FISH PASSAGE CENTER

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MEMORANDUM

TO: Charles Morrill, WDFW
Bill Tweit, WDFW

Michele DeHart

FROM: Michele DeHart, FPC

DATE: July 11, 2018

RE: Request for transcription of the June 12, FPAC, "Other" agenda item

In response to your request the FPC staff has transcribed the June 12th, discussion at FPAC of the "Other" agenda item. The transcription is exact, such as might be found in a court reporting. Please pay attention to the notes at the beginning of the transcription. The recording of the June 12, FPAC meeting is on the FPC web site along with the notes of the meeting. (http://www.fpc.org/documents/fpac_minutes/fpac_minutes_currentyear.html).

In the transcription, you will note that I requested that IDFG provide written *technical comments* on the June 1, 2018 and March 6, 2018 memorandums and analyses completed by the FPC. We received those comments on June 15, Friday after 4:00 PM. We forwarded the written technical comments to the FPAC membership on the morning of Monday, June 18th.We responded to all of the IDFG comments in a memorandum distributed to the FPAC list, on June 22, 2018. After carefully considering the IDFG comments, and responding to each comment raised at the June 12th FPAC meeting and in the June 15th written document, we find no scientific, technical basis for revising the conclusions or analytical methods employed in the March 6, 2018 or June 1, 2018 memorandums. The response memorandum is posted on the FPC website listed by date, under: "Response to IDFG technical comments on FPC March 6, 2018 and June 1, 2018 analyses" (http://www.fpc.org/documents/memos/47-18.pdf).

A few notes on audio transcription:

- This audio is written "As-is" or "As-heard", meaning that while sentences are not necessarily grammatically correct, the structure has been preserved to reflect exactly what was said.
- Fillers (such as 'um', 'uh', and 'you know') have been omitted from the text ***except where they are proceeded or followed by a significant pause.***
- The instance of the phrase (Crosstalk) is used to indicate when many voices (3 or more) are speaking at the same time, making accurate transcription difficult for that timestamp.
- Spoken decimal points are first written as spoken (point-o 5) and then followed by the written version in parenthesis (.05)
- Timestamps are posted in the document when *any* of the following occurs:
    - A person begins speaking
    - After a significant pause in speech (approx.. 2-5 secs.)
    - During natural breaks in the conversation to make longer periods easier to navigate

Transcript prepared by: Alex Saint, Admin Assistant, FPC

Begin Transcription

1:49:25 Russ Kiefer (IDFG): Yeah Charlie it um, well that's a reasonable approach, um, but I do have another agenda item here. And that is, um, I have some dissatisfaction and concern with, with FPC memos.

1:49:48 Charles Morrill (WDFW): Okay?

1:49:50 Russ Kiefer (IDFG): And so when we're ready I wanna get into that so I'm a little bit leery about going that route

1:49:55 Charles Morrill (WDFW): Alright, understood, thanks Russ.

1:50:01 Paul Wagner (NOAA): Okay, well, I think we can take on your issue Russ.

1:50:09 Russ Kiefer (IDFG): Alright, well as folks know on the first I was off on annual leave, the Fish Passage Center sent a memo to us, it was signed by Michele and the subject is Review of Special Operations at Little Goose to Improve Adult Passage. So, whoever's driving can we pull that up?

1:50:59 Russ Kiefer (IDFG): So, my first concern is, it says, nothing about adult passage in here, and so one: I was expecting an analysis that indicated, based on my review of the data that for adults this operation was a winner and was a success, nothing in here about that. Then when I get on here it is, go down to, table one.

1:51:48 Russ Kiefer (IDFG): So what you've got, daily average spill proportion, you notice on May 29th, says 50%, that was because they were cleaning screens and were shutting of turbines. And so we got higher spill so yes you're gonna get fewer fish through the powerhouse when you're cleaning screens and have to increase spill. Number two is it shows Lo-Mo and shows a declining average spill proportion, but, all these projects the top three: Granite, Goose, and Lo-Mo besides when Goose was cleaning screens were at power house capacity. So at Granite for example, the daily average proportion spill went from 34, 32, 31, 28%. The same pattern of decline you see at Lower Monumental Dam, and so, this memo makes the claim that our operations at Goose put more fish through the power house at Lo-Mo, but what happened at Lo-Mo, was they were at powerhouse capacity and the river flow was declining so the proportions spill was declining and so our operation at Goose, I'm pretty confident, did not significantly effect power house at Lower Monumental Dam.

1:53:51 Russ Kiefer (IDFG): Now, my biggest concern over this, um, I'm definitely concerned that we are blaming the declining hydrograph and reduced spill proportions on our Goose operation. But my biggest concern is, that when you go back, at figure two, and look at that, and what you see is, on the PIT Tag detections that, you see a change, a slight change, where more fish came through at night after we implemented this operation, that's the PIT Tag data and that indicated that more fish were detected at night. My main concern is that this memo states that this change is likely due to increased powerhouse passage

proportions after ponding spill reduction caused more fish to be entrained in powerhouse flows.

1:55:18 Russ Kiefer (IDFG): So at night when they're still at powerhouse capacity, like they've been all day, and we're spilling more water at night, can someone please explain to me how that would put more fish through the powerhouse.

1:55:41 Russ Kiefer (IDFG): What I really believe-

1:55:42 Erick Van Dyke (ODFW): They're not in a voluntary operation. So, this is involuntary, frankly, that could be true.

1:55:56 Russ Kiefer (IDFG): Biologically and Physically, no.

1:56:01 Erick Van Dyke (ODFW): Biologically an-

1:56:02 Russ Kiefer (IDFG): Don't- we've been increasing spill to keep fish out of the powerhouse.

1:56:06 Erick Van Dyke (ODFW): I'm just thinking about how-

1:56:09 Russ Kiefer (IDFG): So you're saying increasing spill at night put more fish through the powerhouse is what this memo says.

1:56:16 Erick Van Dyke (ODFW): I said voluntary and involuntary conditions would be different

1:56:19 Russ Kiefer (IDFG): The amount of spill, I don't care if it's voluntary or involuntary, the more spill, the less fish go through the powerhouse. Is that correct or not?

1:56:29 Erick Van Dyke (ODFW): Depends on-

1:56:30 Russ Kiefer (IDFG): You're defending this Erick?

1:56:32 Erick Van Dyke (ODFW):--is all I'm saying. All I'm saying is that if the powerhouse has capacity in a voluntary situation that, you know, putting more through, in the involuntary situation would be accurate to make that comment.

1:56:51 Russ Kiefer (IDFG): I'm not understanding you at all here, bud. Try again. Explain to me, when we're spilling 90kCFS all day- I mean- running 90kCFS all day long through the powerhouse, and then increasing spill at night, and getting more detections at night, how you believe that spilling more water at night put more fish through the powerhouse.

1:57:16 Erick Van Dyke (ODFW): Because I said that- two different conditions. Not the 90k cont--

1:57:20 Russ Kiefer (IDFG): I'm talking about these data right here. These days the 28th through the 31st.

1:57:28 Erick Van Dyke (ODFW): I'm not trying to make you wound up Russ I'm just saying that's- from my perception that would be how that could be different. Maybe-

1:57:37 Russ Kiefer (IDFG): How could you run more fish through the powerhouse with more spill? With the same amount going through the turbines.

1:57:47 Erick Van Dyke (ODFW): Okay, in that case, then I agree entirely with what you just said.

1:57:54 Russ Kiefer (IDFG): Kay, so I believe happened on these days is that we reduced spill in the middle of the day, when only about 15 percent of the fish were passing the project, and put a few more of the fish, when 15 percent of the fish were passing the project, through the powerhouse, but at night, when 75 percent of the fish were passing the project, we spilled more so we actually, this operation, I am confident, if it was analyzed fairly, would show, that we put more juveniles over the spillway with this operation on the 30th and 31st, then we'd have done if we'd have stuck with the flat operation.

1:58:52 Erick Van Dyke (ODFW): So is this an expansion of the PIT Tag detections? Because it simply seems to be characterizing what was detected.

1:58:59 Russ Kiefer (IDFG): That's right. And so if they- why didn't they expand it which would show that with increase in spill and then detecting that many fish meant there's a lot fish going over that spillway at night.

1:59:17 Erick Van Dyke (ODFW): Yeah it's just characterizing what the proportion of-

1:59:20 Russ Kiefer (IDFG): No no no

1:59:22 Erick Van Dyke (ODFW): --In the bypass where I assume

1:59:25 Russ Kiefer (IDFG): But this piece of paper claims that it is likely due to increased powerhouse passage proportions after pawning spill reduction caused more fish to be entrained in the powerhouse. And that is technically incorrect.

1:59:45 Russ Kiefer (IDFG): Who wrote that line?

1:59:50 Brandon Chockley (FPC): Russ, I'm not gonna talk about who wrote what in a memo. What I will say is that we will sit down and listen to this recording and take all-take notes of all the concerns and respond in writing.

2:00:10 Erin Cooper (FPC): Anyone's also always welcome to submit written comments if they have concerns about any FPC product.

2:00:16 Russ Kiefer (IDFG): Well my concern is, is, here's a big concern for me: the Fish Passage Center is supposed to be a technical assistance to us including Idaho Fish and Game, but what has evolved is you are taking partisan positions on operations. That the Fish Passage Center did not support our request for the 30% morning operation, and that

resulted in a biased memo that instead of, how it's supposed to work, I get a memo from the Fish Passage Center, I read it quickly and then have information that helps me make better decisions in the future. But what I get is stuff that leads people to say that our operation, it's on the draft notes, Brandon Chockley says that our operation put more fish through the powerhouse. That is incorrect. And so I have to spend a lot of time going through, and figuring out what exactly did, getting upset, now I gotta get on this call and make a lot of comments, so Idaho Fish and Game, is getting tired of the Fish Passage Center not helping us provide better condition for fish, making more work for us to figure out what you did wrong in your analysis. On that aspect, on this 3-16, 3-6-2018 memo, on the travel time, Goose Delay, is that, on, page 10. On Wild Spring summer chinook analysis. It says that oop, we did get a significant relationship including travel time for wild fish. However travel time between Ice Harbor and Lower Granite below the 20 day threshold did not show significant relationship with the probability of upstream survival success in any other models. And it's, references Appendix A, Table 17. So I turned to that and what I see, is for the survival model at T 5, I see a P value of point-07 (.07). For adult PIT Tag Data wild chinook, to me that's significant.

2:03:20 Russ Kiefer (IDFG): I see T 15 model, a P value of point-09 (.09). For PIT Tag wild adults, that is significant for me, and what I don't see in here is it claims, in here that once you get the fish that went the longest out is no longer significant, but I never see a P value for what is there so I can use my own brain and not, be like, some of my colleagues on this call have done is to parrot the language in here without understanding that 'no there's something going on', and that is a concern. So once again, instead of a memo that makes it more efficient for me to make good management for fish as my role representing Idaho Fish and Game and the State of Idaho in this forum, I have to spend a lot more time trying to figure out what in the hell you did. And then I get frustrated when I start figuring out what you did.

2:04:35 Russ Kiefer (IDFG): So number one it looks like to me, that there's, clear indication that travel time does impact wild fish, and number two: this memo describes it as survival, it's not survival, it's detection probability. Because if you look at table 11, labelled table 51 it says that from 2005 through 2011, survival to the Clearwater was zero. Survival's not zero. Detection probability was zero. So you had massively changing detection probabilities because of the installation of detection arrays. So describing this as survival is misleading, it's not survival, I guarantee wild chinook survival to the Clearwater was not zero. So every way you do this seems to me was done to bias against our proposed operation at Little Goose instead of being a fair arbitrator of the science to help us all make better decisions.

2:06:10 Russ Kiefer (IDFG): This is very frustrating to me. I am confident that adult delays reduce actual survival of putting eggs in the gravel, we should avoid it. I also am confident that our operations in late May early June to reduce spill in pond and then increase spill based off of this passage timing of the PIT Tag juveniles increased spillway passage for juveniles. It was a win-win, and I've got some of my co-managers that will resist this because, and I've heard it said, 'Well, delaying for less than 20 days does not impact their survival'. Whoever said that you do not have the scientific base to say this all you can say is that we did not find a statistical relationship when we took out the longest traveling fish to an upstream detection array. You don't know if they successfully got their eggs in the gravel.

2:07:26 Russ Kiefer (IDFG): Biologically these fish are on a time schedule for a reason. That spring chinook come in earlier than summer chinook for a reason. And it's, as rivers warm up, it's gonna become more important to avoid delays. And this 30% morning, and making it up ponding and then spilling more at night appears to be from looking at this in a fair approach was better for juveniles. And so we had a period earlier when those folks that are opposed to this operation got it held off and it appears looking at conversion rates between LoMo and Little Goose that our reluctance to react that first period cost us some survival of some fish.

2:08:35 Russ Kiefer (IDFG): I am frustrated, especially with the Fish Passage Center but I am also frustrated with my fellow FPAC members that should be smarter than just parroting the lines fed to them by the Fish Passage Center.

2:08:55 Russ Kiefer (IDFG): I'm frustrated I gotta spend a lot of time sorting this stuff out and I can't rely, I can't trust stuff, analysis coming from the Fish Passage Center.

2:09:11 Russ Kiefer (IDFG): Whoever did this juvenile one, ought to be embarrassed.

2:09:26 Paul Wagner (NOAA): Okay, so-

2:09:27 Russ Kiefer (IDFG): I'm done.

2:09:29 Brandon Chockley (FPC): Like I suggested with the June 1st memo, we will as a staff sit down and- obviously we need to change the table numbers on the March memo- and we will respond in writing.

2:09:44 Russ Kiefer (IDFG): Well I wanna know what the P Value is for wild chinook that took less than 20 days. I don't want you to feed me a line that it wasn't, didn't affect survival I wanna see a P Value.

2:10:05 (Crosstalk)

2:10:08 Gabe Scheer (FPC): I thought I explained this pretty well last week. The P Value showing the difference between the fish that took longer than 20 days, that's the same P Value. That's the P Value showing the difference between those two groups. So essentially it is the same P Value.

2:10:32 Russ Kiefer (IDFG): So what is the P Value for fish travelling less than 20 days?

2:10:37 Gabe Scheer (FPC): It's in that table, I'd have to look, but it's below point-o 5 (.05).

2:10:47 Russ Kiefer (IDFG): No, for the fish travelling less than 20 days. We say there's no survival impact. Or at least this memo does.

2:10:53 Gabe Scheer (FPC): So- it's the same P Value, because that value is showing if there's a statistical difference between the two groups survival.

2:11:03 Erin Cooper (FPC): The two groups being over 20 days and under 20 days.

2:11:06 Gabe Scheer (FPC): Exactly

2:11:07 Erin Cooper (FPC): So-you're-that P Value is for that comparison, it's not a P Value on the survival of any one group.

2:11:15 Gabe Scheer (FPC): So the P Value would be point zero zero zero 725 (.000725)

2:11:22 Erin Cooper (FPC): And that's the but there's a statistical difference between fish that take more than 20 days and fish that take less than 20 days.

2:11:29 Russ Kiefer (IDFG): Right but we're saying that travel time does not affect survival fish less than 20 days, where's that P Value?

2:11:40 Erin Cooper (FPC): The P Value was showing that fish that take longer than 20 days survive, have lower survival than fish that take 20 days or less, which have higher survival. So it's not a P Value on the Survival of fish that take less than 20 days or on that travel time. The P Value is the difference in survival between those two groups.

2:12:04 Russ Kiefer (IDFG): How do we conclude that this indicates travel time below 20 days are not likely to affect the probability of an individual's upstream survival success? What is the P Value for travel time for fish less than 20 days?

2:12:24 Erin Cooper (FPC): I'm not sure how to answer that Russ because that's not the statistical test.

2:12:34 Russ Kiefer (IDFG): Well then how are we able say it's not likely to affect probability of individual survival success?

2:12:43 Gabe Scheer (FPC): So, it's because that we tested, as you alluded, those other relationships with the travel times less than 20 days and we didn't find any, they were not in the top models that showed up in that modeling effort. And so, because they were not well supported models and the 20 days seemed to explain the most variation in that difference in survivals, that's the basis of that statement. And I thought we, yeah, I thought we went over that pretty in depth last week but, yeah, we'll be happy to write up an explanation that addresses your concerns here and have it in writing.

2:13:26 Russ Kiefer (IDFG): Well, you know, I appreciate your efforts Gabe. But it's one where, you know, I'm a biologist I understand biology. Adult delay is bad, I get that. I don't understand these complex modeling, where you get 'Alright travel time impacts survival or if you look at fish that traveled greater than 20 days, oh yeah that's significant too. So therefore we can conclude that less than 20 days doesn't impact survival' that's where I'm missing the link, how can we make that statement by saying that 'Sure,' - and I agree that yeah, probably fish that took longer between, than 20 days between Ice Harbor and Lower Granite did have lower survival. That fits my biological understanding. What I don't understand is that then we can conclude that less than 20 days delaying fish doesn't impact their survival.

2:14:39 Russ Kiefer (IDFG): That's what I'm missing the link. How can we make that statement and how, and number, you know, the P Values tell me how close, a P Value of point-one two (.12) for hatchery chinook is concerning to me. A P Value of point-five (.5) I wouldn't be nearly as concerned. So that's why I'm trying to figure out what is, and I do see P Values here in this table 17, that, or in that range that are, to my mind statistically significant, you've got a point-o six five (.065) here.

2:15:23 Gabe Scheer (FPC): And as we've talked about last week that is because all those fish that took longer than 20 days are in those models and so you will see that relationship getting closer but then once you make that cutoff at 20 days you real- that's what really explains that difference. And that's what you see in the data and that's, yeah what I thought we explained pretty well in this memo. But we can certainly reiterate that and kind of go over in a little bit more detail. If that would help the group.

2:15:57 Michele Dehart (FPC): This is Michele, Russ, and what also would help is we have the recording here, of the meeting, and the discussion. If you want to write down something, like, it could just be in an email, we will use the recording, but if you have like, some specific written comments you'd like to make, or you think would clarify, we would appreciate getting those in writing in an email, but we will respond to these comments on the recording, in writing. So we can clarify all this for you. And we don't, you know, we'll hopefully clear up some of the confusion.

2:16:41 Russ Kiefer (IDFG): Michele, how about my biggest concern about this June 1st memo? That we increased powerhouse passage proportions after ponding spill reductions cause more fish to be entrained in the powerhouse flows.

2:17:01 Michele Dehart (FPC): Would you like us to go through that in further detail of how that was calculated? We are happy to do that, but we will do it in writing. Is that what you, is that, that's fine. We have no problem going through that again, in more detail.

2:17:26 Russ Kiefer (IDFG): Explain that logic. That one is the biggest concern to me.

2:17:33 Michele Dehart (FPC): We will. We will go through that in detail, we will respond to these comments right here in writing, we will respond all the comments you made on this recording in writing. I think that's--

2:17:43 Russ Kiefer (IDFG): And on the, in the addition, you have the PIT proportions here? Could you please estimate that populations passage by those hours as well based off of the PIT detections and-

2:18:03 Michele Dehart (FPC): We will, well-

2:18:04 Russ Kiefer (IDFG): And the proportions spill provided.

2:18:08 Michele Dehart (FPC): Well, if those are your comments we will respond to your comments.

2:18:14 Russ Kiefer (IDFG): I'm requesting it right now. On the FPAC Meeting.

2:18:16 Michele Dehart (FPC): No, we're gonna respond to everything that you have said here in this recording in writing.

2:18:24 Russ Kiefer (IDFG): So I am requesting that this figure here, we add another one that estimates the proportion of PIT tags passing the project by hour. Not just the ones detected but what is the estimated passage?

2:18:44 Michele Dehart (FPC): We will explore whether or not a population index can be estimated if that's- at Little Goose, if that is what you're asking for.

2:18:56 Russ Kiefer (IDFG): I said population first time but what I meant is the number of PIT tag fish. Passing, the proportion of PIT Tags passing the project by hour. So each hour you have a proportion detected and a proportion spill and you have a proportion spill to collection efficiency relationship apply that to those detections to get a proportion passing.

2:19:25 Michele Dehart (FPC): Any other comments or questions you have, I would suggest that you put them in an email, send them to me, we will respond to them in writing.

2:19:53 Paul Wagner (NOAA): Well, I will add a comment, on the 20% issue, the 20 day issue excuse me. It seems as though all of these, I mean, whether it's a decision or a modeled exercise, that it, well, a decision to be made based on a modeling exercise, always needs to be kept in context of 'So what's the environment this year?' To look at the number of years that were considered in a model developed to describe them versus looking at a situation in hands, is, needs to be kept in perspective. This year we had decreasing flows, increasing temperatures, early snow melt off, and to just characterize as 'well you can delay fish 20 days, we have data to support that', is not doing the job that I think Russ is expressing, you know, which, we're supposed to make management decisions, and to base it on a modeled exercise of multiple years under multiple conditions, needs to be kept in perspective.

2:21:13 Charles Morrill (WDFW): Hey Paul, I

2:21:16 Michele Dehart (FPC): In general Paul, in general Paul, these model exercises are used all through the region by NOAA and others, to

2:21:26 Paul Wagner (NOAA): Yeah

2:21:27 Michele Dehart (FPC): -inform management decisions, and you try to capture as many past year's data as possible in any modeling exercise, all the modeling exercises that are done in the region, and hopefully, the point is, that what you're doing, learning from past data informs your conversation that you might be having in this year. That's how the region uses modeling exercises, that's how mathematical models are used. So, if -

2:22:00 Paul Wagner (NOAA): Well-

2:22:03 Michele Dehart (FPC): that's how-

2:22:03 **Paul Wagner (NOAA):** I would say, there's a difference, though, if the action agencies had proposed an operation that was gonna delay fish, and, would we idly stand by and say 'well we have data that says it doesn't matter if it's less than 20 days, go ahead'. I think people would've been beserk, they would've said 'flows are decreasing, temperatures are increasing, the run is already late fish have to make it to their location-'

2:22:35 **Michele Dehart (FPC):** Paul, aside from the drama, aside from the drama you make a good point. Which is that, adult delay is something that people really- we haven't really addressed. We don't know as much about adult passage as perhaps, going into all of these things we thought before. So, for instance, one of the primary culprits in delay of adults is smolt transportation. We didn't know that before, what we tried to do in all of the analyses together that we've done on adult passage building to this is try to look at all of the components of adult passage, and we have. We've done lots of different analyses including water temperature, including flow, including smolt transportation, including distance from the point of origin. All those things, taken together, should help you, and illuminate your conversations about adult passage, but, the fact remains, those dams are obstacles to adult passage. They cause adults to pass, lots of different variables around those dams are gonna affect adult passage. So, if you're talking about delay, let's talk about the whole picture of delay. About how smolt transportation affects delay about, maybe, if you put all of this together including distance to point of origin, including time of arrival, and the fact that adult passage and fish velocity has a seasonal im- element, all these things need to get taken together.

2:24:32 **Michele Dehart (FPC):** So, I mean all I can say right now is, we believe that a strong technical analyses, even modeling analyses, best illuminate what you do for management in the future, rather than going on feelings and beliefs. We're doing the best technical analyses we can, we will continue to do the best technical analyses we can, and we will respond to everybody's comments in the best way that we can and that's what we're gonna do right now.

2:25:07 **Charles Morrill (WDFW):** Thank you thank you Michele, I sincerely believe that and support that, and Paul I would note that you and I have had conversations and I've said, you know, that, the analyses that FPC has done is available for review, have you asked the science center to take a look and provide comments back? To date we haven't seen a critique from Science Center, we've heard- Russ expects some valid concern from the understanding that we need to address, but, we're trying to use the best information we have and FPC has some very skilled people down there, and this is what they've provided to help guide and inform us. And there may be- the questions they are- certainly valid to be answered, and they're willing to provide that, so I wanna express my appreciation through FPC staff and I also appreciate Russ's concern and his questions, for clarification, that's part of our ongoing dialogue between the managers so we can work together effectively.

2:26:16 **Paul Wagner (NOAA):** Well, I think we've had adequate discussion on this issue, is there anything else to add, by anybody?

End Transcription