

## Wednesday, September 14

Attendees

WDFW

Heather Bartlett  
James Dixon  
Jeromy Jording  
Annette Hoffman  
Ron Warren

Public

Michael Schmidt - LLTK  
Al Senyohl- Steelhead Trout Club  
Dick Burge - Wild Steelhead Coalition  
Nick Gayeski- Wild Fish Conservancy  
Frank Urabeck - CCA  
Frank Haw - CCA/NWMT  
Roger Urbaniak - PSA/Issaquah hatchery  
John Barr- HSRG  
Lee Blankenship - HSRG

Wednesday, September 14, 2011  
9:00 AM

Heather- Frank set me a series of questions that he wanted answered. 1st did everyone get a copy of the Agenda? (goes over Agenda) At the last meeting we were going to come back with the 1 million release of Chinook by the MIT and the Coulter Creek reduction. A status update on the economic condition, as it is quickly moving in negative direction. Last meeting we indicated that we had put a reduction package to send to the governor's office. Portions of that were adopted, but outside of that we did have start evaluating larger reductions. That included the reductions sent to the tribes in the last letter. We are slated to implement the entire table that was handed out.

Frank - so the \$ amount in that line, who makes the final decision?

Heather - the Director and the Commission will make a final determination. We sent that letter to the tribes, and only one tribe has contacted a RPM to explore what the reductions mean. That is the Quinault tribe about the Hump tulips reduction. The only certainties are that our budget climate is getting progressively worse. We are slated now to take every cut we put forward.

Lee B- It's not clear to me, other than the two were a done deal. Is that based on the additional 5-10% or outside those as well?

Heather - correct, we are looking to cut more. We are slated to take the Issaquah/Coulter Creek now. Then the governor asked a 5% & 10% reduction packages. The commission reviewed that. In the last commission conference call the closure of Nemah and Hoodspport were in the call, and per this group the Hoodspport the elimination of the chum and a loss of the subyearling program would be cut. That's in the 5% agency piece and Nemah is in the 10% cut. Nemah is a complete closure. The commissioners

wanted to see more hatcheries, as they were uncomfortable with the options, as the other options are in habitat and enforcement. Desperate times call for desperate measures. We are in a position to make closures, as to garner more options.

Frank U- before the day is out we'll know what the outcome is?

Heather- Yes. Hatcheries are highly vulnerable because they are visible. These reductions are not having to be done for conservation reasons, but rather for economic reasons. Our facilities are getting aligned with population and conservation objectives, but these are simply losses. Our Director is trying to convey how we are already in several fisheries operating on the cusp of fishery collapse. The Commissioners have summaries of these, and can see that we approaching 30% in the mark rates.

Al- and there's been no indication from any of the tribes to come to the table?

Heather- other than Quinault, no. We don't know how to regard that.

Frank U- So the backdoor channels don't yield anything.

Heather- not at this time. Annette is engaged in discussion with the Muckleshoots.

Frank U- what about the legal issue, Boldt II? The tribes can come in and say you need to produce fish.

Heather- the reductions we are proposing around aren't unduly affecting a single tribe.

Frank U- but in the collective tribal community, would they?

Heather- I don't know the collective tribal response to that?

Frank U- Fair enough. Have you run this to see how it affects fisheries.

James- Most of these have been evaluated for contribution.

Lee B- What's the basis for cuts? Nemah vs. Samish, Hoodspout vs. Skagit, there's something that drove that right?

Heather- General fund is the deciding factor. Then relative contribution to fisheries. We cut the chum, and we knew we needed 2 FTEs to run the facility. We went down to 2 million subs for Chinook.

Roger- so if this is all being driven financially, the hatcheries have all been under fire. Issaquah was scheduled to be closed and folks stepped in to help out. There is big community support here. There is a presumable financial backing here and there. If we were to generate fund raising support and do that privately, is that still a doable thing? Is this just a money thing that if we set up a private fund to retain a certain production?

Heather- the cooperative program is still there, the coho program is there, and the 1 million Chinook are still there. They are not going to see a difference with that operation. We have to look at the fund source. In a different time and different place we may have waited things out to try to implement fisheries or programs

Roger- so even with additional private funding you don't want to mess with the 1 million reduction?

Heather- what do you get out of that?

Roger- more fish to look at for the tours.

James- there is a lot of fish either way. Between those two facilities, we would rather try to build back some of the Tumwater falls facilities. There's not the conservation concerns like Lake WA in the Deschutes. The stray and impact limit is always going to be an issue in Lake WA.

Roger- I am surprised that you would be turning up your nose at the money.

James- I don't think we are turning anything away.

Heather- we would want to try to restore financial support for future stability for the Agency. If the interest by some is to make sure there are fish at the facility, then that's retained by everything that is currently there.

James- part of the education benefit is that maybe now it's more consistent with the conservation objective. If all else holds proportionally you've halved the stray rate into the Cedar.

Frank U- its getting smaller already, and I think the reduction of strays is moving in the right way. Now the tribe is gill netting the Sammamish system. So they've said no big deal?

Frank H- so the 5,400 return, along with no MSF in Shilshole, and the survival rate seems like we need a MSF there to go for.

James- Yes but we need immediate cuts.

Frank U- the facility is still there and the long term is that we don't lose the facility.

Lee B- compared to Deschutes you have to cut three times to get the same benefit.

Al- its one of surplus issues. We really need a partnership with the tribes, and the letter you sent didn't seem to have any impact. If you are looking at reductions look at some that will get their attention.

Heather- the Hoodsport chum will get their attention.

Al- the Puyallup's in the last round got off free. It's a money issue and you've boiled it down to conservation issues, and now we're at a level where if it goes any further they need to help us. Wild fish are a problem and we need funding to keep fishing on hatchery fish. The no response is astounding to me.

Heather- You are right on target, but Hoodsport will be a significant affect. We don't have any good options any longer.

Michael- why wouldn't you do a reduction at GA?

Heather- it's a funding source reduction. I believe GA is a wildlife funded facility? OFM is asking where are the state dollars going? Hatcheries are easy targets then, especially when they are GF-S funding source.

Lee B- what drives the GA for wildlife fund?

James-I believe we used to have a steelhead program that developed the funding there.

Frank U- so why did Bogachiel go into the letter?

Heather- because it was an off station plant. So that was an example of a conservation concern. This is a very complex matrix of decisions to try to get at. However we are also trying to save money without people losing their jobs as well, as that is very important. Our thinking has to become way more aggressive, and as we are looking conservation is helping to drive decisions.

Nick- So you've had to cut or reduce the schedule for evaluating MSF. Are there tradeoffs to be made for developing selective fisheries elsewhere?

Heather- we started this process under a different framework. At GA we have coho and Chinook and elimination of those programs are different.

Michael- could you think about rearing the GA fish, and then acclimate them at Hoodspport.

Heather- well there are marking and fish food costs associated there, so we have to look at saving and it's something we can look at that.

Frank U- that may or may not be a good idea. The Skok River receives a more intense sport fishery. The tribal fishery at Hoodspport is larger, and I don't know that's in our best interest to move those fish up to Hoodspport.

Frank H- So on the green we've discussed a primary or contributing designation, and if we went either of those ways we'd have to reduce again hatchery production by a couple million. Are these being considered per the conservation needs.

Heather- that's a great segway for what we left the last meeting. The Dept is recommended the Green as a stabilizing, but is willing to evaluate what the move towards contributing would do. The discussion underway in the Green may provide us some relief, and for the Skokomish we can show you it's not a good picture.

Frank U- There's no way to get there on the Skokomish, unless we can realistically get an alternate way to get at those fish. I'm going to resist going that way.

James- So for the Green I've run it with the necessary harvest differentials to gain the pHOS to get us to contributing. (James goes over the outlay of the AHA output again) Right now we are running a 57% pHOS which is high to meet the PNI. The 2nd scenario tries to enact the necessary fishery necessary to try to get at is unreasonable, as the 3rd scenario is the most unreasonable with the terminal net fishery

going selective. We can't increase these hatchery harvest rates any further without having to reduce ER on the wild fish.

John b- but you have to reduce the rate in the fishery to collect the NORs for brood stock as well

James- yes, which compounds it. The reduction in the necessary of the wild ER is unrealistic, and I tried implementing a weir implementation scenario. The highest possible PNI I could gain was from 2k up to 2.6k in NOR escapement. The magnitude of changes necessary in the fishery here are represented to meet conservation and the program.

Nick- Since PST is going to be opened pretty soon so we may look at that. If there was an attainable mix in the terminal, you might be able to attain an adjustment in the AK/BC rate.

James- With the model we could iterate a bunch of options. The hardest part of this is the harvest assumptions. On this stock in particular we are fishing to impact, and so really it's an allocation issue.

John B- So the weir seems to get you to a positive outcome though.

James- You could not fish that hard and the effect on the hatchery fish is shown. This model is made to show directions. The bottom line is that our sport fisheries right now aren't powerful enough to operate.

Michael- so what if you change your conservation expectations?

James- well the only thing you have left is to reduce your programs or population designation.

Lee B- So the model run was a request to look at the

Heather- the question was to look at what the HR was to get to a different population designation. So parts of the group wanted to look at what each of these scenarios would do.

Nick- Yes but the 2015 date may be a more long transitional goal.

Lee b- you've got a budget need, and a conservational need, why not use it here?

Heather- So you would recommend reducing the program here to get towards a contributing program? It's also not general fund.

Frank U- So we've been trying to move the tribes toward MSF and this year we had less opportunity. How do we use this vehicle to accomplish that?

James- That would be a difficult enough question even if money wasn't an issue. It expands the difficulty, and programs perform differently. They also perform differently in how they buffer and get harvested in different fisheries. Before this board came together, we didn't have a conservation concern in the Green. That's one of the reasons Green wasn't even on the table, and this is a little bit of a shift and that's why it isn't on the table. Now we might see it as an option.

Lee B- in past budget cuts we've switched funding sources. And you can switch the funding sources.

Heather- If I come up with something for budget reductions I have to determine that based on funding source, and it's not always easy switches.

Lee B- even though in the original NMFS document it was category 1

Heather- that was due to its historic legacy.

Michael- the conservation expectation is more of preserving a stock because it has a lot of history, and spread all over hell's half acre. Why not focus on it as two program scenario so that its fit, as there are capacity questions. I don't know what the. . .

Heather- so a two stage integration

John B- Like Nisqually?

James- a reasonable goal, then we have to come to terms ...

Frank U- and you're talking about a return of NORs right? You'd have to set a goal

James- not necessarily a fit, Green R stock is anything better than a PNI of .5

John B- yeah but you can't get there with just HOR spawners.

James- right

Frank U- but that requires MSF ahead of the weir. We are trying to move the Nisqually model elsewhere.

Frank H- you're also making steps in ESA recovery.

James- that's true, but NOAA hasn't identified it as a population that is necessary for recovery for that geographic area.

Heather- so we can propose a program change, to hit the 2015 deadline and population designation. It would be about a 1.25 million program. Another option above stabilizing was to focus on MSF, and reduce PHOS. So if we wanted to get to a primary designation then the 2015 would not be met, what do people think about?

Dick B- well what was the original escapement goal? What can we get at in the original escapement?

Jeromy- the escapement goal is 5,800.

Dick B- So why aren't we headed toward that number with NOR rather than with HOR/NOR combination?

Heather- I want to reemphasize we aren't writing off a population. We are simply determining the risk and how much we want the hatchery stock getting the heavy lifting done for recovery.

Nick- There are some of us that don't think that stabilizing PNI are adequate for anything for recovery. And it feels like its written off. The .67 hypothesis is still theoretical.

James- That's a great segway in that if there isn't a recognition that harvest and recovery are in opposition to one another. Some places there are balancing scenarios, in some places there aren't balances and you pick one or the other.

Frank U- I think what the group was in agreement on last time, was that we don't want status quo. We feel like walking out of here by supporting the message that we would like to produce a wild population there.

Nick- I think we could identify quantitative benchmarks to make progress to get to here.

James- The RMP is a 3 year draft at this point. We can do things for ...

Frank U- The feds seem to just react to what the comanagers give them. The public has made it very clear that we want the public process to be better. We've seen an initial foray to move in that direction, and the Dept is obligated to put things like that on the table during the update.

John B- Since we've started this process I don't like that harvest is out there on its own.

Heather- So I'm hearing that MSF is hearing that 2015 is not a priority but we want benchmarks put in place to have things maybe come down to 2020 and 2025 maybe to get us to contributing and primary? Barring achievement of getting some of these benchmarks then we would default to some reduction to get us there.

Nick- at least contributing, but to follow up on the point that John just made. It is going to require changes in fisheries, and if that's lagging or not possible.

Frank U- that becomes the stick where we need to either go there with fishery management or cut to fisheries.

Heather- so you would recommend MSF in place by 2015, and barring those a cut to the program would be put in place. We could hand these notes to the folks who work in the harvest realm, and those folks would then know what our wish list is.

Michael- I would still say that we evaluate the habitat program as well to evaluate the capacity.

Heather- and a weir project then?

Nick- as well as a NOR escapement goal that is the aim for PNI above .5 moving towards .67

Dick B- so moving back, are we going to see a step increase possibility.

Lee B- I would assume this statement would be communicated to the group that is working with the Muckleshoot?

Heather- so by 2015 MSF in place, weir timeline establishment, NOR minimum escapement goal.

Nick- and so with the NOR escapement goal with PNI of .5 or better.

Heather- and then by 2020 you would have a review?

Nick- SO by 2015 you could actually look where you were headed.

Frank U- this would be a hell of a gain if we could get this going that way.

Heather- I'll put this in draft and send it to you guys.

Frank H- so By 2020 you might have that whole area above Howard Hanson.

James- So on the back side is the Skokomish

### **SKOKOMISH CHINOOK UPDATE**

Heather- So I did try to do a Commission update, but I want to say up front that some of the things we've shared aren't broadly out there. We have an obligation to notify our staff and the tribes. It's happening so quickly that we need to make sure we talk with the folks that their lives are going to be affected by this. I don't know what their final decision was. We have to develop a game plan for how to implement it.

Frank U- Please keep us posted, as some of us will move on it. The legislature will make the decision and we need to get in there about that.

Heather- whether a special session is called, or what happens during a planning process versus what's get implemented are very different. At this point though what was put forward to the tribes in mid August is slated to be implemented now.

James- So roughly the same type of scenarios I tried with the Green I've tried here.

Frank U- so we have MSF here already. Maybe a weir inclusion would help.

James- the habitat driver is 1.4 so total recruits at best is a 1.4 R/S return rate. That's wild fish at a low density best case scenario. So that already knocks the population down greatly. The recruitment is far under one after NOR ER is taken in. We moved from a 90% pHOS to a 81% but lost NOR escapement. In this case the primary limiter is habitat with this stock right now. You essentially need these hatchery fish to keep wild fish there. The 3rd scenario I shut down all SUS fisheries and in this case you seem to be spinning your wheels, as that's the only way to get to a primary goal. I would order these in sense of priority of effect is habitat, hatchery, then harvest.

Frank U- so over time could you ever get there?

James- this is over time.

Frank U- so if you get rid of the hatchery the wild fish go extinct?

James- likely, or an NOR population is so low you don't know. It's slated as a primary, and the remaining component that is driving this is habit.

Frank U- but this seems that we can't get there here.

James- no this is the classic example that you can do everything with hatcheries and harvest, and without habitat you won't ever get recovery in the Skokomish.

Frank H- so you've got vast improvements on the estuary. How can you assume there wouldn't be an adaption here?

James- We're not taking that into account here. We haven't adjusted the habitat productivity here, as there hasn't been a measurable effect yet. The short term objectives for reducing risk is what we're trying to get at here. We are trying to get to priorities here.

Frank U- what would be realistic here?

James- nothing here. As far as making progress here the only thing you can do, first of all you'd have to make some unrealistic assumptions about the conservation of Hood Canal driving all fisheries. You'd need a small program that put all the NORs back into the system.

Heather- the programs would have to be as small as 100k

James- and so the supplementation program would have to be un-harvested and no surplus. It's not realistic

Frank U- What's going on up the river that would make a difference on the habitat upstream?

James- so the sub-basin recovery plan, there was language that indicated that there would be a concerted effort to determine the proper race for recovery. Right now it's now a great highly productive fall Chinook system. With the Cushman settlement it might be a more productive spring Chinook system. With the population that is present right now, should we prioritize it.

Lee B- where did the productivity estimates come from and how old are they?

James- they are from the 2005 EDT estimates, and are going to be used in the current NEPA analysis.

Lee B- So my guess is that it's higher than 1.4 right now

James- I would disagree. The abundance isn't showing that habitat is taking hold yet.

Nick- well part of the problem is the quality of the fish that are used in the habitat. This seems to indicate that for over a century there will be no delisting of the ESU. Getting the public to continue to invest in habitat restoration and then testing another stock now to develop some natural selection drivers seem to prolong the process.

James- well this habitat productivity is assumed for stock specific parameters.

Frank U- So why in the world are we doing a selective fishery then?

Jeromy - Because we couldn't make the RER without it.

Frank U- well the fish we are taking out of the Skok are better than those we are getting from the Green. For 2015 here I think status quo is where we go.

Lee B- What about this being a primary?

James- right now the hatchery production is not the limiter. And that's a reasonable argument. As habitat improves we could reevaluate.

Frank U- Yeah I agree.

Frank H- isn't the NF improved flows happening right now?

Lee B- But the ignoring of the estuary improvement is reasonable to ignore.

John B- part of every recovery plan has habitat restoration and we should be able to suggest what those are doing

Frank U- If you are doing the monitoring

James- It makes sense that most of the corrected habitat conditions now have positive impacts versus there old impacts, but many of them haven't been quantified.

Nick- so the Skok Hatchery population is part of the ESU?

James- Yes, they are green river transplanted stock. It's the same as the Nisqually/Puyallup. There's no longer a native stock. They had to make some decisions.

Michael- so a couple ways we can state this, could you say what the basics would be here again. A MSF, weir, focus on habitat and over the long term evaluate the habitat with adjustments to hatcheries and harvest accordingly.

Frank U- do we have a juvenile monitoring system there? That will let you understand productivity.

James- meeting conservation standards by 2015 is not a priority here then. A revisit by 2015 would be in place then.

Frank U- well let's get the data, and try to evaluate it then.

Nick- since HSRG are kind of our bellwether here, I'm uncomfortable that we can't get a PNI or pHOS that we're shooting for.

Michael- well part of that is evaluating the habitat.

John B- Be advised that here your natural population will go to zero at this current harvest rate, with a productivity of 1.4 and ER of 50%.

James- by 2015 the group wants some reassessment of the habitat potential, and then the removal of hatchery fish. We have just finalized the relicensing and recovery plan there. Something the utility agrees to pay for, which lines out further agreements and what stock is the focus for recovery. So to answer our questions, not a priority for 2015, but is a more dramatic system than the Green.

Frank U- We do want to look at the increased productivity, but we don't want to shoot our self in the foot here just for the sake of it.

Heather- Okay we'll update the Green, and the Skokomish that tries to capture the short term and long term actions that we want to see. Annette and Ron can use these as their guides as we move through the HAIP process.

James- so the fishery impacts from the reductions, these are draft estimates. The scales are off, and percentage wise they should be on though. So the base year is 2010. In the further scenarios "no" means no changes to the fishery. You'll see in the base year total production, and right now we are limited in the scale that we can get into the sport fisheries. So the total is fish caught with current production (hatchery and wild). The next scenario shows the Issaquah reduction, and you see the fisheries impacts. Below that is the mark rate in the fisheries. In the next scenario is putting the Issaquah back and a reduction of the Coulter, that way you can see the effect of either. The last scenario is both of the reductions together.

Nick- so as far as I know none of the Canadian fisheries are MSF correct?

James- right

Frank U- so what's the angler response to this likely to be?

James- well it's likely to be what you expect.

Heather- it's a draft tool. Remember because our sampling is showing that our mark rates are much lower than we what we are showing here.

Frank U- I understand that, and this is a done deal for a lot of hatchery programs. We're trying to make the economic case for a lot of these. If we can't get a sense of what a cut does how do we make that case.

Heather- some of our fisheries are at the level where we don't have a buffer to provide the conservation.

James- this isn't going to help any of the fisheries.

Al S- so we all really rallied for the license fees increase. In order to maintain the hatchery system and the game dept and then we take a look at this particular reduction, and the impact is from the Straits to Port Townsend to Tacoma to Olympia, and this is an absolutely huge reduction. That's hard to justify and it's a political hot potato.

Heather- I hear you, and we don't want to do these either. Our economic train is going downhill faster than we can imagine. If it wasn't his 2.8 million it would have been something else. I would like to suggest that this option is a bad decision amongst a bunch of horrible options.

James- most Puget Sound fish contribute rather widely. South Sound tend to have the biggest travel pattern, and you have to remember that the Deschutes stocks provide an abundance, but they are providing more surplus than they are putting into catch. This reduction is under the assumption that there are no changes in the fisheries.

Lee B- one of the HSRG recommendations for closures was Skagit.

Dick B- I was going to bring that up for SH, and it might replace that money elsewhere.

Frank H- You know we've been talking about Chinook but coho is actually the bigger fishery. This will be cumulative.

Heather- 190k in the Skagit, and 730k in the Hump tulips.

James- yeah and the % of the coho catch in the Skagit per wild fish is extremely small.

## **STEELHEAD**

Heather- so the memo that you see here (from Ron W, Jim S) was put forward after the SSMP to change our SH hatchery practices. So in the '09 biennium we discontinued a 50% reduction of hatchery releases in PS and we reduced by almost 60% the locations we used, or all off station plants. We've made a lot of changes to date. We took a series of questions to drill down what ecological brood stock interactions.

James- So steelhead, unlike Chinook, hatchery programs has been dominated by 2 stocks developed for directed harvest. In theory they were developed to keep them separate from the natural stocks, although current science significantly suggests otherwise. Winter SH we don't have the realistic way to evaluate due to their run timing, and so we've tried to develop tools to evaluate risk for SH. In 2004 for the HSRG standards at the time we took a subset of questions known with the risks for SH and produced a tool (handout) to put together a best management practices (BMP) questionnaire to evaluate SH hatchery practices. SH used to be very prolific, and almost all tributaries every other year were planted.

Frank U- so what are you seeing in terms of fishermen response?

James- well its biased depending on the source.

Frank U- So is catch tracking with the overall decline?

James- well since '99 we've targeted hatchery fish only.

Heather- but we could check with Licensing, SH punch cards, and RFEs.

Frank U- It gets at benefit, and a lot of systems people are no longer going. If the benefit is so little then do we still put hatchery fish in these systems.

James- No good point. It's all the way from if you cut the program and we might not fish, up to those that don't think they are beneficial at all.

Dick B- the other thing in play is as PS closes it puts more pressure on the coastal impact of those system.

Ron W- very true and we're really taking a look at that. We also don't know where guides fish, as they used to be required to do so. We also know when we creel survey constituents don't tell you accurate data. We're trying to understand what effort trends are doing to the coastal populations. It's difficult to glean what is actually occurring from CRC data. As an example we could be touching over 80% of all NORs on the Hoh River.

Frank H- Why don't you have a logbook system?

Ron W- Don't know, apparently we stopped using the data at some point. In some area we need that additional data.

James- so my creel comment we have very limited places we have that type of data. We are limited to what DJ funding we have, as in the Snohomish.

Annette- we've done creel surveys in the Snohomish, whether they're SH or Chinook. But we don't have any internal funds for that type of work.

James- so we can watch things like catch fluctuation.

Frank U- what about volunteers?

James- Well for the logbook you might be able to do that.

Ron W- Well we've thought about that for places like Snider Creek.

Frank U- there might be groups that would be willing to do that.

James- So what I wanted to do was set the base. I think we can at least do that.

Heather- With the Chinook we had the benefit of the TRTs designations in place. As we work through more of the species we have less and less of that. What we can do is provide you with the most current draft TRT groupings. You'll see that the TRT is trying of a roll up of what we have for SASSI stocks. We have a # of populations identified, and the TRT is leaning towards those being major population aggregates but not independent populations. One of the things that was illuminating to me was that the TRT saw two distinct life histories as one population as well.

James- So for example purposes I skipped down to Nooksack, and have what is hopefully pertinent information. Title of stock, whether there's a hatchery program & what it is if there is one. Unless it's an integrated program (the Green late, Hood Canal, Lower Elwha, and the White R) the programs aren't listed with the ESU. So this is as much a question as it is a proposal. So do we fill in the boxes that are empty? Every program that I could think of I printed out.

Michael- so there's no PHOS estimate?

James- no

Lee B- Should introgression be available?

James- there's a couple of systems where we have Chamber's like fish being produced. But it wasn't introgression.

Dick B- Phelps did work on almost all PS Rivers and got extremely high introgression rates.

Heather- it might be in the Science Paper.

James- I don't know that it could be worse at this point.

Dick B- in some cases the wild populations are down near 5% of what they were in the mid eighties. The front write up on this is for a conceptual conservation hatchery.

James- one thing about hatchery SH is the whole concept of those stocks of fish were developed to one year old smolts. That's where we had the largest survival rates.

Dick B- I question that. For taking the fish out of the wild and raising them into a yearling. . .

James- not what I'm talking about. We used to egg box everything, and so we put a lot of fertilized eggs out into RSI programs. The efforts to culture long term fish we couldn't get them to smolt due to the feed expiring. The precocial rate was too high when we tried to bring them up too fast to reach a size where they would return. So in order to get the stock development we had to select for the early returns to get them up to size. This created a bimodal run development. SO we've developed these second stocks that don't occur anywhere in nature. We're not talking about integration here, but rather keeping them separate as possible. There are experiments going on with taking endemic studies for 2 yr smolts. I think maybe now we've advanced far enough in our technology that we can try that up.

Dick B- I think using wild brood stock is the way to go, and have a high chance for being better for the fish than segregated hatchery programs.

James- The good way to think about it is that there's no biological benefit from a segregated hatchery. It's a cultural and economic benefit and that's it. Not that that's not an important thing to keep fishing.

Dick B- but if these hatchery fish reduce the wild productivity we lose more economic benefit in the long ter. And that's how we've gotten in a problem here.

Heather- I can see that.

Frank U- so the Director spoke to the SACAG group and got to the point that we are almost to the point that we cut complete SH production due to the benefit not being there. And then due to the programs being so low, maybe we are at a point that en masse we stop hatchery production in the Puget Sound Rivers.

James- Know that although its been diminished you're still talking about a significant amount of fish available for harvest.

Frank U - but what's the benefit we're getting? For Nooksack example for 2008/2009 48 hatchery fish were taken.

Heather- You know the serious implications here are the discontinuous of some programs will mean fisheries cease in most of the watersheds where we make that decision. As it relates to SH the governor has taken a keen interest in assessing their performance. In the SSMP we developed the WSMZ as being available for fishing, but in most of these cases it would actually become a reserve. We would close fishing.

Dick B- do you mean salmon fishing, trout fishing, everything?

Heather- At least trout, and steelhead fishing.

Al- so on the Green we did a lot of work with Frank Getts to evaluate the SH program. The problem doesn't seem to be hatcheries in that we saw them leave the river, and the data was consistent that once they got into the estuary they disappeared. It was consistent year after year. It seemed like the hatcheries were doing their job.

Heather- I agree with that, as I am very familiar with that study. But the Agency's view with PS SH at this point it is so dire that everything we are doing is under the scope to reduce any risks we are posing.

Frank U- and we did that on the Cedar and it still failed.

Heather- correct.

Al- but what about all the interior fish, those have a harder time than the PS fish.

James- So while SH do bring a moderately higher economic benefit they cost more to produce as well.

Al- So if we don't know what the problem is and if we stop the production won't that make it harder on the wild fish. The Columbia R endorsement, and the stakeholders are putting more money into it so I don't know this is the way to go.

Heather- we're not there, but I want to be up front with where we are and what the Agency is thinking. How can we justify a fishing opportunity when we are only fishing on wild fish.

James- So fisheries will be limited to 4% for all fisheries.

Dick B- so you are thinking economics when thinking about closures. We should be looking at closures, as the river conditions are very poor. Maybe there are some places where we look at some harvest opportunities, but Oregon is revamping their SH program.

Frank U- is there a river we could designate a hatchery only SH program.

Dick B- Well in deep South Sound there are some places we could look.

Heather- so really what you are looking for is either a location that has a very robust population that a hatchery population wont interact with or a place where you don't have any SH at all to produce a large program.

Michael- so a lot of the information you've presented is about how to reduce the current programs rather than population designations. Are we going to talk about the population designations?

Heather- yes

Michael- where how do we propose to do that? Is there EDT analysis for SH?

Heather- the white paper might have it. Our discussion was as much today to get us oriented on SH, as we don't have as many MPGs. And to present the information we have and what else we could use. So any EDT estimates and introgression data, and summary of the scores associated with the weighting from the coarse filter.

Nick- so we just published a historical reference for PS SH. Could we get Ann Marshall to come down next meeting and give us an update on what the TRT is thinking.

Heather- yeah we can try.

Frank U- so where is this ultimately going? Where do the population designations weigh in, as if we stop or cut hatchery production significantly how does that work?

James- so the programs here there isn't as much of a need for comanager consensus. We have programs that will likely be easy candidates to get cut. The priority should be to develop gene flow estimates that we could use to determine detrimental affects. I'll try to dig up all the genetic analysis that was done. A lot of it is quantitative.

Heather- we don't meet till October 4th and so that will hopefully give you enough time.

Frank U- so we haven't decided yet whether or not we would shut down all the hatcheries yet?

James- not yet, but we are closing in on those thresholds. You will help with that decision. The economic question comes in after that.

Frank U- we elude to the economic data in a sense.

Heather- So the Tom Wagge report will tell you what the SH programs are worth.

Annette- once one of these segregated programs are discontinued, they are gone. SH fishing will only continue when the natural populations come back.

Al- And when you shut these rivers down it will transpose these anglers elsewhere.

James- BC had to go to a limited permit fishery on the Skeena about a decade ago.

Heather- NEXT MEETING is **OCTOBER 4th in ROOM 175** downstairs all day meeting.  
Portfolios for Green and Skokomish we'll get to you, and we'll try to get you all the documents here today again as well.