

MEMORANDUM FOR THE RECORD

Subject: FINAL Minutes for the 14 August 2008 BON AFF meeting.

The meeting was held in the Bonneville Dam Auditorium. In attendance:

Last	First	Agency	Office	Email
Clugston	David	USACE	503-808-4751	David.a.clugston@usace.army.mil
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Whiteaker	John	CRITFC		Whij@critfc.org

Peters started the meeting with introductions.

Peters: Would like to understand the issues. There has been a lot of discussion about the AFF upgrades. What is the long term intent for the facility? Are there concerns about handling?

Lothrop: When Whiteaker and Hatch informed him of problems using the AFF in the manner they want in an effort to get their sample sizes, he suggested a meeting be convened. CRITFC uses the AFF for a variety of purposes; implementing commitments in the Pacific Salmon Treaty and the US v Oregon in-river management responsibilities. These responsibilities include age, length and stock composition used for run reconstruction. There are new needs coming, related to the MOA or Fish Accords. These Accords are a 10-year commitment and while they are mostly BPA projects, there will be an increased need to sample at the AFF. We need to have a way to use the facility to accomplish the goals of CRITFC and other Regional users.

Fredricks: There are more than needs, there are concerns too. NMFS has stressed that the presence of the AFF is not a blank check for the use of the AFF. It wasn't designed for the level of current use. There are issues with the temperature of the water, the ability to sample without handling/trapping all fish going through the Washington Shore fishway. We need to come up with some way to meet the needs, but also address the concerns. One issue is the money, but also what are the realistic needs?

Lothrop: Wasn't trying to draw a line between needs and concerns.

Graves: NMFS is trying to figure out what the agency's needs are. The Hydro section has talked with the Harvest, Peter Dygert, to help clarify those needs. They need to balance their multiple responsibilities of gathering information but also protecting the resource.

Fredricks: One key component, which isn't represented here, are the States (WDFW, ODFW, IDFG). What are their current and future needs? Not arguing the need for the data but rather the method for collecting that data. One issue that has come up is the size of the fish, such as the B-run steelhead.

Whiteaker: In the past, the WDFW and ODFW have gathered the steelhead information. Since CRITFC was in the facility as well, it was cheaper to hand over those duties to CRITFC. The MOA's add more work but it is just expanding the information gathered during the current sampling schedule.

Peters: USACE also has needs. Could Langeslay or Clugston explain those? Getting a clear understanding for the different stocks and time of year would be really helpful.

Fryer explained the various stock and sample size needs. He provided a handout that laid out the researcher needs.

Whiteaker: Part of the sample size problem is attempting to estimate the number of fish needed. CRITFC decides on a weekly amount but the fish may be early or they may be late. They can't get a hard line estimate on what they need each week.

Graves: Is that with two days with six hours or four days with six hours?

Whiteaker: In the past they would sample three times a week and get about 100 fish per species per day if there were thousands of fish passing, or get 10 if there weren't so many. Now they spread the sampling out over the entire week.

Graves: so you added days but reduced duration.

Peters: what are the next steps?

Fryer: Estimating the ten year average is tough. Two lead sampling for four hours a day resulted in few fish.

Lothrop: Doesn't know of anyone who thinks the picket lead configuration is an optimum configuration.

Fredricks: Majority of the flow and fish go through Washington. There is a hole to the side that leads to the AFF, most of the fish will avoid going into that dark hole and opt to go up the main ladder. There is a solution to that.

Fredricks explained the vertical lead idea at this time. It would give fish a choice as to which way to go down stream of the weir 37 valve. Those on the AFF side would have to continue through the AFF but all fish would not have to be diverted into the lab.

Fredricks: The other concern is how to handle those fish at the temperatures we have out there. Don't know if anyone here thinks 70°F is a good temperature to handle fish. Concern is that we need to have a plan to move away from intensive handling in the future. Yeah, right now we have to work with what we have, but what is the plan forward to reduce handling of the fish? Would like to see a way out of the intensive handling. Can we get beyond the handling to something less frequent or less intensive? How do you get the data and still safeguard those fish? That is the goal. Can video counts or visual counts be used? Can PIT tag data be used? What

other methods are being developed to get the information and still limit the handling, especially at the higher temperatures?

Lothrop: If CRITFC can get a parallel picket lead, that addresses a lot of the issues, but there is still the temperature issues in July/August/September. How easily achievable is the parallel picket leads? Is it a next year fix, three year fix?

Fredricks: It's not a three year fix. It could be done this winter, or Hausmann could get it in this afternoon. It's an easy fix. It won't have any shear force, maybe a little bit of side load.

Schwartz: Would this be permanent?

Fredricks/Meyer: This could be removable with hoists. It would allow flexibility for the AFF users.

Peters: Is the District and the Project aware of this?

Clugston: this has been informally discussed.

Meyer: Need access, walkways, and hoists. The Washington Shore will need to be dewatered for the installation.

Peters: Sounds like something Ed could work with Portland folks to figure out. No Rainey designs though. Not guaranteeing funding but it would probably be an Ops issue if we went forward with this. To clarify, this would resolve most of NOAA's issues.

Graves: This would just help ensure sufficient numbers of fish without closing off the entire ladder.

Meyers: There are still issues when there are 30K fish going over in a day. Diverting 15K into the lab may not be appropriate.

Whiteaker explained that they aren't in there all day so if there are 30K fish a day; they may only see 1000 due to the sampling hours.

Meyer: yes, but if you set up the lab in the morning and charge it with fish, you still have all of those fish in the lab that have to get out.

Whiteaker explained that it takes about an hour for fish to seed the ladder.

Peters: when you are done, what happens?

It was explained that the bulkhead is pulled and fish can move out through the AFF exit ladder and back into the Washington Shore.

NOAA Fisheries acknowledged limited use but it does get around shutting down the entire ladder. The other concern still, is the handling of the fish once they are in the lab. Fredricks is asking everyone to try to come up with ideas for a re-design to better facilitate handling the fish.

Peters: Let's dig into that issue a little bit more. Didn't USACE make improvements?

Fredricks: We made some improvements but there are still more that need to be made. The false weirs and flumes are still a problem.

Clugston: if you look at injuries and time delay, it's not huge but there is the unknowable delayed impact.

Fredricks: You would have to follow the fish to the spawning grounds to know what those effects are. There are dead fish in the facility. Whenever the grizzlies are cleaned out, there is grey matter on them. How many fish have died? We probably have to do some of the handling but do we have to do so much? Can we cut back the volume? Really don't want to walk away without a commitment to reduce the needs. As long as there is approval to do it, there seems to be no incentive to look for other methods of getting information.

Fryer: part of the issue with the need to handle the fish is if you don't handle the adults, then you need to increase the numbers of juveniles handled for PIT tagging. Problem with the existing PIT tags is that it is heavily weighted towards hatcheries and Snake river fish. The issue at Bonneville though is the temperatures. When we have the high temperatures; that is when the fish return. With Fall chinook, they tend to move as the water starts to cool but we can't get back in until the temperature drops to 69.5°F. It would be better to have 70°F on the upward end since the water is warming but have 70.5°F on the downward side since that is when the fish start to move.

Fredricks: that isn't the fault of the fish, that is what the temperatures are. It is a fault with our needs.

Fryer: looked at the size for A and B run steelhead. The size overlap is extensive.

Fredricks: reading the other day about the value of juveniles and adults. We need to be really careful with the adults. They are the returns, the currency of the river.

Clugston: we have been trying to adjust our research to work around the temperature and picket lead handling. That is what our researchers have to learn to live with.

Fredricks: there are issues with tagging juveniles, the survival, but if we can resolve that then tagging more juveniles gives us a lot more information and not just on adult returns.

Graves: the BiOp calls for more tagging of representative stocks in the basin. Might be opportunities to use what CRITFC does and supplement the database. The other thing as far as impacts, has anyone looked at the survival of CRITFC tagged fish compared to other tagged fish returning to similar locations?

Fryer: haven't looked at that yet, but would like to. One problem with that is that we are dealing with two different groups of fish, but I think as more juveniles get PIT tagged; then CRITFC's fish could be used as a baseline. Unless you do a lot of PIT tagging in a lot of places, you won't get away from that problem.

Graves: Thinking of Fall chinook as an example. We have pretty much one population of Fall chinook. The genetics are pretty tight. If you are tagging fish we later know are fall chinook, you should be able to make some comparisons there.

Fryer: Having trouble getting funding to PIT tag Hanford Reach juveniles. This last year we tagged about 16k but currently have no funding to tag fish in 2009.

Fredricks: are there index stocks that could be used as a surrogate to the stocks used for harvest management, based on PIT tags alone? Not every stock will have an abundance of fish tagged, but certain stocks will.

Fryer: It gets expensive to do a lot of wild fish.

Ellis: the fall chinook harvest management is keyed on the upriver bright stocks. The trick is, currently, a high % of hatchery fish are PIT tagged but that is a small percentage of the upriver Fall chinook so they aren't all that representative. To do a more representative sample would involve a massive effort to get your hands on Hanford and Deschutes fish. Have done some trapping to do coded-wire tagging and that was a challenging problem to capture enough Deschutes fall chinook to get any meaningful numbers back. Developing forecasts on Deschutes fall chinook, though they are a small percentage.

Lothrop: Deschutes fish are an indicator stock in the Pacific Salmon Treaty. We have to track that stock in terms of population trends. It's in good shape right now compared to Nooksack and other coastal stocks but it is one we have to track.

Graves: How many fall chinook targeted turn out to be Deschutes river fall chinook?

Whiteaker: we will find out this year. This is the first year we have done this tracking.

Whiteaker explained more about the coded-wire tagging of the chinook.

Fryer was asked why couldn't they be PIT tagged instead of coded-wire tagged?

Because the fish are gutted at sea and a PIT tag is lost. It was suggested the fishermen get PIT tag detectors. Lothrop commented that it is a big infrastructure issue. Fredricks responded that he is hearing that nothing can be done. Lothrop said here was an expert panel report on the coded-wire system. It would require Alaska, Oregon, Washington to change the way they are handling the tagging and information gathered. Fredricks understands it's a big issue but it is one that needs to be dealt with. The expert panel looked at switching technology but decided it is more important to keep what we have. It is important to have good abundance estimates because it impacts the composition of the fish off the coast of Vancouver Island and then the Nooksack stocks get targeted. It is a convoluted issue that others understand much better.

Fredricks: why does it have to be all or nothing?

Lothrop: it's a practical matter. You can get genetics but you won't get the age. Age is very important.

Whiteaker: research is being done, but it is going to take time for things to change.

Lothrop: we would like to try out the video technology for steelhead. They present their own challenges from chinook. The size criteria for A-run/B-run was settled after much bloodletting in US v Oregon so it probably isn't going to change soon.

Graves: B-run are a limiting factor to the fishery so there is a drive to separate them from the A-run and marry up the genetics with the length information so at the end of the day you know what your impacts are.

Fredricks: Should be able to use video for steelhead and for the Tule/up-river brights.

Lothrop: Might be interested in trying to figure out a little better way of getting sample information.

Fredricks: what is most bothersome more than anything else is that we have 71°, 72° degree water and we are told we HAVE to get in there and here are the reasons why. Is there a way to address some of those reasons and get some of the data because at some temperatures trapping isn't going to be allowed?

Ellis: I think the tribes would be quite open to determining the meaning of the A/B run fish and determining useful criteria for length. Working toward using video counts to the extent possible would be fine. There is still an issue with forecasting steelhead and chinook. Need age data and we get that from scales. Might get that from massive PIT tagging of juveniles and that might be ok, but some tribes are resistant to PIT tagging so many juveniles. We still have a need for age based data for forecasts. We can agree to work on A versus B run steelhead, video sampling... but this all takes money and we don't have money. We would have to look to USACE. So we can agree to do that but we still have the age based stuff and I am stumped as to how we could get age based stuff now.

Fredricks: if you are proposing to work towards a longer term solution, that's great. We can deal with the short term handling if there is movement towards a long term solution.

Whiteaker: Our long term goal is to handle the fish once at Bonneville so you don't have to handle them at the tributaries.

Fredricks: the problem with handling here is that you are affecting the entire Columbia River.

Whiteaker: We are only in there for a couple of hours. We are sampling only a fraction of the run.

Graves: If you got harvested fish and you can get tissue samples, but the problem is that you don't know if they are representative of the whole run?

Whiteaker: the problem with sampling harvested fish is that those fish are selected by size and timing.

Fredricks: I thought the idea was to sample the composition of the run in real time. Sampling harvested fish would be real time and actual impacts.

Ellis: We have people to measure harvested fish to determine the number of B-run fish caught and compare that to the estimates made by sampling at the AFF. For spring chinook we are managing all the upriver stock as one group for harvest management. Summer chinook are managed as if they are all upper Columbia, Fall chinook impacts are limited by the upriver brights, and then Spring Creek tules and Snake river chinook are looked at separately. They want to make sure there is adequate escapement for the mid-Columbia hatcheries.

Fredricks: the most important stock specific information is Fall chinook it sounds like.

Ellis: Need a sufficient sample size so that there are accurate percentages of age classes in the forecast. If jacks aren't properly sampled, then the whole estimate is off.

Fredricks: But jacks aren't your target. Is this a post harvest issue or in-season issue?

Ellis: age based stuff is post harvest. The only way we get it is by scale samples. This is all used for forecast for the next year.

Fredricks: There is no way to get that information based on size?

Ellis: don't currently have the capacity of PIT tagged fish to do that.

Clugston: are there ways to subsample?

Ellis: haven't looked at it. The issue is the PIT tagging of the wild fish. There is enough hatchery return data, enough that you could do your forecast without sampling at BON but the wild component is the unknown.

The conversation continued to discuss the bias of using harvested fish to forecast the run for the next year. TAC doesn't have a good way to do that and none of the suggestions were considered viable at this time TAC operates under the assumption that the harvest is relatively non-selective, but the reality is that there may be a selection for different stocks.

Klatte: what would happen if the AFF were unavailable for use? What would be your sampling plan?

Ellis: for doing forecasts, TAC would cobble together as much age data as they could from other sources and make guesses as best they could. It would cause an immediate crisis for the A/B split for the fall fishery. Wouldn't propose stopping fishing though.

Peters: how often do water temps reach 72°F?

Whiteaker explained the current sampling protocols and the concerns with having to wait until the daily average temperature dropped to 69.5°F.

Fredricks: what we need to do is to figure out how to get CRITFC a couple fish a day at temperatures from 70-72°F. We have been told three leads doesn't cut it, it isn't any better than two leads. Is that true?

Whiteaker: Three isn't better than two for steelhead. For sockeye, two and three leads worked fine. For our four days this week, we almost got 20 steelhead and there are 20K going over the dam.

Fredricks: so three isn't enough. The alternative is to go to four leads for a specified amount of time.

Whiteaker explained that they have asked for the flexibility to move the leads as needed. He understands the aversion to that, since there has been abuse in the past, but it would be best for them. The thought is if four leads could be down, they could get their fish numbers as quickly as possible then get out of there in the shortest period of time possible.

Fredricks: Is there an opportunity to develop a longer term plan through this group?

Peters: not sure what the proper forum. I hear that the main needs appear to be harvest management. Not sure how this is even going to get paid for.

Lothrop: Harvest management is paid for by both the Department of Commerce and the Department of Interior. The funding levels have been relatively static, but with a new Pacific Salmon treaty, there may be an opportunity to push for more funding. CRITFC may suggest, if money were made available, that the money go directly to USACE for AFF mods. At the same time, it would be good to work the Administration side to get appropriated funds. Even though this is Harvest management, part of the MOAs is to get beyond Harvest v. hydro v hatchery management and, instead, work together to reach the common goal.

Peters: Since this is mainly harvest focused it is hard for USACE to justify the expenditure, given the limited authority given for specific actions at the Projects. Does the short term plan sound agreeable? Four leads for the first hour in the morning then two after that.

Further discussion centered on the four leads for the first hour versus four leads all day. CRITFC talked about their sample with the different numbers of leads down. Fredricks doesn't want to see four leads down for the duration. There is a concern the leads would be down for up to three hours or more, until CRITFC sampled the numbers of fish they needed.

Fredricks: The original section 10 permit said 68°F was the cut off. Not sure what happened to that language.

Graves: what is the process that is gone through to determine when the lab is seeded with fish?

Discussion centered on possibly using the fish viewing window at the AFF to know how many fish have gotten into the ladder. It would provide a minimum number of fish in the ladder. CRITFC talked more about being able to adjust picket leads at their discretion. Clugston mentioned that some useful information could be gathered from watching the numbers of fish entering the ladder. Peters appeared to feel that using the window as an option might be worth trying. NOAA Fisheries suggested maybe running the trap for a longer period of time to once an appropriate number of fish have entered the AFF entrance ladder. CRITFC was skeptical as to how long it would take once fish entered the ladder. It was suggested they try it and find out. Lorz asked if more leads for fewer days would be better than fewer leads over more days. Concern about the cleanliness of the window was expressed.

Meyer: long term, using the count window, the system could be modified to allow for the selection of targeted fish at the window. Could develop a trigger gate that would allow targeted fish to go up the AFF ladder, the rest would be returned to the Washington Shore ladder. This may alleviate the temperature concerns as well since not all the fish are subjected to handling. The inside of the lab could be redesigned since the flumes (for visual ID) would no longer be needed. Concern is for the impact to so many fish that are not needed for sampling. These mods are a few years out though.

Peters: still have an issue above 72°F. So on years when temperatures will reach or exceed that temperature, CRITFC needs to consider other options for getting their information during that time.

Fredricks: Need some willingness to develop a plan to move beyond the intensive handling.

Peters: Back to day to day sampling. We need to have key folks keep in touch to adjust as problems arise. We do not want to impact a large number of fish and have problems on the spawning grounds. Is this doable or is it already happening?

Mackey: This is happening already, especially earlier this year when CRITFC requested more leads. Some of the concern is that the rules in the FPP are blanket rules for working at USACE facilities. They went through a lot of debate and discussion. They were thoughtfully crafted. We understand the need to get fish and we appreciate that need but if this were University of Idaho or NOAA Fisheries we wouldn't have any problem telling them that they can't sample due to temperatures.

Peters: we have differing criteria for different folks.

Mackey: yes and that is a problem. The FPP should apply equally. Treating different groups differently could cause confusion, especially since we allow the piggy backing in the lab during warm water.

Peters: that is why Clugston needs to get a good idea of what USACE's needs will be in future years.

Clugston: We have directed our researchers to work with the protocols.

Lothrop: there are two or three groups of people that need to talk. 1. the in-season management. 2. the new picket leads. 3. long term solutions. Would like to get those groups talking and get the efforts on track.

Schwartz: FPOM discussed a way to measure impacts after sampling. CRITFC was asked to look at passage times from the AFF to the exit.

Fryer: I haven't done that yet. I have done a little bit for sockeye though. There appears to be a longer passage time than at other dams, but not that much.

Clugston: one thing we can do is look at the PIT tag reader and compare the ones that went through the AFF versus the ones that didn't.

The meeting went in a few different directions at this point. Langeslay outlined that the interim fixes were probably a FFDRWG role. Long term fixes need to be tracked by someone else since it may not be appropriate for CRFM to pay for a major overhaul for the AFF when the USACE needs are declining and the future needs appear to be mainly for harvest management.

Graves: is USACE willing to help scope out a path forward and the funding sources will be secured down the road? There may be options but we still need to work on a design to present to potential funding sources. Do understand the USACE point that this is more a fisheries management issue.

Fredricks: The interim lead issue should be easy and inexpensive. Then the next level could be the longer term mods. This would be more than a band-aid approach.

Peters: The end goal is to select the species and numbers of fish to trap in the facility instead of the entire ladder. The hard part may be justifying the cost since USACE is Project funded. Cost-sharing would work.

Lothrop: we have a feel for where the solutions lie in picket leads, but what about funding strategy? Funding has a significantly longer lead time.

Fredricks: I see four things. This year, next year, long term for the trap, and long term for harvest data collection. A multi-discipline group needs to think about these issues.

Lothrop: We can start to address some of the data needs. Age data changes will need to go through US V Oregon TAC. There is a steelhead focus since that is where we are dealing with the warm water issues.

Fredricks: The steelhead one is easy. If you need to get your hands on the fish to get the genetic sample and it has to be here instead of a terminal fishery, how else are you able to do that? I want a commitment from folks that there is an effort to move away from handling. As far as the near term issues, I feel like I have a gun to my head with the number of picket leads. It seems nothing is ever good enough until you get all four leads for all hours. Everyone needs to accept some risk. What does CRITFC think would give them a push of fish without diverting the entire ladder?

Fryer: four leads for the first hour then two or three after that.

Lothrop: We are talking about having four picket leads down for three hours. Fredricks recommended an hour.

Fredricks: I'm reluctant to go for even an hour. But we will give you an hour for four days a week.

More options were presented and discussed. This difficulty of getting leads up and down was discussed. Adaptively managing the leads was discussed.

Mackey: The one hour is far easier for the Project to monitor. We need to be accountable for our facility and what goes on there. We need to be able to say "yes, the leads were down for this time".

Fredricks: That's true. These criteria were developed with FPOM and we appear to be unilaterally changing them without FPOM buy-in. CRITFC will have to deal with the one hour.

Mackey: It would be nice to agree to the one hour for the rest of the time we have the elevated temperatures and just call it good. If this were a few years ago when we had temps reach 72°F at this time, would we be arguing over another ½ degree? It seems we keep chipping away at the criteria and yeah, it does impact CRITFC's sampling and that is unfortunate but at some point we need to say "here are the protocols and this is what we are going to follow".

Lothrop: It isn't us, this is an international need.

Fredricks: so the gun is to our head. Some fish is better than none.

Lorz: if we still aren't getting our sample, we can have a weekly conference call again. By this coming Wednesday we should know what we might need and talk to USACE.

Lothrop: so you have a weekly check-in? That sounds like it would work and we will have a sense of how things are working and we can figure out how to address it.

Peters: What are our criteria for the direct mortality?

Fryer: we have to report all morts and we do have a limit. The permit allows for a take of 17 EAS-listed fish total. We rarely have any mortality.

Peters: We are in a riskier situation, so we need the eyes and ears to determine when the fish are becoming stressed and have the ability to shut the facility down.

Meyer: I have always put my trust in the Project biologists to make the call to shut the facility down in the interest of fish safety. It is also in the FPP.

Whiteaker: We've had guys come back early because of the fish condition/reaction.

Peters: We have the criteria set?

Fryer: one more issue that hasn't been addressed. When temperatures decline, we would like to resume sampling at 70°F instead of waiting for 69.5°F. It doesn't make any sense to me why the limit is different on the upward and downward temperatures.

Mackey: Let me tell you why. It is for a very good reason we have 69.5°F. We need to make sure we are on a downward trend.

Fryer: Right now it isn't a problem but two weeks from now it could be. We need to get some fish.

Mackey: I am not willing to budge on the 69.5°F unless forced to. That was a hard fought battle.

Fredricks: Yeah, these criteria were discussed and agreed to. What is the point of rules if we are going to keep changing them?

It was determined there would be a 1300 call on 20 August to check-in. Mackey will get a conference line and send the information to everyone. There is a chance the temps will be 72°F by the weekend and it will be a moot point. Need ideas on the picket leads before the next FFDRWG.

Meeting adjourned at 1530.

MEETING SUMMARY-

CRITFC committed to look into other ways of getting the information they need for harvest. They will explore using the fish count windows to reduce handling of the fish run and to look at increased juvenile tagging and a better handle on the numbers of fish needed and why.

NOAA Fisheries agreed to one hour with four picket leads for four days a week. If CRITFC continued to have difficulty getting their sample, a weekly call would be implemented and picket lead operations would be negotiated.

USACE committed to looking into installing a new set of pickets that run parallel to flow. These would divide the Weir 37 pool in half. All fish on the north side would have to go into the AFF, all fish on the south side would be allowed to move, unimpeded, up the fishway.