearling releases from the standpoint of now you have a little higher degree of fish culture, right? To raise a yearling in the net pen and then throw something in for sixty days or whatever it would be? **JJ?:** You are not going to summer something, so you need freshwater. **DK:** Yeah, I guess it depends on when those zero-age... **JJ:** You are not going to put zero-age any bodies out there in the spring. **DK:** Educate me. When would you put zero-

age Chinook in and when would you release them? **SS:** June to June. **JJ:** Yeah, from what I remember them going out early, they do not do very well. They do not eat. It is too much of a shock. They are not like coho. You take a coho out in winter. They can go from fresh to salt in an hour. When we did it, it was a June plant, and just put them out there for a short time, and we let them go. I do not know what the benefit of a June-to-June release, but a June to September or October, maybe there is some benefit. There are many experiments going on right now where they are looking to that September or October planting. **DK:** Since Art is not here, but if you went from a June to September/October, and you kick them out the door so you are getting more of a jumbo release... **JJ:** We are talking Days Island, is that where we are? **DK:** No, Point Defiance. **JJ:** You would have better luck there. **DP:** Would need a little more practice because all the water coming out of the Puyallup, but still delayed - June in and September out, would work better in there? **JJ:** Do you work with Chinook in net pens now? **SS?:** The stuff we have done in the past was an October planting to the net pen; October or November, and then releasing some of them in February, April, or May. **DK:** So it is a little closer to being yearlings? **SS:** Yeah, and that ones that we are releasing early...the only reason I can recall that they were being released early is so we could backfill the net pen with coho. **DK:** This is WRSC? No, these are actually South Sound spring Chinook from Hupp Springs. **JJ?:** You would have much better opportunities from falls than you will with springs. **DP:** I think there are some timing flaws in their plan for survival. **DK:** Well, we do not know what their plan is. **DF:** With that kind of logistics, what would the regulatory hurdles be? **BM:** It would have to go through the HGMP or the Minter/WRSC, whatever you want to call it would require revision to reflect that. Currently as a courtesy, we do send some of the new HGMPs to the HSRG. There would be some of that process to go through. Some regulatory with NOAA fisheries since they would be reviewing. **?:** Who would be doing that? The Puyallup [Tribe], the Metropolitan Park, or... **BM:** That is a good question as to who would be doing that. I am not sure if maybe the Muckleshoot, Puyallup...it would probably be the Muckleshoot, the Puyallup, and WDFW as co-managers would be part of that. **DK:** That would have to take place regardless of the stock you use. To raise fish in a net pen you are going to have to go through that process. Period. **MR:** Yeah, and that is kind of on that group that was organizing it. That is their task to get all the approvals. He is asking if we want to have some skin in the game. From my personal perspective, Art has been after a little project like this for a long time, and I think that finally he has some traction here. I, personally, think that to give him \$4K-5K to feed those fish, I support it just because he has been after this for such a long time. Whatever data sets or whatever we want to collect, whether it is educational purposes for the schools or all those things down there. I do not think that it is necessarily a bad thing. **DP:** Will those fish be marked? **Severall:** Yeah. Marked and tagged. **DP:** Marked and tagged? **MR:** Yes, it would provide recreational opportunity in some form. **DK:** I know that Norm is on the call, but I can tell you Norm's concern is this. Norm has dropped off [the speakerphone]. His concern is WRSC would typically be showing up in April-May. His concern is that we spend some money, we get skin in the game, and the NoF process knocks us

out of opportunity to harvest these fish. I told him that could happen with any fish. If we are talking about a small amount of money - in that \$5K range, I would rather have some skin in the game so then we, as a committee, can look Mr. Baltzell in the eye and say, "Hey, we had skin in the game, why are we not getting opportunity on these fish?" Two, we do not know - perhaps they would end up showing up in other fisheries. **MR?:** What would be the cost to mark 50,000 fish? **DK:** Fin clip them or to Ad + CWT? The latter would be about \$8150. **BM:** So, I am sensitive about the WRSC program that we are currently discussing with our co-managers, and I want to leave it at that. This is a very delicate program. Keep that in mind if you want to go forward, it may not turn out the way you would like it. Just a precautionary, there, but I want to be upfront with the group. Correct me if I am wrong, Jim. **JJ:** I think it was worth mentioning something. There is interest in altering the program among the co-managers. The historical look at it, the '87 and '97 agreements on how it should be operated there is presently discussion should that be altered? Should there be another way to look at that? Brian is correct that it is a very delicate topic because there are so many entities who are interested in that. What has happened now, is a discussion is started which is the right direction to make a change. **MB:** There has been a history with this group trying to... so I think they are quite aware of the sensitivities. **GW:** - I sent a response back to Kirt, without seeing a write-up on what the goals and designs are, I would have a hard time giving it either a thumbs up or thumbs down. There is not enough information to base anything. I was a little perplexed by the statement of these fish are of good nutritional value for killer whales. How do you determine that from releasing the handful of fish down there? Conversely, what is a bad nutritional value? What is your threshold? I, personally, do not know where to go with this. **DP:** Will there also be a chance on those return fish in some sort of a terminal fishery down around Point Defiance? **MB:** That depends on survival. You may get 300 to 500 back if you are doing a 50,000 program - 1% survival. It is hard to know what you might get back on a program like that. **DF:** It would provide good PR if we could work with the tribes and the schools and the Metropolitan and stuff. That might get some awareness, at least something beside a couple hundred fish coming back. **MB:** I think that is all the official proposals that we have seen come our way. The floor is open for ideas. I know David and I talked about that we have goal development and some outreach too. I think we are about out of descending devices. We could probably stock up on those again and restock on some of our other outreach materials to spend down some money. Again, it is not going to take a big chunk out of what we need to spend. **DS:** I do not think we are hearing any rejections of these proposals out of hand, correct? Maybe it would be a good exercise to have all the details fleshed out. **MB:** I think we need to be clear on what marking programs are going to take place out of this 111 for FY2, so we have that dialed in to specifically what we are spending on that. From there we can consider what Brian put forward here. I definitely heard from Dave and others that we want to make sure that we are still keeping that Icy Creek, even if we are taking a hiatus. **DK:** What kind of dollar figure are we talking about? **MB:** We are probably in that 140+/- range. **DK:** When does a decision need to occur? Other than the possibility of the tag lab, no one is going

to do anything for a chunk of time. I am not sure we need to make a budget decision today.

BM: I know that the Muckleshoot Tribe is reviewing WDFW's portion of the WRSC HGMP now, and NOAA is anxiously waiting for them to clear up. Art's proposal may need to get in front of the tribes for review sooner than later so we are not back to square one to review that HGMP because it has been six years, and we are still working on it. **DK:** I think he is moving forward on it with or without us. **MB:** I was just thinking that I could probably reach out to one of my technical counterparts to see if they have actually had any discussions on it. **DF:** Can we tell Art that based on review hatchery staff, we can pay for tagging if it is a viable program, approved, and they have everything else in line? **DK:** Let him know we are considering doing this as long as the proposal has merit. More curious if MA Program is something the Department is considering. **MB:** I am kind of coupling (and they do not have to be coupled), but thinking to have identification of where this group can potentially help on the MA and the data gaps and needs. Whatever that may look like because, essentially, it is what we can do to work on those data gaps for recreational fisheries. **DK:** I am not speaking for the group, but there is benefit to the PSRFE whether it is data or sampling, whatever if there are ways to shore it up and increase or stabilize our opportunity. **MR:** I think if you are looking to spend money now, but can we get descending devices and allocate some money to clear the backlog? **MB:** I worry that trying to put money toward developing that system. It seems to me that we may have a hard time spending that in this FY. As Brian said, we just lost half of the Fish Program IT development team. Everything is going to take time and get up to speed. Brian's project may not come up in the queue until next biennium. **DK:** Unless we use the money outside the Department, then you do not worry about the Department. I think it is obvious. However, I do not know if it will ever come up with the IT team because the list is so long, and you are still working on the hunting and fish app. It has just never reached enough to get to the top. **JJ:** On the optimistic side of that, the agency audit on how we are organized, determined we needed a Chief Information Officer. That person was hired, and they recognize these problems. They are developing solutions to bring this team together as opposed to every program having their tech folk creating apps on this and that. I am not a tech person, but it could look different in the future – the way we address our technology problems. **MB:** That is encouraging. In some of my interactions the first (and usually their last) answer is no. Fish Program got tired of that, so that was the impetus of creating our own. Okay, so I think we have some products to get to you before we meet again. **BM:** Would you like me to put together a quick budget proposal for additional staff in the lab just to get set up for you? We are hoping for an answer by the end of December just to roll over into the other budget. **DK:** I think the quick answer is yes. **DP:** How much will we be spending on that? **BM:** Roughly \$3-4K per month. **DP:** So roughly about \$48K-50K a year per head? Please add trying to get into the bar code environment to avoid transcribing the data multiple times. **DK:** That not only helps Head Lab, but it actually helps the hatcheries. Relieves staff of doing mundane jobs and let them do more important duties. **SS:** Brandy Campbell provided me with a note to tell you that on the variances in the budget, there is none of this took into account for pay raises and the

other thing she wanted passed along is that we probably spent down any positive variances by June 30.

Unfortunately, LLTK got only two salmon back due to algae bloom. Eggs are Samish. They would rather get their eggs closer to home. They did have it worked out to where they were going to get them from George Adams but based on whether Samish got the adults back, we would go to Samish. Samish came out after the sport fishery closed, and the tribes cut back a little bit, we ended up getting their eggs. Samish gets full complement, and we will have 500K going to Bellingham Bay.

Treaty update on PST: **MB:** we did have an internal meeting with our salmon Commissioner talking mostly on the Chinook Chapter – everything that we are looking at, as with everything, hinges on funding. Right now, I think we are getting \$1.7M annually for treaty implementation for the PST funds, spread on several different spots in the Department. A budget exercise indicated that we probably spend \$8-9M per year to implement the treaty. We presented a bunch of different numbers, but I believe we asked for \$8M to implement the new treaty. Realistically we would be foolish to think we will get full amount, but you never know. It is all in the hands of Congress. Commissioner Anderson stated that if we get \$5-6M, it will be a significant increase from what we had been getting, which may allow us to key in on specific things we need to do to collect more data, etc. The last page on this packet, a one pager in the back, is basically the sheet they will be taking with them when they go to DC in a week or two to meet with all the Congressional delegation, and push forward toward getting that funding. I do not have a timeline for when we will learn anything about this request. I think, overall it is going to be a very different treaty than it was the previous ten years. There are some big increases in there for Alaska, marking and implementing marking and tagging programs to allow them to implement mark selective fisheries. We did talk about fishery reductions; there are some significant fishery reductions to the north, and a lot of them are in that tiered (low, medium, moderate, or high) abundance with specific rates of fishing within the chapter about what harvest levels are triggered; what abundance levels. I think this is going to provide some positives for us getting fish back to Washington, but part of this agreement, too, is that they are reducing to the north. We also agreed to through our own domestic process that we are going to be holding to some of these lower levels that had been added to the last two for a lot of those indicator stocks. I think they are trying to marry our Chinook plan, and align that with the Treaty so they are almost similar, and we trying to manage for several different levels depending on what you are trying to manage. Even though we have not finalized the Chinook plan, many of these management figures in the treaty will probably be close to what we are dealing with as far as the Puget Sound Plan, Chinook plan. **?:** Those triggers all revolve around current harvest rates, correct? **MB:** Correct. There is a whole lot of technical work going on behind the scenes, which is one the items on the Chinook plan that is holding things up. We have this Chinook Technical Committee (CTC) through the Pacific Salmon Commission that has their own model. It is the CTC FRAM model, and we have the FRAM model that we do for pre-season planning and they essentially come out with different

exploitation rates. Essentially the technical staff have come together both, on the co-manager and the feds level, and say, “Okay, we are identifying these differences. What causes those? Is there a translation we can do so we are talking apples to apples in a pre-season, post-season process to align things?” I think we are making good headway although there are some disagreements between the co-managers and NOAA about how they should translate these. We are more [of the thought that] things should be translated on a pre-season basis, NOAA believes things should be translated on a post-season basis. Working through issues. Also, as you can guess, going through this we are looking at what is causing this, what is causing that, we are finding errors and discrepancies, and updating data so that causes a ripple effect. The modelers, today, have already done two calibration exercises since we got through our agreements in the spring. The tribal modelers are here today and they are going through a third calibration to get to NOAA, so NOAA can start their work of evaluation and translating. I think we are hopeful to get to a resolution on the Chinook plan in November or December. Most of the Puget Sound watershed plans are in place, I would say those northern rivers; the Skagit, Stillaguamish, Snohomish - where we still have some disagreements to resolve. The good thing is, we are talking and good dialogue is occurring. Those are mainly the outstanding ones at this point. There is some different stuff for chum fisheries. The one thing on coho that tends to keep us down is that Thompson coho, the upper Fraser coho where we are held to a 10% exploitation rate is now a tiered system where 10% is the low, and when you reach certain abundance levels then you can go from moderate up to high. This could allow for additional coho opportunity in Straits, Area 7 and Area 9. **DP:** Is this in-season management adjustment they will be doing based on abundance? **MB:** I think it is all pre-season. **DP:** How can they be accurate about their predictions? **MB:** That is where we do that pre-season, post-season translation. **DP:** I know. There is a big difference between pre-season and post-season. It has been more so profound lately with the climate issues also rearing their ugly head. It happens not only for us, but in BC and Alaska as well. **MB:** I guess, from my point of view Dave, it can only get better because with coho we have been managing on that pre-season 10% low status ever since I can remember us doing this stuff. We have never really gone above 10%. We can probably only go up from there. Maybe the one caution on the Chinook side, and I hope I am not giving away secrets here, one of the things we are likely to have to manage to in the new Chinook chapter is meeting some objectives for Canadian stocks on a pre-season basis. I do not remember if those are exploitation driven or if they are escapement driven, such as predicting escapement, but it could...I know there is an early-timed Fraser, which Jim Scott pointed out, could be our problem child. I am sorry, but I do not have that one in front of me. It could be that that Chinook portion, especially in that 5, 6, 7 boundary area where we would have the potential for encountering those, we may have an additional squeeze up there as well to deal with those Canadian stocks. I am sure the details of all this will be out within the next month or two, I am guessing, as far as the actual publication of the chapters and such. I do not think it is complete, but I think it is in the hands of each government to ratify the Treaty. The Commissioners agree it on, in principle, and they have forwarded it to state department staff

and the Secretary of Commerce, I guess. I am not sure if you know it, but Phil Anderson is our Salmon Commissioner, and he stated that they spent a lot of time rewriting the language here to make both sides more accountable, and to make it more of a working treaty. He said the previous treaty kind of felt like we going through the motions. There are more specific deliverables in this, where they were more ambiguous in the past. They worked hard to make the language to hold each country to what we agreed to, whereas that might not have been so much the impetus in the past. He also talked about that in the past we did not even talk about a 5-year review until the fifth year and did not even get that until the seventh year. There are things built in the process where you start the review after year 3 so that in year 5 you are actually looking at the 5-year review rather than spending two years putting it together. I think they have made a many positive changes that, again I think it is going to be a wait and see how it is going to work out. One thing for those of you, who work with NoF - often we are waiting on those indices at the end of March or the beginning of April on the final abundance levels, what are those northern fisheries, what are the harvest rates they will be using? We built in specific dates and deadlines that need to meet each year so that we get those on a specific day or week so we do not have to delay our process even further. We ran into a situation a couple years ago on Coho were we had agreed-to a certain level, and they basically changed their abundance that allowed them to go fish a lot harder than we had planned pre-season, so there is a certain trigger in there so they cannot make changes after April 30 to their abundance indicators. **DP:** Rather than this being a general guideline, which may be interpreted different ways by different entities, this provides hard targets and dates they have to meet? **MB:** Yes. RMP Update: **MB:** I gave you a little bit of that already. We can get you the information as we go down the road of finalization, whatever that may look like. We have many of the management unit profiles we used for the Chinook plan which are somewhat agreed to. We just shared those with the recreational advisory group and want to share that with you too. We can put on that on our website or provide you an email.

SRKW update: **MB:** Today is the deadline for commenting on the task force proposals.

Hatchery document table (orange header): **MB:** Speaks to all the extra production that we took for preview 2018 to put toward extra production for southern residents. This has tribal and NOAA agreement. **DP:** NOAA agreed to the, it is actually 11.5M total... of that the 8.6M, some of these it looks like the numbers changed. Are they just going to release them in the river or different rivers? The big one to me, is there going to be a release of 2M in the Palmer? Is the Muckleshoot [Tribe] not using that facility? **BM:** I am working with them right now on that release at Palmer. That is the plan. **SS:** Ours, I do not know what it is - what you have heard, but I have not put in a pitch for change for the 400K yearlings for Marblemount yet because what [the tribes] want is an Ad/CWT group and a CWT-only of 100K each, then they want the rest CWT-only. **DK:** It is not for their fishery either. **SS:** Their fishery is terminal and they can harvest, and that is the problem because not only that, they are agreeing to a terminal fishery for those fish within the Skagit River and that makes it hard for us to monitor or do anything with a fishery. We are protecting wild fish and you have marked hatchery fish

coming back. They want to do the double-index, and that we have agreed to as we have not done that for a couple years and they want the data off the yearlings. With that, we are also reducing the double-index group on the zeroes that we do. Right now, we have two groups with one AD/CWT and the other CWT-only of 200K each, and we are dropping those to 100K each. We will save a little bit of money on tagging. The rest are to be ad-clipped. The question is on these 400K – and they kind of get where we are coming from and they are saying if the fish are all for orca, can we not have them clipped? The biggest thing then is they did not want to see increased fisheries out in the Straits on these fish. We are saying it will not increase anything. You will catch more fish, but it will not increase the fisheries. That is what they are pushing. I get where the Skagit is coming from – they fish in-river. So, if they are having a fishery out there and it is a more selective fishery they may not see as many fish come back whereas if they are all tagged and not clipped, they could end up with more fish back. The problem is when we have a fishery in the river we cannot monitor that fishery as easily. Our take on it is no, we are going to ad-clip anything that is not part of the double-index. Samish is 100% ad-clipped plus the CWT group, the only change is no otolith mark. The Whatcom Creek BTC, those are the 500K they were raising and shipping to the Lummi seed pond (which is not on here); we have changed that and it is going to be north fork Chinook this year with the caveat that we can switch that to north fork or south fork, depending on which one has the best returns. That is actually a good change, and we should have done it years ago to get those Samish stocks off the mouth of the Nooksack. They also agreed on that we have enough data and do not need to otolith mark those. The Samish fish are going to either Glennwood or the Samish plant, and none of those will be otolith marked. The 500K at Skookumchuck are supposed to be marked and they will take them up the river way above the hatchery. They will not tag them this year. They still have a good coho return, which well exceeds their intake. They are still starting with 1.5M coho and shipping 1M to Kendall and we are raising them up and shipping out to Lummi seed ponds. **DK:** In years past, Palmer has not been ad-clipped. **MB:** Right, because it is what the designation has been rebuilding program, something like that, so we are trying to get more unclipped fish back on spawning grounds – that kind of thing. **BM:** I think they will be otolith marked and some ad-clipped. I need to double-check that. I believe they are talking about that now. From a management point of view, when the Muckleshoots are able to fish, and fish for Chinook, they are a happier and more agreeable. I did see a marked turnaround this year at NoF, and their willingness to engage in the process and work through some issues before we got to the big table. We have acknowledged that, and we are trying to stand aside, encourage this, and we want to be partners – when you are fishing, we are fishing, so we can all be happy.

HRSG: **DK:** Unfortunately, they have not finalized the report, but I expect it very soon. The bottom-line is that they are working on the executive summary because there is something like 54 pages before they get to any meat. The jest of the report, and although I have seen the report, I have not really looked at it. The good point is that all programs we are funding meet their guidelines and blessings. They did not criticize our existing program. The bad part is that

when I asked where we should be putting money, they did not do the best job at answering that. That is what I have heard, as I said I have not read the report. At this point, I do not know where we stand on providing funding; hoping that they would provide an X, Y, or Z. At this point, they have not provided that, but we will wait for their final. Not providing input on the production increases for SRKW.

Outreach – **DS:** Issaquah Salmon Days – this was the first representation by DFW’s Fish Program. We were there both days and did some outreach. Great experience with thousands of people – positive. Overall, it was great especially particularly with the kids. They are not the people we are going to see at the Sportsmen Show. We plan to continue.

Coho – It was a little late in the year, but we worked hard to get it going. This was with new recruits at JBLM. We capped it at 20 people. We had a full group and provided gear. We instructed them on putting together rules and regulations, and putting together the coho spinners. They appreciated that. We had a couple hooks, but no one landed a fish. It was at least fun while it lasted. This took place at Solo Point in mid-October. We will have to make sure to do it earlier next year.

Chum – We are doing much the same as we did for the coho at Hoodsport November 10. I would appreciate any input or advice you might have. Again, working with folks downstairs, here, the Outreach and Marketing staff were going to go fish for chum. It is a public event. I am open to thoughts and suggestions, particularly on gear type or location. **DP:** Anything purple. Suggestions? Muck Creek.

Sportsman Show is coming up – Would like a meeting prior to the show. Maybe we can put together a schedule of availability for you to participate in that at the winter meeting. Will send a sign-up sheet. I think it occurs in mid-January.

PSRFE members: The last thing is the call for the committee applications. That expires on mid-November (16th). I have heard from a couple folks that they are interested in serving again. If you think about it, just shoot me an email or message letting me know. New membership service starts at the first of the year, biennially. **DK:** Art has to do some homework, and you have some homework. My thought is to do the meeting in early January and the new members start; have a joint old and new type of thing. **DP:** One of the things because the balls are going to start rolling around here regarding Legislative action for fisheries and such. We have the Governor’s ear and anything that comes up on the radar that is something we should be looking into. Norm, Greg, and I sit on the Legislative subcommittee and it is time to start preparing for January. As things come up in November and December to submit to the subcommittee we need to get started on that and be better prepared for January.

Sportsmen’s Show – January 23-27, 2019. Assign a theme: “Chinook Recovery.” Task Force report on orcas for topics. If you can put together some videos before then. We have the machines we can plug those into to play. Ryan had surveys on iPads for people to provide input. Provide group questions for any updates or ideas. Giveaways – we had a couple gift certificates and a rod, something like that. That might be something that we can decide on now, as there will be costs associated with those purchases. I think it was about \$200-300. We

awarded one main prize after opportunity to fill out survey. Perhaps have the fishing application available for viewing and learning about it. Also having a pink year coming up. Dungeness crab: know the story behind Area 11 closure of crabs – biological information. Halibut Catch Record Card. The booth is reserved. Purchase descenders, salmon ID, rockfish placards, salmon placards (the latter last a long time, so many of the people already have them). **DP:** Our booth is not usually in the best area to have access to anglers; can you see if we can have them locate us in the fisheries area?

Wrap-Up

Will send Doodle Poll for next meeting to occur early to mid-January.

EXECUTIVE SUMMARY

The Puget Sound Recreational Fishery Enhancement (PSRFE) requested the Hatchery Scientific Review Group (HSRG) review the current operational status of PSRFE programs and make recommendations to increase their efficiency. Current PSRFE salmon production funding contributes to fish rearing efforts at nine Chinook Salmon and three Coho Salmon programs at eleven Washington Department of Fish and Wildlife (WDFW) supported hatcheries in Puget Sound (Glenwood Springs, Marblemount, Wallace River, Soos Creek, Icy Creek, Voight Creek, Minter Creek, Gorst Creek, Garrison Springs, Hupp Springs, and Hoodspport hatcheries).

The PSRFE sought guidance from the HSRG to review current PSRFE-funded hatchery production to determine if PSRFE production at specific facilities contributes to the Puget Sound recreational fisheries in marine catch record areas (MA) 5 through 13 and if there are better-suited production programs that would contribute at a higher rate. Additionally, this review was to determine if the operations and broodstock management of those hatcheries aligned with the Hatchery Reform guiding principles and broodstock recommendations provided by the HSRG and previously found in the WDFW Hatchery and Fishery Reform Policy.

Initially, most PSRFE efforts focused on enhancement of the “winter” blackmouth recreational fishery through delayed release of up to three million Chinook juveniles. However, in 2011 the Washington State Legislature refocused legislation and included the overall number of angler trips expended as a measure of fishing opportunity. Currently, most PSRFE supported fish production is focused in south and central Puget Sound, with limited production in North Puget Sound and Hood Canal, and includes about 8 million subyearling and 900,000 yearling Chinook (summer and fall races) and 525,000 yearling Coho.

The HSRG ranked PSRFE programs based on a number of metrics, including: 1) cost per adult harvested in Puget Sound sport fishery; 2) productivity of individual programs; and 3) ratio of PSRFE production to total production in target regions (i.e., North, Central, and South Puget Sound and Hood Canal).

For PSRFE supported programs, based strictly on cost per fish in the Puget Sound sport fishery for Chinook, the Hoodspport Hatchery yearling program ranks first (1st) in cost efficiency at \$136 per fish harvested in the summer/winter combined fishery and \$399 per fish harvested in the winter fishery. For the winter fishery alone, the Soos Creek subyearling program ranks last (13th) with a harvest efficiency of 1.66 percent and a cost of \$1,985 per fish harvested. Not enough information was available to adequately rank current PSRFE Coho programs, however, the Hupp Springs program apparently ranks last in production cost (\$148 per fish harvested), based on Minter Creek hatchery Coho data.

When all Puget Sound hatchery programs are compared to only the PSRFE programs based on the number of fish harvested per 100,000 juveniles released, the results indicate that the PSRFE has chosen to support some of the best hatchery programs in Puget Sound. Overall, for the May through September sport fishery, the PSRFE programs average over 68 fish/100,000 juveniles released, compared to about 30 fish/100,000 for non-PSRFE programs. This relationship holds true for releases of both subyearling and yearling fish.

An important consideration in ranking PSRFE programs is the scale of production of PSRFE programs compared to overall production in each evaluation area (i.e., North, Central, South Sound and Hood Canal). For instance, while the PSRFE Hoodsport Chinook program ranks high in harvest efficiency and number of adults harvested in the sport fishery, the overall production of 120,000 juveniles is only 2 percent of all hatchery Chinook production in Hood Canal while accounting for about 9 percent of the PSRFE budget for fish production. In the North Sound area, PSRFE production makes up 13 percent of Chinook production and 19 percent of Coho production while accounting for about 30 percent of the PSRFE budget for fish production. In the Central Sound, PSRFE production comprises 36 percent of Chinook production and 0 percent of Coho production while accounting for about 34 percent of the PSRFE budget for fish production. In the South Sound, PSRFE production makes up 29 percent of Chinook production and 5 percent of Coho production while accounting for about 26 percent of the PSRFE budget for fish production.

In terms of angler opportunity, the HSRG evaluated harvest data for all MAs associated with PSRFE programs (MAs 5 through 13). Overall sport salmon fishing opportunity in days per marine area in Puget Sound has been reduced since the early 1990s in terms of total days of allowable fishing, although opportunity has increased somewhat in recent years. Since the introduction of Puget Sound Sport Chinook mark-selective fisheries (MSFs) in the early 2000s, there has been a significant shift from non-selective to MSF opportunity. Overall, WDFW data indicates that neither of these increases in opportunity resulted in a significant increase in angler trips or Chinook salmon harvest. However, WDFW data suggests that allowing Coho-only sport fishing seasons (non-retention of Chinook salmon) has increased opportunity, particularly in MAs 9 and 10.

The recent six-year average (2010-2016) sport catch of Chinook and Coho salmon approaches 0.8 fish per marine angler trip in MA 5 (Sekiu-Piller Point); this is the most western MA in which the Legislature directed PSRFE to enhance fishing opportunity. Reasonable fishing success of about half a fish per angler trip is also available in the east Juan de Fuca MA 6. However, catch is greatly reduced in areas in the San Juan Islands and within the main body of Puget Sound (MAs 7 through 13). In areas around Everett and Seattle (MAs 9 and 10) sport catch is around 0.3 per marine angler trip, while it is even lower (about 0.1 or less) in MAs 11 through 13.

Although catch in MAs 11 through 13 is very low, average opportunity as measured in marine angler trips averages about 100,000 per year in these areas, suggesting considerable unmet demand for fish to catch. One potential source for fish theoretically available for sport catch is surplus fish returning to WDFW hatcheries. In the MAs close to the population centers in Puget Sound (MAs 10, 11, and 13), these surplus fish meet or exceed

catch in MAs 10 and 11 and greatly exceed catch (to over 10 times) in MAs 12 and 13. For instance, for MA 13 (South Puget Sound), the recent 10-year average Chinook and Coho sport catch was 32 percent and 6 percent of hatchery surpluses and most recently (2015-2016 season) was about 7 percent and 2 percent, respectively. MA 13 is currently open year round for salmon fishing, while the areas directly to the north (MAs 11 and 10) have numerous catch regulations and closures. Nonetheless, recent 6-year average angler trips were 2 to 2.5 times higher in MAs 10 and 11 than in MA 13, suggesting anglers might be unaware of potential surpluses and increased angler opportunities in South Puget Sound (MA 13).

Overall, HSRG recommendations include endorsement of the PSRFE plan for phasing out production at Glenwood Springs Hatchery. Additionally, the HSRG suggests either phasing out or greatly increasing production at Hoodsport Hatchery as current production is only a fraction (2 percent) of total hatchery Chinook production in MA 12. Currently, although the Hoodsport Hatchery yearling Chinook production ranks first (1st) in cost efficiency, the program is small with the overall production of 120,000 juveniles accounting for only 2 percent of all hatchery Chinook production in Hood Canal (MA 12), while costing about 9 percent of the PSRFE budget for fish production. Additionally, Chinook sport catch in Hood Canal is low (less than 1,250 fish per year) as are combined Chinook and Coho angler trips (less than 23,300 per year; about 20 percent of MA 9 to the north). Greatly increasing Hoodsport Hatchery Chinook production might increase opportunity and catch, while phasing out the program should have no effect on either.

The HSRG also suggests the PSRFE program consider increasing support for production of yearling Chinook to enhance winter fishing opportunities, especially in areas with high population density (Seattle south to Olympia).

2017-2019 PSRFEF Allotments vs. Expenditures (FM_01 to FM_17)

MI Code	master_index_title	Sum_Allotments	Sum_Expenditures	Sum_Variance
51102	FP Indirect Recovery	146,290	96,080	50,210
52102	Fish Health PSRFE	102,870	40,600	62,270
53422	PSRFE Marblemount Coho	12,000	6,400	5,600
53455	PSRFE Wallace R	459,600	251,215	208,385
53463	PSRFE Wallace R Coho	50,200	25,100	25,100
53465	PSRFE Icy Crk	156,400	139,822	16,578
53475	PSRFE Soos Crk Htch	397,600	306,634	90,966
53604	PSRFE Garrison Spr Ops	279,600	231,489	48,111
53605	DJ Salmon FY18 Garrison Spr Htch	3,539	3,709	-170
53636	PSRFE Hoodsport Htch	170,400	114,186	56,214
53671	PSRFE Hupp Coho	50,000	40,938	9,062
53673	PSRFE Garrison Late-Release	58,200	43,779	14,421
53674	PSRFE Minter Crk Hatchery Yearlings	0	0	0
53675	PSRFE Minter Crk/Gorst Crk Hatchery	69,000	38,784	30,216
54638	PSRFE -Cutthroat Research	0	0	0
54910	PSRFE Coord	152,854	102,128	50,726
54911	PSRFE Glenwood Springs LLTK	42,000	12,000	30,000
54912	PSRFE Goal Development	196,517	35,174	161,343
54915	PSRFE Mrk	223,200	122,707	100,493
57640	PSRFE Voights Crk Zeroes	128,600	65,979	62,621
57670	PSRFE Minter Crk Zeroes	85,000	69,062	15,938
Grand Total		2,783,870	1,745,785	1,038,085

WDFW In-Season Hatchery Escapement Report

CAUTION - All Numbers represent preliminary estimates only

Fall Chinook

Facility	Stock-BO	Adult Total	Jack Total	Total Eggtake	On Hand Adults	On Hand Jacks	Lethal Spawmed	Live Spawmed	Released	Shipped	Mortality	Surplus	Date	Comments
WHATCOM CR HATCHERY	Whatcom Creek- W	1	-	-	-	-	-	-	1	-	-	-	12/13/18	Final in-season estimate.
SAMISH HATCHERY	Samish River Hatchery Stock- H	7,943	92	8,640,000	-	-	4,547	-	-	-	1,618	1,870	10/25/18	Final in-season estimate.
SAMISH HATCHERY	Unknown Stock- W	367	-	-	-	-	-	-	367	-	-	-	10/24/18	Final in-season estimate.
TOKUL CR HATCHERY	Snoqualmie River Stock- W	51	8	-	-	-	-	-	59	-	-	-	10/09/18	Final in-season estimate.
TOKUL CR HATCHERY	Unknown Stock- H	51	9	-	-	-	-	-	2	-	-	58	10/09/18	Final in-season estimate.
GEORGE ADAMS HATCHERY	Skokomish River- H	23,796	5,292	2,276,048	-	-	3,862	-	-	-	797	24,429	10/31/18	Final in-season estimate.
GEORGE ADAMS HATCHERY	Skokomish River- M	-	-	4,904,017	-	-	-	-	-	-	-	-	10/15/18	Final in-season estimate.
HOODSPORT HATCHERY	Hoodspport Hatchery Stock- H	2,639	1,280	2,357,566	-	-	1,248	-	-	-	74	2,597	10/10/18	Final in-season estimate.
ISSAQUAH HATCHERY	Issaquah Creek- H	1,739	69	-	-	-	1,049	-	31	-	601	127	11/06/18	Final in-season estimate.
ISSAQUAH HATCHERY	Issaquah Creek- M	-	-	2,257,750	-	-	-	-	-	-	-	-	10/16/18	Final in-season estimate.
ISSAQUAH HATCHERY	Issaquah Creek- W	47	2	-	-	-	35	-	2	-	12	-	10/24/18	Final in-season estimate.
CEDAR RIVER HATCHERY	Cedar River- W	40	-	-	-	-	-	-	40	-	-	-	10/21/18	Final in-season estimate.
CEDAR RIVER HATCHERY	Unknown Stock- H	6	-	-	-	-	-	-	6	-	-	-	10/11/18	Final in-season estimate.
SOOS CREEK HATCHERY	Big Soos Creek- H	10,869	1,169	-	-	-	3,495	-	184	263	554	7,542	10/16/18	Final in-season estimate.
SOOS CREEK HATCHERY	Big Soos Creek- M	-	-	8,297,500	-	-	-	-	-	-	-	-	10/10/18	Final in-season estimate.
SOOS CREEK HATCHERY	Big Soos Creek- W	1,129	28	-	-	-	788	-	16	259	87	7	10/22/18	Final in-season estimate.
VOIGHTS CR HATCHERY	Puyallup River- H	5,452	1,026	-	-	-	1,142	-	-	330	1,050	3,956	10/09/18	Final in-season estimate.
VOIGHTS CR HATCHERY	Puyallup River- M	-	-	2,193,000	-	-	-	-	-	-	-	-	10/02/18	Final in-season estimate.
VOIGHTS CR HATCHERY	Puyallup River- W	12	1	-	-	-	13	-	-	-	-	-	10/02/18	Final in-season estimate.

WDFW In-Season Hatchery Escapement Report

CAUTION - All Numbers represent preliminary estimates only

Fall Chinook

Facility	Stock-BO	Adult Total	Jack Total	Total Eggtake	On Hand Adults	On Hand Jacks	Lethal Spawned	Live Spawned	Released	Live Shipped	Mortality	Surplus	Date	Comments
GARRISON HATCHERY	Garrison Springs Hatchery Stock- H	184	293	-	-	-	-	-	-	-	73	404	10/24/18	Final in-season estimate.
TUMWATER FALLS HATCHERY	Deschutes River Hatchery Stock- H	11,467	945	5,555,120	-	-	3,262	-	-	-	16	9,134	10/31/18	Final in-season estimate.
MINTER CR HATCHERY	Minter Creek Hatchery Stock- H	10,932	2,943	1,565,282	-	-	862	-	-	-	510	12,503	12/03/18	Final in-season estimate.
GLENWOOD SPRINGS	Glenwood Springs- H	2	2	-	-	-	-	-	-	-	-	4	10/01/18	Final in-season estimate.
HURD CR HATCHERY	Elwha River- H	2	-	-	-	-	-	-	-	-	2	-	09/27/18	Final in-season estimate.
MORSE CREEK HATCHERY	Elwha River- H	13	-	-	-	-	9	-	-	-	4	-	09/25/18	Final in-season estimate.
ELWHA HATCHERY	Elwha River- H	2,366	20	-	-	-	1,606	-	545	-	235	-	10/17/18	Final in-season estimate.
ELWHA HATCHERY	Elwha River- M	-	-	3,736,424	-	-	-	-	-	-	-	-	10/09/18	Final in-season estimate.
HUMPTULIPS HATCHERY	Humtuplups River- H	650	31	-	-	-	390	-	-	-	164	127	11/13/18	Final in-season estimate.
HUMPTULIPS HATCHERY	Humtuplups River- M	-	-	579,375	-	-	-	-	-	-	-	-	10/30/18	Final in-season estimate.
HUMPTULIPS HATCHERY	Humtuplups River- W	24	-	-	-	-	24	-	-	-	-	-	10/30/18	Final in-season estimate.
MAYR BROTHERS REARIN	Wishkah River- H	39	-	30,500	-	-	26	-	-	-	13	-	12/05/18	Final in-season estimate.
LK ABERDEEN HATCHERY	Wynoochee River- H	268	54	-	-	-	152	-	21	-	20	129	11/14/18	Final in-season estimate.
LK ABERDEEN HATCHERY	Wynoochee River- M	-	-	360,000	-	-	-	-	-	-	-	-	11/05/18	Final in-season estimate.
LK ABERDEEN HATCHERY	Wynoochee River- W	51	12	-	-	-	50	-	6	-	1	6	11/05/18	Final in-season estimate.
WYNOOCHEE R DAM TRAP	Wynoochee River- H	2	-	-	-	-	-	-	2	-	-	-	12/18/18	
WYNOOCHEE R DAM TRAP	Wynoochee River- W	8	-	-	-	-	-	-	8	-	-	-	12/18/18	
BINGHAM CR HATCHERY	Satsop River- H	34	-	-	-	-	-	-	-	-	25	9	11/27/18	Final in-season estimate.

WDFW In-Season Hatchery Escapement Report

CAUTION - All Numbers represent preliminary estimates only

Summer Chinook

Facility	Stock-BO	Adult Total	Jack Total	Total Eggtake	On Hand Adults	On Hand Jacks	Lethal Spawned	Live Spawned	Released	Live Shipped	Mortality	Surplus	Date	Comments
SUNSET FALLS FCF	South Fork Skykomish River- W	93	25	-	-	-	-	-	118	-	-	-	10/11/18	Final in-season estimate.
WALLACE R HATCHERY	Skykomish River- H	4,464	355	-	-	-	2,118	-	28	-	1,366	1,307	11/12/18	Final in-season estimate.
WALLACE R HATCHERY	Skykomish River- M	-	-	4,458,232	-	-	-	-	-	-	-	-	10/09/18	Final in-season estimate.
WALLACE R HATCHERY	Skykomish River- W	4	-	-	-	-	4	-	-	-	-	-	10/29/18	Final in-season estimate.
SOLDUC HATCHERY	Sol Duc River- H	603	82	-	-	-	566	-	-	-	71	48	10/03/18	Final in-season estimate.
SOLDUC HATCHERY	Sol Duc River- M	-	-	1,094,400	-	-	-	-	-	-	-	-	10/03/18	Final in-season estimate.
SOLDUC HATCHERY	Sol Duc River- W	47	1	-	-	-	43	-	-	-	5	-	10/03/18	Final in-season estimate.
EASTBANK HATCHERY	Chelan Falls Channel Eastbank- H	389	-	764,000	-	-	382	-	-	-	7	-	10/30/18	Final in-season estimate.
EASTBANK HATCHERY	Methow Okanogan Mixed- W	136	-	257,950	-	-	131	2	-	-	5	-	11/05/18	Final in-season estimate.
EASTBANK HATCHERY	Wenatchee River- H	159	38	-	-	-	4	-	193	-	-	-	10/12/18	Final in-season estimate.
EASTBANK HATCHERY	Wenatchee River- M	-	-	545,200	-	-	-	-	-	-	-	-	10/23/18	Final in-season estimate.
EASTBANK HATCHERY	Wenatchee River- W	237	8	-	-	-	206	29	33	-	6	-	10/23/18	Final in-season estimate.

WDFW In-Season Hatchery Escapement Report

CAUTION - All Numbers represent preliminary estimates only

Coho

Facility	Stock-BO	Adult Total	Jack Total	Total Eggtake	On Hand Adults	On Hand Jacks	Lethal Spawning	Live Spawning	Released	Live Shipped	Mortality	Surplus	Date	Comments
SAMISH HATCHERY	Samish- W	584	12	-	-	-	-	-	596	-	-	-	10/24/18	
BAKER LK HATCHERY	Baker River- M	-	-	214,696	-	-	-	-	-	-	-	-	12/27/18	
BAKER LK HATCHERY	Baker River- U	187	-	-	22	-	165	-	-	-	-	-	12/27/18	
MARBLEMOUNT HATCHERY	Skagit River- H	8,952	507	-	-	-	676	-	-	-	-	8,783	12/27/18	
MARBLEMOUNT HATCHERY	Skagit River- M	-	-	1,037,749	-	-	-	-	-	-	-	-	11/26/18	
MARBLEMOUNT HATCHERY	Skagit River- W	386	4	-	-	-	104	-	207	-	-	79	12/11/18	
WHITEHORSE POND	Stillaguamish River- W	65	2	-	-	-	-	-	67	-	-	-	01/09/19	
SUNSET FALLS FCF	South Fork Skykomish River- W	10,733	114	-	-	-	-	-	10,688	159	-	-	11/30/18	Shipped to Wallace River Hatchery.
WALLACE R HATCHERY	Skykomish River- H	4,125	19	-	72	-	2,461	-	1,005	-	606	-	11/27/18	
WALLACE R HATCHERY	Skykomish River- M	-	-	4,852,409	-	-	-	-	-	-	-	-	11/27/18	
WALLACE R HATCHERY	Skykomish River- W	812	-	-	-	-	442	-	370	-	-	-	12/03/18	
WALLACE R HATCHERY	South Fork Skykomish River- W	158	1	-	-	-	130	-	7	-	22	-	11/26/18	
GEORGE ADAMS HATCHERY	George Adams Hatchery Stock- H	4,813	531	378,440	-	-	329	-	-	-	12	5,003	11/29/18	
HOODSPORT HATCHERY	Unknown Stock- H	19	3	-	-	-	-	-	-	-	-	22	11/05/18	
ISSAQUAH HATCHERY	Issaquah Creek- H	4,005	196	1,051,500	-	-	914	-	2,791	-	130	366	11/14/18	
ISSAQUAH HATCHERY	Issaquah Creek- M	-	-	25,100	-	-	-	-	-	-	-	-	11/13/18	
ISSAQUAH HATCHERY	Issaquah Creek- W	33	2	-	-	-	7	-	28	-	-	-	11/13/18	
SOOS CREEK HATCHERY	Green River- H	15,337	131	-	-	-	1,382	-	-	19	-	14,067	11/08/18	
SOOS CREEK HATCHERY	Green River- M	-	-	1,874,000	-	-	-	-	-	-	-	-	11/05/18	

WDFW In-Season Hatchery Escapement Report

CAUTION - All Numbers represent preliminary estimates only

Coho

Facility	Stock-BO	Adult Total	Jack Total	Total Eggtake	On Hand Adults	On Hand Jacks	Lethal Spawmed	Live Spawmed	Released	Live Shipped	Mortality	Surplus	Date	Comments
SOOS CREEK HATCHERY	Green River- W	3,407	19	-	-	-	455	-	-	-	-	2,971	11/08/18	
VOIGHTS CR HATCHERY	Puyallup River- H	16,947	138	-	-	-	1,354	-	-	2,856	1,120	11,755	11/08/18	
VOIGHTS CR HATCHERY	Puyallup River- M	-	-	1,614,000	-	-	-	-	-	-	-	-	11/07/18	
VOIGHTS CR HATCHERY	Puyallup River- W	80	-	-	-	-	80	-	-	-	-	-	11/07/18	
GARRISON HATCHERY	Chambers Creek- W	30	1	-	-	-	-	-	31	-	-	-	10/24/18	
GARRISON HATCHERY	Unknown Stock- H	9	-	-	-	-	-	-	9	-	-	-	10/24/18	
TUMWATER FALLS HATCHERY	Unknown Stock- H	119	-	-	-	-	-	-	-	-	-	119	10/15/18	
MINTER CR HATCHERY	Minter Creek- H	8,530	252	-	-	-	1,238	-	-	-	246	7,298	12/03/18	
MINTER CR HATCHERY	Minter Creek- M	-	-	1,534,747	-	-	-	-	-	-	-	-	11/19/18	
MINTER CR HATCHERY	Minter Creek- W	175	9	-	-	-	64	-	113	-	3	4	11/30/18	
DUNGENESS HATCHERY	Dungeness River Hatchery Stock- H	1,846	449	1,056,000	-	-	603	-	-	-	207	1,485	12/27/18	
MORSE CREEK HATCHERY	Morse Creek- W	1	-	-	-	-	-	-	1	-	-	-	09/25/18	
MORSE CREEK HATCHERY	Unknown Stock- H	2	-	-	-	-	-	-	2	-	-	-	10/06/18	
SOLDUC HATCHERY	Sol Duc River- H	9,762	1,604	-	-	-	507	-	-	-	-	10,859	12/19/18	
SOLDUC HATCHERY	Sol Duc River- M	-	-	976,500	-	-	-	-	-	-	-	-	12/19/18	
SOLDUC HATCHERY	Sol Duc River- W	51	-	-	-	-	51	-	-	-	-	-	12/19/18	
HUMPTULIPS HATCHERY	Humtulpils River- H	5,866	669	-	-	-	349	-	-	-	129	6,057	12/11/18	
HUMPTULIPS HATCHERY	Humtulpils River- M	-	-	550,000	-	-	-	-	-	-	-	-	11/14/18	
HUMPTULIPS HATCHERY	Humtulpils River- W	57	-	-	-	-	51	-	-	-	6	-	12/06/18	
MAYR BROTHERS REARIN	Wishkah River- H	4,746	-	475,000	-	-	450	-	-	-	74	4,218	12/05/18	Final in-season estimate.

Puyallup Sportsmen's Show

PSRFEF Oversight Committee Shifts

Jan 23 - Wednesday	
<i>12 noon-4 pm</i>	<i>4-8 pm</i>
Jan 24 - Thursday	
<i>12 noon-4 pm</i>	<i>4-8 pm</i>
Jan 25- Friday	
<i>12 noon-4 pm</i>	<i>4-8 pm*</i>
Jan 26 - Saturday	
<i>10 am-3 pm*</i>	<i>3-8 pm*</i>
Jan 27 - Sunday	Booth #910 - Puget Sound Recreational Salmon Committee
<i>10 am-4 pm*</i>	*High volume, 2 staffing preferred.

DRAFT

2019 Preseason Planning Meeting Schedule *

(January 2, 2019)

Date	Purpose	Location/Contact
January 14-18	PSC Post Season Review	Vancouver, BC
January 22	Co-Manager Policy Mtg – Emerging issues	Quinault Beach Resort
January 24	Co-Manager/NOAA Management Objectives Mtg	Muckleshoot Casino
Jan 22-25	STT Preseason Planning – Review Document	Contacts: Ashton Harp, Wendy Beeghley
Feb 1 (Fri)	Preliminary Forecast Exchange	Contacts: Marlene Bellman, Aaron Dufault
Feb 8 (Fri)	Technical Forecast Agreement	
Feb 11-15	PSC Annual Meeting	Portland, OR
Feb 15 (Fri)	Policy Forecast Agreement	Contacts: Bowhay & Warren
Feb 19-22	STT Preseason Planning – Preseason Report I	Contacts: Ashton Harp, Wendy Beeghley
Feb 21 (Thurs)	Model Input Deadline	Contacts: Marlene Bellman, Derek Dapp
Feb 26 (Tue)	Co-Manager Tech Model Prep Mtg (Inputs & Application)	NWIFC Conference Center 6730 Martin Way E. Olympia
Feb 26 (Tue)	WB/GH Forecast Mtg	Montesano
Feb 27 (Wed)	State Forecast Meeting	Lacey Community Center
Feb 27 (Wed)	Tribal Caucus	Muckleshoot Casino
Feb 28 (Thurs)	Co-Manager Policy Mtg	Muckleshoot Casino
March 7-12	PFMC Salmon #1 Meeting	Hilton Vancouver Washington 301 W. Sixth Street Vancouver, WA 98660
March 6	Coastal Tribal Mtg at PFMC #1	Tribal Policy Room: TBA Hilton, Vancouver
March 14? (Thurs)	PSC Southern Panel – Fishery Data and Forecast Exchange	Contact: Rob Jones, Laurie Peterson Stillaguamish Natural Resources
March 18	Col Rvr NOF #1	Ridgefield
March 19 (Tues)	WDFW and Public NOF #1	DSHS - Office Building 2 Auditorium, 1115 Washington St SE, Olympia
March 19 (Tue)	North of Falcon #1 – Tribal Caucus	NWIFC Conference Center 6730 Martin Way E. Olympia
March 20 (Wed)	North of Falcon #1 – WDFW and Tribes	Lacey Community Center
March 21 (Thu)	North of Falcon # 1 Mtg WDFW and Tribes	NWIFC Conference Center 6730 Martin Way E. Olympia
March 21 (Thu)	NOF Public Meeting	Sequim, WA
March 25-29 (?)	PSC CTC Final AIs Released	Contact: Johnson, Ryding
March 25 (Mon)	PFMC Public Hearing	Westport
March 26 (Tue)	Grays Hbr Public Mtg	Montesano

March 27 (Wed)	PS Commercial Mtg	Mill Creek
March 27 (Wed)	Willapa Bay Public Mtg	Montesano
March 27 (Wed)	NOF Public Mtg	Mill Creek
March 29 (Fri)	Co-Mgr Policy Mtg – AI update	Conference Call
April 2 (Tue)	Columbia Rvr NOF #2	Ridgefield
April 2 (Tue)	North of Falcon #2 – Tribes & WDFW	Lynnwood Embassy Suites 20610 44th Ave W, Lynnwood, WA 98036
April 3 (Wed)	North of Falcon #2 – Tribal Caucus WDFW & Public NOF #2	Lynnwood Embassy Suites 20610 44th Ave W, Lynnwood, WA 98036
April 4 (Thur)	North of Falcon #2 – Tribes & WDFW	Lynnwood Embassy Suites 20610 44th Ave W, Lynnwood, WA 98036
April 8 (Mon)	GH Advisory Mtg	Montesano
April 9 (Tue)	WB Advisory Mtg	Montesano
April 11-16	PFMC Salmon #2 Meeting	DoubleTree by Hilton Sonoma One Doubletree Drive Rohnert Park, CA 94928
April 10	Coastal Tribal Mtg at PFMC #2	Tribal Policy Room: TBA DoubleTree, Rohnert Park

*Please note that highlighted dates and locations are tentative and subject to change based on meeting space availability, co-manager policy-makers' schedules, and other considerations. Updates will be provided as meeting dates and locations are confirmed.

Timeline of Minter Creek Hatchery fish loss and WDFW response

December 14 – Power outage and failure of backup generator:

- Estimated 4.2 million Deschutes fall Chinook fry, 1.5 million Minter Creek fall Chinook fry and 0.5 million White River spring Chinook fry lost
 - WDFW staff responded immediately to the alarm but could not get the generator to come on line. The hatchery supervisor was on-site and all did their best to bring the system back up and recover production. The Hatchery Operations Manager also responded to the emergency. Staff attempted several work-arounds, including bringing a trash pump online to get water moving. They were able to save the approximately 6 million fish including chum, coho and some portion of the White River Spring Chinook at the site.
 - The department began the process of securing a contractor to conduct a root cause analysis to determine the nature of the emergency, whether or not staff responded appropriately, and to determine if operations protocols were followed.
 - WDFW began the process of working with other hatcheries and tribal co-managers to mitigate the impacts of this loss to Puget Sound. That could help backfill the loss we could otherwise see during 2022's, 2023's and 2024's fisheries, not to mention the availability of the salmon for orcas.

December 24 - Decision to take 2.75 million fall chinook fry will be taken from six other state hatcheries for release from Minter Creek and Tumwater Falls in May and June.

Late Dec./Early Jan. – Selected hatcheries include WDFW's Samish, Hoodspout and George Adams Hatcheries, the Nisqually Tribe's Clear Creek Hatchery, the Suquamish Tribe's Grovers Creek Hatchery and Bellingham Technical College's Whatcom Creek Hatchery.

- NOAA gave WDFW tentative approval to move the fish on the condition that the agency get nine treaty tribes to agree to it.
- The fry will be reared at Minter and released next spring in the creek and at Tumwater Falls on the Deschutes River near Olympia.

Master Angler program proposal

Intent:

- Promote recreational fishing opportunities in Puget Sound while collecting data important to managing sport fisheries.
- Focus on the positive aspects of sport fishing so that it will remain as a strong element in the management and conservation of salmon populations.
- Provide a positive and successful fishing experience for new and young anglers to encourage recruitment and retention.
- Teach and train new and existing anglers, as well as other recreationalists, on the history of salmon fishing in Puget Sound & the contributions of anglers to marine conservation.
- Development and disseminate web and print based informational materials for Master Anglers to assist fishers, particularly beginners.
- Create a team of ambassadors for responsible, ethical and legal fishing in Puget Sound and good will between the State and Puget Sound anglers.

Requirements:

- Be a Washington resident
- Hold a current WA saltwater or combination fishing license
- Fee = \$50?
- Attend training session(s) on reporting technique and requirements
- Pass an evaluation on reporting and WA PS rules and regs
- Show proficiency in skills necessary to catch Chinook and Coho salmon, exceeding minimum lengths (if required) within the last calendar year.
 - o Provide image(s) of catch including date stamp, fishing method, Marine Area, Launch site, species caught, fish size (TL)
- Sign an agreement to abide by a MA Code of Ethics
- Be amenable to dfw staff onboard MA boats during fishing
- Submit VTR/STR after every fishing trip
- Some kind of volunteering requirement

Idea:

- A Master Angler designation is awarded to anyone who meets the requirements. Details still need to get fleshed out but the idea is that Master Anglers would be selected at random (depending on Marine Area of expertise) to fish specific areas either prior to the season opening and/or in-season during periods of low VTR return rates (supplement the test fishery). Information including species, number, size, mark status would be recorded and DNA/scale samples would be collected.

Incentives:

- Recognition as a Master Angler
- Increased fishing opportunities
- Receive feedback where we translate angler submitted data to some easily digestible display of their fishing angling performance
- Giveaways like the Discover pass, certificates, awards etc.
- Recognition in reports, public presentations etc.
- Access to special summaries of the program (inside information on the fishery)
- Prizes (trophy, \$\$ etc.)
- Reimbursement of fuel, tackle etc. if called upon to participate..
- Lottery for limited harvest opportunity

Drawback:

- Harvest impacts would likely have to be taken out of the general allowable impacts that would limit the general angling public's opportunity and the overall harvest opportunity
- Enforcement
- Union issues
- Non-MA protest of the program

Benefit to DFW:

- Increase sample size of encounters by size and mark status
- Supplement the test fishery and STR program
- Potential \$\$ savings using multiple 'master angler' boats vs. 1 test boat multiple times
- Improved estimates from additional data could result in greater harvest opportunity down the road
- Maybe don't have to give anglers harvest opportunity
- Creates good will between the dept. and anglers by creating a team of citizen scientists and good will ambassadors.

Cost to DFW/PSRFEF:

- Our budget items
 - o Program r&d
 - o Tablets and/or forms for data entry and transfer
 - o Rewards, awards, prizes etc.
 - o Handouts, informational materials...
 - o Staff time to implement and manage

Questions:

- Cost, what would the budgets look like?
- How many Master Anglers would be allowed in the program?
- What would the application period look like?
- How else would we incentivize the program?

- Can we do this non-statewide, PS specific?
- Would we consider a lottery for harvest opportunity or full MSF or Non-retention (C&R)?
- Could we launch as a pilot to work out the bugs?
- Other questions...