

**OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE**

COORDINATION TITLE- 14BON71 AFF picket leads operation

COORDINATION DATE- 17 September 2014

PROJECT- Bonneville Lock and Dam

RESPONSE DATE- 19 September 2014

Description of the problem- CRITFC researchers in the AFF believe they are potentially getting a biased sample of fish when there are no picket leads down in the Washington Shore ladder.

Background – 11 September 2014 FPOM: *AFF picket lead operation. Fredricks talked about the need for a FPP change form detailing additional triggers for reducing the numbers of picket leads. Conder noted that there was an attempt last winter. Mackey reminded people that the change form was abandoned last year. Rerecich said there needs to be a trigger to go back to normal operation. In general, FPOM was agreeable with 20K fish. Conder and Lorz noted that if the unit operation goes back to two units at PH1 that may change the number of fish using the Washington Shore. **FPOM agreed to return to normal App G AFF operations once Washington Shore fish numbers decrease to 20K fish. They also recommend keeping four units operating at PH1 to help keep fish numbers in Washington Shore below 20K.***

Type of outage required- Move flow from PH2 to PH1 and change the current AFF picket lead operation/triggers.

Impact on facility operation- Powerhouse priority is normally PH2 this time of year.

Unit operation would be (in order):

1 unit at PH2

All available units at PH1

Any additional flow goes through units at PH2.

AFF picket leads operation would be as follows:

>25,000 fish at Washington Shore-

No leads down.

18,000 – 25,000 fish at Washington Shore-

Four picket leads down for ½ hour.

All leads up for one hour.

Four leads down for ½ hour.

All leads up for the rest of the day.

>18,000 fish at Washington Shore-

Back to normal Appendix G AFF operations.

Powerhouse priority returns to normal.

Dates of impacts/repairs- Beginning as soon as 19 September.

Length of time for repairs- The special unit and picket lead operation would continue until fish counts drop below 18,000.

Expected impacts on fish passage- This will likely lead to greater numbers of fish collected in the AFF.

Comments from agencies

NWP PM-E- From: Rerecich, Jonathan G NWP

Sent: Thursday, September 18, 2014 7:44 AM

To: Mackey, Tammy M NWP; Lorz, Tom; Hausmann, Ben J NWP; Fredricks, Gary

Subject: RE: FPOM: Official Coordination - 14BON71 AFF picket lead operation change (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Happy to help coordinate on an extremely short comment period so we all can meet our research and fish passage goals.

From the MOC -

"Description of the problem- CRITFC researchers in the AFF believe they are potentially getting a biased sample of fish when there are no picket leads down in the Washington Shore ladder."

Does CRITFC have any new data they can share with us suggesting a bias? It would be great to have this for all to review and discuss at FPOM, especially since there is a FPP Appendix A change form circulating for operations modification. The bias sample concern has come up in the past and new info would help us tailor operations at the AFF to achieve optimal sampling and passage goals. The use of four leads down for 1/2 hour may help reduce a bias if one exists for that 1/2 hour but all leads up for the hour to follow would continue to be a bias if one exists. How will that be accounted for in the data collection? I am fine with changing what we coordinated at the last FPOM and trying the increased 25K fish trigger for AFF picket operation as well as the powerhouse flow spilt but the bias argument is unsatisfactory.

Thank you,

Jon

NWP BON- -----Original Message-----

From: Hausmann, Ben J NWP

Sent: Thursday, September 18, 2014 7:13 AM

To: Mackey, Tammy M NWP; Subject: RE: FPOM: Official Coordination - 14BON71 AFF picket lead operation change

We have been running 7 units at PH1 in recent days (6 as I write this) and 2 at PH2 (all we have available given the T12 outage). This results in significantly more flow out of PH1 and yet we still see a higher proportion of fish using WA shore. Running everything available at PH1 yesterday resulted in a split of 15782 to 9585 (biased to WA shore). This proportional split can likely not be shifted any more toward PH1. I am also curious about the concern over "potentially getting a biased sample". It would help folks understand the validity of this concern if there were some data to illustrate it. If the numbers used to generate the concern could be disseminated we could better understand the magnitude of the potential bias. That being said, I think minimal lead usage is feasible.

Thanks.

Ben

NOAA- -----Original Message-----

From: Gary Fredricks - NOAA Federal [mailto:gary.fredricks@noaa.gov]
Sent: Thursday, September 18, 2014 8:21 AM
To: Mackey, Tammy M NWP
Subject: [EXTERNAL] Re: FPOM: Official Coordination - 14BON71 AFF picket lead operation change

Tammy, This is what Tom and I came to yesterday afternoon. I am ok with this. As of last Friday, only unit 5 was unavailable at PH1. Don't know what is available now but I think shifting what flow we can makes sense. I do want to stress two additional points. First, I agree with Jon that CRTFIC needs to provide additional evidence that there is a bias from no leads down operation, particularly in light of the higher risk levels at these fish densities. This discussion should be carried forward in FPOM. Second, I want to stress that if project biologists see or hear of a crowding problem (as we experienced before the leads were pulled), they have the responsibility to alter the lead operation as necessary to assure safe fish passage. Thanks, Gary

CRITFC (discussion about bias)-

-----Original Message-----

From: John Whiteaker [mailto:WHIJ@critfc.org]
Sent: Thursday, September 18, 2014 9:52 AM
Subject: [EXTERNAL] RE: FPOM: Official Coordination - 14BON71 AFF picket lead operation change

We sampled on Tuesday and Wednesday without pickets and based on a 22in Adult/Jack split used at the count windows, our chinook jack proportion was 1.7% and 15.4% versus the Washington shore count window proportions of 16% and 20.2%. We also had 85% and 60% male steelhead for those sample days. This generated our concern for a potential bias in addition to data we've presented to FPOM in the past showing a sub-four picket sampling bias.

John

-----Original Message-----

From: Jeff Fryer [mailto:FRYJ@critfc.org]
Sent: Thursday, September 18, 2014 10:10 AM

Subject: [EXTERNAL] RE: FPOM: Official Coordination - 14BON71 AFF
picket lead operation change

Data on the picket lead configuration biases we saw in 2009, which I have presented to FPOM several times in the past, can be found in pages 8-10 of the technical report available at http://www.critfc.org/wp-content/uploads/2012/11/11_10report1.pdf.

I've got some other data between April 15, 2008 and June 6, 2008 when some days we ran with 2, 3, or 4 picket leads down. With two picket leads our Chinook sample was 27.4% jacks, with three picket leads, 33.0% jacks and with four picket leads, 18.2% jacks. Also, our sample size was greatly reduced with two and three picket leads with a mean daily Chinook sample of 10 with two pickets, 14 with three pickets, and 54 with four pickets.

Jeff

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-----Original Message-----

From: Hausmann, Ben J NWP
Sent: Thursday, September 18, 2014 10:15 AM
Subject: RE: [EXTERNAL] RE: FPOM: Official Coordination - 14BON71 AFF
picket lead operation change

The issue with your jack proportions to those of the window counts is that the window counts include Cascades Island fish that aren't coming by the AFF. You may be sampling exactly what's coming up WA shore. What were the "unbiased" male percentages right before leads were lifted?

Final results- The AFF picket lead and unit operation, as described above, will be implemented beginning the morning of 19 September.

Please email or call with questions or concerns.

Thank you,

Tom Lorz
CRITFC
lorz@critfc.org

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